

# **Advances in Marketing**

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**Edited by:      Phil Rutsohn**  
Marshall University

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## EDITORIAL PREFACE

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First, let me thank everyone who participated in this year's conference. Our paper submissions were both plentiful and excellent representing a broad spectrum of areas in both the for-profit and not-for-profit sectors of the economy. When perusing the proceedings you will notice a strong representation of student submissions. Our congratulations to all of the faculty who encouraged their students to get involved in intellectual pursuits—this year's student may be next year's faculty!

I would be remiss if I forgot to thank all of the folks who spent their time ensuring that the papers presented at the conference were of high quality—the track chairs. Thank you all very much. A special thanks to Debbie Templeton, Administrative Secretary Sr., Graduate School of Management, Marshall University at South Charleston. I fear that without Debbie and her skills the Proceedings may have floundered on the back burner of my “to do” list. Also a thank you to David Paul, President and Kimball Marshall, Program Chair for the many hours they devoted to this project.

Next year's conference is going to be a terrific event at a terrific place. I look forward to all of your submissions and hope that you have an intellectually productive year.

Phil Rutsohn

## MESSAGE FROM THE PRESIDENT

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As 2006-2007 President of the Association of Collegiate Marketing Educators, I want to welcome everyone to the 2007 ACME meeting. This promises to be one of the best ACME meetings ever, as well as the first ever held in beautiful San Diego.

ACME continues to be the largest component organization in the Federation of Business Disciplines. Our continued growth would not have been possible without the untiring efforts of Kim Marshall (the current ACME Program Chair), whose tireless efforts have made this year's meeting such a success, and Ashish Chandra (Past President of ACME and now the Vice President and General Program Chair Elect of the FBD). I would take it as a personal favor if everyone would thank these two individuals at this year's meeting for their hard work. I especially am grateful for their untiring efforts with respect to this year's meeting, as I was forced to take a 3-4 month medical leave, forcing them to work even harder than normal to make up for my absence!

This is not to say that our other officers haven't been working hard, too. Maxwell Hsu has done a tremendous job with his two positions: Vice President for Membership and Web Master. Be sure to take a look at the recently re-designed ACME website at [www.a-cme.org](http://www.a-cme.org). Likewise, Phil Rutsohn has served admirably as year's Proceedings Editor, and Pat Fountain continues to watch over our financial situation as Treasurer.

Next year, Maxwell will step up to the Program Chair position, and Kim will become ACME President. I'm sure that both will do another excellent job in their new positions, and I'm equally sure that they will be able to depend on the membership for support in their many new duties. Our Track Chairs continue to provide wonderful support for our organization, working tirelessly to solicit and evaluate papers from marketing academics and practitioners in the U.S. and other countries, and to submit and present exceptional papers themselves. Thanks to all of these individuals for a job well done!

Please remind your friends who don't already know about Association of Collegiate Marketing Educators that ACME is THE organization to join and participate in. As our annual meeting in the early spring is perhaps the most important meeting for individuals interested in any of the multi-faceted aspects of marketing, I look forward to seeing everyone at the 2008 meeting in Houston.

It has been a true pleasure for me to be involved with ACME as a Reviewer, Track Chair, and officer. I encourage each of you to consider becoming more active in this fantastic organization. Undoubtedly, you'll receive much more than you put in.

David P. Paul, III, President  
2006-2007 Association of Collegiate Marketing Educators  
Associate Professor and Chair  
Department of Management and Marketing  
Monmouth University  
West Long Branch, New Jersey

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## **THE BIG MAC INDEX IN INTERNATIONAL MARKETING: A LONGITUDINAL STUDY**

*Syed Tariq Anwar, West Texas A&M University*

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### **EXTENDED ABSTRACT**

*The Economist's annual Big Mac Index (BMI) has become a unique tool in international marketing and other functional areas of business. The index was created by Pam Woodall in 1986 as a regular project for The Economist magazine which compared and contrasted world currencies and applied the theory of purchasing power parity (PPP) to a standardized global product Big Mac. The literature on the BMI mostly finds its roots from the areas of currency exchange rates and PPP and tends to be diverse in social sciences (business; economics; international trade; sociology), attracting a wide array of researchers and investigators. Exploratory in its analysis and discussion, this work analyzes the issues of the BMI and its applications when discussing PPP theory and exchange rates. The work used Big Mac data from The Economist (1989-2006) and applied content analysis to understand the concept and its relevance in international marketing. Though controversial and vague in academic circles, the BMI has been extensively used by MNCs and financial institutions worldwide because of its simplicity and applications in the business world and the classroom. The work compares and contrasts countries' currency exchange rates (1989-2006), PPP, price/wage comparisons, and the BMI's reliability issues. The study finds that BMI's criteria tends to be controversial yet useful in international marketing when discussing PPP, exchange rates, wages, and prices. The study also provides meaningful implications of the BMI.*

# **ATTRACTING FOREIGN DIRECT INVESTMENT TO SUB-SAHARAN AFRICA THROUGH IMPROVING THE BUSINESS ENVIRONMENT**

*Gordon G. Mosley, Troy University  
David K. Amponsah, Troy University*

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## **ABSTRACT**

*This study investigates which variables correlate well with foreign direct investment in Sub-Saharan Africa using Hunt's (2002) resource-advantage theory of competition. Specifically, it investigated the relationship between economic, political-legal, cultural-social, and technological environments in these countries and their history of attracting foreign direct investment. The results generally show that environments more favorable to businesspeople are positively related to higher foreign direct investment, providing additional evidence for Hunt's resource-advantage theory. Specific variables related to higher foreign direct investment in Sub-Saharan Africa are identified.*

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## **INTRODUCTION**

Hunt's (1997, 2002) resource-advantage (R-A) theory of competition recognizes that firms have heterogeneous resources, institutions, and policies that affect their economic performance. Countries, too, might compete for foreign direct investment (FDI) in much the same way that firms compete for customers and suppliers. When contemplating capital investments in foreign locations, firms will consider the appropriate natural and human resources of a potential location as well as other situational variables that may affect the desirability, risk, liquidity, and profitability of their investment. These situational variables include the national environments of the host country, such as the economic, political/legal, cultural/social, and technological environments. The research questions for this study, then, are two: 1) If countries that wish to attract foreign businesses work to make these resources and situational variables attractive, will this attract more FDI? 2) If various resources and situational variables are associated with higher levels of FDI, which ones have such associations?

Further, R-A theory recognizes that the role of management is to plan and implement a strategy from the available alternatives. The management of a country's economy may choose a certain strategy for economic development, such as import substitution or establishing a comparative advantage in the trading of products based on natural resources, inexpensive labor, superior technology, or other variables. Based on these resource and strategy differences, R-A theory recognizes the competition dynamic illustrated in Exhibit 1. R-A theory also recognizes that this relationship contains many moderators, including the firm's interactivity with societal resources, societal institutions, and public policies. According to R-A theory, then, a country that establishes a comparative advantage regarding resources will be in a better position to establish a competitive advantage in the marketplace and will achieve resultant superior financial performance.

Exhibit 1. The Dynamic of the Resource-Advantage Theory.



Countries compete for FDI in much the same way that companies compete for investors. Although countries have little control over the existence of natural resources within their borders, governmental decisions may have large effects and implications for the economic, political/legal, cultural/social, and technological environments that

they provide to investing companies. Before beginning new ventures, firms often do extensive research into the status of the external environments in which they would be involved. Hence, when countries compete for FDI, it is important to present the best possible external environments.

The connection between FDI and economic growth is well known and recognized, yet the *Economist* (June 27, 2005) has noted that capital is still flowing from developing economies to the more developed ones. Since the countries of Sub-Saharan Africa wish to attract more FDI to increase growth and develop their economies, it needs to be determined which variables should be improved to make their countries more attractive to potential investors (Ali 2005).

Like firms in the generally accepted marketing model, countries make decisions that affect their “4Ps” in trying to appeal to potential investors. The *product* that they offer to the investor is the unique set of natural and human resources they possess along with their economic, political/legal, cultural/social, and technological environments. The *place* they offer is more than simple geography—it includes the infrastructural variables that are necessary for product distribution. *Promotion* is the information and persuasion process by which new investors are enticed to locate in the country. *Price* may involve special concessions, tax abatements, duty waivers, or the like, as well as wage and tax levels and interest rates.

### FOREIGN DIRECT INVESTMENT

Early explanations of international capital movement viewed FDI in a variety of different ways: (1) as a portfolio investment, (2) as a method of transferring managerial and technological assets to other countries, (3) as a method of risk diversification, and (4) as a requirement in matching competitors in oligopolistic industries (Sethi, Guisinger, Phelan, and Berg 2003). Dunning (1980) proposed the eclectic theory of FDI that looks at the ownership, location, and internalization advantages that firms gain through FDI. Past studies have reported that FDI is positively related to the following firm/product variables subsumed under Dunning’s ownership construct: technological intensity, firm size, capital intensity, product differentiation, and the maturity stage of the product life cycle (Sethi et al. 2003).

Many variables have been associated with the specific location that firms choose for their FDIs. Market size and growth rate, trade barriers, transportation infrastructure, wage levels, and tax and trade policies of the host country have all been found to affect investment decisions. Further, several variables that are not directly under a host government’s control also affect the investment decision. Among these variables are the country’s political stability, corruption, and the cultural distance between the investing and the host country (Sethi et al. 2003).

Firms can also benefit from locating in a country associated with a regional economic group such as MERCOSUR (Latin America) or ASEAN (East Asia). Hence, the market size gained through the FDI may be that of a large free trade area while the actual investment could be made in a smaller country with the most preferable business environment within that free trade area.

Companies are interested in making FDIs for several reasons. Investments may be made to develop natural resources that are unavailable or more expensive in the home market. Labor cost advantages in less developed economies might also attract FDI (Yalcin and Taskin 2006). In addition, a firm’s investment and presence in a country may enhance that firm’s access to the host country’s markets.

Countries are interested in attracting FDI for several reasons. Increases in both economic growth and national income have been associated with FDI. Increased investment in a country may increase the employment levels of a country as well as increasing the quality and variety of jobs. Countries may be interested in FDI that manufactures goods in the host nation that were previously imported. In Sub-Saharan Africa, this has the advantage of gaining flexibility for the use of hard currencies that were previously used for imports. If goods manufactured through FDI are exported, the host country may also earn and retain more hard currency than was previously available.

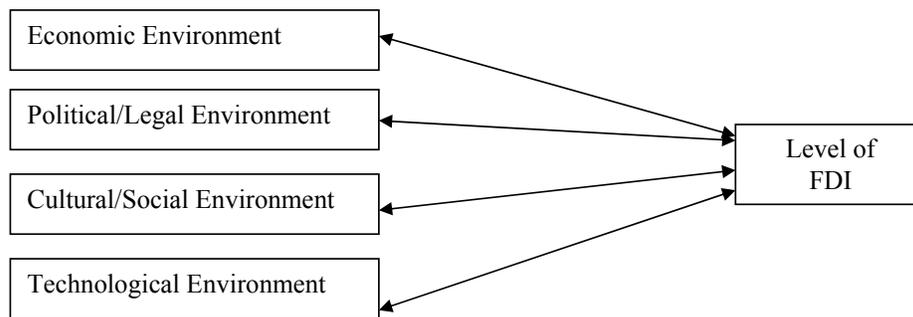
### HYPOTHESES

If Hunt’s R-A theory of competition is applicable to national economies as well as to firms, the comparative resource advantage → superior financial performance model may be measurable with macroeconomic statistics.

The comparative advantage of a country could be based on its economic, political/legal, cultural/social, and technological environments or its natural and human resources. Improved levels of wealth, income, and growth based on increased investment may be detectable in countries that have desirable environments when compared to those that do not. It could be predicted that economic, political/legal, cultural/social, and technological environments that are more favorable to businesspeople would lead to larger FDI than those environments that are less favorable to businesspeople. If portions of the environments in which businesses operate truly do affect investment, income, and growth, it may also be possible to create models that predict income and growth based on indicators of these environmental variables. Hence the following hypothesis, represented graphically in Exhibit 2, is offered.

**Hypothesis:** *Countries in Sub-Saharan Africa with greater amounts of FDI have (a) economic, (b) political/legal, (c) cultural/social, and (d) technological environments that are more favorable for investors than countries with lesser amounts of FDI.*

Exhibit 2. Model of Relationships in the Hypothesis.



**METHOD**

Statistics were gathered from a variety of sources to test the hypotheses. In particular, the World Bank’s *World Development Indicators* published annually, as well as their website, provided a wealth of information. For the political/legal environment, Freedom House (2006), Gwartney and Lawson with Gartzke (2005), and Transparency International (2005) were invaluable sources.

**The Sample**

The data set started with a list of all countries included in Sub-Saharan Africa (World Bank 2006). Data for the dependent variable—FDI—was unavailable for Mayotte and Namibia. The remaining forty-seven countries classified as Sub-Saharan Africa by the World Bank were included in the sample. Relevant general information on all of the countries of Sub-Saharan Africa is included in Appendix A. The number of countries with missing data on the independent variables of interest can be inferred from careful inspection of the degrees of freedom reported in Table 1.

**Variables**

*Economic environment.* Eight variables were chosen as indicators of the economic environment.

1. *Exports as a percent of GDP* is used (World Bank 2006).
2. *Imports as a percent of GDP* is used (World Bank 2006).
3. *Gross capital formation as a percent of GDP* is used (World Bank 2006).

4. The *mean ICRG risk* rating is the average of the ICRG risk rating reported for December of 1999, 2000, 2001, 2002, and 2003 (World Bank 2000, 2001, 2002, 2003, 2004). This measure ranges from 100 (very low risk) to 0 (very high risk).
5. *Income* is the gross national income per capita stated in terms of purchasing power parity (World Bank 2006). The result is stated in U. S. dollars.
6. *Weighted mean import tariff* is the one reported for 2003 or 2004 by the World Bank (2005, 2006).
7. *Economic growth rate* is the average annual percentage growth in gross domestic product from 1990 – 2003 (World Bank 2006).
8. *Merchandise trade* is the merchandise trade stated as a percentage of GDP (World Bank 2006).

*Political/legal environment.* Six indicators were chosen to represent this environment.

1. The *time to enforce contracts* is the number of days that were necessary to legally enforce contracts as of January 2004 (World Bank 2005).
2. *Economic freedom* is measured on the Fraser Institute's 0 – 10 scale with higher numbers indicating higher levels of freedom (Gwartney and Lawson with Gartzke 2005).
3. An indicator for *political rights* as well as one for *civil liberties* was reported by Freedom House (2006). These scores ranged in value from 1 – 7, with **lower** numbers indicating **higher** levels of political rights and civil liberties.
4. The indicator for *press freedom* was that rating reported by Freedom House (2006). This measure ranges from 0 – 100, with **lower** numbers indicating **higher** levels of freedom of the press than higher numbers.
5. *Corruption* was measured with Transparency International's (2005) Corruption Perceptions Index, where **lower** scores indicate **higher** perceptions of corruption.

*Cultural/social environment.* Seven indicators are used for the cultural/social environment, with the source for each being the World Bank (2006). Four measures relate to health care, annual *health expenses per capita* (in U. S. dollars), number of *physicians per 10,000 people*, *life expectancy at birth* (in years), and *child mortality* before age five per 1,000 children. Two of the variables relate to education, *percent of the GDP the government spends on education*, and *literacy* of the male population over age 15. The *Gini index* is also included as a social indicator (World Bank 2006). This index is a measure of the distribution of income within a society.

*Technological environment.* Six indicators were chosen for the technological environment—all from the World Bank (2006). The number of *telephones*, *personal computers*, *radios*, and *television sets per 1,000 people*, and the *electric consumption per capita* and the *energy use per capita* are used as indicators for this environment.

## Procedure

The countries were divided into two groups based on whether their FDI per capita is high or low. A FDI of \$7.50 per capita annually is used as the cut point, since this is near the median and produced two groups of almost equal size. Each of the previously mentioned variables used as indicators for the four environments (economic, political/legal, cultural/social, and technological) were then averaged for the high and low groups. *t*-tests were performed to ascertain whether any observed differences were statistically significant. The results of these *t*-tests are reported in Table 1.

Regression analysis was also performed to determine if some of the environmental indicators could be used to predict the level of FDI in the countries of Sub-Saharan Africa. The results of the regression analyses are reported in Table 3.

## RESULTS AND DISCUSSION

The relationship between FDI and environmental variables is reported in Table 1. An examination of this exhibit shows that eleven of the twenty-six environmental indicators produced significant results at the  $p < .05$  level, with an additional five significant at the  $p < .10$  level. Comparisons of variables for the high and low FDI groups in the economic environment show that several indicators of a healthy, growing economy integrated into world trade are associated with higher FDI. For indicators in the political/legal environment, only economic freedom showed a marginally significant difference between high and low FDI countries.

Table 1. Environmental Comparisons of Sub-Sahara African Countries with **High vs Low FDI**.

Variable	Mean of high FDI countries	Mean of low FDI countries	t-score & degrees of freedom	Statistical significance	Hypothesis for high FDI countries	Support for hypothesis?
<b>Economic environment indicators:</b>						
Exports as a % of GDP	44.0	21.7	4.41/42	< .001	Higher	Yes
Imports as a % of GDP	51.8	35.0	2.72/42	.010	Higher	Yes
Capital formation % of GDP	23.0	14.8	4.05/43	< .000	Higher	Yes
Mean ICRG risk rating	60.3	55.0	1.79/29	.084	Higher	Marginal
GNI per capita (PPP)	\$3,494	\$1,182	3.23/45	.002	Higher	Yes
GDP growth rate (%)	3.6	2.5	1.48/39	n.s.	Higher	No
Mean import tariff	12.1	11.9	.091/34	n.s.	Lower	No
Merchandise trade	71.7	53.1	1.67/38	n.s.	Higher	No
<b>Political/legal environment indicators:</b>						
Time to enforce contracts	460	422	.529/30	n.s.	Lower	No
Economic freedom	5.95	5.33	1.97/26	.059	Higher	Marginal
Political rights	4.17	4.38	-.367/45	n.s.	Lower	No
Civil liberties	3.82	4.25	-.996/45	n.s.	Lower	No
Freedom of the press	53.4	60.7	-1.31/45	n.s.	Lower	No
Perceived Corruption	2.91	2.60	1.15/36	n.s.	Higher	No
<b>Cultural/social environment indicators:</b>						
% of GDP spent on education	4.36	4.55	-.230/18	n.s.	Higher	No
Health expenses per capita	67.37	21.45	2.28/39	.029	Higher	Yes
Physicians per 10,000	2.0	.59	2.66/39	.011	Higher	Yes
Life expectancy at birth	50.5	46.1	1.73/45	.091	Higher	Marginal
Literacy rate	74.6	64.1	1.92/32	.064	Higher	Marginal
Child mortality/1000	131	171	-2.38/45	.022	Lower	Yes
GINI score	47.8	44.4	.984/27	n.s.	Higher	No
<b>Technological environment indicators:</b>						
Telephone mainlines / 1000	36.6	7.8	2.03/39	.049	Higher	Yes
Mobile phones per 1000	133	32	3.41/39	.002	Higher	Yes
Personal computers per 1000	35	5.8	1.77/31	.087	Higher	Marginal
Radios per 1000	234	257	-.455/39	n.s.	Higher	No
Televisions per 1000	28	12	2.89/38	.006	Higher	Yes
Electric usage per capita	634	214	.911/17	n.s.	Higher	No
Energy use per capita	753	414	1.41/17	n.s.	Higher	No

Although the other variables in this category were not significant, all but one of the comparisons varied in the hypothesized direction. In general, the cultural/social environment's literacy and health care variables were significantly different between high and low FDI countries while the Public expenditures for education and the Gini index were not. A more developed technological environment was also found to be associated with higher FDI, with only radios per 1,000 people not showing a difference between high and low FDI countries.

Table 2 shows the regression analysis that found four significant predictors of FDI. These predictors represent three of the four environments, with only the cultural/social environment not represented. The significance of the first three predictor variables is  $p < .001$ , and the fourth has a  $p = .078$ . The adjusted R square for this analysis is .839, and would be .823 if the interaction term between press and economic freedom were dropped from the regression equation.

Table 2. Regression Analysis Predicting FDI.

**Coefficients<sup>a</sup>**

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	13.864	19.050		.728	.474
	gross capital formation as a % of gdp	1.946	.321	.508	6.067	.000
	Fraser economic freedom	-11.521	3.142	-.343	-3.667	.001
	Mobile phones per 1000	.209	.023	.876	9.108	.000
	Interaction term: press & economic freedom	5.344E-02	.029	.158	1.848	.078

a. Dependent Variable: FDI mean per capita

Adjusted R square = .839

The economic, political/legal, cultural/social, and technological environments can be viewed as resources with which countries compete among themselves to attract FDI. There is evidence, then, that those countries in Sub-Saharan Africa with environments that are preferable to businesspeople (economic environments favorable to business, higher in economic and political freedoms, more socially advanced, and with higher levels of available technology) have higher rates of FDI than countries with less desirable environments. Since variables selected to represent each of the four tested environments were found to be significantly different between high and low FDI countries, the hypothesis is supported.

The results of this study suggest that FDI is encouraged by some aspects of the external environments. Countries with more trade and higher income attract more FDI in Sub-Saharan Africa than those countries with less trade and lower income. In the political/legal environment, those countries with more freedom in their economies and press attract more FDI. There could be several reasons why evidence was found for this relationship. First, higher levels of freedom in Sub-Saharan Africa might also be associated with more stable economic and political policies and governments. These stable economic and political policies might further lead businesspeople to increase their investments and entrepreneurial, risk-taking activities that lead to economic growth. Secondly, in post-colonial, Sub-Saharan Africa, many countries include diverse groups that may consider themselves incompatible (e.g., Rwanda, Sudan). To maintain unity, power, and sovereignty over the country's territory, leaders may find political and press freedoms to be undesirable. The repression of freedoms in these countries may signal to the outside world that these countries have no consensus on what type of economic and political policies to adopt for the long-term. This uncertainty may dissuade entrepreneurs from their investments in wealth-creating activities.

The increased development in the cultural/social and technological environments in countries with higher FDI indicates the preference of those making investments for countries with better health, education, and technological infrastructures. This may make it easier for the investing firm to adapt operations to the host country.

Countries in Sub-Saharan Africa that wish to increase their income and economic growth rates should consider encouraging FDI. This can be accomplished by presenting access to an attractive market, either in the host country or through its membership in a larger free trade area (Hermes and Lensink 2003, Sethi et al. 2003). This study shows that economic indicators, political and press freedom, and social and technological advancement are also associated with increased FDI. Thus, policies that encourage free trade, stable government with low levels of corruption, increased access to health and educational facilities, and increases in technological infrastructure will also be associated with increased FDI.

**LIMITATIONS AND FUTURE RESEARCH**

This study was hampered by missing data that affected up to one-third of the sample nations (although usually less). Further, this region of the world has been plagued by wars and political instability over the years for which the data were obtained. This instability undoubtedly had some effect on the economies involved, but was ignored

for the purposes of this study. If the sample were reduced by removing nations that suffered from instability, it would become too small for meaningful analysis. Twenty-seven indicators were chosen to represent the four environments involved in this study. Other variables from a variety of additional sources (e.g., United Nations, United States Department of Commerce) could and should be tested for their predictive, associative, and practical usefulness in future studies. The cultural/social environment, in particular, should be investigated using cultural traits such as those developed by Hofstede (1984, 1991).

When using countries as units of analysis without any data conversions, the statistics from both big and small countries are equally weighted. Small economies, however, are more subject to large percentage changes based on many fewer actions within an economy. Countries in Sub-Saharan Africa range in size from Nigeria—with 129 million people—to several nations with fewer than one-half million. If size were measured using the size of a country's gross national income, economies in Sub-Saharan Africa range from South Africa's \$165.3 billion to Guinea-Bissau's \$0.3 billion. Per capita measures were used or developed where appropriate to partially compensate for this scale problem.

The problem of missing data was more serious than it would have been had a more developed area of the world been selected for study. Much data was simply missing. Additionally, several variables that report longitudinal changes over several years were computed for this study. Obviously, data were needed for both the beginning and ending years that were being compared. The problem of missing data was therefore compounded when data for one of these years was missing.

Future studies could experiment with available statistics to determine which ones do the best job of discriminating between economies that attract FDI and those that don't. Further, some of these statistics may be grouped into relevant environments that differentially predict FDI in different economic sectors.

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APPENDIX A

The countries of Sub-Saharan Africa are:

Nation	Population (millions) 2004	PPP GNI per capita 2004	Annual GDP growth rate: 1990 - 2003	Mean annual FDI (\$ per capita)	FDI growth rate for this study
1. Angola	15	1,930	3.2	100.7	High
2. Benin	8	1,090	5.0	6.5	Low
3. Botswana	2	9,580	5.2	61.5	High
4. Burkina Faso	13	1,170	4.2	1.4	Low
5. Burundi	7	660	-1.5	.4	Low
6. Cameroon	16	2,120	2.7	5	Low
7. Cape Verde	.48a	2,900est	3.1 b	38est	High
8. Central African Republic	4	1,100	1.8	.2	Low
9. Chad	9	1,340	3.1	64.8	High
10. Comoros	.61a	1,400est	-4.7 b	.8est	Low
11. Dem. Rep. of Congo	56	680	-3.9	1.4	Low
12. Republic of Congo	4	740	1.8	38.8	High
13. Cote d'Ivoire	18	1,470	2.4	12	High
14. Djibouti	.71a	1,600est	n.a.	7.4est	Low
15. Equatorial Guinea	.51	4,000est	n.a.	1,227est	High
16. Eritrea	4	960	3.7	5.1	Low
17. Ethiopia	70	750	4.3	2.4	Low
18. Gabon	1	5,700	2.3	125	High
19. Gambia	1	1,890	3.2	48.6	High
20. Ghana	22	2,220	4.3	5.4	Low
21. Guinea	9	2,160	4.2	3.4	Low
22. Guinea-Bissau	2	690	.4	.6	Low
23. Kenya	33	1,130	1.8	1.8	Low
24. Lesotho	2	3,250	3.4	48.1	High
25. Liberia	3	450est	7.0	3.5	Low
26. Madagascar	18	840	2.1	2.7	Low
27. Malawi	13	630	3.0	1.4	Low
28. Mali	13	950	4.9	11.7	High
29. Mauritania	3	2,050	4.4	50.9	High
30. Mauritius	1	11,950	5.2	69.4	High
31. Mayotte	.17a	5,000est	n.a.	n.a.	n.a.
32. Mozambique	19	1,170	7.0	13.9	High
33. Namibia	2	7,520	3.7	n.a.	n.a.
34. Niger	13	780	2.8	1.1	Low
35. Nigeria	129	970	2.7	9.9	High
36. Rwanda	9	1,240	2.3	.6	Low
37. Sao Tome and Principe	.16a	990est	n.a.	31.3est	High
38. Senegal	11	1,660	4.0	6.2	Low
39. Seychelles	.08a	8,000est	n.a.	631.3est	High
40. Sierra Leone	5	550	-3.2	3.2	Low
41. Somalia	8	1,000est	n.a.	.03	Low
42. South Africa	46	10,960	2.3	45.1	High
43. Sudan	36	1,810	5.7	25.2	High
44. Swaziland	1	5,650	3.1	59.4	High
45. Tanzania	38	670	3.7	8	High
46. Togo	6	1,510	3.1	8	High
47. Uganda	28	1,450	6.8	6.5	Low
48. Zambia	11	890	1.4	12.9	High
49. Zimbabwe	13	2,040	1.1	2.1	Low

a. = 2003 b. = 1995-96. est. = estimated. n.a. = not available

# **THE MANY FACES OF EUROPE: HOW COUNTRIES CAN BE CLASSIFIED BY TRANSPARENCY**

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## **ABSTRACT**

*Many models have been developed to cluster countries to enable multi-national companies to use similar strategies in countries that share similarities based on various criteria. The focus has been mainly at the consumer level. However, differing clustering criteria might be more appropriate for other corporate decisions. This paper develops a classification scheme based on transparency, which may be useful for classifying countries for legal compliance and political lobbying. Using a "transparency index", Europe is divided into six regions, each with a distinctively different level of transparency. This system is useful in the European market by allowing different operational and negotiating strategies.*

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## **INTRODUCTION**

Multi-national corporations have identified the need to develop differing marketing strategies in different countries. Usually, efforts are made to clump countries together into sub-markets with common consumer characteristics or similar cultural backgrounds. However, corporations must also acknowledge that while one basis may be used for grouping countries together in order to create marketing efficiencies, different criteria might be necessary to develop strategies that are not directly related to consumer markets. In particular, this may be true in the areas of government relations, lobbying and contracting. Approaches to these activities need to be adapted to different country groupings.

Economic and demographic variables are often the most basic way of comparing and grouping countries. While such variables may identify the economic ability to purchase, by themselves they do an incomplete job of identifying similar and dissimilar markets. Culture based variables may do a better job of defining market opportunities and grouping countries together, where the same strategies may be used.

Possibly the most quoted cross-country cultural comparison is that of Geert Hofstede. Hofstede recognized that a comparison of various cultures could be done based upon five dimensions: power distance, individualism, masculinity, uncertainty avoidance and long-term orientation. These dimensions refer to expected social behavior, "man's search for the Truth," and importance of time (Keegan and Green 2004).

Hofstede's first dimension, power distance, indicates the degree to which lower level members of society accept an uneven distribution of power. Individuals in some countries expect an unequal power distribution, while people in other cultures would be far less likely to accept this. The higher the power distance, the more hierarchical layers subordinates would have to go through to reach their upper-level supervisor (Keegan and Green 2004).

Individualism, the second dimension in Hofstede's cultural typology, refers to the extent to which people in a society are individually minded. The people in individualist cultures tend to be primarily concerned with the interests of themselves and their immediate family, while those in a collectivist culture are more readily integrated into groups. The United States is very individualistic, while many Asian cultures fall into the collectivist category. Individualistic societies embrace individual achievements; however, in collectivist cultures groups or teams would be praised for achievements (Keegan and Green 2004).

The third identified dimension is masculinity. Masculine societies tend to place men in assertive and ambitious roles, while women fulfill a nurturing role. Conversely, men and women's roles overlap in feminine

cultures. Men in masculine cultures may have a difficult time respecting a woman in a business meeting (Keegan and Green 2004).

Uncertainty avoidance refers to the extent of individuals' dislike for unclear or ambiguous situations. Some cultures are much more tolerant of uncertainty, while other countries require more structure and certainty. Low levels of uncertainty avoidance mean a society is more accepting of risk taking. Alternately, high levels would indicate to marketers the need for such things as warranties and no-hassle return policies to provide a higher comfort level of individuals (Keegan and Green 2004).

Hofstede added the fifth dimension, long-term orientation, because certain dimensions of the Asian culture were not explained by his initial typology using four dimensions. Long-term orientation refers to a culture's sense of immediacy. Cultures with a short-term orientation favor immediate gratification while long-term oriented cultures are satisfied with a deferred gratification, which may also foster a slower pace of conducting business (Keegan and Green 2004).

Sudhir Kale built on Hofstede's framework by identifying European countries using the first four dimensions – power distance, uncertainty avoidance, individualism and masculinity – and clustering them together by commonalities. He found that countries with small power distance, medium uncertainty avoidance, medium-high individualism and high masculinity prefer “high performance” products and favor marketing efforts that use a “successful-achiever” theme. The countries in this first cluster were Austria, Germany, Switzerland, Italy, Great Britain and Ireland.

Kale identified a second cluster as Belgium, France, Greece, Portugal, Spain and Turkey. This cluster exhibited the characteristics of medium power distance, strong uncertainty avoidance, varied individualism and low-medium masculinity. Marketing to the second cluster requires a status appeal, risk reduction and emphasis on product functionality.

The final cluster Kale identified reacted favorably to novelty and variety as well as environmentally and socially conscious companies and products. Denmark, Sweden, Finland, Netherlands and Norway fall into this third cluster. Each exhibited small power distance, low uncertainty avoidance, high individualism and low masculinity (Kale 1995).

While the preceding discussion, and a variety of other methods, do provide a basis for utilizing the same marketing strategies in countries that are clustered together, they may not provide sufficient insight into the most effective methods for dealing with politicians, government bureaucracy, lobbying, bidding and a variety of non-governmental procedures and operations.

#### **DEVELOPING CORRUPTION BASED CLUSTERS**

Clustering countries may also be helpful in developing strategies to adjust corporate behavior to match the level of transparency and corruption in groups of countries. Although the Foreign Corrupt Practices Act (FCPA) prohibits US corporations from engaging in direct bribery (as does similar legislation in the European Union) anticipating the behaviors and motivations of various foreign officials and corporate bureaucrats one might encounter in the course of doing business may be a useful strategic tool.

Transparency may be defined as the existence of, and adherence to, publicly disseminated standards and procedures in the conduct of business and government. The greater the transparency, the less corruption exists. Transparency International (TI) is an international non-government coalition against corruption. Through surveys of business people, academics and risk analysts, TI develops a Corruption Perceptions Index (CPI) score and ranks countries on the basis of these perceptions. The 2006 CPI scores for the Top 20 countries, plus that of other European countries and selected "bordering countries" are shown in Table 1.

#### **DIVIDING EUROPE ACCORDING TO THE TRANSPARENCY INDEX**

Corporations attempt to group countries together, often based purely on geographic location. However, by incorporating the TI index, one can more meaningfully develop clusters of countries where a similar negotiation

strategy may be employed. Using CPI index data, this study divides countries into a number of segments with clearly different standards of corruption and transparency. The attempt here is to cluster countries not merely by geography, but to group them according to the integrity of their processes and level of corruption.

In order to illustrate this methodology, this paper has attempted to use the CPI to divide Europe into a number of corruption based clusters. Lately much has been written about the "single market" that the European Union represents. While in economic terms the EU does present a single market, cultural differences between countries remains quite large. In particular, the level of corruption and the transparency of procedures varies greatly. While this application has been limited to Europe, a similar technique can be utilized in other parts of the world.

Even a cursory examination of Table 1, along with a little geographic knowledge, would indicate that there are some clear trends when one tries to group European countries together. The most "transparent" group of countries would be the Nordic Europe group consisting of Finland, Iceland, Denmark, Sweden and Norway. These countries represented 5 of the top 8

**Table 1: Transparency Index for Selected Countries\***

Country Rank	Country	2006 CPI Score	Confidence range
1	Finland	9.6	9.4 - 9.7
1	Iceland	9.6	9.5 - 9.7
1	New Zealand	9.6	9.4 - 9.6
4	Denmark	9.5	9.4 - 9.6
5	Singapore	9.4	9.2 - 9.5
6	Sweden	9.2	9.0 - 9.3
7	Switzerland	9.1	8.9 - 9.2
8	Norway	8.8	8.4 - 9.1
9	Australia	8.7	8.3 - 9.0
9	Netherlands	8.7	8.3 - 9.0
11	Austria	8.6	8.2 - 8.9
11	Luxembourg	8.6	8.1 - 9.0
11	United Kingdom	8.6	8.2 - 8.9
14	Canada	8.5	8.0 - 8.9
15	Hong Kong	8.3	7.7 - 8.8
16	Germany	8.0	7.8 - 8.4
17	Japan	7.6	7.0 - 8.1
18	France	7.4	6.7 - 7.8
18	Ireland	7.4	6.7 - 7.9
20	Belgium	7.3	6.6 - 7.9
20	Chile	7.3	6.6 - 7.6
20	USA	7.3	6.6 - 7.8
23	Spain	6.8	6.3 - 7.2
24	Estonia	6.7	6.1 - 7.4
26	Portugal	6.6	5.9 - 7.3
28	Malta	6.4	5.4 - 7.3
28	Slovenia	6.4	5.7 - 7.0
37	Cyprus	5.6	5.2 - 5.9
41	Hungary	5.2	5.0 - 5.4
45	Italy	4.9	4.4 - 5.4
46	Czech Republic	4.8	4.4 - 5.2
46	Lithuania	4.8	4.2 - 5.6
49	Latvia	4.7	4.0 - 5.5
49	Slovakia	4.7	4.3 - 5.2
54	Greece	4.4	3.9 - 5.0

57	Bulgaria	4.0	3.4 - 4.8
60	Turkey	3.8	3.3 - 4.2
61	Poland	3.7	3.2 - 4.4
69	Croatia	3.4	3.1 - 3.7
79	Morocco	3.2	2.8 - 3.5
84	Romania	3.1	3.0 - 3.2
90	Serbia	3.0	2.7 - 3.3
93	Armenia	2.9	2.7 - 3.0
93	Bosnia and Herzegovina	2.9	2.7 - 3.1
99	Georgia	2.8	2.5 - 3.0
99	Ukraine	2.8	2.5 - 3.0
105	Macedonia	2.7	2.6 - 2.9
111	Albania	2.6	2.4 - 2.7
121	Russia	2.5	2.3 - 2.7
151	Belarus	2.1	1.9 - 2.2

\*List includes the top 20 countries, other European countries and other countries which might be considered very long term prospects for membership of the EU, even though they fall (substantially) outside the geographic boundaries of Europe.

Source: Transparency International, 2006

slots on the CPI index rankings - numbers 1, 2, 4, 6 and 8. The mean CPI index for these countries was 9.34.

The next group of European countries could be broadly described as Anglo/Germanic Europe - Switzerland, Netherlands, Austria, United Kingdom, Germany and Ireland. These countries ranked 7, 9, 11, 11, 16 and 18. (Luxembourg, ranked 11th, could also be included in this group) The mean CPI index for these countries was 8.4.

A third Euro group could be defined as Gallic. This small group of countries would include France and Belgium, ranking 18 and 20, with a mean CPI index of 7.35. Arguably, Luxembourg could also be included in this group, as well as the Anglo/Germanic group.

A fourth group could be defined as the "Mediterranean/EU" group, which would include Spain (#23) Portugal (#26) Malta (#28) Italy (#45) Cyprus (#47) Greece (#54). Although not bordering the Mediterranean, Portugal is included in this grouping, due to its proximity and cultural similarity to Spain. The mean CPI index of this group is 5.78.

A fifth cluster would include the new EU members - the Baltics (Estonia (#24), Latvia (#49) and Lithuania (#46)), Poland (#61), Hungary (#41), Czech Republic (#46), Slovakia (#49) and Slovenia (#28). The mean CPI score for these countries was 5.125.

Finally, a cluster could be described as "Developing Europe". This includes the former Soviet-influenced countries and newly emergent republics which aspire to join the European Union at some time in the future. For some, membership is likely relatively soon (Bulgaria (#57), Croatia (#69), Romania (#84) while for others, EU membership is a very distant prospect, such as for the remaining parts of former Yugoslavia (other than Croatia), Serbia (#90), Bosnia and Herzegovina (#93 - country now divided), Macedonia (#105); and the remaining European former-Soviet republics of Georgia (#99), Ukraine (#99) and Belarus (#151). Developing Europe has a mean CPI score of 2.98.

**Table 2: The Six "Europes"**

<u>Cluster Number</u>	<u>Title</u>	<u>Mean TI</u>	<u>Countries</u>
1	Nordic Europe	9.34	Finland, Iceland, Denmark, Sweden, Norway

2	Anglo/Germanic Europe	8.40	Switzerland, Netherlands, Austria, United Kingdom, Germany, Ireland
3	Gallic Europe	7.35	France, Belgium
4	Mediterranean/EU	5.78	Spain, Portugal, Malta, Italy, Cyprus, Greece
5	New EU	5.13	Estonia, Latvia, Lithuania, Poland, Hungary, Czech republic, Slovakia, Slovenia
6	Developing Europe	2.98	Bulgaria, Croatia, Romania, Serbia, Bosnia-Herzegovina, Macedonia, Georgia, Ukraine, Belarus

**Table 3: Transparency Index Rank and Per Capita GDP Rank for Selected Countries\***

TI Country Rank	Country	Per Capita GDP Rank
1	Finland	22
1	Iceland	12
1	New Zealand	37
4	Denmark	13
5	Singapore	29
6	Sweden	26
7	Switzerland	18
8	Norway	6
9	Australia	19
9	Netherlands	23
11	Austria	17
11	Luxembourg	2
11	United Kingdom	25
14	Canada	16
15	Hong Kong	15
16	Germany	24
17	Japan	20
18	France	27
18	Ireland	8
20	Belgium	21
20	Chile	80
20	USA	7
23	Spain	36
24	Estonia	58
26	Portugal	56
28	Malta	55
28	Slovenia	50
37	Cyprus	49
41	Hungary	62
45	Italy	28
46	Czech Republic	53
46	Lithuania	70
49	Latvia	71
49	Slovakia	63
54	Greece	45
57	Bulgaria	89
60	Turkey	95

61	Poland	73
69	Croatia	77
79	Morocco	145
84	Romania	101
90	Serbia	142
93	Armenia	133
93	Bosnia and Herzegovina	130
99	Georgia	157
99	Ukraine	115
105	Macedonia	105
111	Albania	129
121	Russia	84
151	Belarus	102

\*List includes the top 20 countries, other European countries and other countries which might be considered very long term prospects for membership of the EU, even though they fall (substantially) outside the geographic boundaries of Europe.

Sources: Transparency International, 2006; CIA World Factbook (update 12 December, 2006)

Interestingly, while the ranking based on CPI does bear some similarity to the ranking of countries based on per capita GDP, the differences are perhaps more striking than the similarities. (See table 3) Per Capita GDP data was obtained from the CIA World Factbook. While the CIA list does contain some internal inconsistencies, because the date of the information on each country ranges from 2003 to 2005, and the distortion caused by exchange rate fluctuation, it is a broadly accepted comparative list. While higher GDP countries generally tend to be nearer to the top of the list and lower GDP countries tend to be lower on the list, grouping countries by GDP would result in significantly different grouping than does CPI grouping. Therefore the use of an index for transparency might be a unique indicator of the way in which business is conducted and provide a good basis for developing negotiating guidelines according to CPI groupings.

## CONCLUSIONS

This paper uses Transparency International's Corruption Perceptions Index to segment Europe into six distinct areas. Multi-national corporations may find such a grouping of countries useful in developing negotiation strategies with purchasing and sales agents and in dealings with government officials. The Nordic group of countries tends to have the highest level of transparency, while the former Soviet influenced areas that have yet to join the European Union exhibit the least transparent processes.

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# **AN INSIGHT INTO THE IMPACT OF RETAILER'S RELATIONSHIP EFFORTS ON CONSUMERS' ATTITUDE AND BEHAVIOR----FINANCIAL SERVICES INDUSTRY IN TAIWAN**

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## **ABSTRACT**

*This study develops and empirically tests a model for examination of the impact of different relationship efforts (financial bonding, social bonding, and structural bonding) made by a retailer on key relationship marketing outcomes (trust, relationship commitment, and behavioral loyalty). A cross department study in financial services industry was conducted based on three consumer samples (department of Loans, Deposits, and Credit Cards) drawn from XYZ bank, one of the most famous banks providing merchant banking services in Taiwan. SEM results indicate that retailers undertaking relationship efforts to loyal consumers can positively affect these consumers' attitudes and behavior. Besides, the findings suggest that financial services with dissimilar attributes need different kinds and levels of service and relationship efforts. Consequently, managers and employees of retail banks need to be trained, motivated, and rewarded for making relationship efforts to regular consumers.*

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## **INTRODUCTION**

Relationship efforts increasingly become important as a source of consumer value. First, consumers' quality expectation related to consuming products and services have risen (Crosby et al., 1990). Second, retailers are increasingly competing with each other on basis of the same or highly comparable marketing tactics and strategies. Third, retailers are faced with new challenges of the marketing atmosphere such as blurring boundaries between markets or industries, an increasing fragmentation of markets, and shorter product life cycles (Juttner and Wehrli, 1994). Furthermore, several authors have argued that when companies offer similarly high levels of product or service quality, the delivery of relationship benefits becomes an important mean of gaining competitive advantage (Berry, 1995; Gwinner et al., 1998; Juttner and Wehrli, 1994; Wray et al., 1994).

This paper aims to test the relationship between relationship efforts, and relationship outcomes (consumer attitude and behavior). The underlying concept of our paper is that if relationship effort relates to behavioral outcome, then evidence of its impact on consumers' behavioral responses (i.e., trust, commitment and behavioral loyalty) should be detectable. Therefore, the sequences of relationship efforts on consumer behavioral intentions can be viewed as signals of retention or defection and are desirable for monitoring. With that in mind, our objectives are four-fold:

1. To summarize existing evidence about the behavioral sequences of relationship efforts and relationship outcomes at the individual consumer level.
2. To offer a conceptual model of the impact of relationship efforts on relationship marketing and particular behaviors that signal whether consumers remain with or defect from the company.

3. To report the results of an empirical study examining the relations between relationship efforts and consumers' behavioral intentions (i.e., trust, commitment, and loyalty).
4. To suggest a research agenda whereby information about individual-level behavioral sequences of relationship efforts can be monitored and linked to relationship outcomes to provide ongoing evidence of the impact of relationship bonding tactics on behavioral loyalty.

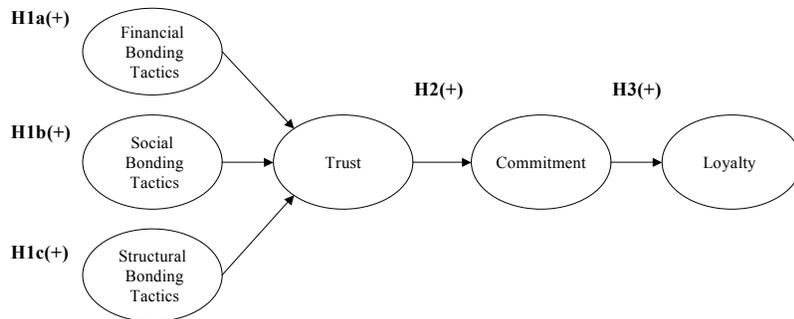
### CONCEPTUAL FRAMEWORK AND HYPOTHESES

A tally with the study of Wulf and Odekerken-Schroder (2003) gives us the idea behind our model. They defined a relationship effort as "any effort that is actively made by a retailer towards a consumer, that is intended to contribute to the consumer's perceived value above and beyond the core product and/ or service efforts received (Gwinner et al., 1998), and that can only be perceived by the consumer after continued exchange with the retailer." Generally speaking, a relationship effort refers to an effort that is actively made by a retailer. For example, a 'convenience benefit,' resulting from the fact that a consumer gradually learns where products are located in a convenience store, is not regarded as an actively provided effort because the convenience store has no active role in its development. Specifically, Fontenot and Wilson (1997) and Frenzen and Davis (1990) argued that product/service efforts and relationship efforts offer two distinct and independent sources of value. Product/service efforts correspond to what Parasuraman et al. (1994) referred to as "transaction-specific efforts" dealing with the exchange object and process surrounding one particular transaction. In their framework, transaction-specific efforts consist of product quality, price, and service quality (often measured by the SERVQUAL scales, including tangibles, reliability, empathy, responsiveness, and assurance as dimensions). In this study, we focus upon relationship-specific efforts beyond transaction-specific efforts as an additional means of competitive differentiation (Storbacka et al., 1994).

Relationship efforts go beyond a one-time exchange, focusing upon a range of transactions that are interrelated to past and future exchanges (Dwyer et al., 1987). While Parasuraman (1997) indicated that "consumers may need to accumulate considerable experience with a product before being able to accurately assess the extent to which a company's offering helps them realize their higher-order, abstract goals." Gwinner et al. (1998) stated that, although consumers may report to receive relational benefits and believe these benefits are important, they may not always be aware of their existence in early stages of a relationship and may not have quantified their value yet. Therefore, Wulf and Odekerken-Schroder (2003) suggest that it is inevitable that consumers are able to perceive a relationship effort for applying effective relationship outcomes. Consequently, our definition stresses that relationship efforts can only be perceived after a continued exchange with the retailer.

To determine the extent to which relationship marketing efforts contribute to consumers' relationship outcomes, we assess the interconnection between trust and three relationship marketing tactics (financial bonding, social bonding and structural bonding), constructs that differ from Wulf et al.'s (2001) four relationship marketing tactics (tangible rewards, direct mail, preferential treatment, and interpersonal communication).

Figure 1 represents a conceptual model that depicts the behavioral sequence of trust and commitment as intervening variables between relationship bonding tactics and behavioral loyalty. This portion is at the level of the individual consumer and proposes that relationship efforts and consumers' trust and commitment are positively related with respect to financial services. Thus, relationship efforts, trust and commitment are determinants for whether a consumer ultimately remains with or defects from a company. The specific hypotheses are presented in the following sections.



Note: Numbers in parenthesis are t-values, others are standardized path coefficients

**Figure 1 Conceptual Framework**

### Relationship Bonding Tactics

Bonds are the psychological, emotional, economic, or physical attachments in a relationship that are fostered by association and interaction and serve to bind parties together under relational exchange (McCall, 1970; Turner, 1970). While Wilson (1995) conceptualized two types of bonds: structural and social, Smith (1998) proposed that functional bonds also serve to bind parties to a relationship. Based on this, Wulf et al. (2001) distinguish among four types of relationship marketing tactics distributed across level one relationship marketing: tangible rewards; and level two relationship marketing: direct mail, preferential treatment, and interpersonal communication.

While Berry and Parasuraman (1991) divided the way retailers used to stimulate consumer behavioral loyalty into three levels: financial, social and structural bonding tactics, others also brought up similar relationship marketing classification (Williams et al., 1998; Armstrong and Kolter, 2000). Therefore, we will continue to use the position Berry and Parasuraman<sup>1</sup> have supported and state as below:

#### 1. Financial Bonding Tactics:

A kind of bond stimulating consumer's consumption motivation and acquiring consumer's loyalty by using price decision, such as price discounts, higher interest rate, etc. This kind of integration emphasizes the pricing function of marketing components. Besides, this kind of relationship bonding tactics is a little similar to functional bonds provided by Smith (1998), and thus, is the multiplicity of economic, performance, or instrumental ties or linkages that serve to promote continuity in a relationship.

#### 2. Social Bonding Tactics:

Social bonding tactics are personal ties or linkages forged during interaction at work (Turner, 1970). Researcher include the degree of personal friendship and liking shared by a buyer and seller (Wilson, 1995), as well

as linking of personal selves or identities through self disclosure; closeness; providing support or advice; being empathetic and responsive; feelings of affiliation, attachment, or connectedness; and shared experiences (Turner, 1970).

Although the effects of “social bonding tactics” can not replace “price attraction” yet, it provides customized service, developing independent relationship, making consumers trust and be satisfied with retailers’ service, and understanding, learning with consumer’s needs and wants. Companies expressing friendship or gratitude with gifts to consumers really had social meaning. Personnel can use these kinds of socializing tactics to build stable relationship and promote relationship quality further.

### 3. Structural Bonding Tactics:

Structural bonding tactics are knots relating to the structure, administration, and institutionalization of norms in a relationship. The rules, policies, procedures, infrastructure, or agreements that provide formal structure to a relationship; the norms or routines that informally govern interaction; and the organizational systems and technologies that enable or facilitate interaction can provide psychological, legal, and physical ties that bind parties to a relationship and make it difficult to consider other exchange partners. This kind of bonding tactics here means providing structural solving program for consumers, thus, marketing programs with value-added advantages provided by retailers.

By providing this level of relationship bonding tactics, companies can consolidate their relationship with consumers. The kinds of value-added services provided from structural integration are often technique related; they cannot only improve consumer’s efficiency and productivity, but also are difficult to be emulated by competitors for heightened transforming costs.

### **Trust**

The development of trust is thought to be an important result of investing in dyadic buyer-seller relationships (Gundlach et al., 1995). As relationship efforts are defined as efforts that are actively provided by a retailer, the extent to which a retailer makes relationship efforts can provide evidence to the consumer that the retailer can be believed, cares for the relationship, and is willing to make sacrifices (Doney and Cannon, 1997; Ganesan, 1994).

The most deserve to be mentioned is that trust has been discussed widely in channel literature. For example, Anderson and Weitz (1989) stated that the “mutual trust of a relationship is strongly influenced by the level of communications in the dyad.” In the same way, a potential positive relationship between preferential treatment (social or structural efforts) and trust was indicated by Gwinner et al. (1998). Finally, various marketing channel studies postulated that favorable financial outcomes reflect the partner’s concern for the welfare of the channel member, and therefore increase the channel member’s trust in the partner (Ganesan, 1994; Scheer and Stern, 1992). As a result, a positive relationship between tangible rewards and trust can be hypothesized.

H1a: A higher perceived level of financial bonding tactics leads to a higher level of trust.

H1b: A higher perceived level of social bonding tactics leads to a higher level of trust.

H1c: A higher perceived level of structural bonding tactics leads to a higher level of trust.

### **Commitment**

Commitment is generally regarded to be an important result of good relational interactions (Dwyer et al., 1987), they suggested that commitment is “fueled by the ongoing benefits accruing to each partner.” Besides, Moorman et al. (1993) suggested that consumers who are committed to a relationship might have a greater propensity to act because of their need to remain consistent with their commitment. In line with this, Bennett

(1996) argues that the strength of consumers' commitment depends on their perceptions of efforts made by the seller. Furthermore, several authors have empirically investigated the relationship between relational performance, a construct that shows similarities to relationship investment, and relationship commitment (Weitz and Bradford, 1999; Baker et al., 1999).

While relationships characterized by trust are so highly valued that parties will desire to commit themselves to such relationships, several authors indicate that trust positively affects commitment (Beatty et al., 1996; Gundlach and Murphy, 1993). In addition to conceptual support for a trust–commitment relationship, there exists strong empirical evidence for a positive path from trust to relationship commitment (Andaleeb, 1996; Doney and Cannon, 1997; Ganesan, 1994). According to Wulf and Odekerken-Schroder (2003), trust is hypothesized to affect relationship commitment as it is expected to generate the following benefits: (1) it reduces the perception of risk, (2) it increases the confidence of the buyer that short-term inequities will be resolved over a long period, and (3) it reduces the transaction costs in an exchange relationship. These benefits should build attachment and create a desire to continue the relationship (Andaleeb, 1996; Ganesan, 1994). However, the current study is one of few studies investigating the relationship between trust and relationship commitment in financial services industry context. Therefore, we investigate the following hypothesis.

H2: A higher level of trust leads to a higher level of relationship commitment.

### **Behavioral Loyalty**

Commitment was not only an important characteristic to maintain fine and long-term relationship (Hennig-Thurau and Klee, 1997), but also an expression of willingness that consumers want to stay with retailers (Wulf et al., 2001; Odekerken-Schroder et al., 2003). When the proportion of commitment becomes more remarkable, it is not difficult to infer that the relationship on both sides becomes more stable. Hennig-Thurau and Klee (1997) suggested that relationship quality is an antecedent of repeat purchase behavior. Wulf et al. (2001) defined the construct of behavioral loyalty as a composite measure based on a consumer's purchasing frequency and amount spent at a retailer compared with the amount spent at other retailers from which the consumer buys. In other words, behavioral loyalty is measured as a unique combination of behavioral indicators, concordant with suggestions made by Sirohi et al. (1998) and Pritchard et al. (1999). In the mean time, some empirical evidence has also been found for relationships between dimensions of relationship quality and behavioral loyalty (Bolton, 1998; Dick and Basu, 1994; Heskett et al., 1994).

Since we defined relationship commitment as “a consumer’s enduring desire to continue a relationship with a retailer accompanied by his willingness to make efforts at maintaining it,” we assume that there exists a positive relationship between relationship commitment and behavioral loyalty as a desire and willingness to imply higher chances of actual behavior. In addition to this, several authors support the notion that relationship commitment motivates buyers to act (Hennig-Thurau and Klee, 1997; Morgan and Hunt, 1994; Moorman et al., 1992). Dick and Basu (1994) further stated that the stronger relationship commitment, the more likely the buyer is to overcome potential obstacles in the buyer–seller relationship, resulting in repeat patronage. Based on these insights, we formulate the following hypothesis:

H3: A higher level of relationship commitment leads to a higher level of behavioral loyalty.

## **METHODOLOGY**

### **Study object and sample**

In order to observe the behavioral sequence of the relationship marketing model of the financial services industry, one of the most famous banks in Taiwan was chosen. The sample bank XYZ Bank, founded in 1972, which is one of Taiwan’s leading financial institutions and was one of the three largest trust banks in 70's, offers a diverse range of banking services to meet the needs of its consumers. At the end of 2002, it had a network of over 7 branches and representative offices and more than 300 employees in Taiwan. The bank seeks to become the preferred bank for its consumers and is firmly committed to continuous service quality improvements.

Data for the present study were collected from XYZ Bank's consumers of department of loans, department of deposits and department of credit cards. With the assistance of XYZ Bank, each department was provided randomly with equally 1000 surveys (because of nearly scale between the three departments) to their own consumers during the time period from May. 2002 to Jun. 2002. To avoid demand effects, participants did not know the researcher personally. The respondents were guaranteed that all answers were anonymous.

The final sample size with valid questionnaires were 396 for Department of loans, 431 for Department of deposits and 216 for Department of credit cards, yielding a response rate of 39.6%, 43.1% and 21.6% respectively. Our sampling method was successful in soliciting respondents with varied personal and firm characteristics, as is shown in Table 1.

**Table 1**  
Sample characteristics for the three departments

Consumer characteristics		Department / number of cases	Deposit N=431	Loan N=396	Credit Card N=216
Gender	Male		47.6%	46.5%	47.7%
	Female		52.4%	53.5%	52.6%
Occupation	Commerce		38.5%	43.7%	43.5%
	Industry		8.4%	13.6%	11.1%
	Government		16.5%	18.9%	18.5%
	House keeping		14.2%	7.6%	7.9%
	Student		3.5%	2.0%	1.9%
Education	Graduate school		6.0%	3.3%	5.1%
	University		31.3%	30.6%	27.8%
	Senior high school		30.2%	37.6%	38.9%
	≤ high school diploma		32.5%	28.5%	28.2%
Age	≤29		14.4%	14.4%	20.8%
	30-49		53.8%	67.4%	66.7%
	≥50		31.8%	18.2%	12.5%
Average monthly house income	≤50000		36.0%	37.1%	37.0%
	50001-80000		43.8%	46.5%	29.2%
	≥80001		20.2%	16.4%	33.8%

**Measures development**

The items related to all variables are included in Table 2 to 3. Most measures represent a combination and synthesis of past formulations revealing comparable reliability scores (see Appendix). Self-administrated questionnaires are used for all measures. All measures used for the constructs in the model are shown in Table 2, Table 3 and 5-point scales are used throughout the constructs.

**Table 2**  
Measurement Model and Confirmatory Factor Analysis: Exogenous Constructs

Exogenous Constructs	Item-Construct Loading						Cronbach's Alpha		
	Standardized			t-value			Loans	Deposit s	Cred its
Department	Loans	Deposit s	Credits	Loans	Deposit s	Credits			
<b>Financial bonding tactics:</b>									
1. FB1	0.88	0.78	0.82	21.57	18.54	14.01	0.9026	0.7340	0.867 5
2. FB2	0.89	0.81	0.84	22.02	19.36	14.45			
3. FB3	0.83	0.53	0.76	19.77	11.30	12.47			
4. FB4		0.53	0.74		11.07	12.16			
<b>Social bonding tactics:</b>									
1. Social B1	0.82	0.87	0.87	18.52	21.91	15.57	0.9029	0.8919	0.927 3
2. Social B2	0.83	0.85	0.84	18.91	21.51	14.63			
3. Social B3	0.78	0.85	0.82	17.94	21.37	14.09			

4. Social B4	0.81	0.84	18.85	14.83
5. Social B5	0.79	0.79	17.94	13.45

**Structural bonding tactics:**

1. Structural B1	0.78	0.83	0.85	16.94	20.34	15.25			
2. Structural B2	0.87	0.78	0.81	19.49	18.62	14.09			
3. Structural B3	0.83	0.88	0.89	18.34	22.27	16.32	0.9181	0.9177	0.9130
4. Structural B4	0.91	0.84	0.85	20.36	21.06	15.16			
5. Structural B5	0.76	0.81		16.84	19.67				

**Table 3**  
Measurement Model and Confirmatory Factor Analysis: Endogenous Constructs

Endogenous Constructs	Item-Construct Loading						Cronbach's Alpha		
	Standardized			t-value			Loan s	Deposit s	Credits
Department	Loans	Deposits	Credits	Loans	Deposits	Credits			
<b>Trust</b>									
1. Trust 1	0.84	0.85	0.87	-	-	-			
2. Trust 2	0.83	0.83	0.85	19.78	20.12	16.02	0.8921	0.8820	0.8905
3. Trust 3	0.78	0.86	0.74	18.27	21.09	15.50			
4. Trust 4	0.84		0.84	20.30		12.44			
<b>Commitment</b>									
1. Commitment 1	0.91	0.86	0.83	-	-	-	0.8915	0.8039	0.7708
2. Commitment 2	0.88	0.76	0.76	25.77	16.70	11.87			
<b>Consumer loyalty</b>									
1. Loyal 1	0.89	0.83	0.84	-	-	-	0.9014	0.8506	0.8748
2. Loyal 2	0.92	0.89	0.93	26.37	18.33	14.82			

**Data Analysis Method and Data Examination**

In our data examination process, we deleted cases incorporating missing values prior to data analysis first. Second, we tested the assumptions underlying the use of structural equation modeling. With respect to sample size, we used somewhat larger sample sizes given the risk of moderate normality violations (Hair et al., 1998). Normality was tested by means of PRELIS2 based on the skewness and kurtosis of the observed variables (Bollen, 1989). All the samples revealed significant kurtosis and skewness p-values for most observed variables. However, sample sizes were considered to be large enough to partially compensate for the existing kurtosis, reducing biases in parameter estimates (Hair et al., 1998). Finally, we tested for the existence of univariate and multivariate outliers. Our analyses revealed there exists nearly none outliers.

As to our structural equation models, following Anderson and Gerbing's (1988) work, the models are tested using a two-stage structural equation model. First, we perform Confirmatory Factor Analysis (CFA) to evaluate construct validity regarding convergent and discriminate validity. In the second stage, we perform path analysis to test the research hypotheses empirically. The path-analytic procedure is becoming common in studies (Li and Calantone, 1998; Chaudhuri and Holbrook, 2001).

**Overall Model Evaluation**

In Table 4, we report the values of the fit statistics. The chi-squares are all significant ( $p < 0.05$ , Bollen, 1989), a finding not unusual with large sample sizes (Doney and Cannon, 1997). The values for CFI, NNFI, root mean square error of approximation (RMSEA), and standardized root mean residual (SRMR) are acceptably close to

the standards suggested by Hu and Bentler (1995, 1999): 0.95 for CFI and NNFI, 0.06 for RMSEA, and 0.08 for SRMR. Given that these batteries of overall goodness-of-fit indices were accurate and that the model was developed on theoretical bases, and given the high level of consistency across samples, no re-specifications of the model were made. This enables us to proceed in evaluating the measurement and structural models.

**Table 4**  
Goodness of fit statistics

Model/Construct	$\chi^2$	$\chi^2/df$	GFI	AGFI	RMSEA A	RMR	SRMR	CFI	NNFI
Department of <b>loans</b> (N=396)									
CFA-Exogenous <sup>d</sup>	90.71	54	0.97	0.94	0.041	0.021	0.036	0.99	0.99
CFA-Endogenous <sup>e</sup>	27.59	17	0.98	0.96	0.040	0.008	0.016	1.00	1.00
<b>CFA-Overall</b>	<b>368.15</b>	<b>174</b>	<b>0.92</b>	<b>0.89</b>	<b>0.053</b>	<b>0.024</b>	<b>0.041</b>	<b>0.99</b>	<b>0.99</b>
<b>Structural model (Fig.2-L<sup>a</sup>)</b>	<b>280.79</b>	<b>173</b>	<b>0.94</b>	<b>0.92</b>	<b>0.040</b>	<b>0.022</b>	<b>0.038</b>	<b>0.99</b>	<b>0.99</b>
Department of <b>deposits</b> (N=431)									
CFA-Exogenous	97.95	47	0.96	0.94	0.050	0.031	0.045	0.99	0.99
CFA-Endogenous	16.97	9	0.99	0.97	0.045	0.009	0.017	1.00	0.99
<b>CFA-Overall</b>	<b>342.46</b>	<b>137</b>	<b>0.92</b>	<b>0.89</b>	<b>0.059</b>	<b>0.027</b>	<b>0.043</b>	<b>0.98</b>	<b>0.98</b>
<b>Structural model (Fig.3-D<sup>b</sup>)</b>	<b>258.07</b>	<b>138</b>	<b>0.94</b>	<b>0.92</b>	<b>0.045</b>	<b>0.025</b>	<b>0.039</b>	<b>0.99</b>	<b>0.99</b>
Department of <b>credit cards</b> (N=216)									
CFA-Exogenous	96.89	58	0.94	0.90	0.056	0.025	0.039	0.99	0.99
CFA-Endogenous	35.26	17	0.96	0.92	0.071	0.021	0.039	0.99	0.99
<b>CFA-Overall</b>	<b>253.49</b>	<b>172</b>	<b>0.90</b>	<b>0.86</b>	<b>0.047</b>	<b>0.025</b>	<b>0.042</b>	<b>0.99</b>	<b>0.99</b>
<b>Structural model (Fig.4-C<sup>c</sup>)</b>	<b>239.42</b>	<b>177</b>	<b>0.90</b>	<b>0.87</b>	<b>0.040</b>	<b>0.024</b>	<b>0.040</b>	<b>0.99</b>	<b>0.99</b>

<sup>a</sup> “L” means Loans.

<sup>b</sup> “D” means Deposits.

<sup>c</sup> “C” means Credit cards.

<sup>d</sup> “CFA-Exogenous” means CFA tests of the constructs of financial bonding tactics, social bonding tactics and structural bonding tactics.

<sup>e</sup> “CFA-Endogenous” means CFA tests of the constructs of trust, commitment, and behavioral loyalty.

#### Measurement Model Evaluation

We assessed the quality and adequacy of our measurement models by investigating unidimensionality, convergent validity, reliability, discriminant validity, and metric equivalence. First, unidimensionality was assessed on basis of principal component analyses performed on all items. As all items loaded 0.65 on the hypothesized factor and maximally 0.30 on the other factors, we can conclude that unidimensionality for each of the constructs was obtained. Second, convergent validity was supported as a result of the fact that the overall fit of the models was good, that all loadings were highly statistically significant (po0:05) (Hildebrandt, 1987; Steenkamp and Van Trijp, 1991). Third, reliability was supported as a result of the fact that all Cronbach alpha values exceeded 0.70, indicating acceptable reliability levels (Nunnally, 1978). Moreover, as can be derived from Table 3, all of the composite reliability measures are equal to or above 0.60, corresponding to Bagozzi and Yi’s (1988) minimum values of 0.60. As a result, we can conclude that all constructs yield satisfactory reliabilities.

Fourth, CFAs were used to test the adequacy of the measurement model. We used separate CFAs for relationship efforts (financial bonding, social bonding and structural bonding) and relationship behavioral sequence (trust, commitment, and behavioral loyalty). We estimated the proposed measurement model using LISREL 8.52 (Joreskog and Sorborn, 1989, 1993). The results indicate reasonable overall fits between the model and the observed data. As is shown in Table 4, for the relationship efforts construct CFA models, and

relationship outcomes construct CFA models or even the full model fit of measurement models (GFI) are all higher than 0.90 (Bagozzi and Yi, 1988). Besides, NNFI and CFI are far exceeded the recommended .90 threshold levels (Bollen, 1989; Hoyle and Panter, 1995; Hu and Bentler, 1995). These results demonstrated that the data reasonably fit the model again.

**Table 5**  
Results of the Proposed Model

Causal Path	Hypothesis			Expected Sign			Path Coefficient			t-value			Assessment (p < .05)		
	L	D	C	L	D	C	L	D	C	L	D	C	L	D	C
Financial bonding→Trust	H 1a	H 1a	H 1a	+	+	+	0.21	0.59	0.11	3.96	3.02	1.35	s.	s.	n.s.
Social bonding→Trust	H 1b	H 1b	H 1b	+	+	+	0.52	-0.16	0.39	9.39	-0.85	3.97	s.	n.s.	s.
Structural bonding→Trust	H 1c	H 1c	H 1c	+	+	+	0.11	0.15	0.30	2.32	2.51	3.30	s.	s.	s.
Trust→Commitment	H 2	H 2	H 2	+	+	+	0.87	0.78	0.84	18.14	15.31	11.66	s.	s.	s.
Commitment→Loyalty	H 3	H 3	H 3	+	+	+	0.92	0.83	0.84	21.19	14.88	10.75	s.	s.	s.

Note: (L: Loans; D: Deposits; C: Credit Cards)

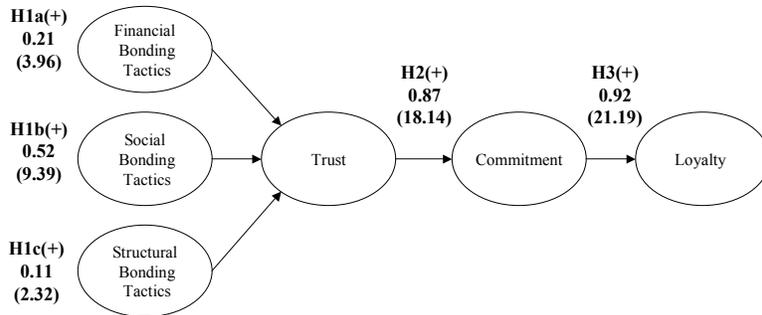
Department of Loans:  $\chi^2_{(173)}=280.79$ ,  $p=0.00$ , RMSEA=0.040; GFI=0.94, AGFI=0.92; CFI=0.99; NFI=0.98; NNFI=0.99.

Department of Deposits:  $\chi^2_{(138)}=258.07$ ,  $p=0.00$ , RMSEA=0.045; GFI=0.94, AGFI=0.92; CFI=0.99; NFI=0.98; NNFI=0.99.

Department of Credit Cards:  $\chi^2_{(177)}=239.42$ ,  $p=0.00$ , RMSEA=0.040; GFI=0.90, AGFI=0.87; CFI=0.99; NFI=0.98; NNFI=0.99.

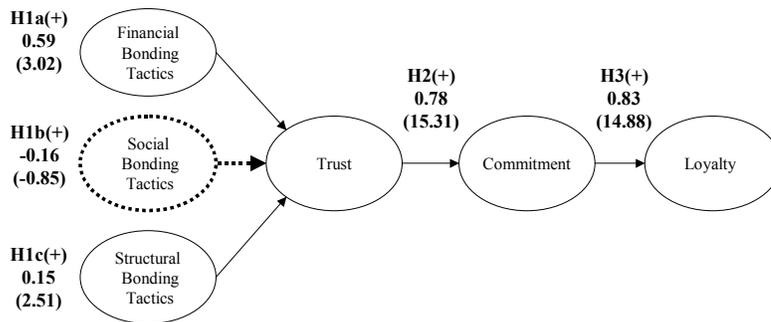
### Path Model and Hypothesis Testing

Table 5 presents the assessment of overall model fit and the tests of research hypotheses of each department. For the three departments, the estimated structural paths are visualized in Figure 2, 3 and 4. All models show the hypothesized relationships between latent constructs and their corresponding standardized path coefficients. Significant path coefficients are thick-lined in each figure. In the three models, all significant relationships between latent constructs are in the hypothesized direction. This provides strong evidence for our conceptual model and its related hypotheses (support for H2, and H3; partially support for H1).



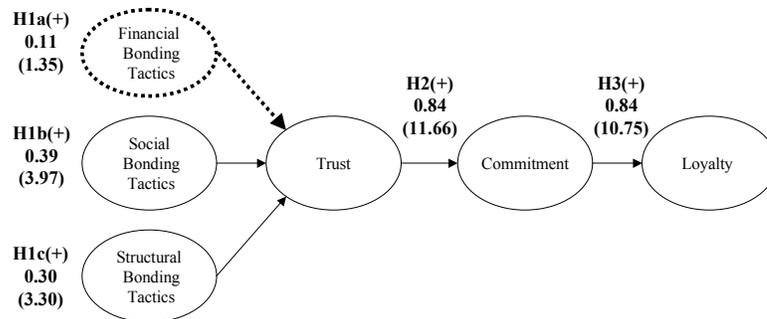
Note: Numbers in parenthesis are t-values, others are standardized path coefficients

**Figure 2 Results of hypothesized framework: Department of Loans**



Note: Numbers in parenthesis are t-values, others are standardized path coefficients

**Figure 3 Results of hypothesized framework: Department of Deposits**



Note: Numbers in parenthesis are t-values, others are standardized path coefficients

**Figure 4 Results of hypothesized framework: Department of Credit Cards**

## DISCUSSIONS AND IMPLICATIONS

### Department of Loans----From the View of Transforming Cost

According to the results received from the department of loans, we could see that social bonding tactics had the greatest power to determine the consumers' relationship outcomes. This finding may be interpreted, as a loan is a product with longer relationship duration, its transform cost is higher than the cost for deposits or credit cards. Therefore, financial services institutions should invest in training more polite and reliable personnel. Besides, instantaneous services with high-speed; information about the time required for processing, and consumers also need service accurate. The second powerful category of relationship bonding efforts was financial bonding. The survey results showed that the interest rate, the amount of the mortgage, and the value of security were identified as the most critical financial bonding that influenced the consumers' trust on retailers. The third powerful category of relationship bonding tactics was structural bonding. The results showed that an on-line inquiry system, the establishing of infrastructure, planning and advising on loans, alliance with other industries, and issuing new financial products that could meet consumers' needs were substantial structural bonding tactics that banks should take strong note of.

In general, interest rates are not finite tools to attract loans consumers or, needless to say, the preservation of a consumer relationship. In Taiwan, banks often try to prolong their relationship with consumers by providing many other value-added services, such as a certain monetary guarantee, collateral, or money on bank deposit. These value-added services represent a lift of credit rating to some extent. For instance, these services include the privilege of using a VIP room; having the ease and comfort services of an honored consumer, having exclusive parking facilities, and getting discounts on service charge. These are all relationship bonding tactics that managers could employ for consumers of loans.

### Department of Deposits----Era of Low Interest Rates

According to the Taipei-based Central Bank of China, the gap between the interest rates for loans and for deposits registered by general domestic banks narrowed to 2.66 percentage points (4.22%-1.56%) in the second quarter of 2003. Therefore, people were found to be calculating because of the sustained worldwide economic recession. According to the results received from the department of deposits, the category of relationship bonding efforts that had the most power on trust was financial bonding. Although interest reception has become a deficient influence, the interest for time deposits is still part of a consumer's overall portfolio; hence consumers should haggle over every New Taiwan Dollar (NTD) on interest rate. Moreover, safety, ease, and simplicity are all vital factors for the operation of department of deposits.

While service quality was the main stream of the 1990's, most financial service institutions endeavored to get information out by word-of-mouth. Consequently, the human interaction, courtesy, and the helpfulness of the department of deposits were thought to be essential, but not factors that had much incremental effect. Therefore, the path coefficient of social bonding tactics of the department of deposits is not significant. As to structural bonding tactics, results showed that an on-line inquiry system (e-bank), the establishing of an infrastructure, planning and advising regarding financial management, alliance with different industries for convenience or value-added services, and the issuing of new financial products to meet consumers' needs were substantial structural bonding tactics that banks should pay attention to in the operation of the department of deposits.

Generally speaking, it is not an easy thing for banks to maintain relationships with depositors when interest rates are decreasing. In Taiwan, banks often try to prolong their relationship with consumers by providing many other value-added services for consumers who have a certain amount of money on deposit. Those may include the liberty of using a VIP room, enjoying the ease and comfort services of being an honored consumer, exclusive parking facilities, and discount on service charges. These are all structural bonding tactics that managers can employ.

#### **Department of Credit Cards--Financial Incentives Don't Have Consumer Gravitation**

Credit card service is a high manpower and computer intensified product. In the past, financial attributes such as the interest for the credit, the speed, simplicity and ease of issuing new credit cards, the thoroughness of billing, and other value-added attributes, such as insurance and bonus points, were critical factors that influenced consumers to apply for credit cards. With the changing era of "one man with many credit cards" and "low interest rates", consumers begin to put emphasis on other attributes, such as the quality of consumer service and other value-added activities.

From the results, social bonding tactics had the most power on the relationship outcomes for the department of credit cards; financial bonding tactics had the least power and were insignificant. As was shown with social bonding tactics, an on-line service person's professional knowledge, courtesy, operation speed and accuracy are momentous social bonding attributes. Thus, bankers should invest in training polite, professional, and reliable personnel. Structural bonding tactics, such as gaining alliances with diversified industries to get value-added advantages, as well as e-bank services, and other infra-structural facilities are essential, too.

In Taiwan, banks often issue new credit cards without annual fees, especially gold and platinum cards. These types of cards are those with various insurance premium discounts, upgrade with insurance, accumulation of flying mileage (often with an upgrading of cabin seats), cost-free parking in airports, and the use of a VIP room in an airport or the bank. They would even offer touring discounts or an upgrade on hotel reservations. All these bonding examples are types of relationship building and extension of that building.

#### **A Comparison of Relationship Outcomes**

In terms of any relationship outcome construct, our results clearly reveal a significant relationship from the construct of trust to the construct of relationship commitment in the three samples, indicating that trust is important in consumer situations as consumers will only be committed to a relationship with a retailer when they have trust in this retailer. Therefore, we could infer that once consumers feel trust with a retailer's relationship efforts, consumers' commitment to that retailer became stronger. As to the relationship between commitment and behavioral loyalty, the results also showed that commitment in the three departments had positively significant effects on behavioral

loyalty. Consequently, researchers should be aware of the fact that, while relationship commitment is often regarded as the ultimate relationship outcome, it is only able to explain a relatively part of the variance in behavioral loyalty. It appears that there still exist variables than relationship commitment alone influences behavioral loyalty. From the highly standardized path coefficients presented in the former section, we reasoned that the more commitment consumers have with their banks, the more loyalty consumers behave. Therefore, once consumers perceive a higher relationship efforts or feel trust with a bank's relationship efforts, they will make a greater more commitment to that bank. Finally, consumers will feel obligated to demonstrate their loyalty by remaining with the bank.

### **CONTRIBUTIONS AND MANAGERIAL IMPLICATIONS**

This study was aimed at investigating the potential role of a retailer's relationship efforts in influencing consumer attitudes and behavior. To our knowledge, it is the first study that demonstrates the effect of relationship efforts on trust in a retail bank setting. As the development and sustainability of loyalty is increasingly difficult to achieve today and is still surrounded with ambiguity regarding its underlying determinants, we believe that our research makes a significant contribution to relationship marketing theory in two unique and different ways. First, our model contributes to the existing literature by specifying how financial services providers can guide consumer perceptions of the relationship efforts by applying at least three different and specific relationship bonding tactics. Prior studies have rarely investigated the role of such tactics in shaping consumer relationships. Second, our study demonstrates why financial services providers benefit from investing in consumer relationships by assessing the impact of relationship efforts on relationship outcomes and ultimately on consumer behavioral loyalty. We tested these two research questions comprehensively and rigorously by replicating the study across three departments within a typical financial services institution.

With respect to our research outcomes, relationship marketing efforts were found to play a differential, yet consistently positive role in affecting consumers' relationship outcomes. Today's financial services providers increasingly offer comparable merchandises, copy competitors' price promotions, share common distribution systems, and treat consumers well in terms of services offered, so there are increased opportunities that can derived from this study's results to direct greater attention to developing and implementing relationship bonding tactics.

Another research portion of this study assessed the effect of trust on commitment and ultimately behavioral loyalty. We expected trust to play an important role in determining relationship commitment and that assumption was confirmed in all three samples. These results support the findings of Bagozzi (1995) and Kang and Ridgway (1996), who argued that consumers feel obligated to reciprocate a retailer's investments in the retailer-consumer relationship by increasing their loyalty to that retailer. This finding implies that it pays for retailers to invest in consumer relationships, because such increased consumer relationship will result in increased loyalty.

#### **What Concepts Should Bankers Implement?**

Marketing tactics are always focused on acquiring new markets and more consumers, often neglecting how to maintain existing consumers. O'Brien and Jones (1995) criticized suppliers' equal treatment for all consumers, indicating this type of indifferent marketing by investing in low-value, over-satisfied consumers would not only waste company resources, but also dissatisfy the institution's high-value consumers. Hence researchers discussed actively the linkage between each relationship level and the effects of different rewards on different levels of consumer loyalty. Here are some suggestions of which managers of banks should take note.

While our study did not incorporate product or service efforts, it indicates that relationship efforts are important drivers of consumer value. As today's retailers increasingly offer comparable merchandise, copy competitors' price promotions, share common distribution systems, treat consumers well in terms of services offered, they increasingly have difficulties differentiating themselves (Berry and Gresham, 1986; Ghosh, 1994). Consequently, retailers should direct more of their attention at developing and implementing relationship efforts. Our study suggests that consumer loyalty strategies can be built around these relationship efforts. Therefore, managers and employees of retail companies need to be trained, motivated, and rewarded for making relationship efforts to regular consumers. In addition, several scholars warn that tangible rewards generally do not lead to sustainable competitive advantages. They refer to the reality that price is the element most easily to be imitated of the marketing mix, that some

consumers may react opportunistically, and that already-loyal consumers can be 'unnecessarily' rewarded (Berry, 1995; Christy et al., 1996; O'Brien and Jones, 1995). Nevertheless, O'Brien and Jones (1995) advocated that rewarding strategies can lead to sustainable competitive advantages if such strategies are no short-term promotional give-away, but planned and implemented parts of a larger loyalty management strategy. This study provides strong empirical support for the potential competitive advantage resulting from the practice of rewarding consumers for their patronage.

As a result, bankers should not only invest more heavily in consumer relationships but also pay equal attention to find consumers who are most receptive to such investment. In addition to the more traditional criteria of product-market segmentation, such as market size, market growth, and expected market share, segmenting consumers according to their levels of consumer relationship likelihood or product involvement could positively affect an institution's expected share of the financial market and its share of consumers.

#### NOTE

1. The word 'bonding' refers more to an on-going process, and 'bonds' to a relationship that has already been established. In this paper, we use the word 'relationship bonding' in place of 'relational bonds' or others, meaning an on-going marketing process.

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**Appendix**

<b>Construct</b>	<b>Source</b>
Relationship Bonding	McCall, 1970; Turner, 1970; Wilson, 1995; Smith, 1998; Berry and Parasuraman, 1991; Kolter, 2000; William, Hans, and Qualls, 1998; Armstrong and
Financial Bonding	Smith, 1998; Turner, 1970;
Social Bonding	Turner, 1970; Wilson, 1995
Structural Bonding	Developed for this study
Trust	Doney and Cannon, 1997; Anderson and Weitz, 1989; Gundlach, Achrol, and Mentzer, 1995; Ganesan, 1994; Gwinner et al., 1998; Scheer and Stern, 1992;
Commitment	Dwyer et al., 1987; Bennett, 1996; Moorman et al., 1992; Baker, Simpson, and Siguaw, 1999; Weitz and Bradford, 1999; Beatty et al., 1996; Wulf et al., 2003; Gundlach and Murphy, 1993; Andaleeb, 1996; Ganesan, 1994
Behavioral Loyalty	Sirohi et al., 1998; Wulf et al., 2001; Pritchard, Havitz, and Howard, 1999; Bolton, 1998; Dick and Basu, 1994; Heskett et al., 1994; Henning-Thurau and Klee, 1997; Odekerken-Schroder et al., 2003; Moorman et al., 1992; Morgan and Hunt, 1994

## **HUMAN DIMENSION IN MARKETING RESEARCH: A SENSE-MAKING APPROACH**

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### ***ABSTRACT***

*Marketing research is an important element of the marketing process. Typical models of research explain research as an objective process. However, like any other process, marketing research has human elements. Hence, there are subjective elements that are inherent to the research process. We employ the sense making approach to delineate these subjective processes. Sense-making perspective as applied to the marketing research process is discussed.*

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KEY WORDS: Marketing Research, Sense-Making

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# **ADVERTISING PERCEPTIONS AND CULTURE: A COMPARISON BETWEEN THE U.S. AND TAIWAN CONSUMERS**

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## **EXTENDED ABSTRACT**

*Culture plays an important role in the function of advertising. Much extant research compares the advertising contents across nations/cultures. This line of research, although valuable, only provides an incomplete picture in terms of how we understand the function of advertising in different cultures. Equally valuable, the other side of the equation is to understand how the target audience would perceive the advertising messages. Are there significant differences in consumers' attitude toward advertising across nations/cultures? Few studies have made cross-culture comparisons in this regard.*

*Hofstede (1991) identifies the main difference between individualism and collectivism as "(in an individualism culture) people looking after themselves and their immediate family only, versus (in a collectivism culture) people belonging to in-groups that look after them in exchange for loyalty". It is expected that information flows easier and faster among the members of the society in a collectivistic culture system than their individualistic counterparts (Dwyer, Mesak, and Hsu, 2005). United States is known for its individualistic culture while Taiwan, located in East Asia, belongs to the collectivistic culture category. This indicates that consumers in Taiwan are more likely to prefer group "word of mouth" advertising than the U.S. consumers do. Several established cultural characteristics will be used in building our hypotheses on the differences in general perceptions about advertising between the U.S. and Taiwan consumers.*

*As Taiwan belongs to a high-context and collectivism culture system, people in Taiwan may not rely on advertisements as much as they rely on personal networking. On the other hand, consumers from low-context and individualistic cultures would depend more on formal communication (Simintiras and Thomas, 1998) and they tend to be more analytic (Taylor, Frankle and Maynard, 2000). For instance, many people may feel astonished by the extent to which Americans use numbers to evaluate the performance of products or services (de Mooij, 2005). Since many advertisements contain numbers and statistics to help consumers realize the advantage of the advertised products/service, the following hypothesis is posited:*

*H1: Consumers in the U.S. are more likely to find advertising informative than those in Taiwan.*

*As Advertising is "a symbolic artifact constructed from the conventions of a particular culture" (de Mooij, 2005), the same advertising content may generate different responses from consumers in a different culture. Some advertisements use a sad situation to illustrate a point, for example, by showing the consequences of not using a particular drug for a certain disease. On the other hand, relatively more advertisements use comedy to attract consumers' attention. Either tragedy or comedy would make consumers remember the plot of a story clearly in certain cultures but not in others. In contrast, the famous Chinese essayist Bin Xin has mentioned that the real tragedy has seldom existed in Chinese literature because "the Chinese have hardly any struggles in their minds" (de Mooij, 2005). The "happy ending" style of advertising would make Taiwan consumers much more entertained.*

*H2: If the content of advertising has elements of entertainment, then consumers in Taiwan are more likely to find advertising entertaining than those in the U.S.*

*With regard to the power distance dimension, Taiwan falls into the category of high power distance, whereas the U.S. falls into the category of low power distance (Hofstede, 2001). If the same advertisements in the media have a high repetition rate and the advertiser attempts to control the consumers' buying behavior, then Taiwan consumers would be less likely to find repetition and hard sell advertising irritating. Hence:*

*H3: Consumers in Taiwan are less likely to find advertising irritating than those in the U.S.*

*More research is required to further explore culture's role in consumer perception of advertising. In particular, whether there is a trend of converging consumer attitude toward advertising across different cultures, as indicated by our analysis about irritation levels in people's perception, seems to be a promising area for future research.*

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## **CUSTOMER RELATIONSHIP MARKETING IN THE BANKING INDUSTRY**

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### **EXTENDED ABSTRACT**

*This paper considers Customer Relationship Management (CRM) in the banking industry as a primer for the adoption/improvements in CRM systems among small and independent banks. Independent financial institutions are come to realize that their most important asset is their customer base. Retail banks can parlay a five percent retention rate into as much as an eighty-five percent increase in profits (Veloutsou, Daskou and Daskou 2004). These profits stem from lowered costs, higher prices, or a more profitable product mix. Many of these institutions lose about half of their customers every five years. The industry is also plagued by such problems as recent deregulation measures, mergers, and no real differentiation between the products and services banks offer.*

*CRM links processes across the supply chain from the behind-the-scenes process through every touch point, enabling consistency with each customer. CRM uses data tools which allow banks to more fully understand customer segments, assess and maximize a customer's lifetime value, model "what-if" scenarios, predict behaviors, and design and track effective marketing campaigns.*

*Many banks are still focusing on product lines with the customer viewed on a transactional basis. Systems are often decentralized so that employees lack the information needed to recognize customer needs and suggest products. Several common factors contribute to poor CRM systems, including a failure to understand the possible savings; functional boundaries disputes, lack of the needed skills and the inability to recruit and train suitable staff, extreme decentralization, leading to poor data, lack of standards for core systems, and inadequate systems for tracking the effectiveness of marketing campaigns*

*Banks should use the three methods of communication with customers: proactive communications from the bank; customer-initiated requests, advice, and complaints, and service delivery communication to achieve an integrated view of the customer. This includes customer satisfaction, needs, complaints, loyalty, personal and financial profiles, holdings with the bank, contact histories, customer segmentation, and customer profitability. Several methods segment customers into more homogenous groups including the family life cycle; Psychographic models such as VALS and CLARITAS; and generational cohorts.*

*Attitudinal, or active, loyalty is a customer's predisposition towards a brand as a function of the psychological process. Banks can determine the level of customer loyalty by measuring the customer's usage of the bank's services and the customer's assets under management of the bank. Attitudinal loyalty leads to lower price sensitivity and a stream of sales making them more profitable than average customers. A strong positive attitude leads to positive word of mouth and referrals for the bank. Purchase behavior allows customers to be further classified. First, the bank should try and make them profitable. Profitability can be achieved through cross-selling and up-selling, but it can also be achieved through full or partial elimination of banking products and services. Price increases are another means of making these customers profitable. For instance, the bank can offer tiered levels of service based on account balances.*

*Across service industries, companies lose up to 10% of their customers each year. There are at least seven main reasons for defections, the most important of which is a service failure. A service failure occurs when the service encounter a customer has with the bank falls short of the customer's expectations. After the customer experiences many service failures, dissatisfaction, negative word of mouth, and defection can occur. Price, competition, ethical issues, involuntary switching, relocation, death, and full or partial product elimination are the other main reasons for defection.*

*Stopping a customer on the brink of defection can be achieved through barriers to exit and early detection of customer dissatisfaction. Barriers to exit can take the form of switching costs, longevity of the customer's relationship with the bank, lack of trust in alternate providers, and a belief that all financial service providers are the same. Early detection of customer dissatisfaction is gained through automatic information technology programs which detect warning signs such as unusual transactions and a decrease in account balances.*

*The last step in the CRM process is to win back customers who have left the bank. The first step a bank should follow is to profile the customers who have left. Then, the customer's second lifetime value should be determined based on the segmentation criteria listed for current customers. Customers should then be further segmented and graded by their reasons for defection. The common reasons for defection to be used are intentionally pushed away, i.e. "fired," unintentionally pushed away, pulled away, bought away, and moved away. Then, the second lifetime value should be combined with the reason for defection to achieve a new grade. Lost customers should be divided into four second lifetime value segments: top 10%, next best 20%, next best 30%, and last 40%. Banks should aim to win back the top 10% and next best 20% .*

# **FROM PETS TO PERCEPTIONS: MEASURING THE TRANSFER OF ASSOCIATED PERSONALITY CHARACTERISTICS ATTRIBUTED TO ANIMALS TO PERCEPTIONS AND ATTITUDES TOWARD THE AD**

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## **DETAILED ABSTRACT**

*Americans love their pets. In the United States pets are really big business. The interest in pets and pet ownership continues to increase (Rosenfeld 1987) and spending exceeds \$25 billion annually (Dorsey 2003). Dog ownership continues to rise (Ivinski 1999) and at least one recent study indicated that cat ownership has exceeded dog ownership in the United States (Lawrence 2003).*

*Pets are important to Americans. In addition to serving vital roles in assisting the blind, the deaf and the elderly (Rosenfeld 1987), people really love their pets. Some pet owners consider their pets to be as important as people or similar to children (Dorsey 2003). Recently, several high end hotels chains have found economic value in making accommodations for pets (Gubernick 1995).*

*Animals are increasingly appearing in advertisements (Ivinski 1999). Obviously animals have been used to promote pet related products. But the use of animals in advertising extends beyond that pet product category. All the way back to the 1950s Greyhound used dogs to sell products (Walsh 2006). The introduction of the "Lady Greyhound" was hoped to add a since of class to their bus travel (Walsh 2006). Other companies have used dogs as a central focus in ads as well, such as Big Dog, Taco Bell, and Budweiser. Dogs also are used in more supplementary roles in advertisements, such as the recent Dodge Caliber ads. Other animals have been used to promote products, including the California Happy Cows, the Geico Gecko, Bordon's Elsie the Cow, and GE's use of a dancing elephant. Unfortunately, practitioners have confessed that it is difficult to gage economic value of use of pets in advertising (Walsh 2006).*

*Socialists have long reported that people attribute certain personality characteristics and traits to different species of animals. El-Alayli et al (2006) provide a detailed analysis of the traits which people attribute to different animals. For example, dogs might be big and bad or strong, agile, loyal, reliable, sincere, versatile and intelligent (Hirschman 2003, Ivinski 1999). Cats might be perceived as demonic, but might also be perceived as independent, carefree, feminine, royal and godlike (Lawrence 2003).*

*With as important as animals use has become in advertising, it is somewhat surprising that very little academic research has examined the phenomena. Do those personality traits transfer to perceptions about the advertisement? This study seeks to provide insight into the relationship which animals play in the perception of an ad in which they appear. This study experimentally manipulates the inclusion of animals in standardized advertisements for a hypothetical movie rental company. The use of dogs and cats in the advertisements are compared to a control condition with no animal. A discussion of the results and managerial implications are provided.*

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# **WALKING A FINE LINE: THE EFFECTS OF VERTICAL LINE EXTENSIONS ON BRAND EQUITY IN THE HIGH FASHION INDUSTRY**

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## **DETAILED ABSTRACT**

*Ever bought a pair of expensive designer jeans that cost quite a bit, but were worth it? Ever seen the same jeans at a retail store for a much lower price? Did your opinion of the designer jeans change? What about your opinion of the jeans at the retail store? The fashion industry has begun to blend the lines between high fashion and every day wear, with high-end designers now making lines available in department stores and even general merchandise stores. This attempt to merge high-end designers with low end retail stores has to say something about the brand equity of both parties.*

*Companies have been using the idea of extending current product lines to new products, or new product segments for decades. The extension of current brands has been researched and evaluated. Unfortunately, while there is extensive research regarding brand extensions, there is very little research on line extensions, in particular vertical, downward stretching line extensions. This study seeks to test and evaluate the effect that vertical, downward stretching line extensions have on brand equity for both the extension and the parent brand.*

*Brand equity "is a set of brand assets and liabilities linked to a brand, its name and symbol, that add to or subtract from the value provided by a product or service to a firm and/or to that firm's customers" (Aaker (1991). Brand equity can be expressed as the value a brand name adds to a product, and its components can include brand awareness, brand image, and brand loyalty (Hem and Iversen 2003). "Brand equity is a pivotal element to the management of the brand over time, particularly given the possibility that it can enhance brand loyalty and/or serve as a basis for growth through brand extensions" (Reddy, Holak, and Bhat 1994). If brand equity has been successfully established for a parent brand, the idea of an extension from the parent brand is more attainable than if the parent brand had insufficient brand equity. Brand equity of a parent brand seems to "trickle-down" to the extension, meaning that brand loyalty, image and awareness seems to be that of the parent brand (Randall, Ulrich, and Reibstein 1998).*

*A line extension, the focus of this research, occurs when a company uses its current brand name to use a similar product to enter into a new market segment (Aaker and Keller 1990). Reddy, Holak, and Bhat (1994) suggest that the success of a line extension can be influenced by three dynamics: characteristics of the extension's firm, characteristics of the extension's parent brand, and characteristics of the extension.*

*Price-based line extensions add complexity to the evaluation of their relationship to the parent brand. This involves vertical line extension, and can be stretched up or down. Upward stretches occur because parent brands often hope to increase perceived quality of the company by offering a premium product. Downward stretches occur when parent brands offer a seemingly lower quality product at a lower price, in anticipation that consumers will not only purchase the product, but eventually move up to the premium product (Kirmani, Sood, and Bridges 1999).*

*When looking at vertical line extensions for prestige brands, which are coupled with class and exclusivity, price and location of extensions are factors that influence the success of the extension and/or parent brand (Kirmani, Sood, and Bridges 1999). This concept has a large presence in the retail industry. "The consumer tends to associate an element of exclusivity with the retail brand because the unique shopping experience and merchandise is only available at a particular retail store or chain of stores. In contrast, when shopping in other retail formats (i.e. department stores) consumers see the same national brands and labels from store to store. The uniqueness of the retail brand is more difficult to substitute and therefore leads to consumer loyalty" (Carpenter, Moore, and Fairhurst 2005).*

*This study addresses the following questions: Do consumer's views of vertical line extensions alter their impressions about the brand, thereby impacting the brand equity of the parent brands? Does the brand equity of a parent brand positively affect its extension in a downward-stretched vertical line extension? Does the lower-end*

*extension seem to disband the brand equity associated with the parent brand? Implications for managers are offered*

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## **NEGATIVE ATMOSPHERICS: MISSING THE MARK AND REPELLING THE MARKET**

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### **DETAILED ABSTRACT**

*While the term "atmospherics" is only about 35 years old (Bourrain and Orth 2005), the value of creating an inviting atmosphere for prospective consumers is not new. As early as 1946, Zimmerman was encouraging retailers to consider the atmosphere in which the consumer shopped. When retailing theory shifted focus from efficiency to consumer expectations, Zimmerman suggested inviting color and glamour would have an impact on retail success. Retailers were encouraged to making shopping a pleasure (Mertes 1949). And the rest is history. Modern retailers "spend millions of dollars each year designing, building, and refurbishing stores" (Baker, Levy and Grewal 1992).*

*The term atmospherics has been described as the "process of manipulating elements of the physical environment in an attempt to affect consumer behaviour" (Bakamitsos and Siomkos 2004). Atmospherics include various sounds, sights, smells, feels, and tastes (Hoffman and Turley 2002). The elements of the physical environment impact perceptions and impressions (Countryman and Jang 2006). The overriding concept was (and is) that people are more likely to buy when they are in a good mood and feel content. Consumers will stay longer, explore more and add more items to their cart when shopping in the environment which is enjoyable. It is an effective tool for creating value and gaining share (Babin and Attaway 2000). With so many possible combinations of variables to create an atmosphere, choosing the correct combination to appeal to their target market is necessary for gaining customer loyalty. The appropriate atmosphere is, by its very nature, extremely dependent on the target consumer. What is a pleasurable and enjoyable environment for one person is not at all pleasant to others. Not surprisingly, most studies have concentrated on developing the model for creating the best combination of variables to create a favorable atmosphere (Richard 2005, Kottasz 2006, Morrin and Chebat 2005).*

*Unfortunately, consumers do not always respond favorably to a store's atmosphere (Babin and Attaway 2000). If the positive side of atmospherics is loyalty, market share and increased sales, the other side of the coin might well be revulsion and loss of sales. Little to no research has examined negative atmospherics. On the surface, this is not surprising. Retailers work hard and spend millions of dollars to create an atmosphere which is appealing to target consumers.*

*Gift-giving creates a challenging opportunity for retailers. Billions of dollars are spent during heavy gift giving holidays (Barbaro 2006). Gift-giving occasions often place off-target consumers in the retail store environment. One such example might be a parent shopping for a teenage son or daughter in a retail environment with an atmosphere created to appeal to the teenager. Under gift-giving conditions, an off-target consumer might face negative atmospherics.*

*The purpose of this study is to examine the degree to which negative atmospherics (conditions deemed as unpleasant by the consumer) impact an off-target consumer (a consumer not in the typical target market of the retailer). Respondents in this study were randomly sorted to control and treatment groups. Between group comparisons are given and managerial implications are provided.*

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## **A FRAMEWORK FOR eCRM FOR SMALL BUSINESSES**

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### **ABSTRACT**

*As small business increasingly establish a presence on the Internet, it is imperative that they attract customers to their web site, convert them to customers, and then keep them coming back. This requires small businesses to focus on building and managing relationships with customers. The Internet has made it possible, and relatively inexpensive, for even the smallest of firms to set up and use Electronic Customer Relationship Management (eCRM) programs. This paper focuses on issues and strategies related to the use of eCRM programs by small businesses. It proposes a framework that outlines the components of an eCRM program, and emphasizes the importance of focusing on customer value and satisfaction. The paper also offers practical suggestions for the use of eCRM strategies in small businesses.*

*In the past few years, small businesses have increasingly migrated toward the Internet. In addition to providing online informational catalogs about the products they sell, these businesses are also facilitating completion of purchase transactions online (Dilts and Kahai, 2004). As a consequence, customer retention and building solid client relationships are receiving considerable attention today. For a small business, in particular, developing long-term client relationships is the lifeblood of the business, and a primary reason why the business exists and is successful. This focus on customer relationships represents a fundamental shift from the more traditional customer acquisition and transaction mentality. At a fundamental level, what is required is the ability to identify meaningful customer segments, tailor offerings to their needs, and deliver these in a reliable manner that meets or exceeds customer expectations and encourages them to keep coming back. Using today's Internet technology, it is very feasible to create an electronic client relationship management (eCRM) program that will not deplete a small business of its resources, but will provide the company with the tools needed to improve business profitability and give them a compelling advantage over their competitors. Customer loyalty, as reflected in a customer's repeat purchase behavior, is fundamental to the profitability of a firm (Heim and Sinha, 2001). By strengthening the firm's relationship with its most valuable customers, a firm can increase retention and enhance its profitability.*

*eCRM can be defined as using the Internet to grow deep and enduring relationships with the most profitable customers. In breaking down this definition into its component parts, one quickly sees that eCRM is a strategic vision and plan and not simply a set of processes or programs. At the heart of this definition is the customer (individual or business).*

*Components of an eCRM Program. Although they are called by different names, most eCRM programs are based on four major interrelated components. These are: (1) using the Internet to understand the customer; (2) targeting the right products to the right customers; (3) selling to the customer online or offline and, most importantly, (4) providing the customer with the service s/he needs. The Internet-based, customer-centric, integrated approach makes eCRM different.*

*The first component, understanding the customer, means collecting and analyzing not only product / service data, but also data on aspirations, preferences, lifestyles, and life-cycle. By integrating all of this information into a profile of the customer, one is able to identify current needs and anticipate future needs. One is also able to look for tendencies which will enable the company to provide appropriate product / service solutions to the customer. The second component, targeting the right products to the right customers, is a logical extension of knowing the customer. Because electronic customer knowledge-bases have been created, customers with similar tendencies can be grouped together. This is where the notion of mass customization comes into play. No company has the resources to perform actual one-to-one marketing and sales. But by linking those customers with similar*

*characteristics into focused target groups, one can provide personal solutions to a larger group with similar needs. Targeting the right information to the right customer is not only cost effective from an acquisition sense, it also increases the customer's level of comfort that the company s/he is dealing with truly does know his or her unique needs. The third component is selling to the customer. By understanding what the customer needs is not selling them just any product, but products that are personally right for him/her. The knowledge about the customer provides the appropriate information for selling a given product or set of products. The fourth component, service, is the glue that holds the entire relationship together. The majority of interactions or touch points that customers have with companies are in the area of service. Delighted customers are ones that receive timely, appropriate solutions.*

*Given the limited human and financial resources, most small businesses may view the creation of an eCRM philosophy and a segmentation scheme as an onerous task. However, the sophistication of the Internet has made these processes quite feasible and cost efficient. At the core, businesses must collect timely and accurate data on their customers. While this information should not be too intrusive, it should include data on customer purchases, demographics, and attitudes (if possible). Responses to online advertisements, e-mails, and actual purchases generate a substantial amount of customer information. Additional information can be quickly gathered from short online customer surveys.*

*Realizing that eCRM is a strategic vision and not just a set of tools or processes requires a dramatic philosophical shift from how companies traditionally think about and do their business. That is, in the course of knowing, understanding, and servicing customers, companies should be able to provide them additional products/services or unique combinations of the two that are "right" for them and profitable for the business. This profit is immediate in the sense of incremental products and services sold; more importantly, it is long-term in the additional loyalty and business a company will receive from the customer over a sustained period of time.*

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# **ANTECEDENTS OF AFFECTIVE AND CALCULATIVE COMMITMENT TO ONLINE COMMUNITIES: A SOCIAL EXCHANGE PERSPECTIVE**

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## **EXTENDED ABSTRACT**

*Defined as aggregates of individuals who interact around a shared interest in cyberspace (Porter 2004), an online community is considered an important antecedent of customer loyalty in e-commerce (Srinivivasan, Anderson and Pannavolu 2002). Companies hosting online communities can increase sales, positive word of mouth, and site revisits, receive ideas and feedback on new product development, and build stronger brands and closer relationships with their customers (e.g., Hagel and Armstrong 1997; Porter 2004). Owing to these potential values to companies, a growing number of companies have started to host online communities within their websites. According to a recent report, 85% of more than 300,000 online topic-based discussion boards are operated by commercial organizations (McWilliam 2000).*

*Despite the popularity and proven practical value of an online community to a firm, most documents on online communities are largely descriptive or anecdotal. An empirical understanding as to how a firm develops an active online community and how a firm retains sustainable online community remain unanswered. This study is particularly interested in understanding mechanisms of why people voluntarily participate in online communities and their willingness to share valuable information and feelings, which could be beneficial to an individual and a firm.*

*Drawing on the social exchange perspective, norm of reciprocity, and relational benefit approach, this study proposes and tests a model of affective and calculative commitment to an online community. The basic premise of the model is that online community attributes (i.e., usability and sociability) facilitate members' active participation in online communities. This online community participation results in social and functional benefits to participants. In return for its benefits, participants reciprocate with affective and calculative commitment to the online community.*

*Analysis with 595 data collected electronically in Seoul, Korea revealed significant paths between social benefit-affective commitment ( $\beta=.65, p<.01$ ) and functional benefit-calculative benefit ( $\beta=.71, p<.01$ ). This finding suggests that "people returning what they get from relationships with others" serves as a driving force through which strong ties between online community (i.e., organization) and members (i.e., individual) are developed and sustained. Other hypotheses in the model were also largely supported.*

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## **BIOPROSPECTING, BIOPIRACY, BIOETHICS IN INDIA**

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### **ABSTRACT**

*There is a conflict between the U.S. and India over the right to patent plant products for medicinal purposes. The U.S. patent laws allow for such patents, but the Indians object on the theory that the knowledge is well-known and there is no right to a patent, thereby denying the medicinal benefits to the world. This has resulted in what has been popularly referred to as bioprospecting, biopiracy, or bioethics. The paper concludes with a suggested solution.*

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### **INTRODUCTION**

India is a large country of great biodiversity. The Indian peninsular stretches from the northern cold Himalayan mountains to the southern tropical tip. As a result, many corporations are interested in the multitude of various plants that grow in India for pharmaceutical purposes. Biodiversity encompasses all species of plants, and the eco-systems of which they form a part. Bioprospecting refers to the extraction and screening of chemical compounds from plants to develop useful leads for potentially new drugs. (Kumar and Tarui) Bioprospecting is a word that has recently been coined to describe the centuries-old practice of collecting and screening plant and other biological material for commercial purposes, such as the development of new drugs, seeds, and cosmetics. The word biopiracy was coined by the North American advocacy group, Action Group on Erosion, Technology and Concentration to refer to the uncompensated commercial use of biological resources from developing countries, as well as the patenting by corporations of claimed invention based on such resources or knowledge. (Kumar and Tarui).

A very frequent legal misunderstanding with respect to biopiracy is the belief that pharmaceutical companies patent the actual plants they collect. It is not possible to patent a previously known living plant. Patents are instead typically taken out on specific chemicals isolated or developed from plants, often with a stated and researched use of those chemicals. In the U.S. patent law can be used to protect 'isolated and purified' compounds from the plants. (Mills, Ch.6)

It is also possible, under U.S. law, to patent a cultivated plant. In other words, creating or cultivating a new variety of the organism which enhances certain properties of the organism enables the cultivator to secure a patent on the variety. (Mills, Ch. 8)

Although both countries have common law legal systems as a result of both Indian law and U.S. law being largely derived from English common law, the procedure for granting patents in the U.S is diametrically opposite to the one followed in India. (Indian Patent Act, 1970) India first examines a patent application, then widely publishes it for third parties to challenge, and only then grants the patent. The U.S. keeps the patent application a closely guarded secret and grants it without allowing other parties to challenge it. After the patent has been granted, third parties are then allowed to petition against the patent. (Leyden)

The commercial potential involved in biological resources has assumed enormous magnitude in the last couple of decades with the tremendous proliferation of the biotechnology industry. Since most of the biodiversity-rich countries are located in the tropics, these nations should have been in a strong position to benefit substantially by trading in such bio-resources. Unfortunately, this has not been the case. More often it is the giant multinational companies of the developed world who are instrumental in the appropriation of the bio-resources thereby bypassing the traditional holders of such resources, and also bypassing any beneficial or financial arrangement with them. The profits generally go to the multinational companies as a result of the patent protection obtained in their respective countries. (Das)

Historically, India has lagged behind in the area of patents. This has been attributed mainly to a lack of a suitable patent culture among Indian scientists, and a reaction to old British laws. Even though the country's patent system is more than 100 years old, the country grants only about 4000 patents a year of which nearly 75% are of foreign origin. (Ramu, 160) In India, the patentees are obliged to use the patented inventions for commercial sale without undue delay, or lose their patent rights.

The World Trade Organization makes it mandatory for member nations to provide patent protection only for micro-organisms and allows its member countries to evolve their own systems (*sui generis*) of plant protection. So in 1993, India passed a Plant Varieties Protection Act. This act is based on the Union for the Protection of New Varieties of Plants (UPOV), which is an international agreement signed in 1987 and renewed in 1991, to which 33 countries are signatories. (Ramu, 165). This act supposedly gives protection to Indian plants in their contest against biopiracy.

Sometimes the problem has been presented as a North/South controversy – the developed Northern countries taking advantage of the developing Southern countries. Until the latter half of the 1970's a widely accepted view of 'common heritage' system operated under which countries generally levied no charge on exploration and collection activities of biological resources in their territories, and no compensation was paid for resources taken out of them. The countries in which the resources merely happened to exist were not deemed to be entitled to special rewards. (Chauhan, 117) Towards the end of the 1970's skepticism began to grow in the South about the common heritage principle, and opposition from countries and indigenous people arose.

The bioprospecting/biopiracy debate has since pitted corporations against a number of developing country governments and indigenous peoples, who claim that they are being exploited by such practices. In principle, application of intellectual property rights to biological resources should not be exploitative, as anyone has the right to apply for an invention based on biological discovery. In practice, however, patent rules tend to favor corporations rather than indigenous communities. (Dutfield) In so many of the cases, the U.S. patent has remained in spite of the objections coming from various sources.

Some argue that bioprospecting plays a role in encouraging the preservation of biodiversity. Other critics though complain that bioprospectors often fail adequately to compensate the countries and communities that provide access to their resources. Several United States patents have been granted for plants from India. Three of the most famous ones are:

<u>Company</u>	<u>Plant</u>
RiceTec Inc.	Basmati (Hindi and English)
W.R. Grace	Neem (Hindi) Margosa Tree (English)
Cromak Research Inc.	Jamun (Hindi) Rose Apple Tree (English) Karela (Hindi) Bitter Gourd or Bitter Melon (English) Brinjal (Hindi) Eggplant (English)

#### **BASMATI**

In late 1997, an American company named Rice-Tec Inc. was granted a patent by the U.S. patent office to call the aromatic rice grown outside India 'Basmati,'. Rice-Tec Inc. had been trying to enter the international basmati market with brands like 'Kasmati' and 'Texmati' described as basmati-type rice with minimal success. With the basmati patent rights, however, Rice-Tec was able to call its aromatic rice basmati within the U.S. and also label it basmati for its exports. This has had grave repercussions for India because not only would India lose out on the 45,000 ton U.S. import market, which forms 10 percent of the total basmati exports, but also compromise its position in crucial markets like the European Union, the Middle East and Asia. (TED)

Basmati rice means the “*queen of fragrance or the perfumed one.*” This type of rice has been grown in the foothills of the Himalayas for thousands of years. Its perfumy, nut-like flavor and aroma can be attributed to the fact that the grain is aged to decrease its moisture content. Basmati, a long-grained rice with a fine texture is the costliest rice in the world and has been favored by emperors and praised by poets for hundreds of years. India is the second largest producer of rice after China. In fact, Basmati rice has been one of the fastest growing export items from India in recent years. (TED)

Rice is a staple diet for many people and especially for those who live in Asia. It has been grown and eaten for many centuries by the people of India. One of the main cases in patenting plant products has been the basmati rice case. Rice-Tec Inc. was issued a patent on basmati rice line and grains on September 2, 1997. (TED) Many Indians believed that the Texas based company had engaged in piracy by applying for a patent for basmati rice. The Indians claimed that Rice-Tec made false claims to having invented a very broad range of basmati rice lines and plants. When Rice-Tec was granted the twenty far reaching basmati claims, the government of India did not challenge what many called biopiracy using the UPOV.

Finally, at the behest of many Indians and others, the government of India did go to the United States Patent Office, but it challenged only 3 claims related to basmati grain. They did not challenge claims related to basmati seeds and plants. Organizations and individuals sent many protest letters to the United States Patent and Trade Office (USPTO). The USPTO struck down 15 claims out of the 20. Indians maintain that if such monopolies are granted to corporation through Indian law, Indian cultures will over time be denied the free use of seeds, medicinal plants, and indigenous knowledge. Every day items like basmati, neem and jamun will go beyond the reach of ordinary people for food and medicine. (Shiva)

### **THE NEEM TREE**

The United States and India have been involved in a bioprospecting/biopiracy dispute over the rights to a tree indigenous to the Indian subcontinent, the neem tree. While the neem tree has been used in India for over 2000 years for various purposes such as pesticides, spermicides, and toothbrushes, a U.S. company has been suing Indian companies for producing the emulsion because they have a patent on the process. The dispute is over the rights of companies to conduct research and development using patents against the interest of the people who live at the source of the resource. (Hasan)

The tree is a tropical evergreen, related to the mahogany that mainly grows in arid regions of India and other Asian countries. They are estimated to live up to 200 years. The tree has many versatile traits, and has been referred to as the ‘curer of all ailments.’ The leaves and the bark have been used to treat illnesses such as ulcers, and skin disorders. It has also been used to make spermicides and pesticides. (Hasan) The tree has been used for the following:

- (1) Medicine – Many ancient and traditional medical authoritative Indian texts place neem as a vital resource for pharmacy. They mention the usefulness of the leaves, bark, flowers, seeds and fruit for treating several diseases such as diabetes, ulcers and skin disorders. (Hasan)
- (2) Toiletries – Neem twigs have been used by millions of Indians as an antiseptic tooth brush. Its oil is used for preparing soap and toothpaste. (Hasan)
- (3) Contraception – The oil of neem is a potent spermicide. (Hasan)

In 1971, a timber company in the United States figured out that the neem tree’s usefulness was in acting as a pesticide and began planting neem tree seeds. It received a patent on it and, in 1988, sold the patent to the U.S. based company W.R. Grace. In 1992, W.R. Grace secured its rights to the formula that used the emulsion from the neem tree’s seeds to make a powerful pesticide. It also began suing Indian companies for making the emulsion. (Hasan)

The controversy over who owns the rights to the neem tree raised many questions. India claims that what the U.S. companies are calling discoveries are the actual stealing and pirating of the indigenous practices and knowledge of its people. The United States

, on the other hand, states that what they are doing will help the Indian economy and the people worldwide. Supposedly, India is not against sharing its information about the neem tree's virtues, but it is against countries and corporations that intend to stop India's present use of it. (Hasan)

### DIABETIC PLANTS

Diabetes is a common endocrine disorder affecting over 100 million people worldwide. In India, diabetes affects 1-5% of the population. The most common conventional treatment for diabetes is insulin. (Grover) While many plants are included as a treatment for diabetes, three Indian plants become particularly important for patent reasons.

Karela, jamun and brinjal have been patented by a firm in the United States. Individuals and organizations in India wanted the government to take action to protect the biodiversity of these plants and challenge the grant of patents. The herbal mixtures have been used as a supplement useful for lowering the glucose level in blood among those suffering from diabetes. (Sharma) The Indians once again considered the patents on the anti-diabetic properties of karela, jamun, and brinjal highlighting what they called biopiracy. The patents were granted to Cromak Research in New Jersey on edible herbal compositions for anti-diabetic properties comprising a mixture of Indian herbs selected from a group comprising karela, jamun and brinjal. (Vasudeva) The use of karela, jamun, and brinjal for the control of diabetes is common knowledge and everyday practice in India. The Indians claim that the knowledge and use consists of "prior art," and that no patent should be given where prior art exists, since patents are supposed to be granted only for new invention on the basis of novelty and non-obviousness. The claim to the use of karela, jamun, or brinjal for anti-diabetic treatment as an invention is false since such use has been known and documented widely in India. (Shiva, 2) Indians were not so concerned about the use of these plants domestically, but they were concerned about their ability to export such plants to the United States. The fruit, leaves and roots of these plants have long been used in India as a folk remedy for diabetes.

### CONCLUSION

The rights at issue in bioprospecting/biopiracy debates are primarily ownership rights. The question may be simply put, who owns the biodiversity of the earth?

The purpose of the U.S. patent system is to promote work in the sciences and useful arts by providing a reward to inventors as an incentive to disclose information for the benefit of the public (Article I, Section 8 of the U.S. Constitution). The reward is given in the form of a grant from the federal government of the right to exclude others from making, using, or selling the invention. For a patent to be granted, it must be useful and novel, and not obvious. (Mills) U.S. jurisprudence shows that American interpretation of the patent laws has resulted in many life-forms receiving legal protection. Article 102 of the U.S. Patent Law, which defines prior art, does not recognize technologies and methods in use in other countries as prior art. (Shiva, 2) If knowledge is new for the U.S., it is novel, even if it is part of an ancient tradition of other cultures and countries.

India is a signatory of the Trade Related Aspects of Intellectual Property Rights (TRIPS) Agreement hence it modified its patents law in conformity with the TRIPS Agreement. The Indian Patents Act of 1970 provides protection in India. The conferment of "product patent" along with the "process patent" is an example of compatibility with the TRIPS Agreement. The protection to plant varieties has been excluded from the realm of patent law and a separate Act was made for that purpose. (Dalal) The other act is "The Protection of Plant Varieties and Farmer's Rights Act of 2001.

There thus is an ethical problem between the international pharmaceutical companies and the people of the countries in which they are bioprospecting. The question arises again and again – does anyone have the right to patent processes from plants that are already known and used by indigenous people. The international companies reply in the affirmative pointing out the medical and marketing benefits to everyone concerned. The indigenous people in the various countries reply in the negative. They ask the question why they should have to pay the companies to use the remedies from the plants that they have used for generations.

One suggested remedy for this conflict between the U.S. and India and which would address the bioethical part of this conundrum would be to provide a system for compensating those concerned. The companies would pay fees and royalties. For example, in the early 1990s, Costa Rica signed a \$1-million deal with Merck giving it access

to all naturally occurring substances found in that country's plant life. (Kraul) Of course there may be problems in determining others who should receive the payments, but some system of shared profits would go a long way towards solving the bioethical problem. In this way the indigenous people who have used the plants for years would receive a monetary benefit, the companies would receive a marketing benefit, and the people of the world would receive a medicinal benefit.

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# **FACTORS RELATED TO RATINGS OF PRIVATE HOSPITAL: IMPLICATIONS FOR MARKETING**

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## **ABSTRACT**

*The purpose of this paper is to examine what factors people use to rate private hospitals. Once we determine what is important to patients (consumers), then we will be better able to determine how to market this type of hospital.*

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## **INTRODUCTION**

A vast number of individuals in the United States visit the emergency room of a hospital each year. If the emergency room was a product, the consumer might be influenced by the marketing of the item. Marketing is a process for creating, communicating, and delivering value to customers (American Marketing Association, 2005). Marketing of a service is a slightly different process, because the people are part of the service product (Freeman, 2005). The understanding of services marketing can be applied to health care (Proctor, 1998). This understanding is useful for marketing of an emergency room (Freeman, 2005). Very little is written about marketing of professional services. In fact, the largest selling marketing book does not even mention this topic. There are only two books on professional services marketing in the Library of Congress (Burton and Freeman, 2005). There is a problem in that many feel that marketing of a profession may seem odd or even unprofessional (Capko, 2001).

The four P's of marketing are mentioned in every principles of marketing book. The four P's are price, product, promotion, and place. Examining each of these in the context of an emergency room reveals some interesting facts. Price is determined in large part by insurance providers, the largest being the Federal government. Shopping for an emergency room on price is not usually done. Place is the next factor. The consumer (patient) usually will not travel extensive distances to see an emergency room, unless there is a rare condition. Promotion of the emergency room may be done, but mostly with restraint. This is because most people see this as unprofessional. One could advertise in the telephone directory or in the local newspaper, but extensive television or radio advertising would be viewed badly. The final "P" is product. That is what consumers are buying, the skill and knowledge of the staff at the local emergency room. In fact, trust in the hospital is built on the patient's belief that doctors are professionally competent and are interpersonal competent (Mechanic, 2004). Also, the strongest predictor of patient satisfaction is how satisfied the patient is with interpersonal interactions with physicians and nurses; secondly are the perceived technical skills and waiting time (Boudreaux and O'Hea, 2004).

## **ANALYSIS OF DATA**

A survey was administered to 692 individuals. A convenience sampling technique was adopted for the purpose of this study. The samples utilized for this study were unrestricted non-probability samples. The rationale for adopting this type of sample was that despite its minor drawbacks, it had content validity, since all the respondents were legitimate consumers. Of the 692 people responding, 327 of these individuals stated that they had gone to a private hospital emergency room when they were ill. The responses of the individuals who went to the emergency room will be analyzed here. Of these individuals, there were 156 males and 168 females. In addition, 181 of the respondents were single with 142 of the respondents married. The ages of the respondents were 112 between 18-25, with 118 between 26-45, and 91 over 45. In addition, 123 of the individuals had less than a bachelor's degree and 197 had a bachelor's degree or above.

### **Basic Frequencies of Responses**

The first analysis performed was to examine thirteen characteristics of a physician' office. The results are given in Table 1. The results show the vast major of respondents felt that there was a long waiting line, always (14.7%) , most of the time (38.6%) or some times (35.8%). In addition, a large majority of respondents felt that both the medical staff (83.7%) and non-medical (73.6%) were helpful most or all the time. In addition, the vast majority of the respondents (76.8%) thought the doctor was competent either always or most times. A large percentage of respondents (87.3%) felt that doctor's instructions were always or most times clear. The respondents (82.0%) felt always or most time that they were aware of the diagnosis. In fact, very few ever had to go to a government (12.2%) or a doctor's office (38.4%) for a second opinion more than rarely. A smaller portion of the respondents (46.7%) thought that the experience was pleasant always or most times.

A set of variable related to the physical characteristics of the office were considered. Most of the respondents (80.8%) felt the private hospital emergency room was always or most times clean. The waiting rooms were rated as nice always or most times by 61.0% of the respondents. In addition, 66.1% of the respondents felt that the emergency room was nicely painted always or most times. Finally, 51.4% of the respondents stated the rarely or never did the emergency room had an offensive odor.

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Insert Table 1 here  
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Finally, individuals were asked to rate the hospital. A large majority (79.7%) of the respondents rated the hospital as either excellent or good. This is consistent with the ratings on the above factors.

### **Cross-Tabulations Using Demographic Variables**

The next section deals with the use of the demographic variables of age, education, gender, and marital status. The following results were obtained.

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Insert Table 2 Here  
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As you can see from Table 2, most of the significant results were due to age and marital status. There was only one significant result due to education and two due to gender. A look at each of the factors considered shows the following results:

1. Long waiting time-
  - a. Younger individuals felt that the wait was long compared to older individuals, those 46 and over.
  - b. Males were more likely to state that the wait was long compared to females.
  - c. Single individuals were more likely to feel that the wait was long compared to married individuals.
2. Experience Was Pleasant
  - a. Older individuals were more likely to rate the experience as pleasant than younger individuals.
3. Doctor Was Competent and Thorough
  - a. Older individuals thought that the doctor was always competent and thorough. Younger individuals, 18-25, did not feel as strongly.
  - b. Those individuals with a college degree or above were more likely to think that the doctor was always thorough and competent than those with less than a college degree.
  - c. Females are more likely to rate the doctors as competent than males.
  - d. Married individuals think that doctor's are competent and thorough more often than their single counterparts.
4. Went to Government Hospital for A Second Opinion
  - a. Older individuals, over 45, are more likely to go a government hospital for a second opinion than younger individuals.
  - b. Married individuals are more likely to go to a government hospital for a second opinion than their single counterparts.
5. Office is Clean

- a. Single individuals are more likely to feel that the doctor's office is clean most times than their married counterparts.

#### Regression Analysis of Rating of Doctor's Office

Each respondent was asked to rate the care received at the private practice doctor's office. A five point scale was used, using excellent, good, adequate, poor, and unacceptable. A step-wise regression was utilized to determine which variables were significant in explaining the rating given by respondents. Table 3 provides these results.

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Insert Table 3 here  
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The  $R^2$  for this set of variables is 0.42. This means that the six variables identified as significant in this analysis explain slightly over 40% of the variation in the rating given to private doctor's office. Three variables were related to the staff and doctor. These variables were the helpfulness of the medical staff, helpfulness of the non-medical staff, and competence and thoroughness of the doctor. Another variable of significance was whether the experience was pleasant. Finally, two variables, related to the physical condition of the emergency room, were significant. These were cleanliness and nicely painted. The other variables were not significant.

#### **IMPLICATION FOR MARKETING**

Emergency rooms in hospitals are businesses like hardware stores, grocery stores, etc. While not all hospital advertise using mass media outlets, they do advertise by their very presence in a community. People know where they are and what services they provide. Individuals also know how well they perform these activities by word of mouth. Hospitals must be aware of what influences the purchasing behavior of their consumers; particularly, if there are more than one hospital in the community. From the analysis done in this paper, there are several important factors. The results of the regression analysis suggest that six factors are important. These factors are 1) doctor is competent and thorough, 2) medical staff helpful, 3) non-medical staff helpful, 4) experience was pleasant, 5) hospital is nicely painted, and 6) hospital is clean. Four of these factors are related to the product with two factors related to the place.

The majority of the advertising that is done in the case of hospitals is by word of mouth. Patients who have a good experience with a hospital and feel that the doctor is competent, helpful non-medical staff, helpful non-medical staff, clean, and nicely painted are more likely to recommend this hospital to others. The hospital and staff must make every effort to make sure that the experience of the patient is satisfying. The difficult portion is that this is extremely hard to promote. The use of testimonials might be possible, but this most likely be perceived as unprofessional or unethical.

Marketing a professional service; such as, hospital, is extremely difficult. Word-of-mouth is an important mechanism, but extremely difficult to influence. Hospitals would be well advised to have nice facilities, but devote themselves to providing friendly and competent service.

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Table 1  
Factors Related to Private Hospital's Emergency Room

Question	Always	Most Times	Some Times	Rarely	Never
Long Waiting Line	45 13.9%	125 38.6%	116 35.8%	31 9.6%	7 2.2%
Medical Staff were helpful	48 14.7%	225 69.0%	48 14.7%	3 0.9%	2 0.6%
Non-medical staff were helpful	43 13.4%	194 60.2%	76 23.6%	7 2.2%	2 0.6%
Experience was pleasant	25 7.7%	126 39.0%	100 31.0%	55 17.0%	17 5.3%
Doctor was competent and thorough	69 21.4%	179 55.4%	70 21.7%	4 1.2%	1 0.3%
Aware of the diagnosis when left the office	109 34.0%	154 48.0%	50 15.6%	7 2.2%	1 0.3%
Instructions were clear	109 33.6%	174 53.7%	35 10.8%	4 1.2%	2 0.6%
Had to go to government hospital for a second opinion	4 1.3%	10 3.1%	25 7.8%	73 22.8%	208 65.0%
Had to go to private doctor's office for a second opinion	14 4.4%	23 7.2%	86 26.8%	76 23.7%	122 38.0%
Office is clean	70 21.9%	188 58.9%	51 16.0%	8 2.5%	2 0.6%
Has nice waiting rooms	57 17.6%	166 51.4%	92 28.5%	6 1.9%	2 0.6%
Nicely painted	53 16.4%	161 49.7%	96 29.6%	11 3.4%	3 0.9%
Has offensive odor	4 1.2%	33 10.2%	121 37.2%	113 34.8%	54 16.6%
Rating of the Care Received	42 13.1%	213 66.6%	62 19.4%	2 0.6%	1 0.3%

Table 2  
Result from Cross-Tabulations

Factor	Age	Education	Gender	Marital Status
Long Waiting Line	.001***	n.s.	.005***	.014**
Medical Staff Helpful	n.s.	n.s.	n.s.	n.s.
Non-medical Staff Helpful	n.s.	n.s.	n.s.	n.s.
Experience Was Pleasant	.068*	n.s.	n.s.	n.s.
Doctor was Competent and Thorough	.009***	.036**	.043**	.061*
Aware of the Diagnosis When Left the Office	n.s.	n.s.	n.s.	n.s.
Instructions Were Clear	n.s.	n.s.	n.s.	n.s.
Went to Government Hospital for A Second Opinion	.000***	n.s.	n.s.	.003***
Went to Private Hospital for A Second Opinion	n.s.	n.s.	n.s.	n.s.
Office Is Clean	n.s.	n.s.	n.s.	.062*
Has Nice Waiting Room	n.s.	n.s.	n.s.	n.s.
Nicely Painted	n.s.	n.s.	n.s.	n.s.
Has Offensive Odor	n.s.	n.s.	n.s.	n.s.

Values are p-values.

n.s. – means not statistically significant

\* - Significant at .10 level

\*\* - Significant at .05 level

\*\*\* - Significant at .01 level

Table 3  
Regression Results for Explaining Overall Rating

Variable	B	Standard Error	Sig.
Medical Staff Helpful	.189	.074	.012
Nicely Painted	.108	.053	.040
Doctor Was Competent and Thorough	.110	.051	.032
Experience was Pleasant	.074	.030	0.16
Non-Medical Staff Helpful	.138	.063	.030
Waiting Room is Clean	.130	.063	.041

# **A CULTURAL LAG PERSPECTIVE OF NEW DRUG DIFFUSION AND ADOPTION: THE CASE OF PROZAC**

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## **ABSTRACT**

*Cultural lag theory holds that material technologies advance more rapidly than social guidelines for their use. The result can be social conflict including liability accusations and product stigmatization as have characterized new drugs that were widely accepted initially but then publicly criticized in the lay and scientific press. This paper reviews the diffusion of the antidepressant Prozac in the United States from 1988's to the 2005. The result is a perspective from which to view and avoid controversies that often develop from new pharmaceutical technologies and is generalizable to products that may be derived from new technologies resulting from scientific advances.*

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## **INTRODUCTION**

In Cultural lag theory (Ogburn 1922), material technologies advance more rapidly than social guidelines for their use. The result can be social conflict, liability accusations, and product stigmatization such as have characterized several new drugs that were widely accepted initially but then publicly criticized in the lay and scientific press (Garattini 1998, Studdert et al. 2004, Mello et al. 2003). This paper illustrates the risks and adaptive processes of cultural lag by reviewing patterns of diffusion and controversy regarding two psychotropic drugs that experienced rapid diffusion in the United States; the benzodiazepine based "minor tranquilizers" Librium and Valium from the 1950's through the early 1970's, and the antidepressant drug Prozac from its introduction in 1988 through 2005. So doing, a perspective is provided from which to view and avoid social conflict and controversies that can impede realization of the social benefits of a new drugs.

## **CULTURAL LAG**

Ogburn (1922) distinguished material and non-material culture and recognized four general processes underlying social change: invention, accumulation, diffusion, and adjustment. Inventions represent new combinations or syntheses of existing cultural traits and are socially and geographically diffused throughout the society. In accumulation, the invention is absorbed into the cultural base. In adjustment, the cultural systems adapt, in varying degree, to the new conditions imposed by the invention. Within non-material culture Ogburn (1922) distinguished the adaptive culture as comprised of non-material cultural factors such as mores, folkways, technical knowledge, social ethics, and institutional processes which adjust to the new material conditions in order to adapt inventions to social usage. The time between invention and diffusion of a new technology on one hand and adjustments in adaptive culture on the other is the period of cultural lag. Adaptive culture adjustments socially define inventions and the guidelines to govern their use. In his formulation, Ogburn (1922) gave temporal precedence to material inventions, which are expected to precede adjustments of non-material aspects of social and psychic life. Resulting cognitive, evaluative and technological differences stimulate social disorganization, controversy and antagonism among the involved sectors.

## **PROZAC**

The case of the anti-depressant drug Prozac illustrates cultural lag processes. Depression is a pervasive mood altering illness affecting energy, sleep, appetite, libido, and the ability to function. The symptoms of depression are intense feelings of sadness, hopelessness, despair, and the inability to experience pleasure in usual

activities REF). Major depressive disorder has been described as having no curative treatment (Milane, et al. 2006) and as affecting approximately ten percent of American men and twenty percent of American women (Milane et al. 2006, Weissman et al. 1996, Wong 2005, Wu 2000) and has been found to be associated with suicide with or without drug therapy (Milane et al. 2006, Moller 2003, Isacson et al. 1999).

Fluoxetine, sold under the brand name Prozac® - a registered trademark of Eli Lilly and Company, was approved by the FDA in 1987 and introduced to the United States market in January 1988 (Milane et al. 2006). Prozac is known primarily as an antidepressant drug that selectively inhibits serotonin reuptake (Milane et al. 2006). It is represented as appropriate in the treatment of "major depressive disorder," "obsessive-compulsive disorder," "Bulimia Nervosa," and "Panic Disorder, with or without agoraphobia..." (Physicians' Desk Reference 2006). As a newly approved drug, Prozac contrasted with tricyclic antidepressants (Doxepin, Protriptyline) that non-selectively inhibit the uptake of mediators and cause numerous side effects, potentially even including death by overdose (Mycek et al. 1997). At the end of 1980's the problem of tricyclic antidepressants' side effects was widely discussed in the media and scientific literature. This background fostered the success of Prozac, advertised as a drug with a different action and minimum adverse side effects.

Prozac quickly received wide acceptance in the medical and lay community. Medical acceptance is reflected by prescription rates. In its first year on the market (1988), over 2.4 million prescriptions were written for Prozac (Milane et al. 2006). In 1989 the number jumped to over six million prescriptions, and over ten million in 1990. From 1993 to 1996 the number of prescriptions increased from over twelve million to over twenty million. By 2002, over thirty-three million Fluoxetine prescriptions were written. Lay acceptance is indicated by articles such as "Toxic Psychology" in the March 26, 1990 issue of Newsweek which presented the picture of a huge Prozac capsule on the cover with the caption: "Prozac: A Breakthrough drug for Depression. The story used a photo of a smiling woman, captioned "I'm nowhere near perfect, but it's a big, big improvement." Newsweek goes on to report how one patient exclaimed to her doctor, "I call myself Ms. Prozac." To further fuel public acceptance and consumer driven "pull" demand, in 1996, Eli Lilly & Co. began advertising Prozac directly to consumers by increasing public awareness of depression as a medical condition.

The widespread acceptance of Prozac was profitable. Sales reached \$125 million in 1988, its first year on the market, and soared to \$350 million in 1989 (Milane et al. 2006). This was more than was spent on all antidepressants just two years earlier. By 1990, Prozac had become the fastest selling new mental illness drug ever. In 1994, the drug generated \$500 million in sales, and, in 1995, over \$1 billion. These numbers reflect price - Prozac can cost as much as 20 times a generic antidepressant - but also demand, and may reflect need. In 1990, Newsweek reported that an estimated 15 million Americans suffered from clinical depression, and that physicians are writing or renewing 650,000 Prozac prescriptions every month (Newsweek 1990). By 1996, when direct to consumer advertising began, the drug ranked among a handful of the world's top-selling pharmaceuticals, with sales of over \$2 billion (Milwaukee Journal Sentinel, July 1, 1997, Milane et al. 2006) and was the second biggest moneymaking drug in the United States, after the ulcer medicine Zantac" (Wartik, 1996).

Still, for all the enthusiasm and popularity, warnings about Prozac, though largely ignored, had begun to be raised early in the life cycle (Toufexis 1990, 1993), including anecdotal evidence suggesting a link to suicide. Consistent with cultural lag theory, by the beginning of 1997, critics began to question safety more vigorously. Anecdotal evidence reported by doctors suggested that Prozac caused patients to become more self-destructive and even suicidal (Milane et al. 2006). As sales increased through the 1990's and early into the 21<sup>st</sup> Century, lay press' and primary care physicians' concerns grew (Milane et al. 2006). Despite many reports of negative effects, prescriptions were still being written at a rapid pace and sixty percent of prescriptions were written by family doctors, not mental health specialists (Wartik, 1996, *World Almanac and Book of Facts* (2000). During this time, accusations were made that Eli Lilly knew of, but did not reveal, Prozac's risks in the 1980s (Galewitz 2000, Chicago Tribune 2005), including during the FDA approval process. This negative publicity linked Prozac to uncomfortable side effects as minor as nausea and as major as violence and even death. In fact, tests conducted by Eli Lilly before it was marketed suggested the possibility of as many as six deaths due to Prozac. Reports of violence, death, and suffering were often reported after introduction to the market, but these must be considered in light of the number of prescriptions written. Even with such concerns, in 2001 Eli Lilly and Company, extended Prozac's market life and applications by repackaging it as Sarafem and marketing it with FDA approval as a drug to relieve premenstrual symptoms (PMS) (Thomas 2001). By the 1990's and the first years of the 21<sup>st</sup> Century, during the periods of rapid sales growth, competing drug ethics were evident, consistent with cultural lag theory.

## DISCUSSION

Cultural lag controversies continue even now, well into the 21<sup>st</sup> Century and will continue as new psychotropic drugs reach the market. The array of drug ethics, the attention of the popular press, the divergent emphases of lay and professional literature (Weisberger 1995) and dialogues within medical circles surrounding psychotropic drugs and their appropriate use continue and demonstrate that considerable adaptation must occur before psychotropic drugs may be considered truly psychotherapeutic. Adequate social consensus must be generated to guide applications of psychotropic drugs toward therapeutic ends in the medical sense of the term. From a marketing perspective, cultural lag suggests the need for marketers of new products to anticipate social impacts if marketing programs are successful. In effect, marketers must play a pro-active role in the “adaptation” process. Such a role must involve honestly anticipating social controversies if the product is widely adopted. A natural dialectic must be anticipated in which initial widespread acceptance may yield to widespread social criticism as inevitable evidence of problems result for intended uses as well as from misuse. Marketers should be pro-active in the social adaptation process and create the social ethos by which appropriate product use is defined. Without such anticipation, the marketer of new products, particularly new drugs, may fall prey to their own success.

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# **WILLINGNESS TO PAY AMONG CHRONIC PAIN PATIENTS IN A COMPREHENSIVE PAIN MANAGEMENT CENTER**

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## **ABSTRACT**

*Acute and chronic pain patients share some basic similarities in regard to willingness to pay (WTP) for pain control. In both groups, there is a direct correlation between previous experience with particular types of pain and WTP as well as income level and WTP. However, chronic pain patients exist in a unique subculture, they are affected beyond factors such as fear or misunderstanding that patients anticipating acute discomforts such as post operative pain or nausea and vomiting experience. They suffer from continual pain and therefore do not have the typical reaction of the acute pain patient, but a dispassionate approach to issues regarding their pain in the realm of willingness to pay. Factors that may affect willingness to pay include: gender, age, treatment modalities, etc. Chronic pain patients have greater exposure to the healthcare system, therefore, a greater understanding of WTP. Their observations could have an effect on the global economy represented by patients acquiring treatment through a third party payor. If greater emphasis were focused on cost of service in comparison to willingness to pay, we professionals could assess more realistically the value of their service as perceived by the consumer which should be a guideline for third payors in setting pay schedules. The purpose of this paper is to explore factors affecting willingness to pay among chronic pain patients in a comprehensive pain clinic. A sample group of 400 adults attending a comprehensive pain management clinic returned a questionnaire regarding their chronic pain including previous treatments, costs, current pain control and several other factors and the collected data was analyzed for correlation between patient perception of confirmable data and concrete data. Although, statistical analysis based on willingness to pay is presented in the following paper; further studies are necessary in this area.*

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## **INTRODUCTION**

If we were discussing the price of a popular commodity in an open market, the price would be derived not only from the actual cost but also from the consumer's perception of it's worth. Why then is the price of healthcare so controversial? Part of this lies in the fact that the average healthcare consumer is not aware of the true costs of their care. Willingness to pay (WTP) becomes invaluable in the respect that the consumer is given the opportunity to assign a dollar amount to their care assisting healthcare organizations in assigning and prioritizing the amount of reimbursement between modalities. More and more, the consumer is given the shared responsibility in deciding not only care costs but which modalities serve the greater population and will be given preference in healthcare coverage plans or at a minimum be covered at a greater rate. Their observations could have an effect on the reimbursement system and third party pay schedules. If greater emphasis were focused on cost of service in relation to willingness to pay, healthcare providers would not be forced to exclude/limit services to various insurance carriers in order to survive in the current economy.

## **LITERATURE REVIEW**

In establishing cost and reimbursement for medical technologies, there exists interindividual variations between physicians, hospital administrators, and insurers that can ultimately affect the quality as well as differences in opinions regarding their care (Appel LJ et al 1990).

Thus far, studies have shown a significant amount of factors influencing willingness to pay. Populations in a more vulnerable position will predictably report higher willingness to pay (WTP) than other populations studied. Their ability to assign global ratings of care may be altered based on perception rather than correlation with technical quality therefore their ability to assign value may be unreliable (Chang JT et al 2006). In the case of the pediatric client, studies found direct costs underestimate the true value of the intervention to the family (Diez L 1998).

In other cases, the patient's limited exposure to an anticipated event would be willing to pay extra to avoid unpleasant side effects and will base their willingness to pay on their perception of past unpleasant events. In these cases, 47% of patients reported at least one problem with a previous general anesthetic, 33% had one or more concerns with the upcoming general anesthetic, and 32% would be willing to pay to decrease or eliminate one or more of these side effects. (Engoren M, Steffel C 2000). Another postoperative WTP study also concluded (Bosch van den JE et al 2006) that recent previous experience with pain will increase WTP. Willingness to pay may also be affected by familiarity and trust in the service and may also be increased by ensuring that pricing is uniform and by educating health workers, and counseling patients about the real costs of providing high quality surgery whereas offering "free" services to all may result in lower expressed willingness to pay. (Lewallen S; et al). Another study concluded that prevention of unpleasant postoperative side effects ranked a higher WTP form participants surveyed in the time period immediately following their surgical experience. (Gan T et al 2001)

An individual with higher 'out-of-pocket' expenses, or where interviewed two years or more after injury, responded with a lower WTP. (Ho JJ et al 2005) Few studies were found that reflected WTP on chronic pain patients who may have a more objective assessment in regard to WTP.

A particular benefit of using WTP method is that it directly assigns dollar value for outcome. Even with limitations, WTP is the primary tool that health economists utilize for placing value on the effect of conditions on patients. WTP may reflect the most conservative estimate of a patient's value of an outcome. (Macario A & Vasanawala A)

Our review of literature suggests the WTP to be the most accurate for assigning cost to a treatment modality. We were not able to find literature on chronic pain patients in a stable, comprehensive program for estimating costs of pain care modalities.

## **METHODS**

When assessing factors affecting WTP among patients in various healthcare settings, their reactions may be biased based on concerns such as: fear of the unknown, lack of knowledge affecting expectations in regard to level of care, naivety to healthcare costs (Bosch 2006). Another factor may be that ratings are inflated based on patient perceptions of increased quality instead the actual technical quality of care (Chang 2006).

These biases' are not applicable to chronic pain patients due to the fact that they are intimately knowledgeable of their condition; have knowledge of their quality of life with and without treatment. Their plight of chronic pain has made them experienced in the health care system and gives them a realistic perception of quality unique to their population. By using this type of population, inconsistencies encountered by patient populations with intermittent exposure to the healthcare system or those feeling vulnerable to their provider are lessened. Most chronic pain patients have long experienced their pain before they are referred to a pain clinic and would rather not withdraw from treatment but are not as vulnerable a position as other patient populations in acute, life or death, dependent situations as participants in similar WTP studies.

### **Survey Design**

The WTP data obtained in this study was compiled from anonymous surveys gathered from 400 patients attending a single comprehensive pain center over a two-month window. Questions on the survey asked for information regarding:

- How long patient had the painful condition. Entries in months. If patient wrote one year we converted it to 12 months
- What treatments you had at the Pain Center
- Percentage improvement from 0 to 100 % as written by patient
- Pain relief from the pain medications
- Total cost of pain medications as perceived by the patient per month. Range \$0-\$7600
- Out of pocket expenses per month, including co-pay. Range \$ 9-2000.
- WTP if insurance did not cover. Range \$ 0-1000.
- Same as above, as percentage of household income.
- Money spent on pain related medications since pain started. Range \$0-125,000
- Money spent for pain medications per year. \$ 0-25,000.
- Gender
- Age
- Household income
- Work status
- Type of medical coverage
- How much pain can patient tolerate w/o pain medications
- How much activity patient can tolerate w/o pain medications

Simultaneously, objective data was collected from the two main pharmacies serving this center for the actual costs to the patients versus true costs of the medications.

The WTP data obtained in this study was compiled from the surveys was analyzed for relationships between WTP and income, age, and variety of treatment modalities. Data regarding cost of care was compared to actual treatment and medication costs of patients in this clinic during the same time frame.

## RESULTS

Data collected in this study was intended to explore factors affecting willingness to pay among chronic pain patients in a comprehensive pain clinic. Several questions were asked in regard to pain and their treatment course (as seen above) and data was collected to accurately obtain a good description of the mean chronic pain patient used for this study.

Demographics	
Gender:	
Male	53.2%
Female	46.8%
Age:	
Range	25-86
Mean	52.665
Median	53
Income:	
Range	0- \$250,000
Mean	\$21, 913
Median	\$14,124
Work Status:	
Working Full-time	12.8%

Part-time/Modified	3.7%
Retired	12.3%
Unemployed/ Not Disabled	11.5%
Disabled	55.6
Years since onset of pain:	
Median	7.5
Mean	9.9

Gender distribution was nearly even with 46.8 % female and 53.2% males of a median age of 53. Median income was \$14,124 which when compared to out of pocket expenses came to an average of 1 % of the household income after discounts and insurance.

Insurance coverage (expressed in percentages)	
Private insurance	23.4
Medicare	46.2
Medicaid	10.7
Worker's Compensation	16.3
Self Pay	3.4

With the demographics represented, there appears to be an even number of men and women participating in the survey. Due to the nature of the population represented, it is not surprising over half of the patient population represented, is disabled or unable to work.

Significance lies in the mode of payment, i.e. insurance in that there is noteworthy demonstration of all modes of payment. There was a direct correlation between reported out of pocket expenses and the total out of pocket expenses reported from the participating pharmacies. Statistically significant was that the patient's estimated cost of their medications with a mean of \$225 was very close to the actual cost reported from the pharmacy with a mean of \$243.23. Giving weight to the suggestion that chronic pain patients have increased realization of their pain care expenses in regard to the cost require to remain functional.

Mean Comparison of Monthly Medication Costs	
Actual Cost of Medication	\$243.23
Patient estimate of medication costs	\$225

However, their WTP for their medications was higher than the actual cost suggesting that their value of their medications was higher than current out of pocket costs. Results when asked to assign a percentage of their income they would be willing to spend out of pocket on medications, their response was 20% but in contrast when asked to assign a dollar amount to the amount of out of pocket expenses they would be willing to pay, the mean was \$119 which is a little less than 10% of the average household income. Even with their expected expenditures chronic pain patients are willing to increase expenditure to access their medications which can be inferred to mean that since they may view their treatment as not only a means to relieve their pain but more importantly as a way to increase their function; the value assigned to their medications is higher. Similar trends were not explored with costs of non-pharmaceutical pain control modalities such as blocks, physical therapy, etc.

Mean Comparison of Monthly Medication Costs	
Patient's current out of pocket expenses of medication costs	\$32
Patient's willingness to pay for medication	\$119

Although, patients reported pain control approximately 50% of the time, they reported they would only be able to complete 10-12% of their daily activities without their medications. Suggesting that their medications improve their activity and performance levels by 90% globally. Again, chronic pain patients have a more intimate knowledge of the continual pain and therefore do not have the typical reaction of the acute pain patient, but a dispassionate approach to issues regarding their pain in the realm of willingness to pay as shown by their reactions to questions regarding pain control versus functionality.

Factors that did make a difference included functionality. Overall, percentages of increased function were reported as a reason for continuing pain medication management. When compared to reduction in pain, increased activity levels were reported more often for continuing treatment.

Our results reinforce the value of the population used when assessing willingness to pay. The survey group of chronic pain patients was accurate in their estimation of medicine costs. The fact that they placed a higher value on improving their activity levels than managing pain as a justification for medication was an example of the dispassionate approach they put on their opinions regarding care. Future studies should be done using a comparison between this population and a population in more acute circumstances to further validate this information.

## DISCUSSION

With ever growing consumer awareness of healthcare, healthcare organizations and employers are moving toward fulfilling the wishes of their clients to remain competitive to aligning reimbursement costs with that of the perceived value of the patient. Results of this study showed that even though the chronic pain patients were not aware of the actual treatment costs, for which they associated increased function and activity levels, they were willing to pay more than the actual costs. Most consumers are increasingly inquiring about the costs of treatment and medication, it would be safe to assume they would be agreeable to current costs trends and are actually reporting a willingness to pay more. Another study by Ho (2005) documents WTP by chronic pain patients incurred through occupational injuries alone. Reports of increased WTP to prevent disability, hospitalizations, and falls/ injuries were also reported by this group; focusing primarily to prevention of severe pain. These factors can be translated to conclude that they also were aiming to maintain quality of life.

When healthcare organizations adjust pricing on care, consideration needs to be placed on the consumer's perception of value translated into dollars and cents. Chronic pain patients typically report their pain on a higher scale than acute pain patients, therefore simply evaluating effectiveness or cost by a pain scale alone is not an accurate tool when pricing treatment interventions as shown with the WTP data (Thyregod HG 2007 & McNamara P 2005). Promoting comfort level globally improves activity levels as well as quality of life. This will decrease healthcare costs associated with a sedentary lifestyle and other areas if chronic pain is properly managed.

The overall goal of most managed care systems is to provide satisfactory healthcare to their clients while keeping expenses to a minimum. This study shows that overall patients reported increased function with the pain management and indicated willingness to pay to maintain their current activity level. By maintaining function, the managed care system would ultimately save future funds in prevention of comorbidities by sustaining pain care in their clients. A possible alternative previously proposed by Johannsen (1993) would be to perform a cost benefit analysis to measure cost savings that pain management provides by maintaining function and preventing complications to clients with multiple chronicities that would be affected by inactivity.

The WTP tool is valuable and necessary for healthcare organizations in assessing the economics of their operation. Whereas in the past, the healthcare system as a whole influenced providers practice styles by their reimbursement, the ever growing intellect of the healthcare consumer will force healthcare organizations into developing an effective WTP tool to address the needs of the consumer they serve and what their consumers value such as increased function as opposed to a number on a pain scale.

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## **A PROMOTION-BASED MODEL OF ITEM SALES WITHIN A CATEGORY**

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### **ABSTRACT**

*For decision support retail managers need a model to calibrate the effects that their decision variables have on unit sales. This article develops such a model taking into account many of the key decision variables facing retail managers including: promotion timing, price, advertising, and inventory. Included is an assessment of the joint effects of price pulsing (e.g., markdowns) in conjunction with newspaper advertising and the respective lagged effects that these joint influences have. Also the model takes into account the fact that the promotion of a given item is negatively affected by the promotions of substitute items in the same category. This makes the model particularly appropriate for retail category management decision support applications.*

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### **INTRODUCTION**

Analytical guidance for retailers concerning the management of their increasingly complex promotion activities has received a good deal of attention in the literature. As Moriarty (1985) long ago pointed out:

“There are two essential measurements required to examine the retailer’s benefit from promotion: (1) the measurement of the competitive sales responses of all brands given pricing and other promotional activities of one brand, and (2) the measurement of the contemporaneous and carry-over sales effects of promotion on the promoted brand.”

Price promotions in the retail environment tend to have noticeable and immediate results in terms of sales surges for the promoted item. These promotions often appear to be quite profitable because the sales accelerations are sufficient to offset the reduced margins that result. However, there is always the gnawing intuition that the seemingly successful markdowns may actually be eating into the sales in non-promoted weeks (Neslin and Henderson 1985; Greenleaf 1995) and also may be cannibalizing from the sales of other substitute products. In fact, many retailers learn that running promotions too frequently leads to them being less successful (Gupta and Cooper 1992). Thus, analytical models that fail to account adequately for the external effects of promotions across time and across items in the category will tend to over-emphasize the use of promotional markdowns (Walters 1991; Del Vecchio, Henard and Freling 2006). Also, it has been pointed out that sometimes promotion-induced stockpiling can be beneficial if that leads to greater subsequent usage (Kusum, Gedenk, Lutzky and Neslin 2005). The current work tackles the problem of measuring the simultaneous impact of the contemporaneous and carryover effects from both price markdowns and newspaper tabloid advertising for a given category of goods.

Extensive field experiments have indicated that Hi-Lo promotional strategies are heavily favored over EDLP strategies, at least for Dominick’s supermarkets in the Chicago area (Hoch, Dreze and Purk 1994). In those experiments, the Hi-Lo promotional strategy (wherein prices were raised by 3% and then pulsed) improved profit performance by 15% and in 18 of 19 product categories when compared to the existing strategy. In addition, the study included an EDLP strategy (wherein prices were reduced by 3%) which resulted in an 18% decrease in profits and in every single one of the 18 categories studied. Thus, the profit reduction from the Hi-Lo strategy to the EDLP was a whopping 32%. This long term and massive field experiment highlights a number of important points: (1) category management can make a huge difference in profitability; (2) reasonably small differences in pricing policy (e.g., + / - 3%) can have a dramatic impact when coordinated with different price pulsing strategies; (3) it appears that the timing and depth of markdown is a critical factor and that the profit surface, at least in this case, is not very flat (i.e. insensitive) to the category pricing policy. However, the field study reports did not deal with many of the

issues on which this study focuses. Most importantly, they did not manipulate advertising at all, and the timing and depth of the markdowns was not calibrated in a response model as is the goal here.

### LITERATURE REVIEW

Different streams of research have tried to deal with the interacting issues of price promotions, retail advertising and the across-item substitution effects that exist in retail assortments (Blattberg and Wisnieski 1989). Recently Zenor (1994) has re-emphasized the importance of taking a "category management" approach to marketing and merchandising activity for both manufacturers and retailers. Raju (1992) analyzes the category-level sales impact of promotional activity over 25 different categories of grocery items. Inman, McAlister and Hoyer (1990) emphasize the importance of separating the independent effects of promotion "signals" (i.e. communication such as in-store display and, undoubtedly, tabloid advertising) from the actual price cut itself -- again in a consumer packaged goods setting. Doyle and Saunders (1990) study the problem of optimizing advertising allocations across products where significant cross-effects among products are likely. Several treatments have taken the analysis of retail promotions from the point of view of the shopper in both a normative sense (Krishna 1992) and from an empirical analysis of the taxonomy of consumer strategies actually used in coping with the promotion intensive retail environment (Currim and Schneider 1991). This work builds on the tradition of treating retail promotions as an attempt to segment the market along the lines of how "deal-prone" different consumers might be as suggested by Webster (1965) and empirically measured by Montgomery (1971) as well as by Blattberg, Buesing, Peacock, and Sen (1978). Others have extensively modeled deal-proneness in terms of household characteristics such as inventory costs and/or shopping costs (Blattberg and Sen 1976; Blattberg, Eppen, and Liebermann 1981; Eppen and Liebermann 1984, and Jeuland and Narasimhan 1985).

Another stream of research has viewed the reaction to retail promotions from the psychological point of view that consumers utilize reference prices when determining the attractiveness of a "deal" (Monroe 1973; Winer 1986; Helgeson and Beatty 1987). From this perspective, the perceived reference price (i.e., the perceived "true" regular price) of an item may erode the more recently and/or the more frequently it has been promoted as indicated from a normative point of view by Krishna (1992) for consumers and as developed and measured empirically in a market response model for retailers by Achabal, McIntyre and Smith (1990) for soft goods and Greenleaf (1995) for a frequently purchased package good both leading to the optimal markdown and spacing of promotions. But these models focus on "optimization" and do not deal with as many effects as are addressed in the current work. This stream of research emphasizes the importance of the timing of promotions in terms of their frequency and spacing.

Promotional planning is particularly important for general merchandise managers, as opposed to supermarket managers, because in the general merchandise segments of the retail industry, initial markups are generally high enough (e.g., > 50%) to allow for profitable retail promotions. This contrasts to supermarkets where the initial markup is so low (e.g., < 25%) that taking a meaningful promotional markdown requires impossible sales acceleration for profits to improve during the promotional period. That is to say, the promotions that supermarkets run typically come from the sales deals manufacturers offer them and that they decide to participate in and pass along to the consumer (Achabal, McIntyre and Smith 1990)

One important finding from the literature on promotions is that different types of items react very differently to temporary price markdowns. Litvack, Calatone, and Warshaw (1985) utilized field experiments in supermarkets to conclude that the price elasticity differed sharply between stock-up and non-stock-up goods. Narasimhan and Neslin (1996) extend this research by showing that the promotional elasticities are higher for categories (1) with relatively fewer brands, (2) higher category penetration, (3) shorter inter-purchase times, as well as (4) higher consumer propensity to stock-up. And in terms of the advertising of promotional markdowns Gerstner and Hess (1990) present a stylized model suggesting how category sales and profits can be affected by the fact that shoppers who come in for an advertised special may actually end up deciding to buy something else that they like better but which is not on promotion.

### MODEL DESCRIPTION

Retail managers list various factors that affect the promotional sales of an item in a given category. McIntyre, Achabal and Miller (1991) list at least 30 conditions that are taken into account by a Case Based

Reasoning system for forecasting retail promotional sales. So, although there are many factors influencing unit sales of an item, a causal model that is to be parameterized on historical sales data by traditional econometric techniques should be as parsimonious as possible (so as to have sufficient observations of key variables to provide valid and reliable coefficient estimates). For this reason, and because of the realities of data availability, the model here incorporates only the most essential features of the retail category that was studied. It will also be shown that these phenomenon can account for about 87% of the variation in item-level weekly sales in the category.

The data involves the weekly sales volume, at the sub-class level of men's shirts at a major U.S. retail department store chain. The term 'item' is sometimes used interchangeably for "sub-class" at the retailer studied, wherein either term is meant to denote a set of SKUs that are treated together in terms of merchandising. For instance, an example of a "sub-class" or item would be a Gant, long-sleeve, button-down 100% cotton dress shirt. This sub-class or item includes 5 colors and 40 sizes. Other items in the men's dress shirt category are Arrow Long Sleeved shirts, Arrow Short Sleeved, shirts, etc. The items were defined by the retailer, not by us. The buyers manage such items so that all of the SKUs are priced, displayed, and advertised in the same way in any given week. This is important, because an essential principle in any sales modeling is to properly match cause and effect -- i.e., that the sales that occur be accurately mapped to those factors that caused them. In the case here, for instance, this means that if different prices were used in different regions of the country, it would be necessary to take this into account by having a regional level model. The forecasts at lower levels, then, are determined by an allocation of the total forecast based on historical percentages across stores, colors, and sizes. The data included eleven such items over a 65 week period accounting for about 80% of the sales volume in the men's dress shirt category.

A number of key phenomena need to be incorporated into a parsimonious item-level model for category seasonal planning. These phenomena are derived from a review of the literature on promotions and category management as well as from discussions with the retail buyers. In particular, these key phenomena included the effect of: (1) any seasonality that might be important in the category, (2) the sensitivity of category sales to store-wide events (3) the timing, depth, and duration of item level price markdowns, (4) current and carryover effects of item level newspaper advertising, (5) the effect of substitute items being advertised in the category, (6) the effects of substitute item markdowns in the same category, and (7) inventory levels. Also it likely that the timing and size of displays are important, however, the host organization did not keep detailed information about displays so it was necessary to relegate any display effects to the error term in the model. Below is a summary of the model formulation and then a more detailed discussion of each of the key variables and hypotheses about the expected influence of each on sales.

Conceptually the model is very simple and consists of Base Sales adjusted for any promotional influences.

$$\text{Sales} = \text{Base Sales} \times \text{Promotional Influences}$$

Base Sales then break down into Normal Sales Volume times any Seasonality Effects for the given week. Econometrically, the seasonality effects are calibrated by placing dummy variables in those weeks that intuitively have seasonal significance (e.g., Christmas and Father's Day for Men's Dress shirts) and also by an analysis of model residuals across the items and the same weeks of different years. This led to an identification of one seasonal dummy for the three weeks leading up to Christmas (Christmas), another for the three weeks after Christmas (After Xmas) as well as a dummy variable for the week leading into Father's Day (Pre-FD) and the week of Father's Day (Father's Day).

Promotional Influences break down into a fairly extended list of factors. First is the effect of any store-wide events that tend to build store traffic in the category of interest. For instance, White sales tend to influence sales in the bedding department and in the bath department. In the case of the men's dress shirts category, it was found that there was a significant effect on sales from a store-wide event called "Super Saturday" (Super Saturday) during which a large number of simultaneous promotions were in effect, possibly including complementary products to men's dress shirts. These store-wide effects were calibrated and included in the model by the use of dummy variables in those few weeks that contained "Super Saturday" events.

Next come the category-level promotional influences, which include price, advertising, and inventory. These factors are of particular importance because they make up the manager's set of control variables.

By far, the most important promotional influence is promotional pricing. However, from the point of view of seasonal planning, the price factor breaks down into two components, the regular price for the item and the various promotional markdowns that are planned during the season. The regular price is typically set at the time of the assortment planning stage of category management. This leaves the within-seasonal pricing decision to deal mostly with the tactical issues of the timing, level, and duration of promotional markdowns. The men's dress shirt category is a "basics" category and therefore does not undergo seasonal closeout dates, which would require the further consideration of clearance (as opposed to promotional) markdown pricing (Smith and Achabal 1998).

As noted earlier, promotional markdowns have been extensively studied in the literature. Much of the work in this area focuses on the concept that consumers form a reference price (Helson 1964; Bitta & Monroe 1974; Putler 1992) and that promotional discounts are measured against this reference price (Bearden, Lichtenstein and Teel 1984). Winer (1986) notes that such reference prices can be based on past price observations (historical referencing) or currently observed prices of other items in the store (contextual referencing). Empirical work has shown that reference prices do affect choice behavior (Lattin and Bucklin 1989). Others have taken the reference pricing perspective into the realm of consumer price expectations and then how consumers cope with promotional discounting in light of their expectations (Currim and Schneider 1991; Krishna 1992). Raju (1992) highlights the importance of the frequency and depth of price promotions at the category-level as opposed to brand-level in supermarkets.

Achabal, McIntyre and Smith (1990) calibrate the reference price influence as it relates to markdown elasticity noting that the reference price effect is equivalent to an erosion of the markdown elasticity as a function of the frequency of the markdowns: the more frequent, the less the elasticity. That work, however, did not have advertising data and therefore could not take into account how current promotional advertising might interact with promotional markdowns nor how any lagged effects from advertising might impact sales, nor was the across-item substitution effect modeled. The current model integrates the previous formulation along with these additional promotional considerations. Some of the basic price representations, however, are the same so that the current work is, in a very real sense, a replication and extension of previous modeling, but now on an entirely different data set from a different retailer.

As was done by Achabal, et al. (1990), this study models the elasticity to a markdown factor ( $P_o/P$ ) where  $P_o$  is the regular (reference) price and  $P$  is the promoted price. The markdown elasticity, in turn, is modeled as a function of the time delay (in weeks) since the previous markdown on the same item. Specifically, this takes the form:

$$\text{Markdown Effect} = (P_o/P)^{\square + \square(1-1/T_m)}$$

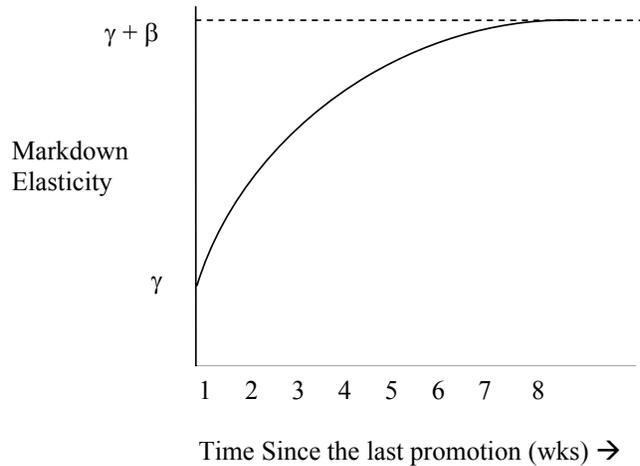
Where:

- $P_o$  = Regular price
- $P$  = Promoted price
- $T_m$  = Time since last markdown
- $\square$  = Markdown elasticity
- $\square$  = Delay effect component of Elasticity

This formulation models price elasticity as an increasing function of the time since the last promotion (or the frequency of promotions since longer delays between promotions is the equivalent of less promotional frequency).

As depicted in Figure 1, when  $T_m=1$  (e.g., a promotion was held in the most recent week), the markdown elasticity is  $\square$ , and as  $T_m$  increases, the markdown elasticity approaches  $\square\square$ . In fact, this formulation explains why promotional markdowns can be a profitable strategy for the retailer at all. If it were not for the time-varying value of the markdown elasticity, a markdown that was profitable in one week would also be profitable in every week leading to an every day low price strategy being optimal. However if the markdown elasticity increases as a function of the weeks off-promotion, then it can be more profitable to wait after a promotion until the markdown elasticity has again built up to a higher level.

**FIGURE 1**  
**Markdown Elasticity as a Function of Time Delay**



An additional markdown-related factor affecting the sales of an item is the level of its markdown *compared to the best other markdown* in the category in the same week. This is a key substitution effect. To accommodate this impact, a variable was created, RelMD, which is the markdown of the item relative to the maximum markdown level on any other item in the category in the same week.

Promotional advertising is also a complex control variable that has an important effect on sales. In addition to the aesthetic quality of the ad (for which there is no available measure), the size of the ad is obviously important, and so is the duration of the advertising period. To take the latter two factors into account, an advertising “pressure” type of variable was created by multiplying the Ad Size (as measured in fractions of a page) times the Ad Days (as measured by the days of the ad period). It should be noted that virtually all of the advertising by this retailer is tabloid newspaper inserts and that the circulation of the advertising was quite constant during the period of the data. The ad-pressure measure performed very well in the econometric work. Therefore the “ad pressure” approach was incorporated to measuring the effect of advertising which is roughly analogous to the commonly accepted notions of advertising weight (Troidahl and Jones 1965; Starch 1966). However, it was further hypothesized that there would be an effect from Current Advertising in terms of current sales impacts, from Previous Advertising in terms of advertising carryover effects, and from Substitute Advertising in terms of reducing sales due to the advertising pressure behind alternative items. For this reason three separate advertising influences were modeled as follows:

1. Current Advertising = AdSize \* AdDays

2. Previous Advertising = (AdSize \* AdDays /  $T_A$ )

Where AdSize and AdDays refer to the previous ad and  $T_A$  indicates the number of weeks since the previous ad.

3. Current Advertising% = (AdSize \* AdDays /  $\sum$  AdSize<sub>i</sub> \* AdDays<sub>i</sub>)

Where the summation is across all the substitute items (e.g., the category)

Finally, an inventory effect was included for two reasons. First of all, a shortage of inventory below the “presentation” level of inventory (sometimes called “fixture-fill” by the retailer) would indicate broken assortments

and the fact that below this level some customers would not be able to find their size or preferred color of shirt. Secondly, higher levels of inventory tend to increase the visibility of the goods on the selling floor and thus act almost as a display effect for the goods. It should be noted that there is relatively limited back room storage for shirts, and that greater inventory levels are handled simply by filling the shelves higher with the shirt inventory. The retailer studied maintains records of weekly beginning-on-hand (BOH) inventory as well as the target fixture-fill (FF) level of inventory. The ration of BOH / FF is an inventory variable (shortened to I/Io) that measures the relative inventory levels across items allowing for a standardized measure even when items have different base levels of inventory in this regard.

The following model form incorporates the above discussion (with obvious subscripts of item i and week t, suppressed for simplicity of exposition).

Normal Sales	Season Effects	Markdown Effects	Advertising Effects	Inventory Effect
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$$S = S_o e^{d(k)} (P_o/P)^{\square+\square(1-1/T_m)} \text{RelMD}^{\square} (1+CA)^{\square 1} (1+CA\%)^{\square 2} (1+PA)^{\square 3} (I/I_o)^{\square}$$

$$S = \text{promotional sales}$$

- S<sub>o</sub> = the sales during a normal week for item i
- d(k) = seasonal scale factor for this week and item.
- P<sub>o</sub> = regular price for the item
- P = price for the item this week (P < P<sub>o</sub> if this item is on promotion)
- RelMD = relative markdown (markdown of this item / max markdown in category)
- = the elasticity of relative markdown w.r.t. the max markdown in the category
- T<sub>m</sub> = number of weeks since the previous markdown for this item
- = the elasticity of promotional sales with respect to price reduction ratio
- = the elasticity of promotional sales w.r.t. promotion frequency
- T<sub>A</sub> = number of weeks since the previous ad for this item
- CA = current advertising effect: Current AdSize x AdDays for this item, week
- CA% = the percent of cumulative CA for all items in the category (this week)
- PA = previous advertising effect [e.g., (Previous AdSize x AdDays)/T<sub>A</sub> ] in a promotion week, 0 otherwise.
- 1 = elasticity of promotional sales w.r.t. current advertising (CA)
- 2 = elasticity of promotional sales w.r.t. percent of current advertising (CA%)
- 3 = elasticity of promotional sales w.r.t. previous advertising (PA)
- I<sub>o</sub> = fixture fill (i.e., nominal) inventory level for the item
- I = actual (i.e., beginning of week on hand) inventory level for the item
- = elasticity of promotional sales w.r.t. inventory level

The category level sales estimate in any given week is then the sum of the item-level models. It should be noted that the category level sales result thus takes into account some aspects of the within category substitution effects among the items by means of the different price-based and advertising-based substitution variables (e.g., RelMD and CA%). Thus the set of models are appropriate for a category level decision support application as was the intention of this work. However, the objective of the current article is to discuss the model rather than the decision support system that can be built from it.

The following hypotheses summarize the discussion.

**Hypotheses:**

- H1: There is a strong positive markdown effect on unit sales
- H2: The more recent a previous markdown on the same item, the more it decreases the effect of a current markdown
- H3: The markdown impact for an item is relative to the best alternative markdown in the category

- H4: There is a significant positive effect from current advertising
- H5: There is a significant positive but time-decaying carryover from previous advertising
- H6: There is a significant negative effect from the cumulative advertising on substitutes
- H7: There is a significant positive effect from higher levels of inventory

The next section presents the model estimation for the men's dress shirt category at the retailer studied and discusses the outcome of these hypotheses.

**RESULTS & IMPLICATIONS**

Statistical regression analysis was undertaken in the men's dress shirt category to parameterize the coefficients of the model. Eleven shirt items were pooled in the analysis and these items constituted the vast majority of sales in the entire men's dress-shirts category. Table 1 shows summary statistics for the historical pattern of price markdown (in percentage terms) and the accompanying ad size (in fractions of a page). It can be noted that this retailer did exercise a broad range of markdowns and ad sizes and that these were adequately spread out in terms of combinations to allow separate estimates of the respective effects (e.g., collinearity is not a serious problem, here, nor among any of the measures as shown by correlation analysis). Additionally, it can be noted that there were both instances of various unadvertised markdowns (across levels of markdown %) and also advertised promotions wherein no markdown was present which is the promotional signal as a possible proxy for an actual price cut (Inman and McAlister 1990). This historical promotional pattern is therefore favorable for estimation of the proposed model.

**TABLE 1**

**Historical Promotion Patterns**

% Off	AD PAGE SIZE							Total
	0.00	0.17	0.25	0.33	0.50	0.75	1.00	
0%	343	3		3		11	13	373
16%	2	3	1				2	8
25%	5	2		1		25	23	56
30%	1		2	4		7	14	28
33%		2				8	12	22
40%	8	6	1	5	2	16	5	43
50%	4				3	3		10
Total	363	16	4	13	5	70	69	540

Entries are the frequency of weeks with (approximately) the row markdown % and the column Ad size (in fractions of a full page.)

The results of the regression estimation of model parameters are reported in Table 2.

TABLE 2

Regression Results for Shirts Category

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<u>Effect</u>	<u>Coeff.</u>	<u>t-value</u>
Intercept	6.379	47.916***
Shirt # 1	0.058	1.784 <sup>ns</sup>
Shirt # 2	-0.225	-8.635***
Shirt # 3	-0.079	-5.028***
Shirt # 4	0.012	0.943 <sup>ns</sup>
Shirt # 5	-0.006	-0.731 <sup>ns</sup>
Shirt # 6	-0.178	-15.222***
Shirt # 7	0.022	2.002**
Shirt # 8	0.028	4.483***
Shirt # 9	0.020	4.040***
Shirt # 10	0.003	0.485 <sup>ns</sup>
Super Saturday	0.233	4.903***
Christmas	0.518	6.926***
After Xmas	-0.408	-5.500***
Pre FD	0.207	1.970**
Father's Day	0.240	2.595***
Mark Down	2.543	13.775***
Timing	0.381	1.697*
Relative MD	0.469	2.119**
Current Ad	0.284	8.837***
Current Ad %	0.169	2.581***
Previous Ad	0.032	1.347*
Inventory	0.581	8.035***

R<sup>2</sup> = 0.877  
n = 540

\* p < 0.10; \*\* p < 0.05; \*\*\* p < 0.01

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As can be noted the various effects are all in the direction hypothesized as indicated by their respective signs. In addition, most of the effects are highly significant from a statistical point of view. The total regression model accounts for about 87% of the variation of item sales volume in the category (from week to week and across items). Taken together these results suggest that the model is a reasonable interpretation of how the market responds to promotional markdowns and advertising in this category for this retail chain. There are a number of substantive deductions that can be made based on the model estimate.

1. There is a large current impact from promotional markdowns

The markdown elasticity is 2.54 meaning that a 10% markdown leads to about a 25% increase in sales and a 20% markdown leads to a 50% increase in sales. It can be shown from these promotion elasticity values, that other things being held constant, markdown promotions tend to be profitable (given a 50% initial margin as a percentage of the selling price) up to about a 30% markdown.

2. There is a large current impact from advertising

The current positive impact on sales from item advertising is highly significant and constitutes the largest of all the advertising effects that were modeled, as expected. It should be noted that this effect is irrespective of any price or markdown effect and occurs *in addition to* the price effects, if they are in place.

3. There is a positive carryover from a previous ad

The statistical analysis shows there is a significant positive impact from the previous advertisement on the same item. This impact is in direct proportion to the number of days the previous ad was run and the size of the ad.

4. There is a negative but decaying effect from a previous markdown

The negative effect (on a potential promotion in the current week) of a past promotion decays over time so that after many weeks the effect has substantially disappeared. An interesting finding from this is the fact that when markdowns are held, the best strategy to employ depends on the length of time since the previous markdown. This may be a bit counter-intuitive. What the analysis shows is that the longer the time since a promotional markdown, the larger the ad should be and the greater the markdown should be, other factors being equal.

5. There is a small negative effect on a given item due to the advertising of substitutes in the category

As the statistical analysis shows, the effect of advertising for substitute items in the category has a negative effect on the sales of a given item when it is on promotion. This effect is in proportion to the size and length of those competing ads, as was expected and comes into the model through the “current advertising percent” variable. The larger the percentage of advertising in the category for an item the higher its sales will be which is the reflection of the fact that the cumulative advertising on substitutes reduces the sales of any particular item if it is promoted simultaneously.

6. Higher inventory has a positive impact on sales

Finally, the statistical analysis shows that there is a positive and significant effect from having more inventory on hand during a promotion. One might speculate that this effect comes from two sources. First, low inventory may hurt sales from broken assortments. Second, higher inventory (over fixture fill) may have a “display” effect on the sales of the item. At least the results would be consistent with such an interpretation.

Table 3 shows the interaction effects of ad page size and markdown percentage price-off for the range of these variables that had been used by this retailer in the past.

TABLE 3

Acceleration Analysis

% Off	AD PAGE SIZE (fraction of a page)						
	0.00	0.17	0.25	0.33	0.50	0.75	1.00
0%	1.00	1.41	1.55	1.68	1.92	2.22	2.47
16%	1.66	2.33	2.57	2.79	3.19	3.68	4.09
25%	2.30	3.24	3.58	3.87	4.43	5.11	5.69
30%	2.81	3.96	4.37	4.73	5.41	6.24	6.95
33%	3.19	4.49	4.96	5.37	6.14	7.08	7.89

40%	4.40	6.18	6.83	7.40	8.46	9.76	10.86
50%	7.46	10.49	11.59	12.56	14.35	16.55	18.43

Entries are the sales acceleration multiplier expected, based on the model coefficients, from the respective row markdown % (e.g., % off) and column newspaper Ad Size (in fractions of a page).

As can be seen from Table 3 there are large interaction effects from the joint application of price reductions in conjunction with ad page size. These effects are so large that they are verifiable by eye from time-line plots of the data (not shown here).

### CONCLUSION

The exact calibration and application of the above findings is difficult to accomplish with out a mechanism to balance all of the interacting effects. In fact, that is the reason for the development of a Seasonal Planning Decision Support System. The system assists the category manager in assessing the different simultaneous tradeoffs embedded in the historical analysis of causal and environmental factors that finally result in sales outcomes.

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## **ANALYZING PREFERENCE SEGMENTS: AN EMPIRICAL STUDY**

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### **ABSTRACT**

*The purpose of this paper is to assess the relative strengths and weaknesses of a theater as viewed by two segments: those moviegoers who prefer to go to the movies in the focal theater versus those who favor a competitor theater. Data for the study were collected through self-administered questionnaires from 246 residents of a city in the Southeast. The analytical framework of importance-performance analysis was used in analyzing the data. Results and implications of the study are discussed.*

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### **INTRODUCTION**

Increasing costs of movie production, distribution and advertisement cut into the profitability of movie industry and movie theaters (Klady 1997). Potential trouble for movie theaters is not limited to rising operational and marketing costs. On the one hand, constantly increasing ticket prices lead to complaints from moviegoers (Carlson 2004; Cramer 1997; Marks 1999). On the other hand, the technology-based entertainment forms (e.g., video games, video tapes, DVDs) vie directly with movie theaters for the consumers' entertainment dollars (Jaeger 2002; Matzer 1996; Orbach 2004). Furthermore, due to what the industry experts refer to as the rescreening of America -- building of megaplexes to replace existing multiplexes -- the number of people per screen ratios continue to decline. For instance, commenting on the movie theater scene in the study area, one industry expert noted that: "It used to be one screen for every 10,000 people ... now it turns out to be one for every 8,000. But it's not set in stone (Sikora 1999)." Under these circumstances, he argues that the success will depend on how well a theater serves the market. These trends are especially alarming for regional theaters located in the same metropolitan area. Being in close proximity they often compete for the patronage of the same pool of moviegoers.

Grounded in this backdrop, the purpose of this paper is to assess the relative strengths and weaknesses of a theater as viewed by two segments: those moviegoers who prefer to go to the movies in the focal theater versus those who favor a competitor theater. This purpose is achieved by using the analytical framework of importance-performance analysis. The remainder of the paper discusses the analytical framework and presents the method, findings and implications of an empirical study.

#### **Analytical Framework**

Importance-performance analysis is based on the conceptual foundations of multi-attribute choice models. The technique identifies the strengths and weaknesses of an object such as a theater in terms of two critical criteria that consumers employ in evaluating that object. The first is the relative importance of the attributes to consumers. The second is consumers' assessment of the performance of the object in terms of these attributes. By developing a two-dimensional matrix with the horizontal axis representing the perceived performance of the object from low to high and the vertical axis signifying the importance of the attribute from low to high, the analysis yields prescriptions for four strategies.

Attributes in Quadrant I are evaluated high in both importance and performance. What is needed here is to "keep up the good work." In the case of people who favor the focal theater, for instance, these attributes can be used in reinforcement and retention campaigns. Likewise the same attributes represent overlooked opportunities that can be employed in appealing to those who favor the competitor. Quadrant II signals those attributes that need special marketing effort. These attributes are high in importance but rated substandard in performance. They demand

immediate attention and, if ignored, could result in the loss of current patrons and seriously hamper any efforts to attract non-patrons. The attributes in Quadrant III indicate those rated low in terms of both importance and performance. Because of their low salience, these attributes are considered low priority and require no immediate action. Attributes contained in Quadrant IV are rated high in performance but low in importance. This implies that an overkill has occurred.

## METHOD

### Sample

Data for the study were collected through self-administered questionnaires from the residents of a city in the Southeast. Three-hundred fifty questionnaires were hand-delivered to respondents after screening them for familiarity with both movie theaters – only those people who had been to both theaters to watch movies were asked to fill out the questionnaire. For residents not meeting this condition alternate respondents in the same neighborhood were sought. After a three-week period, of the 350 questionnaires distributed, 246 usable ones representing a response rate of 70% were retrieved.

A comparison of the characteristics of the moviegoers preferring the local theater with those favoring the competitor theater revealed a number of similarities between them in terms of demographics, moviegoing habits and information sources consulted prior to going to movies. Both groups were primarily comprised of married and well-educated people who preferred to go to the movies at night and with spouse and/or friends. Newspapers and friends followed by TV commercials were the most frequently mentioned information sources by the two groups. Likewise both groups least mentioned posters/billboards and web pages. A closer examination also showed that younger consumers and females were more likely to prefer the competitor theater.

### Measurement

Variables pertinent to the study were collected in two parts. First, on seven-point scales (7=very important, 6=important, 5=slightly important, 4=not sure, 3=slightly unimportant, 2=unimportant and 1=not important at all), respondents were asked to indicate the level of importance they attached to a set of 25 attributes in their decision to choose a movie theater to go to. Second, by using a 6-point scale (6=excellent, 5=very good, 4=good, 3=fair, 2=poor, 1=very poor), respondents were asked to evaluate the focal theater in terms of these attributes.

Principal components factor analysis with varimax rotation was performed to reduce the 25 attributes to their underlying dimensions. The procedure resulted in eight factors with eigen values greater than 1. These factors collectively accounted for 67.2% of the variation in the data. The attribute with the highest loading on a particular factor was retained to characterize that factor. Thus characterized eight dimensions were show times, movie selection, ticket price, concessions selection, waiting time in line, sound quality/clarity, parking lot safety/security and ease of view.

## FINDINGS

### Importance and Performance

Table 1 presents the respondents' ratings of the importance of the eight attributes and their evaluations of the performance of the focal theater in terms of these attributes. To dichotomize the eight attributes into important and non-important categories, mean importance scores were summed across attributes and then divided by 8. The mean of each attribute was then compared to this grand mean. The attributes whose averages exceeded the grand mean were designated as "high importance" and those which had lower means compared with the grand mean were labeled as "low importance" attributes. This analysis was done separately for those moviegoers who favored the focal theater and those who favored the other theater. From these analyses, for both groups five attributes emerged as being important. These identical attributes were show times, movie selection, ticket price, sound quality/clarity and ease of view.

Table 1  
Importance-Performance Ratings

Attribute	Favor Focal Theater		Favor Other Theater	
	Importance	Performance	Importance	Performance
Show Times	5.86 <sup>a</sup>	4.29 <sup>a</sup>	6.03 <sup>a</sup>	4.44 <sup>a</sup>
Movie Selection	6.37 <sup>a</sup>	4.21 <sup>a</sup>	6.44 <sup>a</sup>	4.00 <sup>a</sup>
Ticket Price	5.83 <sup>a</sup>	3.35	6.21 <sup>a</sup>	3.50
Concessions Selection	4.03	3.61	4.13	3.79
Waiting Time in Line	5.29	4.59 <sup>a</sup>	5.41	4.37 <sup>a</sup>
Sound Quality/Clarity	6.40 <sup>a</sup>	4.29 <sup>a</sup>	6.66 <sup>a</sup>	4.09 <sup>a</sup>
Parking Lot Safety/Security	4.67	3.83	5.80	3.83
Ease of View	5.74 <sup>a</sup>	3.76	6.15 <sup>a</sup>	3.73
Grand Mean	5.52	3.99	5.85	3.96

<sup>a</sup> High

In dichotomizing the eight attributes into low and high performer categories, a similar procedure was used. The focal theater's own performance scores were calculated by summing across attributes and then dividing the sum by eight. The mean of each attribute was then compared to this grand mean. The attributes whose averages exceeded the grand mean were designated as "good" and those whose performance averages were below the grand mean were labeled as "poor". Four of the eight attributes emerged as being good performers for both groups. These were show times, movie selection, waiting time in line and sound quality/clarity.

#### Attribute Placement

By simultaneously considering each attribute's importance and the focal theater's performance in terms of these attributes, placements of the eight attributes, for the two study groups were determined. Table 2 presents the results. As can be seen from this table, for both groups of moviegoers three of the eight attributes fell into the keep up the good work quadrant of the grid. These were movie selection, show times and sound quality/clarity. Overkill quadrant contained 1 attribute (waiting time in line). Two attributes (ticket price and ease of view) received the concentrate here designation. Parking lot safety/security and concessions selection were deemed low priority by both segments.

Table 2  
Summary of Results

Attribute	Favor Focal Theater	Favor Other Theater
Show Times	Keep Up Good Work	Keep Up Good Work
Movie Selection	Keep Up Good Work	Keep Up Good Work
Ticket Price	Concentrate Here	Concentrate Here
Concessions Selection	Low Priority	Low Priority
Waiting Time in Line	Overkill	Overkill
Sound Quality/Clarity	Keep Up Good Work	Keep Up Good Work
Parking Lot Safety/Security	Low Priority	Low Priority
Ease of View	Concentrate Here	Concentrate Here

## DISCUSSION

In today's competitive environment, the tasks faced by regional theaters are two-fold: 1) to attract moviegoers patronizing competitor theaters and 2) to maximize retention of current patrons. The results of the study provide some useful insights that management of the focal theater can use in addressing these challenges.

Several attributes fall into the keep up the good work quadrant for both groups. These include show times, movie selection, and sound clarity/quality. All of these attributes are important to both groups and the moviegoers perceive the performance of the focal theater good in these areas. Therefore, the focal theater should keep up the good work in these attributes and use them as cornerstones of its promotional campaigns. Given that newspapers and friends are the most important information sources for respondents surveyed here, newspaper ads designed to stimulate interpersonal communications in these attributes among the moviegoing public appear to be particularly promising.

Concessions selection and parking lot safety/security are regarded by both groups as poor performers. But because these attributes are currently deemed unimportant, they receive low priority designation. While this implies that no immediate action is warranted, there is no room for complacency. If any enhancements occur in the importance attached to these attributes, they would turn into "concentrate here" attributes and pose real threat to the focal theater. Therefore, management needs to be aware of the potential danger and be vigilant about changes in consumers' perceptions relative to the importance of these attributes.

It should be remembered that with the increasing costs of acquiring and showing a film, many theater managers view concessions as their profit center. Indeed, Dick Walsh, senior vice president for AMC Theaters' western U.S. division claims that concessions account 60-70% of a theater's profits. Thus, a two-pronged approach targeted at, on one hand, improving concessions selections (e.g., gourmet items, gourmet coffee as well as a greater variety of traditional staples such as popcorn, candies, snacks) and, on the other hand, enhancing the importance of concessions selections might turn this attribute into a keep up the good work attribute and pay dividends for the focal theater. In this context, promotions stressing the widely held belief that half the fun of going to a movie theater is the food and that the theater offers the best selection of concessions might be helpful.

Two attributes (ticket price and ease of view) fall into the concentrate here quadrant. These should be disconcerting to the management of the focal theater. Both groups view these attributes important and evaluate the focal theater's performance poor. If measures are not taken to rectify the situation, weaknesses in these areas may deter moviegoers favoring the competitor from going to the movies at the focal theater or lead to less frequent attendance by the people who currently prefer the focal theater. Even worse yet, such perceived shortcomings may result in the loss of patrons currently preferring the focal theater permanently. To address the concerns, management can consider several options.

One approach is to make patrons feel that they are getting more for their money's worth. For instance, computer-simulated entertainment such as rides where the screen gives the audience the sensation of swooping through space or across a landscape can be shown prior to the film. Other forms of entertainment might include animated shorts, sports programs and music videos. By providing more entertainment for moviegoers' dollars, the focal theater might partially alleviate the public's concern with high ticket prices. Another approach might entail more creative segment based pricing. For instance, the focal theater which currently charges different prices for afternoon and late-night showings could consider differential pricing for seniors, kids and adults. Finally, wherever resources permit, the theater should consider improving current seating arrangement and feature stepped or stadium-seating to improve audience sightlines.

Results of the study show that for the respondents surveyed here, waiting time in line is not an important attribute. Furthermore, they feel that the focal theater's performance in this area is good. Hence, the attribute is designated as an "overkill". This suggests that any action by the focal theater's management to reduce waiting time in line or altogether eliminate it by investing in ATM machines inside the lobbies to enable customers to buy tickets or in-bound and out-bound telephone systems are not warranted. Instead such resources should be channeled elsewhere where the returns would be higher (e.g., improvements in seating).

On a closing note it should be pointed out that perhaps the most important finding of this study is that exactly the same attributes fall into the four quadrants of the importance-performance grid for the two groups. Therefore, the same strategies recommended here will be helpful in customer retention and attraction. It should, however, be underlined that the findings are specific to the time period the study was conducted. Moviegoer preferences and the importance they place on various attributes do change over time. Therefore, management must continuously monitor any changes occurring in attribute importance levels and moviegoer preferences and make the necessary adaptations.

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## **A STUDY OF THE PRE- AND POST KATRINA MIX OF COMMERCIAL ESTABLISHMENTS IN NEW ORLEANS, LOUISIANA**

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### **EXTENDED ABSTRACT**

*New Orleans suffered a devastating blow on August 29, 2005. Predictions about the city's future have ranged from "doomsday" to a booming city. No one knows how the city will be affected in the long run. This paper presents an in-progress study of the mix of retail stores and other commercial establishments in response to this major disaster. The purpose of the paper is to determine which establishments recover more quickly from the disaster – retailers or services, large establishments or small establishments, independents or chains. This paper is the first step in a series of planned research studies on economic recovery from a major disaster. The research design of this long-term project is to first gather and analyze the pre- and post-Katrina data on commercial establishments for the city of New Orleans (Orleans Parish). Second, the analysis will be expanded to the New Orleans metropolitan area to see if the original findings hold true in this expanded area. Third, these findings will be compared to other areas of the country where major disasters have occurred to see if a pattern of recovery emerges. Because New Orleans is just one year into what will be a long-term recovery, it will be hard to come up with complete data and tested findings for the conclusions of this paper. The authors, therefore, will focus on presenting preliminary conclusions and recommendations concerning commercial establishments' recovery from a disaster.*

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### **THE DISASTER: KATRINA –AUGUST 29, 2005**

The magnitude of the destruction from Katrina was not just from the hurricane, but also from the failure of the levees and the failure of disaster response from all levels of government. The end results were that (1) Major damage resulted to the entire New Orleans metropolitan area and the Mississippi Gulf Coast region. (2) Flooding occurred in 80% of the New Orleans MSA. Flooding reached levels of over 15 feet in some areas and the water remained in many areas for up to a month and beyond. (3) The city was completely evacuated until basic utilities and services could be restored. This means that every business was shut down and every home was empty. Commercial establishments went without a revenue stream for a period from one month (absolute minimum) to eighteen months (today) and beyond.

### **OPINIONS ON NEW ORLEANS RECOVERY**

**Levees** - New Orleans needs to be protected from Category 5 storms. The Corps of Engineers reports that levees are now rebuilt to pre-storm levels – level 3. Residents also want closing of the Mississippi River Gulf Outlet which brought the storm surge directly into New Orleans.

**Leadership** – Leadership has been completely lacking in the disaster and the recovery effort. This has been at all levels – local, state and federal. This is not political. The blame has to be shared by all. Overall recovery plans have not been made, accepted and/or implemented.

**Financing** – The City (and State) are certainly in deep financial straits. The city is far in debt; revenues are not expected to catch up with expenses until 2009 – maybe. Many members of Congress have realized just how desperate the situation is here once they visited the city and saw for themselves. Money seems to have been

appropriated for the recovery effort. While this has been allocated, only a small percentage of this has been approved by the federal bureaucracy, and even a smaller percentage has been paid by federal agencies.

**Housing, Timing, Speed (or lack thereof)** - Businesses can't come back unless employees have a place to live. FEMA has been incompetent in establishing trailer sites and hooking services up for trailers located at people's homes. Housing will probably be the biggest factor to slow economic recovery. The money spent on housing, however, will probably be one of the biggest factors to stimulate the economic growth of the area.

**Depression** – Individuals and businesspeople whose houses and businesses were flooded kept upbeat about coming back and rebuilding for about six months. It is now 19 months since Katrina at the time of this ACME/FBD Conference. Those upbeat smiles have worn off long ago facing the bureaucracy of zoning, financing and insurance that have prevented rebuilding.

**Tourism Dependent** - The storm could be a chance for New Orleans to change the way it was, to start over with a clean slate and fix what was not working before. One thing that was a major problem with the economy was our dependence on tourism. Still, even if this opportunity is not acted upon, the city has a great infrastructure to recover based upon tourism

**Wetlands** – A person just has to look at a traditional map of the State of Louisiana and compare that with a satellite photo of what the state looks like today. The State is not the same shape it used to be. Much of the wetlands are missing. This is not just because of Katrina. The deterioration of the wetlands has been happening for a long time, and the long-range effect (birds, wildlife, water quality, energy and safety) of this deterioration is understood by only a small minority. A long-range national wetlands protection plan is needed for hurricane protection, energy and environmental health.

**PR Message** – New Orleans and the State of Louisiana are trying to send out two contradictory messages, and must find a way to do this effectively. First, we are trying to tell the outside world that we are open for business. Come to New Orleans for a convention, cruise-departure or vacation. At the same time, we are trying to tell the government and agencies that we still need a great amount of help. Both of these messages have found that the best salesperson is a visitor. Jazz Fest guests have gone home to tell their friends that New Orleans is back and ready to party. Visiting event planners have seen that all the areas that conventioners and event attendees would encounter are up and ready for business. Members of Congress and the Senate that have been dragged down to New Orleans to see the damage have left with a new understanding of the magnitude of the problem that we are facing.

## **THE CONCEPT OF BRAND EQUITY: A REVIEW OF EMPIRICAL RESEARCH FROM 1992 TO PRESENT**

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### **ABSTRACT**

*Using Aaker's (1991) conceptualization of brand equity to frame the discussion, this article reviews the findings of 53 empirical studies focused on brand equity in the time period from 1992 to 2004. The review suggests that future research should focus on the relationships between Aaker's four dimensions of brand equity: perceived quality, brand associations, brand awareness, and brand loyalty, plus the possible fifth dimension of brand attributes. Specific research questions for each dimension are also presented. Lastly, there is a need for more research on brand equity using an international context.*

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### **INTRODUCTION**

Brand equity is one of the core concepts in marketing and has been the focus of much research over the last thirty years (Keller 1993, Campbell 2002). As defined by Ailawadi, Lehmann, and Neslin (2003) brand equity is the "the marketing effects or outcomes that accrue to a product with its brand name compared with those that would accrue if the same product did not have the brand name" (p. 1). The concept of brand equity first began being used in the early 1980s by advertising professionals (Barwise 1993) and by the early 1990s, brand equity was the focus of many different theoretical and experimental research papers and books. The last ten to fifteen years have seen continued research focused on this topic.

With substantial research completed on the brand equity concept in general, on the effect of brand extensions on brand equity, and on different components of brand equity, a summary of this literature could help spur future research. This is especially true for the overarching concept of brand equity. While there have been various theoretical summaries of the concept (e.g. Aaker 1991; Dobni and Zinkhan 1990; Keller 2003; Keller 1993), there have been, to the best of our knowledge, no reviews of experimental research. The objective of this paper is to fill this gap by completing an exploratory review of empirical research on brand equity from 1992 to present. The contribution of this review is to more clearly present areas and opportunities for future research on the topic while also effectively summarizing the work already completed.

To help direct this review, the sample of articles is limited to those that focus solely on brand equity. This excludes a variety of articles, including those investigating brand extensions, those focusing solely on dimensions of brand equity such as brand associations or brand loyalty without linking them empirically to brand equity, and those exploring the effect of marketing mix activities on brand equity. By limiting the sample in such a manner, the review is better able to paint a picture of the literature on this core topic and to suggest future research.

Additionally, the conceptualization of brand equity presented by Aaker (1991) is used to frame the discussion of the articles found. Aaker (1991) conceptualizes brand equity in terms of five dimensions: brand

loyalty, brand awareness, perceived quality, brand associations, and other proprietary brand assets. Together these different dimensions form brand equity.

## RESEARCH METHODOLOGY

### Sample

This study reviews articles investigating the concept of brand equity that are published in academic journals (conference papers are excluded). Only empirical research is reviewed. While theoretical articles, case studies and other approaches are valuable to the field, they are beyond the focus of this preliminary study. This review is also limited to articles published from 1992 to 2004. Although brand equity has been mentioned in literature prior to the 1990's, Aaker's seminal book (1991) *Managing Brand Equity* brought the importance of the concept to the forefront and also provided a comprehensive framework with which to study brand equity. Aaker's five dimensions of brand equity are used as the framework for this review, and, therefore, the sample of articles is limited to those published in 1992 and later.

To generate the list of articles reviewed, two steps were completed. First, a query of the on-line search engine ABI/Inform was completed using the keywords "brand equity." From this list of articles, a review of references was completed generating additional articles to be reviewed. This second step was reiterated until no new references were found. This process resulted in a sample of 170 potential articles. The three co-authors reviewed each article and excluded those that did not focus on brand equity, were not empirical, or were published before 1992. This resulted in a sample of 53 articles for the review (see Table 1 for a list of articles and a brief summary of their major findings).

Table 1  
Summaries of Brand Equity Articles Findings

Authors and Year	Major Findings
Aaker, J. (1997)	Development of a brand personality scale. Five dimensions of brand personality emerge (Sincerity, Excitement, Competence, Sophistication, and Ruggedness).
Aaker, D. and Jacobson (1994)	Perceived quality positively influences stock price
Ailawadi, Lehmann, and Neslin (2003)	Revenue premium is a good measure of brand equity
Baldauf, Cravens, and Binder (2003)	Perceived quality, brand loyalty, and brand awareness are positively related to firm performance, customer value, and willingness to buy
Baldinger and Rubinson (1996)	Brand loyalty is not stable over time. Ingoing attitudes (consistent or inconsistent) toward brand affects ability to convert and retain high loyals. High loyals have stronger attitudes toward brands.
Bello and Holbrook (1995)	No relationship between brand name and price premium.
Bendixen, Bukasa, and Abratt (2004)	Strong brands can charge a brand premium. Perceived quality is the primary driver of brand equity. Brand equity is positively related to peer recommendations.
Broniarczyk and Gershoff (2003)	Measured impact of trivial attributes on brand equity. High brand equity brands benefited more from trivial attributes than lesser brands, even after it was revealed that the attribute was trivial. Uniqueness of trivial attribute also improve brand attitude.
Buchanan, Simmons, and Bickart (1999)	Brand equity is influenced by context and that displays that do not meet consumer expectations regarding prominence of high equity brands will lead to reevaluation of the brand.
Campbell and Keller (1994)	Low brand familiarity leads to quick wear-out of advertisings and to more processing of the ad. Greater processing of low familiarity brands led to greater consideration of tacit appropriateness.
Carpenter, Glazer, and	Irrelevant attributes, even when revealed as such, result in increased product preference.

Nakamoto (1994)	When price is added to the mix, it provides information regarding the attribute. Attribute's influence on preference is increased for high price items but adds no value for low and premium price item.
Chaudhuri (1995)	Direct paths from attitudes and habits to market share. Brand loyalty is negatively related to brand equity (soap sample possibly). No direct effect on price, but indirect effect through loyalty.
Chaudhuri (1999)	Habit and brand attitude are positively related to market share and brand loyalty, and between loyalty and price
<b>Authors and Year</b>	<b>Major Findings</b>
Chaudhuri (2002)	Brand advertising, familiarity, uniqueness, and competition are related to brand reputation. Reputation is positively related to sales, market share, and relative price. There is no effect of brand advertising on market share or relative price (there is an effect for sales) without going through reputation.
Chen (2001)	More brand associations lead to higher brand equity, but neutral associations do not. More core brand associations lead to higher brand equity. No effect for favorable associations.
Cobb-Walgren, Ruble, and Donthu (1995)	Advertising is related to brand equity. Brand equity is related to purchase.
Collins and Stevens (2002)	Exposure to greater levels of publicity, positive word-of-mouth, advertising, and more recruitment-related activities are positively related to positive organizational attitude and also related to positive perception regarding job attributes for word-of-mouth and advertising. The link between these variables and application intention is mediated by organizational and job attribute attitude.
Cornwell, Roy, and Steinar (2001)	Sponsorship relationships are positively related to brand equity and especially long and actively managed relationships.
Dawar and Pillutla (2000)	Prior expectations impact how consumers evaluate products following a crisis. High prior expectations leads to less loss of BE following a crisis.
Dillon, Madden, Kirmani, and Mukherjee (2001)	Separates brand ratings into two effects; global brand impressions (such as bias) and brand specific associations. When brand knowledge is high (strong associations) or positioning is strong (unique associations) on specific attributes, BSAs are stronger than GBIs. When consumers have high brand knowledge, BSAs drive evaluations of extensions, but if knowledge is low, GBIs drive evaluations.
Dyson, Farr, and Hollis (1996)	Development of new brand equity scale which successfully predicts purchase rates over 12 weeks.
Eagle, Kitchen, Rose, and Moyle (2003)	The effect of parallel marketing is positive from retail chain standpoint but negative for brand owners.
Edell and Moore (1993)	Both feelings and ad claims are recalled equally well. A delayed cue facilitates recall of feelings experienced during initial exposure to ad. Ad feelings remain consistent over time.
Erdem and Swait (1998)	Brand investments, consistency, and clarity increase brand signal credibility. Consistency increases clarity of brand signal. Perceived risk and information costs are decreased by signal credibility and clarity and perceived quality is increased. Combined, this leads to increased consumer-based BE.
Faircloth, Capella, and Alford (2001)	Brand image positively affects brand equity, brand attitude positively affects brand image, brand attitude positively, but indirectly affects brand equity
<b>Authors and Year</b>	<b>Major Findings</b>
Hsieh (2004)	Scale yields a global brand equity index that breaks down BE into measured brand equity (brand associations) and unmeasured brand equity (everything else, including cultural differences)

Hutton (1997)	Brand equity effects exist among industrial buyers (price premium, willingness to recommend and to consider brand extensions) and are mediated by familiarity. Firm and self-consequences increase BE effects. Reputation increases purchase intentions and reliability is linked with recommendations.
Kent and Allen (1994)	Familiar brands suffer less from interference. Unfamiliar brands have highest recall with no competing ads and lowest recall with ads for other unfamiliar brands. Unfamiliar brands have higher attribute confusion when subjects are exposed to other unfamiliar brands
Kim, Kim, and An (2003)	Scale development that finds that brand loyalty, perceived quality, and brand image load on the brand equity construct, but brand awareness does not. Brand equity is linked with improved performance
Kim and Kim (2004)	Brand associations, perceived quality and brand image positively affect performance, with brand associations being strongest. Brand loyalty did not affect performance. Brand awareness least related to brand equity, while brand loyalty is the most correlated to brand equity. Brand equity is related to sales performance.
Krishnan (1996)	Higher brand equity positively linked to set size, positive valence, and uniqueness of brand associations (both category and competing brands), but there was no effect for origin of associations.
Krishnan and Hartline (2001)	Brand equity was found to be more important for goods than services. Brand equity was more important for search-dominant services than for experience or credence-dominated services
Lassar, Mittal, and Sharma (1995)	Development of brand equity scale that defines brand equity in terms of five dimensions: performance, social image, value, trustworthiness, and attachment. Brand equity drives the actual behavior, so brand equity cannot be defined with commitment.
Leuthesser, Kohli, Harich (1995)	Measurement of the halo effect that a liked brand causes on its attributes. Wide variation in the level of halo is observed. No significant differences in overall ratings of the brands were observed.
Low and Lamb (2000)	Brand associations is a multidimensional construct made up of brand image, attitude, and quality. Brand familiarity leads to a richer set of associations.
Maio Mackaya (2001)	Recall, familiarity, and to a lesser degree value for money, and brand evaluation are positively related to market share, therefore, this is an effective measure of brand equity for services
Maio Mackayb (2001)	Multiple construct measures are more accurate estimators of market share than single-item construct.
Mahajan, Rao, and Srivastava (1994)	Brand loyalty and brand recognition accounted for 5%-30% of the explained variance in perceived desirability of hypothetical mergers.
Moore (1993)	There are large differences in brand equity across European countries
<b>Authors and Year</b>	<b>Major Findings</b>
Moore, Wilkie, and Lutz (2002)	There is a strong inter-generational impact on brand preferences.
Myers (2003)	Tangible and intangible attributes (sweetness, sugar, flavor, caffeine, calories, and sodium) and brand name are linked to consumer choice of soft drinks. Higher market share is linked to high brand equity.
Na, Marshall, and Keller (1999)	Benefits, values, and attitudes regarding attributes are linked to brand image and this, coupled with brand awareness is linked to brand power (brand equity). As hard attributes become more similar, soft, intangible attributes become more important. Brand power is linked to satisfaction and preference.
Netemeyer, Krishnan, Pullig, Wang, Yagci, Dean, Ricks, and Wirth (2004)	Development of a brand equity scale using perceived quality, value for cost, and uniqueness to predict brand purchases.
Owen (1993)	Development of a brand equity scale using share of mind and esteem. The scale ranked most major brands in 12 countries worldwide. A strong ethnocentric preference for domestic brands exists.

Park and Srinivasan (1994)	Development of a brand equity scale that divides source of brand equity into two components: attribute and non-attribute based. It provides individual-level measures of brand equity, permitting managers to assess brand's equity influence on market share and price premium.
Roy and Cornwell (2003)	High brand equity leads to perceived stronger brand-event congruence. High brand-event congruence positively impacts brand attitude.
Simon and Sullivan (1993)	Development of a brand equity scale based on financial market value. The model successfully predicts brand equity and market share for sampled firms.
Swait, Erdem, Louviere, and Dubelaar (1993)	Measure of brand equity based on consumer utility functions
Van Osselaer and Alba (2000)	Blocking of consumer learning is a robust phenomenon that has implications for brand equity. Blocking effects were found despite a limited number of brand pre-exposures and extensive exposure to predictive attribute information.
Washburn and Plank (2002)	The results provide some support for Yoo and Donthu model but the support is inadequate to offer an unconditional endorsement of it.
Yoo, Donthu, and Lee (2000)	Development of a brand equity scale. Perceived quality, brand loyalty, and brand associations/brand awareness positively impact brand equity. High price, store image, distribution intensity, and advertising are positively linked to perceived quality. Store image, advertising, and price deals are associated with brand associations/brand awareness but price deals are negative for overall brand equity. Distribution intensity and advertising are positively related to brand loyalty. High price, store image, distribution intensity, and advertising positively related to brand equity. Brand loyalty has the strongest link to brand equity.
<b>Authors and Year</b>	<b>Major Findings</b>
Yoo and Donthu (2001)	Three categories emerge that measure brand equity – brand loyalty, perceived quality, and brand associations/brand awareness.
Yoo and Donthu (2002)	Cross-cultural verification of 2000 study. Supports the above findings (including brand loyalty more important than brand associations or perceived quality) except perceived quality had a greater effect on brand equity in Korea. Additionally, advertising had a greater effect in the U.S., and in Korea it had an insignificant effect on perceived quality and brand loyalty and a small effect on brand associations

The sources for the articles included one book (Brand Equity and Advertising by Aaker and Biel, 1993) and 22 separate journals (See Table 2). The most articles were published in the Journal of Product and Brand Management (10) and the Journal of Marketing Research (8). This is not surprising considering the Journal of Product and Brand Management focuses on brand issues and the inclusion of many brand equity scale development articles in the quantitatively focused Journal of Marketing Research. Beyond these two journals, the rest of the articles were scattered throughout a variety of marketing journals. Overall, the journals sampled show that the importance of brand equity spans across the field of marketing.

In the end, while the sample of articles was limited in terms of time period and scope, the articles included in this sample are representative of the overall field and should include the majority of the articles on this topic. Therefore, while we acknowledge that there are articles that may have been missed by this review, we also feel comfortable that the sample is representative enough to allow for generalizations about the literature stream in general. With this caveat, we continue with our analysis of the article content.

### *Analysis*

The analytical approach proposed for this research is an adaptation of the approaches used in past literature reviews by Zou and Stan (1998) and Sin, Ho, and So (2000). This approach uses a weak form of meta-analysis where the use of a specific feature is counted. These counts serve as the basis for discussion. This simple procedure

allows readers to draw their own conclusions regarding the strength of the relationships found and also provides data from which to make generalizations and comparisons. This combination of counting and narrative is most strongly based on Zou and Stan (1998).

To ensure the reliability of the counts, at least two of the authors coded each article. In the case of disagreements, all three authors reviewed the papers and came to a consensus regarding the issue under debate. Due to the uncomplicated nature of the analysis, there were few disagreements between coders.

The list of features to be counted was simple and straightforward. Since this review was exploratory, the features focused on capturing the major points of the articles. The features coded were the countries analyzed, the independent, dependent, moderating and control variable(s), the sample (both product and subject), the major findings, the major topics, the year of publication, and lastly, the journal the article was published in.

The major topics for the articles were based on the conceptualization of brand equity presented in Aaker (1991) and discussed above. This initially resulted in five topic areas: Brand Awareness, Brand Associations, Brand Loyalty, Perceived Quality, and miscellaneous. After the initial counting, a review of the miscellaneous articles found that the additional classifications of Brand Equity Scale Development and Brand Attributes all reflected further topics researched. These resulting seven topic areas will serve as the frame on which our discussion of the article findings rests.

### ***Demographics of Articles***

In terms of year of publication, the sample reveals a recent increased interest in brand equity (see Table 2). While no empirical papers were found for 1992, if this year is removed from the analysis, and if one breaks the sample into thirds, a trend emerges. The first third (1993 to 1996) saw 17 articles published, the second third (1997 to 2000) saw a dip in interest down to 11 articles, but the last third of the sample (2001 to 2004) saw growing interest with 25 articles sampled. This shows that interest on the general topic of brand equity is enjoying a renaissance after a mid-decade lull.

A description of the countries analyzed helps present a better picture of the sample (see Table 2). The articles were predominantly focused on the United States with 34 of the 53 articles (64.2%) having an American sample. Only eight studies sampled from more than one country (15.1%), and only two studies sampled more than three. This trend is especially troublesome considering experimental findings regarding brand equity differences between countries and regions (Moore 1993; Yoo and Donthu 2002). Future researchers may consider exploring the generalizability of American experimental results to other countries, especially developing countries, transitional economies, and those with major cultural differences.

The samples, both product and subject, were counted for each article. Samples for articles with multiple experiments were averaged and that average was coded. For the subjects used in the articles, the most common samples were students or representative adults (used in 23 articles each). The next most common sample was business professionals (6 articles). The average number of subject per study was 664. This number was partially driven by the large samples of two studies, Owen (1993) (10,800 consumers) and Chaudhuri, (2002) (4470 consumers). With this outliers removed, the average number of subjects is 359.

In terms of the products sampled, the average number of products was 6.2 per article. The range of products used was large, but the most common product categories were soft drinks, clothing, and electronics. Some service categories were also included such as hotels (Cobb-Walgren, Ruble, and Donthu 1995; Kim, Kim, and An 2003) and health care plans (Campbell and Keller 1994; Ailawadi, Lehmann, and Neslin 2003). Lastly, while rare, some business-to-business products were sampled (Bendixen, Bukasa, and Abratt 2004). Overall, the products sampled

were broader than either the countries or subjects sampled. While there is still need for research regarding brand equity and the service industry and the role of brand equity in the emerging e-commerce industry (not a single study addressed this issue), the products sampled show that brand equity has been experimentally investigated across a variety of product types.

Table 2  
Summary of Brand Equity Articles Sample (n = 53)

Country Sampled	# of articles	Year	# of articles	Journal Title	# of articles
Exclusively in the USA	34	1992	0	Journal of Product and Brand Management	10
Conducted in 2 countries	2	1993	4	Journal of Marketing Research	8
Conducted in other countries	11	1994	5	Aaker and Biel (1993)	3
New Zealand / Austria	3	1995	5	Journal of Advertising Research	3
South Korea	3	1996	3	Journal of Business Research	3
Austria	2	1997	2	Journal of Marketing	3
Canada	1	1998	1	European Journal of Marketing	2
South Africa	1	1999	3	International Journal of Research in Marketing	2
Taiwan	1	2000	5	Journal of Advertising	2
Conducted in 3 countries	1	2001	8	Journal of Consumer Marketing	2
Conducted worldwide	3	2002	5	Journal of Consumer Research	2
Conducted Europe-wide	3	2003	9	10 Journals with only 1 article sampled	10
		2004	3		

Finally, the statistical methods used to analyze the data were counted. Specific statistical methods were grouped according to their broader level statistical approach (e.g. repeated measure ANOVA and MANOVA both coded as ANOVA). Driven by the high number of scale development articles in the articles sampled, the most commonly used statistical approach was structural equation modeling (19 articles), followed by ANOVA (13 articles) and some form of regression (10 articles). Surprisingly, five articles used what we termed “descriptive statistics” which included correlations, percentages, and rankings. T-tests, another basic statistical analysis, were used in eight articles. The statistical analyses used for the sample of articles ran the gamut of possible methods and, overall, appears to be a strength of the research stream.

### DISCUSSION

*Before beginning the discussion of the articles, it is important to note that while there might be slight differences between the different samples used, both in terms of products and subject, the results of the studies are typically similar enough that distinguishing between subject samples provides little additional value. Furthermore, the majority of the research sampled was completed in the United States with American samples. While, as noted above, international differences in brand equity merit further study, the American focus of the literature allows for*

*greater generalizations across studies. Therefore, when findings are discussed, if the country is not stated, assume the study was completed in the United States.*

### ***Perceived Quality***

The first Aaker (1991) dimension to discuss is perceived quality. The main finding of the articles reviewed is that perceived quality is strongly related to a variety of performance-based measures of brand equity. This includes stock price (Aaker and Jacobson 1994), customer-value and willingness to buy (Baldauf, Cravens, and Binder 2003), feature preference (Bendixen, Bukasa, and Abratt 2004), increased purchase intent in the business-to-business sector (Hutton 1997), increased market share (Mackay 2001), and brand purchases (Netemeyer, et al. 2004).

Additionally the literature explores what processes link perceived quality to brand equity. They find that prominent display locations (Buchanan, Simmons, and Bickart 1999), signal clarity and credibility (Erdem and Swait 1998), store image, distribution intensity and advertising (Yoo, Donthu, and Lee 2000) all lead to increased perceived quality. Interestingly, Low and Lamb (2000) find that brand associations are often made up of associations related to quality.

The above findings by Low and Lamb (2000) lead to an interesting question regarding the relationship between perceived quality and brand associations. While Aaker (1991) presents them as separate dimensions, there is some evidence that they interact (Krishnan 1996; Cobb-Walgren, Ruble, and Donthu 1995; Low and Lamb 2000). Perceived quality is strongly linked to increased brand equity and performance in the literature. These findings leave room for future research. Do associations influence brand equity and performance by increasing perceived quality? Are associations not related to perceived quality still important?

### ***Brand Loyalty***

The results of the studies focused on brand loyalty link it to brand equity in terms of various measures of firm performance, including customer-value and willingness to buy (Baldauf, Cravens, and Binder 2003), market share (Chaudhuri 1999), price (Chaudhuri 1995), and merger desirability (Mahajan, Rao, and Srivastava 1994). On the other hand, this link between brand loyalty and performance is not universally found. Chaudhuri (1995) and Kim and Kim (2004) fail to find a link between brand loyalty and market share or sales, respectively. Chaudhuri (1995) hedges his argument by questioning whether or not the sample products (soaps) caused the results.

This question, regarding the link between brand loyalty and performance based measures of brand equity, is surprising considering both its dominance in scale development articles (e.g. Yoo and Donthu 2002) and the fact that some articles operationalize brand equity solely in terms of brand loyalty (e.g. Dyson, Farr, and Hollis 1996). A possible explanation for the conflicting results, beyond sample issues, was presented by Baldinger and Robinson (1996). Their findings show that brand loyalty is unstable over time and that incoming attitudes play an important role in retaining high brand loyalty levels. Taken as a whole, the brand loyalty specific articles reveal a need to further explore the relationship between brand loyalty, brand equity, and firm performance.

### ***Brand Awareness***

The brand awareness studies also tend to concentrate on linking brand awareness to performance based operationalizations of brand equity. The link found in the literature is less conflicting than that for brand loyalty. Brand awareness is linked to customer-value and willingness to buy (Baldauf, Cravens, and Binder 2003), price premiums, willingness to recommend and willingness to consider brand extensions (Hutton 1997), increased market share (Mackay, 2001), increased desirability for mergers (Mahajan, Rao, and Srivastava 1994), and "brand power" (Na, Marshall, and Keller 1999).

The literature also touches on the process by which brand awareness results in these positive effects and attempts to build an experimental ladder from marketing mix activities to increased brand awareness to increased

brand equity. For example, brand awareness leads to less advertising wear-out and less consideration of advertisement appropriateness (Campbell and Keller 1994), is related to less competitive interference (Kent and Allen 1994) and has a richer set of associations (Low and Lamb 2000). Additionally, marketing mix activities such as advertising (Cobb-Walgren, Ruble, and Donthu 1995) and event sponsorships (Cornwell, Roy, and Steinard 2001; Roy and Cornwell 2003) increased brand awareness.

While informative, the results above also leave some questions for future researchers. For example, research has found that high levels of brand awareness lead to richer association sets (Low and Lamb 2000). This small finding touches on an interesting question, namely, what is the relationship between brand awareness and brand associations? Does one lead to the other? Are they mutually reinforcing? Is it appropriate to consider them as separate dimensions of brand equity or are they better described as two parts of the same associative whole?

### ***Brand Associations***

The articles investigating brand associations were less likely to link brand associations to increased firm performance. Instead, the articles linked features of brand associations to brands commonly agreed upon to have high brand equity (e.g. Coca-Cola or Nike). For example, more brand associations and especially core brand associations (Chen 2001), and the number, positive valence, and uniqueness of brand associations (Krishnan 1996) are linked to high brand equity. One article also found that the origin of associations (word-of-mouth or direct experience) is not linked to higher levels of brand equity (Krishnan 1996).

The articles also investigate the influence of marketing mix activities on brand associations. For example, Cobb-Walgren, Ruble, and Donthu (1995) find increased advertising expenditures are linked to increased quality of brand associations, which in turn are linked to brand equity and purchase intent. Additionally, long and actively managed sponsorship relationships have been linked to more positive brand image (Cornwell, Roy, and Steinard 2001).

Generally, the articles on brand associations present a variety of issues for future research. As noted in the sections above, the relationship between brand associations and brand awareness or perceived quality is nebulous. Lamb and Low (2000) and others have touched on how brand associations may actually be a multidimensional construct made up of some of the other dimensions. In contrast, it is also possible that brand associations serve as the foundation for the other dimensions and that perceived quality, brand awareness, and brand loyalty emerge from certain combinations of brand associations.

### ***Brand Attributes***

The articles exploring the role of product attributes in brand equity further cloud the discussion of the role of brand associations. These articles find that high equity brands benefit from trivial attributes while low equity brands suffer (Broniarczyk and Gershoff 2003), and that tangible and intangible brand attributes are positively linked to product choice (Myers 2003). Additionally, some of the brand associations papers discuss brand associations partially in terms of brand attributes (e.g. Dillon, et al. 2001; Na, Marshall, and Keller 1999) or define brand equity as the properties of the brand after attributes are excluded (Swait, et al. 1993) or separated from non-attribute components (Park and Srinivasan 1994).

While Aaker (1991) discusses the role of product attributes in generating brand equity, it is clear from this review that there is a need for more empirical research on this topic. What is the connection between brand attributes and brand associations? Should future conceptualizations of brand equity more blatantly incorporate brand attributes?

### ***Brand Equity Scale Development***

The last set of article findings to discuss is those focused on developing scales with which to measure brand equity. The results of these studies further confuse the issue discussed above regarding the interaction between and relative importance of each of the above dimensions. For example, Bendixin, Bukasa, and Abratt (2004) found that

perceived quality is the primary driver of brand equity, while Hsieh (2004) used a cross-cultural sample to break global brand equity into brand associations and “everything else.” Does this mean brand equity is sometimes mainly perceived as quality but at other times mainly as brand associations?

Adding further confusion, Kim, Kim, and An (2003) and Kim and Kim (2004) find that while brand loyalty, perceived quality, and positive brand associations (which they call brand image) construct brand equity, brand awareness does not load as a factor. Furthermore, they find that brand loyalty is a far more important component of brand equity than any of the other dimensions. Yoo, Donthu, and Lee (2000), Yoo and Donthu (2001), and Yoo and Donthu (2002) all support this conclusion. In their multiple country sample, they find that while perceived quality, brand loyalty and brand awareness/associations (in their study, these two dimensions loaded as one combined dimension) were all linked to brand equity, brand loyalty played the most important role. This led the authors to speculate that the other dimensions influence brand equity through brand loyalty. Work by Washburn and Plank (2002) investigating the scale introduced by Yoo and Donthu replicates the overall findings, but did find that the model works with brand associations separated from or combined with brand awareness.

Taken as a whole, the scale development articles further highlight the confusion in the literature regarding the importance and interactions between each brand equity dimension. Various studies have found conspicuously contradictory results regarding this issue. This represents a significant gap in the literature that needs to be addressed.

### **FUTURE RESEARCH**

The stated goal of this literature review is to provide direction for future research on the brand equity concept. While suggestions for future research have been interspersed with the discussion of the article findings, the main suggestions are summarized briefly below. First, while the product and subject samples and statistical methods used were broad enough to allow for generalizations, there is still a need in the literature to pursue the brand equity concept in other countries. For example, Yoo and Donthu (2002) found cultural differences in terms of dimension importance with perceived quality playing a larger role in the Korean sample than the American sample. Additionally, Moore (1993) found national and regional brand equity differences. With the potential for unique findings in other countries, research should move beyond replication and continue further international exploration.

Second, the review found that there were two different approaches to operationalizing brand equity. The brand associations articles tended to operationalize it in terms of agreed upon high or low equity brands (e.g. Bello and Holsbrook 1995) while the other dimensions tended to operationalize it in terms of performance measures (e.g. Chen 2001). There is a need to cross-apply these methods, to explore how brand associations relate to performance, and to link perceived quality and brand loyalty to actual brands. One potential method for doing this would be to incorporate the research on financial measures of brand equity (e.g. Simon and Sullivan 1993) into the discussion of consumer-based measures.

Lastly, as mentioned above, the main area for future research emerging from this literature review was the relationship between the different dimensions that construct brand equity. Aaker (1991) represents a significant contribution to the development of the brand equity literature, but there is a need to take a more complex view that includes brand attributes and the under researched “other proprietary assets” dimension. How do they correlate with or influence each other? Are they independent dimensions? How do they interact to create brand equity? By answering these questions a more complex conceptualization of brand equity will emerge.

### **CONCLUSION**

There are some limitations to this literature review that should be mentioned. To begin, the sample used, in terms of both the time span covered and the topics reviewed, presents the possibility for important articles being overlooked. This is especially true of the decision to limit the review to articles focusing on brand equity thereby excluding articles that focus on just one dimension of brand equity. This limits generalizability. Moreover, the inclusion of only published articles possibly skews the results. Future reviews of brand equity could use a longer time period and could use a more thorough sampling method in order to develop a more general review of the concept of brand equity. The counting method is also a limitation. A statistical meta-analysis would result in

interesting and potentially different results. Lastly, the use of Aaker's (1991) dimensions to frame the discussion is in itself a limitation. There are other frameworks (e.g. Keller 1993) that could be applied to this discussion and literature review.

Even with these limitations, the goals of this literature review are met. It provides an effective, if preliminary, picture of the academic research on brand equity from 1992 to 2004. More importantly, based on a review of this literature, directions for future research on the topic of brand equity are provided.

Deleted: this topic

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# **BLURRING THE LINE BETWEEN DOMESTIC AND IMPORT BEER: CONSUMER PERCEPTIONS OF COUNTRY OF ORIGIN AND COUNTRY OF MANUFACTURE ON PRICE AND VALUE**

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## **DETAILED ABSTRACT**

*In today's growing global market of consumer goods, consumers face increasingly complicated choices from an array of imported and domestic products. Beer is one such product category. Beer drinkers in the US face a myriad of choices from diverse product offerings, including domestic beers, ales and lagers from micro-breweries, specialty brews and imports, with imported alternatives typically commanding a premium price. Consumers seem to accept a higher price tag on an imported beer without question. Import taxes, shipping and handling are cost which consumers have been willing to absorb in the beer marketplace.*

*The link between country of origin (COO), perceptions of quality and acceptable price premiums has been explored in academic research. "Having the wrong' made in...' label won't destroy your brand, but having the right label will save you a substantial amount of marketing money" (Lindstrom 2005). Past research on COO tends to focus on the quality associated with the COO. The research has suggested that consumers identify quality levels with products from certain countries (Hong and Kang, 2006). "A positive perception about the country of origin adds significant value to a brand (Lindstrom 2005) and not surprisingly, a perception of superior quality allows the seller to charge a higher price.*

*The growth in the demand for imported beer has not gone unnoticed by retailers and domestic brewers. Domestic manufacturers are competing with foreign brands by forming overseas alliances as well as creating their own pseudo imports brews. Obviously, a beer brewed in the US is not an actual import, but the lines between domestic and foreign are becoming blurred. Bi-national production, in many product categories, is becoming increasingly more commonplace. Products that are made in one country and designed in another country (e.g. a Toyota produced in the US) are called bi-national products (Hamzaoui and Merunka, 2006). Bi-nationality has come to beers as well. Some examples include Asahi (Japanese in origin, brewed in LA by Anheuser Busch), and Sapporo (Japanese in origin, brewed in Canada). Needless to say, brewing the beer locally diminishes the associated costs of import taxes, shipping and handling, but do not appear to be offset with equivalent decreases in costs passed on the consumer.*

*Consumer perceptions are often sculptured by carefully crafted marketing communication messages. For example, the slogan in a Foster's beer commercial claims "Fosters...Australian for beer" when Fosters is brewed in Canada. Sellers have become quick to promote a beer's exotic heritage without disclosing the product's actual country where brewed. Several domestic beers have names which imply that they are imported (e.g. Killians Irish Red by Coors). Similar to bi-national beers, domestic beers do not faced the costs associated with importing.*

*The degree to which country of origin is actually known to the consumer is uncertain. Even though the country of origin is identified on a label, as more and more domestic brewers offer suggestively named consumption alternatives and bi-national brews, observation and exploratory queries have suggested that some degree of misunderstanding has arisen for consumers. These beers are often listed as premium beers along side true imports on menus and shelves. Because the beer with an imported-sounding name is often not imported at all, consumers may be drawing conclusions and making decisions based on false perceptions. Is that import-sounding domestic beer perceived as superior to its less exotic sounding domestic cousin?*

*The purpose of this study is to examine consumer perceptions of various beer alternatives, domestic, bi-national and import, on the market. Respondents were asked about their perceptions of quality and appropriate selling price across a wide range of beers. Respondents were randomly sorted to three treatment groups. One group of respondents was given only the trademarked logo of the beer. The second group was provided with the trademarked logo of the beer along with a statement indicating the country of origin. The third group was provided*

*with the trademarked logo of the beer along with a statement indicating not only the beer's country of origin, but also the country in which the beer was actually brewed. Between group comparisons are provided.*

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# **AN INVESTIGATION INTO ONLINE BRANDING ACTIVITIES**

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## **ABSTRACT**

*This study reports an exploratory investigation into online branding activities using Keller's eight dimensions of brand knowledge. A comparison was made of the top 10 brands to the bottom 10 brands listed on the 2006 Business Weeks' Top Global Brands. The brands at the top of the list had websites that addressed at least seven of the dimensions of brand knowledge while those at the bottom of the list did not. Community building activities were more common among the brands at the top of the list than among those at the bottom. Overall, it appeared that online branding activities were used to strengthen brand knowledge.*

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## **INTRODUCTION**

The worldwide web provides firms with the opportunity to enhance their offline branding activities. The dynamic nature of the web can be harnessed to build strong brand associations and communities. In this study the online branding activities of 20 firms were investigated. Business Week's Top 100 Global Brands for 2006 was used to divide brands into two groups for comparison on web-based brand building activities.

Brand knowledge is the culmination of consumers' awareness of a brand (primary) as well as the associations they make between the brand and other people, places, things, or brands (secondary). Marketers create brand knowledge through primary and secondary means. Primary brand knowledge is what consumers know about a brand. Secondary knowledge is based on the theory that consumers use brand names and images to retrieve information stored in their memory about product performance (Van Osselaer and Janiszewski 2001). Secondary knowledge has become increasingly important as researchers discover that the intangible attributes of a brand influence brand knowledge more than the physical characteristics of the product or service. Keller (2003) outlines eight dimensions of brand knowledge: awareness, attributes, benefits, images, thoughts, feelings, attitudes and experiences. Each of these dimensions may affect a consumer's response to a brand. These dimensions begin building brand knowledge from the point consumers become aware of a brand and last through the entire purchase and consumption process. The presence of secondary brand knowledge highlights the significance of marketing activities that focus on creating favorable awareness of a brand; communicating valuable attributes and benefits of a brand; and portraying positive images, thoughts, feelings, and experiences with a brand to help consumers build favorable brand knowledge. Web-based branding activities can be designed to address any of these dimensions of brand knowledge.

## **CREATING BRAND KNOWLEDGE**

Marketing activity is responsible for creating and affecting brand knowledge. In turn, the eight dimensions of brand knowledge influence consumers' response to marketing activity. Marketers can better target their activities by integrating the multiple facets of brand knowledge. For example, the new automobile brand, Scion, is targeted toward young, middle-income adults. Therefore, marketers build awareness by categorizing the Scion as a low-priced, reliable vehicle. This satisfies the target market's need to have an inexpensive, dependable car. Further, the television advertisements depict young, hip images and advanced technology. The Scion also has the benefit of factory customization because many young adults enjoy customizing their vehicles as a hobby. All of the marketing activities for the Scion are geared toward satisfying the eight dimensions of brand knowledge for young, middle-income adults and creating a brand personality (see Aaker 1997). The integration of brand knowledge and

marketing activities produced a successful brand campaign that pushed Toyota – the maker of Scion – to outsell the Chrysler Group for the first time in history in 2003 (Toyota Motor Surpasses the Chrysler Group, 2003).

Linking brands to other people, place, things, or brands is another way to build brand knowledge. Marketers can link brands to places through distribution channels and to other brands through ingredients or co-branding. Consumers associate fancy products with high-end stores. Neiman Marcus carries designer brands such as Steve Madden and Anna Sui, so those products have a perceived high value. Co-branding is another tool marketers use to build brand knowledge through associations. Renaissance Hotels carry only Bath & Body Works® toiletries and this increases the perceived value of staying at a Renaissance Hotel. Consumers have prior knowledge of the Bath & Body Works® brand, so they transfer those attributes to the Renaissance Hotel even though the two products are not directly related (Keller 2003).

Some types of entities have more effect on brand knowledge than others. For instance, event associations may create experiences while people associations are effective in soliciting feelings. Events create brand knowledge through experiences because they involve action. Jeep owners were invited to join other owners for two days of seminars and activities revolving around their vehicles. After the event, researchers found that Jeep owners felt a stronger bond to their vehicle and, in turn, to the Jeep brand (McAlexander, Schouten and Koenig 2002). Owners store the enjoyable experience of Camp Jeep in their memory and the Jeep brand triggers that information. As a result, the seminar created a positive association between the event and the experience of owning a Jeep. Associating brands with spokespeople through endorsements is a popular way to build brand knowledge. Jell-O® successfully linked its brand to a well-respected father figure, Bill Cosby, so consumers associate the brand with being a good parent.

While some entities create stronger associations than others, a single entity can affect multiple dimensions of brand knowledge. Associating a brand with a cause is an excellent way to shape awareness, attributes, feelings, and attitudes. Until 2006, Lee® partnered with the Susan G. Komen Breast Cancer Foundation to hold Lee® Denim Days during October (breast cancer awareness month). Through this partnership, Lee® raised awareness of its product by meeting the needs of consumers to own a pair of jeans in order to participate in the Denim Days. The brand also communicated its extrinsic attributes through heritage because Lee® sponsored Denim Days for ten years. The partnership with the largest breast cancer foundation in the world also gave consumers positive feelings toward the brand. Connecting a brand with a cause is perhaps the most effective form of brand association because consumers feel pride when they know they purchase products from a company that gives back to the community through charitable events.

One of the new tools used by marketers to create brand associations is the brand community. The web facilitates the creation of brand communities. Munoz and O'Guinn (2000) define brand communities as “a specialized non-geographically bound community, based on a structured set of social relationships among users of a brand.” Brand communities build relationships between customers thereby creating an enjoyable experience that centers on the consumers of a brand rather than the brand itself. Munoz and O'Guinn's brand community formation is a triangle between Customer A, the brand, and Customer B. McAlexander, Schouten and Koenig (2002) argue that brand communities follow a customer-centric formation by which the brand, product, marketer, and Customer B focus on Customer A. The most successful brand communities are the ones that follow the latter formation. Customers are more responsive when they feel that the focus is on them and their needs. Communities are meant for consumers to exchange thoughts, feelings, and ideas about a brand *among each other* and build a bond based on the brand. Brand communities strengthen brand knowledge because they create enjoyable experiences that the consumer associates with the brand. Because brand communities are not geographically bound, the Internet provides a new, highly convenient environment for brand communities.

It has been noted that brand communities “may even exist in the entirely nongeographical space of the Internet” (McAlexander, Schouten, and Koenig 2002, p.39). Characteristics of brand communities vary greatly:

- Interactions within the community may be socially driven or have almost no social interaction at all.
- Members may communicate face-to-face, through electronic devices, or through corporate mass communications.
- Members may know a lot about each other or nothing at all.
- Some communities are temporary and others are fairly stable.
- Members may belong to one or several communities.

The Web provides an arena in which members can operate under any of the above circumstances. Members can remain totally anonymous or communicate with hundreds of people at a time. They can belong to as many communities as they want to, and they can even communicate face-to-face through video technology. A Ford owner can join a brand community simply to learn about his or her vehicle or to find friendships in other Ford owners. Regardless of how members utilize brand communities, marketers can seize the opportunity to build favorable brand knowledge through positive experiences.

Kraft Foods has a feature called, "Recipe Connection" on its website. Users can search for recipes but must register in order to exchange and rate recipes. The registration process collects data that marketers can use to send the quarterly magazine and email offers to members. In essence, Kraft Foods created a brand community where the interaction focuses on the recipe exchange among members, not the Kraft Foods brand. However, the brand community provides users a reason to continue visiting the site, and while they are on the site, they are constantly exposed to the Kraft Foods brand. Whether or not they realize it, they associate exchanging recipes with the brand and will recall that positive experience when they see the Kraft Foods brand. Therefore, Kraft Foods successfully utilizes the Internet to create a brand community. Through this brand community, the company collects customer data in order to target market and create an enjoyable experience that consumers will associate with the brand.

In addition to company-created brand communities, brand-loyal customers create their own forums to talk with other fans of the brand. These consumer-constructed brand community can be a valuable tool for marketers as well. Marketers can become members of these communities in order to facilitate information exchange and actively participate in the community building process. For instance, hundreds of Harley Davidson fans have set up websites to communicate with other enthusiasts. A Harley Davidson marketer would benefit by becoming a part of the customer-established brand community in order to participate in the context of information exchange. The marketer could start an online conversation about the latest model of Harley Davidson bike to raise awareness or discuss a favorable experience that would encourage other members to recall and share their own experiences. The exchange between Harley Davidson enthusiasts will build a positive bond among consumers. Community members will store this experience in memory and form favorable attitudes based on the bond they established with other Harley Davidson fans.

Brand communities build customer-to-customer relationships that evolve into customer – brand relationships. Given the opportunity for information exchange, members share favorable consumption experiences and thereby build interpersonal bonds and building mutual appreciation of the brand (McAlexander, Schouten and Koenig 2002). As these examples illustrate the Internet provides a convenient forum for brand owners to communicate with each other and establish communities.

### **THE STUDY**

The study had four major objectives: (1) to observe the role of the Internet in building brand knowledge; (2) to find evidence of the importance of an online branding strategy; (3) to discover ways to build brand communities using the Internet; and (4) to share these findings with the marketing community.

In order to determine the importance of utilizing the Internet to build brand knowledge, we viewed twenty-one brands' websites according to Business Week's Top 100 Global Brands Scoreboard for 2006. Comparing the top 10 brands to the bottom 10 revealed whether the quality of a brand's website has any correlation to its rank. (Note: Marlboro, the number 10 brand did not have an official website, so Mercedes-Benz, the number 11 brand was used in this study.) To determine the quality of the brand's official website, we used a branding evaluation guide that included the dimensions of brand knowledge and activities pertaining to customer interaction, sense of membership, rituals and traditions, customer commitment to one another. The guide included 17 elements under the main categories listed above. If fewer than 9 elements were found at the website, then the site was labeled as offering minimum branding activities. Websites with 9-12 elements were labeled as offering a moderate number of branding activities while those with 13 or more elements were labeled as offering a high number of branding activities. For instance, a website that included 56% of the elements described in the guide would be considered moderate. The author reviewed all websites.

Three hypotheses were investigated: (H1) if online branding strategies enhance brand associations, then the top 10 brands will have a moderate to high number of branding activities and the bottom 10 brands will have a minimum to moderate number of branding activities; (H2) the top 10 brands' websites will have higher degrees of customer interaction than the bottom 10 brands' websites; (H3) the top 10 brands' websites will address most or all of the eight dimensions of brand knowledge while the bottom 10 brands' websites will address fewer than six dimensions of brand knowledge.

### THE RESULTS

With respect to the overall number of branding activities, it was found that the top 10 brands have a branding activity rating of moderate to high while the bottom 10 brands will have a branding activity of minimum to moderate. Therefore, H1 is supported. The results are reported in Table 1.

**Table 1 – Overall Branding Activity**

Ranking	Brand	% of elements listed in the branding evaluation guide	Activity Rating
<b>Top 10</b>			
1	Coca-cola	94	High
2	Microsoft	100	High
3	IBM	82	High
4	GE	71	Medium
5	Intel	65	Medium
6	Nokia	77	High
7	Disney	71	Medium
8	McDonald's	71	Medium
9	Toyota	65	Medium
11	Mercedes-Benz	77	High
<b>Bottom 10</b>			
91	Johnson & Johnson	59	Medium
92	Moet & Chandon	41	Low
93	Prada	29	Low
94	Bulgari	41	Low
95	Armani	53	Medium
96	Levi's	65	Medium
97	LG	47	Low
98	Nivea	65	Medium
99	Starbucks	53	Medium
100	Heineken	29	Low

The brands that have a high branding activity rating have some of the strongest online branding strategies. The Microsoft website contained all 17 elements. This site is the only one that has elements of all three activities centered on rituals and traditions including greetings, sayings, and codes. The site has a section on "Microspeak" which are various sayings used by Information Technology professionals. For instance, an Alpha-Geek is "the most knowledgeable, technically proficient person in an office or work group" (2006). The Coca-cola site is one of the few sites that have a wide selection of tools for customer-to-customer interaction. Interestingly, the site has a section for customers to create and publish videos of their "Coke side of life". People can then vote on the video they like best. Coca-cola also attempts to generate a commitment from customers by offering brand tips and promotions through a section of the site called the Beverage Institute. This section has information about health and wellness and various Coca-cola products that help promote activity, education, and refreshment. IBM highlights stories about usage through case studies. The site has a wide selection of case studies in various areas of technology such as web application servers, product lifecycle management, business intelligence, and so on.

The brand websites with moderate to high brand activity ratings differed from the low-rating sites in multiple ways. The websites with a low brand activity rating lacked rituals and traditions, feelings of commitment, and opportunities for customer interaction. Many of the low brand activity sites were product-oriented rather than customer-centric. For example, the Prada and Moet & Chandon websites feature the products but do not have a section for customers to sign up for a mailing list. Perhaps these firms do not feel that an interactive website is an important part of their brand strategy because their customer is less likely to purchase the product online. Heineken does not address many of the dimensions of brand knowledge and the activities that create membership. However, they do offer screensavers, wallpapers, and games that build brand familiarity.

**Degree of Customer Interaction**

H2 delves into whether the degree of customer interaction has an effect on the success of an online branding strategy. The components of the questionnaire that address customer interaction include the initial opportunity for interaction, creating a sense of membership with a community of users, presence of rituals and traditions, and feelings of commitment. The number of opportunities for customer interaction is used to score each website. For example, a website with a score of seven offers seven ways for customers to interact with each other or the company. For the purpose of this study, this number is known as the degree of customer interaction. Table 2 outlines the results of this portion of the study. Seven of the top 10 brands had a higher degree of customer interaction. Therefore, there is some support for H2.

**Table 2 – Degree of Customer Interaction**

Ranking	Brand	Degree of Customer Interaction
<b>Top 10</b>		
1	Coca-cola	12
2	Microsoft	18
3	IBM	13
4	GE	9
5	Intel	6
6	Nokia	9
7	Disney	7
8	McDonald’s	6
9	Toyota	5
11	Mercedes-Benz	9
<b>Bottom 10</b>		
91	Johnson & Johnson	5
92	Moet & Chandon	2
93	Prada	1
94	Bulgari	3
95	Armani	3
96	Levi’s	6
97	LG	5
98	Nivea	5
99	Starbucks	5
100	Heineken	7

The top three brands – Coca-cola, Microsoft, and IBM have the highest number of opportunities for customer interaction. GE offers some interesting ways for customers to interact together and with the company. For example, people can register to receive RSS feeds and download Pod casts that discuss the company’s goals, strategies for creating environmentally friendly technology, global supply chains, and so on. Each of these company interactions re-emphasize GE’s position as a technology leader dedicated to turning imaginative ideas into leading products and services. The brand’s website also has several opportunities for customers to interact with each other. For instance, GE encourages people to collaborate and create online with a drawing board. Customers can use a product on the site similar to Paintbrush to sketch ideas and email them. They can even invite friends to draw with them via instant messenger or email. Visitors can also upload pictures in a section called “Picture and Healthy

World.” They are invited to share stories about how they live a healthier life, and people can read their stories and even email them.

The Disney website offers ways for customers to interact with each other, but this site is directed more towards children. Visitors can register as part of a game called Pixie Hollow where they search for tokens of fairies throughout the site. Once they collect tokens, they can trade them to other users with the goal to collect all of the available tokens. Kids can also join the Fairy club and sign up for the Disney Insider Newsletter. McDonald’s website also has ways for children to interact with each other and the website in sections called Polly World and Hummer Land. Polly World offers the ability to invite friends to an online tea party. Hummer Land allows kids to create cars, download wallpapers, and download screensavers.

Interestingly, the brands’ in the bottom 10 with the fewest opportunities for customer interactions are positioned as high-end offerings in their product categories – Moet & Chandon, Prada, Bulgari, and Armani. The Prada site offers an elaborate mini film about the complexities of being a female in today’s world. The Armani and Bulgari sites offer ways to join a “club” by allowing customers to register to receive newsletters. Many of the other bottom 10 brands’ websites addressed the brand history in order to create a sense of tradition. Heineken emphasizes the fact that the founding family still owns 50% of the company, and Starbucks highlights the history of coffee in addition to its brand history. Almost all of the bottom 10 brands’ websites address brand history and offer ways for customers to join a mailing list, but most of the sites lack other ways for customers to interact with each other or the company.

Very few of the websites in the top and bottom 10 brands address a sense of commitment to the brand or to other customers by offering brand assistance, brand tips, promotion of features, or ways of using the brand. However, the Nivea website (which is in the bottom 10) has a skin care consultant feature that allows customers to answer a few questions to determine what skin care regimen best fits their needs. All of the computer technology websites – Microsoft, IBM, and Intel – have learning center features that allow users to get more information on how to use their products.

### Dimensions of Brand Knowledge

The third hypothesis states that the top 10 brands will address most or all dimensions of brand knowledge while the bottom 10 brands will address fewer than six dimensions of brand knowledge. H3 is supported. The results are reported in Table 3.

**Table 3 – Dimensions of Brand Knowledge**

Ranking	Brand	# of Brand Knowledge Dimensions
<b>Top 10</b>		
1	Coca-cola	8
2	Microsoft	8
3	IBM	8
4	GE	8
5	Intel	7
6	Nokia	8
7	Disney	8
8	McDonald’s	8
9	Toyota	8
11	Mercedes-Benz	7
<b>Bottom 10</b>		
91	Johnson & Johnson	6
92	Moet & Chandon	5
93	Prada	3
94	Bulgari	6
95	Armani	5
96	Levi’s	7

97	LG	5
98	Nivea	7
99	Starbucks	5
100	Heineken	2

All but two of the top 10 brands address all eight dimensions of brand knowledge on their websites. The two brands that addressed only seven dimensions did not offer anything directly related to the creating experiences dimension. Intel had one of the lowest degrees of customer interaction in the previous section, so it makes sense that the brand did not address experiences on its site. Coca-cola focuses on customer experiences by promoting events that it sponsors on its site. People who participate in Coca-cola sponsored events will associate that experience with the brand. Even though the actual experience does not occur on the website, promoting the event generates interest and will encourage people to participate. IBM highlights customer experiences through case studies in all areas of technology. People who read these case studies see the positive experiences others have had with IBM products, and associate those experiences with the brand.

All of the top 10 brands' tackle the attributes and benefits of their products at their websites. The Toyota website does an excellent job of highlighting its fuel economy cars and stressing the lower lifetime cost of their vehicles. The McDonald's website has nutritional information about all of its products to show that the brand has healthy alternatives for adults and kids. This is most likely an attempt to dispel that bad press the brand received from the film, *Supersize Me*. By addressing the health benefits and family-friendly attributes of McDonald's, the brand is emerging as a fast-food alternative to a family meal.

It is also important that the images on the websites are consistent with the image the brand wants to portray. Disney and McDonald's are both brands aimed at children, so their websites are very colorful and have many animated graphics to attract children. Nokia knows that its customers want the latest and greatest products, so their website is very high tech with a lot of bells and whistles. The people pictured on a brand's website create secondary knowledge as well. For instance, the Microsoft site pictures younger people of all cultures to mirror its customer base. The Coca-cola site pictures people of all ages, races, and sexes.

Many brands want to evoke certain attitudes and thoughts about their products through their online branding strategy. GE focuses on environmentally friendly technological advances, so the site has an elaborate section on corporate citizenship. This section highlights all of the activities GE engages in to help solve the world's problems in order to create positive thoughts and attitudes about the brand. McDonald's has a large section called Good Works on its website that discusses its corporate responsibility to the community, its employees, suppliers, and customers. Again, the site addresses these things to create positive thoughts, feelings, and attitudes to associate with the brand.

Most of the bottom 10 brands address six or fewer dimensions of brand knowledge. Surprisingly, Heineken highlights the fewest dimensions out of the bottom 10. The website does not mention its product offerings (awareness), attributes, benefits, thoughts, attitudes, or experiences. The website portrays a masculine image with the use of predominately green and red, and the absence of any pictures of people. Levi's highlights all of the dimensions except for attitudes. The website addresses experiences by allowing visitors to star in a Levi's ad by uploading a picture into the actual ad. This enables the person to experience a situation with Levi's jeans. Since the images on the site portray hip, young people, it makes sense that customers would enjoy seeing themselves in a television ad. The brand also does a good job of balancing the feelings of nostalgia (since it has been around for a long time) with the thought that Levi's jeans are stylish and trendy. In order to read about Levi's brand history, visitors are re-directed to the Levi's Strauss website so as not to conflict with the innovative feeling of the Levi's website. Johnson & Johnson highlights most of the dimensions of brand knowledge, only failing to address attitudes and experiences. The site shows all of the products available from the brand (awareness), and focuses on trust, experience, and resources to address attributes and benefits.

The high-end brands in the bottom 10 focused on images, thoughts, and feelings. This is most likely because people who purchase these products are highly concerned with status. Consumers purchase a Bulgari watch for the image they portray and the feelings they get from wearing an expensive watch. Women who wear Prada perfume hope to evoke certain thoughts and feelings from other people who smell it on them. Men purchase an Armani suit to represent a high-class image and to feel important when they wear it. Someone who had no prior

knowledge of any of these brands would know from looking at the websites that they are high-dollar products, and that is just what these brands set out to do with their online branding strategy.

### CONCLUSION

The Internet creates many opportunities for brands to build brand knowledge through customer interaction. The study shows that the top 10 brands' websites have diverse online branding strategies, more opportunities for customer interaction at various degrees, and address the eight dimensions of brand knowledge. Many of the bottom 10 brands' websites lack one or more of these elements. An obvious correlation exists between a robust online branding strategy and the success of a brand.

One of the most powerful elements of a branding strategy is using the Internet to create brand communities so that customers build positive associations with the brand through experiences. The Camp Jeep experiment is an experience that allowed customers to interact with each other and feel more connected to the brand. However, the Internet offers today's time-deprived, convenience-driven consumer an easier way to interact with other brand users through positive experiences. The top three brands have various opportunities for customers to interact with each other, thereby creating positive experience brand associations. This is not the sole reason these are the top brands, but it is most likely an important piece of the puzzle.

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# **DO YOU SEE WHAT I SEE? A LOOK AT A AACSB ACCREDITATION FROM THE STUDENT'S PERSPECTIVE**

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## **EXTENDED ABSTRACT**

*The foundation of this paper lies in the idea that people tend to view the elements of the world in which they live within the constraints of their own, idiosyncratic perspectives. In the field of higher education, the importance of acknowledging the different perspectives of the various stakeholder groups is growing and increasing numbers of university administrators are adopting and applying the marketing concept and the marketing lens model (Shank, Winchell and Myers 2001; Bristow and Schneider 2002; Bristow, Gulati, Amyx and Slack 2004).*

*The marketing concept is a business philosophy suggesting that an organization seeking to maximize its chances of success must recognize and address the needs of both the organization itself and the stakeholder groups it serves (Drucker 1954). The adoption of the marketing concept and the recognition that different stakeholders are likely to hold distinct views of the university experience leads to an intriguing question: How do university administrators assess those diverse perceptions? The work of Egon Brunswik (1952) and the subsequent research of Bristow, Mowen, and Krieger (1994), Bristow and Amyx (1999) and others provides the theoretical foundation for the answer to that question.*

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### **The marketing lens model**

Brunswik's lens theory proposes that due to idiosyncratic perceptual lenses which are shaped by one's life experiences, cultural values and so on, two individuals sharing the same environment will perceive the various stimuli of that environment differently. Bristow and his colleagues (1994, 1999) developed the Marketing Lens Model (MLM) as a tool by which researchers could empirically assess the perceptual distinctions held by different people or groups. In the current study, the MLM was used to empirically investigate -- from students' perspective -- two basic research questions: 1) relative to other elements of the educational experience, how important is AACSB accreditation in the students' decision to attend a specific school? and 2) to what degree do students believe that graduating with a degree from an AACSB accredited school of business will provide them with enhanced career opportunities?

### **FINDINGS AND DISCUSSION**

As shown in Table 1, AACSB accreditation was rated as the most important of the five factors in students' decision to attend SCSU, surpassing even "the overall reputation of SCSU's business program." Additional findings related to student perceptions of the impact of AACSB on their career opportunities and student knowledge of which schools of business are or are not accredited by AACSB are reported in the full version of this paper.

**Table 1**  
Importance of Selected Factors in Original Decision to Enroll at SCSU

Rank by Mean	Item	Not at All Important				Extremely Important		Mean	StdDev
		1	2	3	4	5			
1	The fact that SCSU's business program is nationally (AACSB) accredited:	5.3%	5.3%	13.2 %	29.1 %	47.1%		4.07	1.14
2	The overall reputation of SCSU's business program:	3.5%	5.3%	15.4 %	44.5 %	31.3%		3.95	1.00
3	SCSU's size (number of students):	14.5%	17.6 %	32.6 %	29.5 %	5.7%		2.94	1.13
4	SCSU's social (i.e., party school) reputation:	30.8%	22.5 %	26.0 %	16.7 %	4.0%		2.41	1.20
5	The opportunity to study abroad while enrolled at SCSU:	42.3%	20.7 %	16.3 %	12.8 %	7.9%		2.23	1.33

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# **A MARKETING APPROACH TO CURRICULUM REFORM**

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## **ABSTRACT**

*This paper presents a marketer's view of curriculum change in response to competition, changes in consumers and changes in governing bodies' demands. It is the beginning of a "new product" development story.*

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## **INTRODUCTION**

Universities are being challenged to demonstrate that students are learning not only specific content but also developing the capacity to synthesize, analyze, and continuously learn on their own. We have well-developed systems for delivering basic knowledge: texts, lectures, and testing systems. However, the higher levels of learning competencies are hard to design, deliver, achieve, assess, and display. Yet, current accrediting standards demand that, particularly at the graduate level, business schools should be accomplishing and documenting precisely these results. Employers are demanding them and taxpayers wonder why we are not doing more to ensure them.

This paper is a case study of curriculum change as a response to both external and internal forces which attempts to design a system to support teaching and learning at these levels. However, we marketing professors, often responsible for curriculum and course development seldom explicitly approach our task using the considerations we teach: looking at the larger objectives, environment and the marketing elements we control in developing our products. The change described herein is still a new product, not fully "commercialized" nor adopted, yet some useful insights and process improvements have resulted from looking at this as a marketing problem.

## **PROBLEM**

Our university exists in particularly tough competitive environment. There are many well-regarded public and private schools in the same location. We have some image issues to overcome. We have little funding for new initiatives. In order to succeed, we have to attract students who traditionally might choose to go elsewhere. We have to create programs well-regarded by potential employers. We must deliver on the promise of students able to perform well when hired.

For our college in particular, creating higher level competencies is a concern. We are a state university explicitly tasked with teaching the disadvantaged. Many of our students arrive with education deficits, are from less-advantaged backgrounds, and are unaccustomed to the kinds of dialogues traditionally expected of university students. They are capable of learning and developing their abstract thinking abilities; the challenge to us is how to best provide students the means to do so. Thus the problem is how to create a curriculum that best delivers specific technical skills and information while getting students to use that foundation in new and more abstract ways than they are customarily likely to do. The curriculum is one of the central parts of the total business school product which must be sold to students, employers, and the state education establishment.

The analyses of customers and competition are provided in Section 2. Section 3 describes the marketing mix considerations. We then describe our initial implementation of the new curriculum in Section 4. Section 5 concludes the article with some reflections and speculations.

## **CUSTOMERS**

From a marketing perspective, this curriculum redesign process should start with the customer and the product: the curriculum product we “sell” to students and the graduates we deliver to the world. In this sense, the better and more effective the curriculum, the better the end consumer, business and civil society, will be served. Our most immediate external customers, obviously, are the future employers yet also the taxpayers and the larger society. There are also two internal customer groups: students and faculty.

We business schools are facing increasing pressure as employers demand ever more job-specific skills and expect new employees to undertake greater responsibilities in an era of business process integration.(Peslak 2005) Moreover, in current environment of technological advance and globalization, American students are expected to become erudite in understanding the technological platforms that support companies’ various tasks.(Becerra-Fernandez, Murphy et al. 2000) Employers anticipate that students have hands-on experience during college and immediately make contributions on the job with limited training.

Therefore, the research and development process included a survey of what seemed to be best practices and an analysis of complaints about current graduates (both specifically our own and in general). From this survey, several themes emerged:

1. Graduates need to be more effective in combining information and viewpoints across functional areas, cultures, and perspectives.
2. Graduates need to be able to turn data into usable information.
3. Graduates must be prepared for constant new learning.
4. Graduates need to be able to communicate their insights, conclusions, and plans effectively to others.

A good curriculum needs to address all these points. The literature reported on efforts like problem-based learning, intensive case studies, etc. aimed at these goals, but each depended on heavy personal interaction with students. Current curricula in many business schools remains attuned to the internal organizational divisions of the traditional disciplines: accounting, finance, management/human resources, marketing, and operations. These divisions hamper efforts to get students to integrate knowledge in ways that businesses themselves are struggling to achieve. We need a common platform to integrate these disciplines in effective ways while keeping pace with technological advances and providing relevant hands-on experience to students.

Many universities and companies have realized the value of including enterprise resource planning (ERP) systems in courses on MIS and electronic commerce. (Joseph and George 2002) What if an ERP system were used to integrate courses and solve problems? This would yield some of the benefits of problem-based learning, but require far less time and input from professors and the business community. It would still allow attention to student acquisition of basic theory and concepts, but also let them apply them and see the consequences much as in simulations. It would establish a database of information and processes that could be iteratively used for multiple pedagogical purposes. It could also be easily supplemented with cases, problems and simulations. Finally, it would allow us to challenge students to develop and use the higher order skills in a realistic environment. (Hawking, Ramp et al. 2001)

Students with hands-on experience in ERP projects often enjoy advantages in job markets. (Hawking, McCarthy et al. 2004) This might, in turn, be effective in getting student buy-in, as they would see education as “practical” and “real” rather than as a series of obstacles. However, can these benefits be communicated to potential students? Would it eventually become a distinctive competence? And would employers look on this as beneficial regardless of the particular ERP system used as a platform? Unfortunately, these are all inter-dependent – it would need to be a school specific competence and one which employers support in order to attract students. If students are not attracted or receptive, the competence does not exist and employers will not be impressed. If employers are not supportive, the program is not adoptable and thus student interest is clearly not generated.

We decided, therefore, that potential employers were the most significant customer group whose support, involvement and buy-in was “mission critical”. If students were to acquire usable skills more attuned to business realities, then the tangible product would obviously meet many of their desires. Gaining acceptance would depend on our ability to involve major employers in the process, and supply interns as well as graduates who possess the desired skills. The testimony of leading companies might influence other potential employers and could be used to communicate benefits to potential students.

For the faculty customers, the second critical group, it was clear that any reform program would necessarily need to confront several key factors:

1. Do not require unusually large numbers of meetings or new skill development.
2. Permit some degree of pedagogical freedom.
3. Do not create disciplinary or ideological factions.
4. Emphasize the teaching and research possibilities as positives for the faculty as well as the students.

The result of discussion over a year was to move away from curriculum revamp in the core courses and to start with the most appropriate electives in the majors as the first experimental adoption area. This would obviate the most contentious issues of new skill learning and course redesign, ensure that only faculty with the most interest would be involved in the beginning, and also focus on areas of study where employers would be the most interested in the results. It would also concentrate faculty time where it would potentially have personal benefits as well as institutional ones.

For students, the immediacy and relevance would be the selling points for programs that would require more time and commitment. The necessity of team work, often a problem for students, had to be addressed head on. Here, too, employer support, internship experiences, and recent graduate testimony may prove crucial to full acceptance.

Finally, the selected faculty had to be willing to spend time to become “experts” for both students and other faculty. These faculty members also had to be willing to take risks as the adoption would require more time with students, willingness to try new types of assignments and problems, and openness to corporate involvement in course design and conduct.

### **COMPETITION ANALYSIS**

While ultimately all other schools are competitors, our focus lies on those with whom we most directly vie for students, funding, and publicity. There are three other state universities, two nationally ranked private universities and several other well-regarded private colleges within a 50 mile radius of our university. All have made business a priority program. Most are better funded than our program. However, each school has created different areas of specialization in addition to the standard majors. The key to competing is, therefore, the creation of high-demand specialization combined with other features. It is our hope that we can combine the attractions of this new program approach with the unusually small class sizes (for a state supported university), internship opportunities (assuming corporate support for the program), and our relatively low cost and large number of upper division scholarships into a high-profile recruitment campaign. This will fit well into a promotion particularly aimed at transfer students and graduate students.

The bigger challenge will be the competition for freshman students. These students are more often impressed by the quality of student services, living and recreation facilities, and high-profile name. There is also the underlying belief in many circles that private is generally superior to public education. We hope that the innovation appeal and the support of high-profile companies can mitigate some of the deficiencies of the overall university appeal in this highly competitive market.

The third type of student for whom we compete are non-traditional students. In metropolitan areas with large national employers and growing young firms, there is a considerable pool of potential enrollees. Our university has made this a priority target. Our competitors have larger advertising budgets and offer some flexibility denied to accredited schools in terms of hours and prior credits. The evening hours, central location, potential for significant amounts of non-classroom instruction and obvious job-related training accompanying a sound traditional foundation can form the basis for a good competitive campaign for these students. An investment in technology, classroom renovation, and flexibility for adult life demands should make an attractive package if the university can capitalize on this project. To date no other school has shown interest in pursuing an integrated program of this type nor created the specializations where it would be most appropriate to begin.

### **DISTINCTIVE COMPETENCE**

The existence of specialized programs in Supply Chain, E-Commerce and advanced courses in Accounting Information Systems and Organizational Marketing provides the platform for ERP use as an organizing tool for inter-course/interdisciplinary integration. Companies from our advisory boards are, in fact, very supportive of this

initiative, and are now working with us to create data in the various ERP modules for use in projects, analytical exercises, and inter-class projects.

Graduates from three departments would, therefore, have actual experience in an ERP environment, have had projects and problems which require analytical and critical thinking applications, and exposure to the real problems of turning data into information. The continued use of simulations and cases along with new ones developed to take advantage of the ERP system should enhance the opportunity to advance those skills. It also uses the hunger of our students for hands-on learning as opposed to the theoretical and literary to their best advantage.

### **Marketing Mix** **Product**

The new curriculum has to maintain the existing objective of teaching key business concepts while redesigning the delivery method to help student learn how to leverage business information thus becoming better equipped to enter the business world.(Kastner 2006) This program will be carried out in both the upper undergraduate and MBA programs.

From customer analysis, the basic product design emerged: an ERP system initially would be used to link courses in Accounting, Management, Marketing and Operations. The ERP data contents could be used for both stand-alone and cross-course projects. Advanced courses would be arranged around selected topics and the projects would be developed to emphasize the utility of concepts in action.

We were extremely fortunate that a faculty member had been working with Microsoft Dynamics Academic Alliance. As a result of his expressed interest and our ideas on curriculum development, Microsoft has donated the software, training, and initial data to the University. In addition, the Dynamics AX Users' Group, AXUG, and many of the Value Added Resellers, VAR's, have been supportive of the plan.

The particular delivery system is Dynamics AX, a Microsoft ERP system consisting of various modules: Business Process Management, Cost Accounting, Customer Relationship Management, Financials, Fixed Assets, Human Resource, Logistics, Marketing Automation, Master Planning, Production, Project, Reporting and Business Analysis, Resources, and Sales Management. The setup is 3-tier: client, application server, and database server coupled with an enterprise portal.

The user role approach to developing SOA is well suited to the development of an information-oriented curriculum. For example, introductory marketing courses provide the essential knowledge of marketing for all business students. Within the ERP system, the CRM module is focused on this function area. The CRM module itself is not the point of focus. The key here is to examine the module and discover the functions that cross the business core and then use the functionality in the teaching and learning process. Graduates no matter what their business area will become part of project teams within or across courses.(Suliman 2005) In an information- rich environment, a project team will use the ERP system to coordinate and track the project. The student's time and progress would be recorded and could be viewed as part of the evaluation process. Papers produced would be stored in the system and subject to ongoing review, if desired, by the faculty member. As an electronic document, the paper could also be subjected to a wider degree of scrutiny. It might also be stored and then reviewed by a learning assurance committees comprised of faculty and business representatives or by potential employers.

The other major issue in product design clearly is faculty training and assistance in developing the courses. Faculty training is time-consuming and potentially very expensive. The lack of resources is and will continue to be an issue in implementing technology.(Hawking, McCarthy et al. 2004) Fortunately, one of the early Microsoft trained experts is an accounting faculty member. With the in-kind donation of software, training, and faculty support (approximately \$1 million) from Microsoft, a training manual was constructed and an on-line tutorial created. Additional on-line training provided by Microsoft is recorded and saved to a shared drive for additional faculty training. The free tutorials cover many of the ERP modules and by recording the tutorials and placing them in a self executing playback program, faculty can access the courses conveniently and may also use segments of the courses as part of the class materials. After completing the introductory material, each faculty works with the senior trainer and each other to develop the specific materials and course projects. This enables all the participating faculty to

share learning, encourages greater cooperation and integration and ensures that faculty support is provided that is informed and specific.

With the expected rapid growth in users, in the Fall of this year, a graduate student with a computer science background will be trained to provide setup and technical support. As demand increases, basic administration task will gradually be shifted to the college technical support staff who will receive training to provide help in updating the server and managing the large number of students more effectively. Materials will be developed this summer/fall to provide basic instruction for the support staff. In addition, as more faculty gain experience through participation in Microsoft training courses as part of the cooperative agreement, and the college develops materials, these users will be trained to troubleshoot basic software and user issues. This process will assure on going support for the system and will enhance the overall institutional ability to support new faculty and student users more effectively.

Adding the software, however, is only the first step. The first course only required knowledge of the software. Expansion into the full program will include the development of scenarios, cases, and foundation data so that students in the courses will use the software, not as an end in itself, but as a tool for integrated learning. Faculty will work with business partners to create this material. Members of our advisory boards have been enthusiastic and have volunteered to assist in the creation of "firms", data, and scenarios for the advanced courses in areas such as purchasing, logistics, and sales management

### **Distribution**

Access to the ERP system comes through our university intranet portal that allows students to access all data anytime from anywhere with an internet connection. Using an ERP system with an integrated portal provides strong positives where the student population is commuter based and may have full- or part-time jobs. Schools like ours have had difficulties in trying to create team based learning as student job and housing prevent smooth team interaction.

The access advantage applies to faculty as well. Student records and projects can be accessed from any remote location. Virtual meetings and reviews among faculty are easier to arrange and conduct. Cross-course projects can be reviewed and jointly corrected without extensive face-to-face meetings. Again, these are particularly important advantages to faculty members teaching on two campuses in a major metropolitan area and who also have foreign assignments and on-line teaching responsibilities. Such multiple location and delivery assignments are increasingly common features of many universities.

### **Promotion**

External promotion will have two audiences: potential students and employers. Those potential students most likely to be attracted by specific programs are undergraduate transfer students, non-traditional students and graduate students. They will be influenced not only by the intrinsic appeal of a program but especially by the extent to which it is likely to increase desirable employment and career prospects. Current brochures and recruiting efforts will have to focus on both appeals in very specific ways. In addition, the promotion must highlight the competitive superiority of this approach.

Initially, the appeal to recruiters can be centered on the aims of the program, the high-profile corporate sponsors, and the strength of the targeted programs in terms of past graduates and faculty. The completion of successful, assignment-based internships will also assist in the appeal to corporate employers. However, within two years, the graduates themselves will necessarily be the center of all promotion efforts directed at potential employers.

A related promotional effort is general public awareness and support. In this large metropolitan area, there are a number of competing schools and relatively little major media reporting on the academic sides of colleges and universities. Unusual initiatives that can be connected to larger economic and technical issues are among the few that can garner that type of attention. The College must carefully determine when the best time to solicit attention to the new curriculum should be undertaken. Too early and there is little of substance to report. Too late and it is old news.

Internally, we need to create websites, brochures, and syllabi with persuasive appeals directed at students. These appeals should stress the potential benefits, but also clearly explain the type of coursework and projects students will engage in following the full implementation. Faculty appeals are more dependent on leadership support, adequate preparation, staff assistance, and early student response.

### PRICING AND VALUE

Our university tuition and fees are established by Tennessee Board of Regents and is relatively low compared to other states. We also have cost advantages over the private universities in the area, although not against the other state universities. However, many people perceive low educational quality as consistent with low tuition. The problem, therefore, is to establish a new and better value proposition. This will require more than a focus just on the content and style of the curriculum: the potential consumer must also become aware of the strength of the faculty, the success of previous students, and the quality of the resources available to students. There must also be an image, supported by reality, of strong student/faculty interaction, focus on student achievement, and ease of access to the benefits. Unfortunately, the current overall university image is at variance with these concepts. The Business School has to create its own image and emphasize its own qualities, drawing a value proposition unique to the business program.

### CONCLUSIONS AND IMPLICATIONS

Program implementation began in the spring of 2006 with the introduction of the ERP system in one course. This has expanded to three additional courses in Fall 2006. It is, as yet, too early to ascertain whether any of the objectives are being met. However, corporate response has been very positive and assistance in designing and using these technologies has begun. Faculty are being trained and new assignments, exercises and cases are being developed.

What then are the lessons? Perhaps the most apparent are three impacts on teaching and research. First and foremost, the living difficulty of developing and marketing a new product are very clearly apparent to teaching faculty. Second, the problems of smaller firms with limited resources and unknown names are parallel. Several new research questions have suggested themselves in this process. Third, the notions of "buy-in", shared responsibility, culture change, etc. are better understood.

Thus, the most important lesson is a more empathic teaching faculty with some ideas on better research.

There are many unknowns: although engineering programs have used similar systems for some time, the ability to integrate business disciplines and courses has a long history of failure.(Sztipanovits, Biswas et al. 2005) Initiatives that depend on interest and concern of specific faculty rather than institutional processes are often short-lived and only partially realized. Despite schools' best efforts, students as products are highly variable; the extent to which educational input matters is difficult to assess.

Finally, this will require several years of materials development along with trial and error in application. Success will depend, in part, on continued support from companies and administration. There is, then, great pressure on the faculty to make the program work. However, this in turn may lead to less openness rather than more, if the faculty perceive that support is conditional upon success rather than experimentation.

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# **THE TRADEOFFS OF INTEGRATION: TEN YEARS OF TEACHING INTEGRATED PROGRAMS IN A COLLEGE OF BUSINESS**

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## **EXTENDED ABSTRACT**

*There have been many articles describing attempts at integrative curriculum innovation in colleges of business and the benefits of integrated learning. Many of these articles conclude with the satisfaction of teaching in these programs. Recently there have been articles questioning the sustainability of these integration experiments based upon resource and infrastructure issues (Pharr 2003) and some have even reasoned that traditional approaches to curriculum with their learning silos may be a better fit for students entering the workplace (Campbell, Heriot, and Finney 2006). It appears that authors have fallen into two camps, proponents and antagonists. Perhaps the more reasoned approach is to look at curriculum integration as a series of tradeoffs.*

*The purpose of this paper is to describe our integration efforts in a number of programs and discuss them in terms of tradeoffs in four areas (curricular integration, teaching, learning, and institutional issues). Although we believe integrative curriculum can be a positive sum game for learning, we have also experienced the zero sum game of tradeoffs that must be played in order to sustain integrative curricular innovation and the motivation/passion of the participants.*

*The first part of our paper describes six integrative programs we have developed, taught in, and managed over the past ten years (Donoho and Anderson 2001). The second part of the paper presents the various tradeoffs we have found and have been reported in the literature.*

*There have been six major integrative curriculum initiatives in the College of Business Administration: the MBA program, the Pre-MBA Marketing and Management course, the Undergraduate Core Classes – the Business Block, the Master of Administration, the standardization of the traditional Capstone class, and Double Majors and Certificates.*

*In the second section we have categorized the tradeoff issues into four sections: Curriculum integration issues, teaching issues, student learning issues, and institutional issues. We have attempted to order the tradeoffs in terms of which are most important from our experience. However, there are many factors that may cause this ordering to vary. Our main concern is that these tradeoffs be discussed in the curriculum innovation process. The trade-offs are not all expressed as “either/or” decisions but often represent a continuum. The decision is then where one wants to be on that continuum in planning for integrated learning.*

*Curriculum integration issues include: Curriculum provides integration/student integrates, content/application, qualitative tools/quantitative tools, integration (big picture)/functional content (tools), integration timing – early/late/all though the curriculum, degree of integration –integrated curriculum/capstone class, plan/implement, integration/school norms, and degree of integration – intra-functional/inter-functional/inter-disciplinary.*

*Teaching issues include: Team teaching/individual teaching, team teaching – independent/interdependent, teaching styles – highly structured/free-flowing, team teaching experience – novice/experienced, degree to which educational pedagogy research is acceptable – not at all/always, degree of commitment to teaching – teaching oriented/research oriented, degree of cross-disciplinary stretch – single subject expertise (specialist)/multiple subject expertise (generalist), and team teaching/class size.*

*Learning issues include: Full time (lockstep) program/part time program, student/program fit, degree of learning ambiguity – structured/unstructured, and student evaluation – individual/team and integrative/functional.*

*Institutional issues include: Curriculum change sustainability, fixed curriculum/experimental curriculum, degree of impact on faculty, politics – caustic cynic/reasoned center/true believer, attitude/infrastructure/resources (Pharr 2000, 2003), and ownership of the programs.*

*The commitment to integrative learning is substantial. There are trade-offs inherent in this type of curriculum innovation. We have provided a list of those trade-offs and considerations subdivided into curriculum, teaching, learning, and institutional issues. Our experience with many integrative programs suggests that careful consideration of these issues can lead to a more realistic and sustainable approach to curriculum planning.*

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# **UNDERGRADUATES' SELF-EFFICACY PERCEPTIONS AND THEIR USE OF ONLINE LIBRARY RESEARCH SERVICES**

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## **ABSTRACT**

*The impetus for this study rests in the concerns of marketing educators and academic librarians regarding undergraduates' over-reliance on "Google-type" information searches vis-à-vis searching high-quality research databases for academic work. Students' perceived self-efficacy is found to be related positively and significantly to their intention to use electronic library resources, the relative amount of time they will use such services, and their attitude toward the use of these resources. Study findings suggest that professors/instructors play a pivotal role in shaping undergraduates' self-efficacy perceptions in this context. Also, results for high- vs. low-self-efficacy groups suggest that separate strategies may be required when marketing e-resources to undergraduates.*

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## **INTRODUCTION**

Today's typical undergraduate student arrives on campus equipped with an unprecedented set of computer skills and technology experience. The Pew Internet and American Life Project reports that one-fifth of college students began using computers between ages 5 and 8, while all students had used computers by age 18 (Jones 2002). Although students' familiarity and comfort with computers enables them to perform basic tasks (e.g., managing e-mail, typing papers), educators and librarians have become concerned that students' technical competence does not translate into information literacy in an electronic environment. The purpose of this paper is to present the results of a study that examines the relationship between students' perceived self-efficacy regarding their use of online library resources and their reported consumption of such services in the fulfillment of academic research assignments. The research also draws on the services marketing literature, since the online resources that academic libraries offer students are, in fact, intangible services. The results of a recent survey of undergraduates enrolled in marketing courses at a large state university in the Mid-Atlantic region are presented. Recommendations are offered, based on the study's findings, for enhancing students' "electronic information literacy," including the potential need for different strategies for high- and low-perceived self-efficacy students.

## **LITERATURE REVIEW**

### **Information Literacy and Marketing Education**

According to the Pew survey mentioned above, 73 percent of college students use the Internet more than their campus libraries. Moreover, many students use search engines and non-library web sites to conduct academic research for their coursework (Jones 2002), as opposed to using the electronic information resources provided by campus libraries at great expense to the colleges and universities who fund them. Two challenges for academic librarians and educators, then, are 1) to understand what factors influence students' consumption behavior in this setting, and 2) to design and market electronic information/research services in a manner that encourages students to use appropriate, scholarly research materials such as those found through proprietary online databases made available by campus libraries, for academic research purposes.

The challenge of helping students develop information literacy in an electronic world is of particular import for marketing educators. Undergraduates pursuing degrees in marketing must develop an adequate level of information literacy not only to achieve success in their college programs, but also to compete successfully for jobs in their chosen fields. Somewhat surprising is the fact that the marketing-education literature has relatively little to

say about this dimension of the marketing curriculum. One related study (Lunkenheimer 2002), which refers to Internet resources, used a modified Delphi research methodology to identify necessary competencies for e-commerce, e-business, and the Internet as they relate to marketing education. The author concluded that entry-level and advancement-level marketing employees should be able to 1) develop Internet search skills and strategies, 2) use the Internet for all types of research and business opportunities, and 3) organize, communicate, and present the results of Internet information in oral or written form. Unfortunately, this study did not comment on the distinctions between and among various types and the quality of Internet information sources. Marketing research increasingly depends on marketing practitioners' abilities to search for and find reliable, timely information using online database resources. Moreover, marketers know that it is imperative to understand their customers' online search attitudes, behaviors, and preferences. "A gulf separates those [marketers] who are exploiting the full potential of the online medium and those who are lagging behind. The gap is widening as early investors reap the knowledge dividend. Nowhere is this more true than in search marketing...." (Walmsley 2006, p.19).

Unfortunately, marketers and the firms that provide marketing services to them are finding a lack of competency among current and prospective employees in this critical knowledge and skill area. Ironically, the cause of undergraduates' information-literacy shortcomings may be rooted in the fact that they have access to too much information in formats that require too little intellectual effort. As one library professional put it, "They [students] slap down a few citations from Wikipedia (which comes up on many top results of 'research' type queries, because of Google's linking nature), and, with smiles on their faces, they hand in their work without even learning one thing about real research" (Cohen, 2006, p. 28). Still others assert, "Providing access to information is no longer the problem for most school libraries. In fact, students today have access to too much information. The problem is knowing where to find the information you need, efficiently and effectively, among the variety of information sources available" (Scott and O'Sullivan 2005, p.21). Given the overwhelming consensus in the literature about college students' over-reliance on "Google-type" searches for information to complete academic research assignments, the first hypothesis (H1) is directional in nature: H1: When asked to complete an academic research assignment requiring a specific number of scholarly references, undergraduate students will spend a significantly larger percentage of their time searching for information via non-library Internet sources, as opposed to using online information services available to them through their campus library.

### **Information Search as a Consumption Decision**

College students' use of online information services is a "consumption" decision. As such, any number of consumer behavior concepts and theories might offer some insight regarding undergraduates' decisions to use (or not use) high-quality online library resources versus the more popular web-based search engines. The research presented here relies on the concept of perceived self-efficacy. Psychologist Albert Bandura (1977) defines self-efficacy as the certainty one possesses that he or she can successfully execute a behavior that will result in a desired outcome. Unlike self-confidence, self-efficacy refers to how a person perceives his or her abilities as they apply to a specific task vis-à-vis overall skills in general. Bandura further hypothesizes, "Given appropriate skills and adequate incentives... efficacy expectations are a major determinant of people's choice of activities, how much effort they will expend, and of how long they will sustain effort" (p.194). In other words, the more capable a person believes himself to be of accomplishing a task, the more likely he is to choose to engage in the task, commit to the task, and complete it successfully. According to Bandura, one of the most important determinants of self-efficacy is past accomplishment (p.195). If a person succeeded in a challenge previously, that person will likely have a high efficacy expectation when faced with a similar challenge in the future.

For purposes of this paper, studies that pertain to self-efficacy and technology are discussed as they are most relevant to students' use of online resources. For example, business researchers interested in self-efficacy due to the increasing popularity of online shopping and other electronic services have produced numerous studies on the topic. One study (Dabholkar and Bagozzi 2002) investigated consumers' use of self-service technologies such as online shopping and banking, as well as on-site services including library self-checkouts. They confirmed that with greater perceived self-efficacy, consumers will become more confident in their own abilities and, therefore, not as concerned with the equipment's ease-of-use, and that the relationship between perceived fun and attitude toward the self-service technology will be strengthened. Another study examined Internet self-efficacy, or "the belief in one's capabilities to organize and execute courses of Internet actions required to produce given attainments" (Hsu and Chiu 2004, p.369), and its relationship to electronic service acceptance. The study concluded that customers are

more likely to utilize e-services if they have high Internet self-efficacy; therefore, service providers should take steps to increase consumer self-efficacy levels.

Educators have found that high self-efficacy among students corresponds with high levels of academic performance. One study by Joo, Bong and Choi (2000) examined various forms of self-efficacy, including academic self-efficacy defined by the authors as “one’s convictions to perform successfully at designated levels” (p.5), and their effect on 152 junior high school students’ performance in web-based instruction. They discovered a strong correlation existed between academic self-efficacy and written test performance. Another study in which 64 college students were required to solve word problems found that students in the high self-efficacy group had higher achievement goals and were better able to persist in the task and evaluate the correctness of their responses than those in the low self-efficacy group (Bouchard 1990).

As instructors increasingly apply technology in their teaching, educators have devoted special interest in self-efficacy and its role in online instruction as it pertains to students’ learning outcomes, motivation and attitude. One study (Wang and Newlin 2002) investigated the reasons why students enrolled in web-based courses and whether students’ self-efficacy for course content and technology was positively related to high grades. The researchers found that students who chose the online format because they enjoyed the style of learning or because they were curious about online learning in general had high perceived self-efficacy beliefs pertaining to both course content and technology skills, which correlated with final exam scores. They suggested that instructors consider the reasons students enrolled in the course to identify those at risk of doing poorly.

In addition to improving grades, bolstering students’ self-efficacy can also be an important factor in helping them to overcome computer anxiety, according to studies like the one conducted by Beckers and Schmidt (2001). Computer anxiety refers to a person’s “aversion, fear or apprehension towards interacting with computers or thinking about computers, intimidation by, resistance to, hostility, or aggression towards computers” (p.35). The authors discovered that while self-efficacy is not directly related to these affective feelings, it is related to higher levels of computer literacy, which were shown to counteract the effects of computer anxiety. These findings agree with those from a previous study of college students by Coffin and MacIntyre (1999), who state, “Over time, as people gain positive experience using computers, their attitudes can be expected to become more positive, their anxiety to decrease, and their perceptions of computer-related self-efficacy to increase—leading ultimately to improved performance with computers” (p.566). Coffin and MacIntyre’s study also revealed that there exists a strong correlation between task value and self-efficacy for learning, indicating that students who believe in the value of learning to use computers have better attitudes toward computers, higher computer-related self-efficacy, and ultimately better grades in computer classes.

#### **Online Academic Research Resources as Information Services**

Another useful perspective for understanding students’ use of online academic research resources made available to them via their campus libraries is the fact that these resources can – and should – be viewed as information services. Services (*vis-à-vis* tangible goods) are intangible, perishable, variable, and simultaneously produced and consumed. Critical to this perspective is the fact that consumption of this type of service offering 1) requires a significant amount of customer participation, 2) must be readily accessible for consumers, and 3) benefits from an interactive marketing communications program (Gronroos 1990). While not specifically addressed in this study, the fact that expectations play such a central role in service customers’ perceptions of service quality and ultimate satisfaction with a service may provide a basis for developing strategies to enhance perceived self-efficacy, much the same way that service marketers attempt to manage their customers’ expectations. Expectations are also central to Bandura’s (1977) seminal work in perceived self-efficacy.

While Bandura’s research focused primarily on clinical applications related to phobias, self-efficacy theory has broad implications for service providers, since service customers more often than not participate in the production of service offerings. As such, their ability to fulfill their designated role in the service-production process is paramount in terms of their ultimate desire to engage in the transaction itself, as well as their satisfaction with the service outcome (Bitner et al 1997). A number of studies have shown that perceived self-efficacy is a factor in 1) whether consumers will choose to use a service, 2) how long they will persist in using it to achieve their goals, 3) their level of motivation and attitudes toward the service, and 4) their performance outcomes (e.g., McKee, Simmers, and Licata 2006). The services marketing literature recognizes that a “customer’s role is significant in the

delivery and consumption of many types of services” (McKee et al 2006, p.207). The extent to which service customers believe they have the ability to fulfill their role and specific role-related tasks “is a powerful predictor of both attitudes and behaviors” (p.208) regarding consumption of the service offering.

**Self-Efficacy and Library Services**

The literature described thus far illustrates self-efficacy as it pertains to computers, the Internet and learning. All of these components are important for academic librarians’ marketing efforts in that they elucidate if, to what extent, and how effectively students will utilize online resources in general, but very little research exists that addresses self-efficacy and students’ use of proprietary online databases specifically, and none explicitly addresses library marketing considerations. Library and related literature that do address self-efficacy tend to focus on library instruction and other information literacy issues.

For instance, Kurbanoglu (2003) proposes that self-efficacy and information literacy are closely connected. The American Library Association (1989) defines information literacy as “the ability to locate, evaluate, and use effectively the needed information” (para.3). Kurbanolgu contends that students who feel confident in their information literacy skills will voluntarily take on solving information literacy problems and engage in intellectual risk-taking behaviors to do so. In his self-efficacy survey of students at Hacettepe University in Turkey, Kurbanolgu concludes that, “Students should be given the opportunity of acquiring more practice, and the measures should be taken to turn the results of these practices into positive developments” (p.641) in order to promote high self-efficacy.

Other research by Ren (2000) concerning 85 undergraduate students in an English composition course investigated the relationship between library instruction and college student self-efficacy before and after instruction. Ren found that students’ self-efficacy was significantly higher after instruction that included hands-on practice and that frequent use of library electronic databases was correlated with pre- and post-training self-efficacy. As Ren asserts, “Properly designed library instruction is more likely to help students dispel apprehensions related to electronic searching and increase their self-efficacy, which will motivate students to continue to learn and practice” (p.324).

Given these conclusions in the combined consumer behavior, services marketing, and other related literatures, the second hypothesis (H2) is also phrased directionally: H2: Undergraduates’ perceived self-efficacy regarding use of online academic library research services is positively related to their intention to use such services [H 2A], the relative amount of time they will spend using online library resources vis-à-vis other information sources [H 2B], and their attitude toward using such services [H 2C].

**RESEARCH DESIGN AND METHODOLOGY**

To test the two hypotheses set forth in the preceding discussion, 182 students enrolled in marketing courses at a large state university located in the Mid-Atlantic region volunteered to complete a paper-and-pencil survey. Students responded to seven items designed to measure their perceived self-efficacy regarding the use of online academic research resources made available to them via their campus library (Table 1). In accordance with Bandura, these items are task-specific, with the focus being students’ use of “electronic research resources made available through the university library’s website, including databases, e-journals, reference materials, and other information.” Next, students were presented with an academic research assignment scenario with the following requirements:

- 5-to-7-page academic research paper for a course required for your major program of study
- Minimum 10 different references/citations (at least 5 from refereed/academic journals)
- Footnotes or endnotes required, either APA or MLA citation style
- Due in one month

**Table 1**  
Perceived Self-Efficacy Items With Mean Scores

Item #	Students were asked to indicate their agreement/disagreement with the following statements ranging from 1 (Strongly Agree) to 6 (Strongly Disagree):*	Mean Score*
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1	I have <i>successfully</i> used [the campus] library's <i>electronic resources</i> to complete a class assignment involving <i>academic research</i> .	1.94
2	When faced with the requirement for a class assignment to conduct <i>academic research</i> , my <i>professors/instructors</i> encourage me to use the <i>electronic resources</i> of [the campus] library.	2.16
3	In the past, I have experienced <i>anxiety</i> and/or <i>stress</i> when I've been expected to use [the campus] library's <i>electronic resources</i> to conduct <i>academic research</i> for a classroom assignment.	3.80
4	My <i>friends</i> and <i>acquaintances</i> at [this university] routinely use the [campus] library's <i>electronic resources</i> to conduct <i>academic research</i> for classroom assignments.	2.91
5	I would feel " <i>stressed out</i> " if I received a class assignment that required me to use the [campus] library's <i>electronic resources</i> to conduct <i>academic research</i> .	4.25
6	Compared to my friends and classmates at [this university], I <i>know more about</i> using the [campus] library's <i>electronic resources</i> to conduct <i>academic research</i> for classroom assignments than they do.	3.53
7	I meet my <i>professors' expectations</i> when it comes to conducting <i>academic research</i> using the <i>electronic resources</i> at [the campus] library.	2.48

\* Note: Mean scores reported here are **prior to reverse coding** of negatively worded items (#3 and #5). Also, in the original questionnaire, the name of the university was inserted into [bracketed] items shown here.

Students were asked which of the four sources of information they would use to complete the assignment: 1) non-library Internet sources, 2) non-electronic library sources, 3) library electronic sources, and 4) other sources. As well, they were asked to indicate how much time in all they would spend searching for and identifying information needed to complete the assignment, as well as the percentage of time they would spend using each of the previous four sources (including zero percent). Finally, students were asked about their attitude toward using the online academic research services of their campus library.

## RESULTS

In terms of which categories of information sources they would use to complete an academic research assignment, such as that described in the scenario, four students (2.2 percent) reported they would not use online, non-library electronic resources (i.e., the Internet) at all, whereas 13 students (7.1 percent) indicated they would not use the online research services of the campus library at all. Thirty-nine students (21.4 percent) would not utilize the tangible resources of their campus library, and 96 (52.7 percent) would not use "other" information sources. Students indicated that, on average, they would spend 9.86 hours conducting research for the assignment described above (ranging from 1 to 100 hours, SD = 11.01). Consistent with concerns voiced by educators regarding students' preference for non-library online information resources, students (n=181, as one student respondent did not provide this data) reported they would spend an average 43.21 percent of this time utilizing non-library online information resources (ranging from 0 to 100 percent, SD = 24.54), compared to 34.24 percent using online research services offered by their campus library (ranging from 0 to 100 percent, SD = 21.42). A paired-samples t-test indicates that the average difference (8.97) is statistically significant ( $t = 2.790$ ,  $df = 180$ ,  $p = .006$ ). Students reported they would spend an average 17.60 percent of their time using tangible (i.e., print) library resources (ranging from 0 to 70 percent, SD = 15.65) and 4.96 percent of their time using other information sources (ranging from 0 to 50 percent, SD = 7.57). These results support the first hypothesis and confirm the concerns of librarians and educators about students' electronic information literacy.

To test Hypothesis 2, it was necessary first to measure students' perceived self-efficacy regarding their use of online information resources offered by campus libraries – a task-specific context. Mean scores of the seven

items comprising the self-efficacy measure are shown in Table 1. A factor analysis of these items revealed two dominant, underlying factors – Items 1, 2, and 7 (Mean = 2.19) and Items 3 and 5 (reverse coded, Mean = 2.97). A reliability analysis of Items 1, 2, and 7 as a multi-item measure of past experience/professors’ involvement indicated a Cronbach’s alpha of .74, and a Cronbach’s alpha of .77 for Items 3 and 5, as a multi-item measure of stress/anxiety associated with students’ use of online academic research services. At face value, the mean score for the first multi-item measure (2.19) indicates that students, on average, have a relatively high perceived self-efficacy regarding their use of online research services offered via their campus library. Dividing students into three self-efficacy groups – high, medium, and low – based on the distribution of respondent scores for this measure (Group 1 [n=105], Mean <= 2.0; Group 2 [n=53], Mean >2.0<=3.0; Group 3 [n=23], Mean >3.0) – a one-way analysis of variance indicates significant differences among the groups regarding the percentage of time they would use their campus library’s online research services (F = 5.759, df = 2, p = .004), as well as other online information sources (F = 8.266, df = 2, p = .000), to complete an academic research assignment. Table 2, which contains the results of Scheffé multiple comparison tests, provides convergent validity for the 3-item self-efficacy measure. As expected, students with the highest level of perceived self-efficacy regarding use of their campus library’s online research services spent the largest percentage of their time using these resources (39.02), while students with medium- and low-perceived self-efficacy used these resources 30.34 percent and 21.37 percent of the time, respectively. The table also indicates there are no differences among these groups with regard to their use of print library resources or other information sources. As such, students apparently “trade-off” between non-library and library electronic information services. Of note, as well, is that the greatest difference between percent of time spent using library vs. non-library online resources is reported by the group of students with the lowest level of perceived self-efficacy (25.73 percentage points).

**Table 2**  
Multiple Comparisons of Self-Efficacy Groups: Percent of Time Using Information Sources to Complete an Academic Research Project

Dependent Variable	Self-Efficacy (SE) Group	Group Mean Score On Dependent Variable*	Significant Differences	Level of Significance
Percent time using <i>non-library online</i> resources	High SE	39.05	H<L	.005
	Medium SE	45.43		
	Low SE	57.10	L>H	
Percent time using <i>library print</i> resources	High SE	17.10		
	Medium SE	18.36		
	Low SE	18.10		
Percent time using <i>library online</i> resources	High SE	39.02	H>M; H>L	.046; .001
	Medium SE	30.34	M<H	
	Low SE	21.37	L<H	
Percent time using <i>other</i> resources	High SE	4.83		
	Medium SE	5.87		
	Low SE	3.43		

\* Reported in percentage points. Scores for each group on the four dependent variables = 100%.

The second underlying self-efficacy factor (Items 3 and 5) pertained to students’ level of anxiety or stress regarding the use of online library research services. An analysis of the distribution of students’ scores on this measure indicated that three separate groups exist (low [n = 67], medium [n = 70], and high stress [n = 45]). Interestingly, a cross-tabulation of groups based on scores from the first self-efficacy measure (Items 1, 2, and 7) with groups based on scores from the “stress” measure indicated that the two measures are not significantly related. In other words, perceived self-efficacy rooted in past performance and instructor involvement (the first underlying factor) is distinct from perceived self-efficacy rooted in whether students experience stress and anxiety in this task-specific context. At the same time, a comparison of group means revealed a significant difference (F = 5.211, df = 2, p = .006) between the percentage of time the low-stress (high self-efficacy) group would spend using the online research services of the campus library (39.33 percent) versus the high-stress (low self-efficacy) group (26.31

percent). Unlike the results of comparisons based on the first underlying factor (Items 1, 2, and 7), no significant differences existed among groups in terms of their use of non-library online resources (low stress = 40.52 percent, medium stress = 42.36 percent, and high stress = 48.36 percent). These findings suggest that this dimension of perceived self-efficacy is, indeed, specific to library e-resources – as opposed to e-resources in general, and they clearly support Hypotheses 2A and 2B.

The final analysis examined the relationship between students' perceived self-efficacy and their attitudes toward using online research services offered via the campus library. Students responded to the single-item measure, "Knowing how to use the electronic resources at [the campus] library effectively is important to my academic success" (1 = strongly agree, 6 = strongly disagree). Table 3 shows that significant differences exist among the three groups for each of the self-efficacy measures. As in the case of previous analyses, the self-efficacy factor showing the greatest amount of influence on the dependent variable (in this case, attitude toward use of online academic research services), measured students' past performance and instructor involvement. The fact that students with higher perceived self-efficacy have a more favorable attitude toward the value of knowing how to use their campus library's e-resources effectively supports Hypotheses 2C.

**Table 3**

Multiple Comparisons of Self-Efficacy Groups: Mean Score of Response to Item Measuring Attitude Toward Use of Online Library Research Services

Dependent Variable	Self-Efficacy (SE) Group	Mean Score On Dependent Variable*	Significant Differences	Level of Significance
Attitude toward use of online library research services	High SE	1.83	H<M; H<L	.024; .000
	Medium SE	2.28	M>H; M<L	.024; .003
	Low SE	3.14	L>H; L>M	.000; .003
Attitude toward use of online library research services	Low stress/ High SE	2.09		
	Medium stress/ Medium SE	1.90	M<H	.009
	High stress/ Low SE	2.52	H>M	.009

\* Dependent Variable: "Knowing how to use the *electronic resources* at [the campus] library effectively is important to my academic success" (1 = strongly agree, 6 = strongly disagree).

## DISCUSSION

As with many studies, this one raises far more questions than it answers. It does, however, represent a good platform for understanding 1) how to measure students' perceived self-efficacy in this task-specific context and 2) the relationship between students' perceived self-efficacy regarding use of online library research services and their willingness to use these resources to fulfill the requirements of academic research assignments. First, results confirm undergraduates' preference for non-library online information resources (i.e., the Internet) vis-à-vis research services made available to them via campus libraries. Several underlying questions, however, remain unanswered. Do students understand the difference between information obtained via high-quality databases, such as those via electronic research services offered by campus libraries, and information of unknown quality obtained otherwise via the Internet? Do they know how to discriminate between credible information and that which is not so credible? Interestingly, although students reported in this study that they would use non-library Internet resources a significantly greater portion of the time they spend conducting research for an academic assignment, they also responded negatively to the following statement: "If information is on the Internet, then it is accurate" (Mean = 4.68, with 1 = Strongly Agree and 6 = Strongly Disagree). Furthermore, they felt that finding credible information on the Internet is time-consuming ("Finding credible information on the Internet is time-consuming." Mean = 1.98 (1 = Strongly Agree, 6 = Strongly Disagree). Such results force one to ask whether students discriminate between electronic information search experiences on the open range of the World Wide Web vs. those in the relatively

confined virtual space of academic library e-service offerings. If they do not, then the undergraduate curriculum should include elements to address this information-literacy shortcoming. Findings from this study suggest that professors/instructors likely play an important role in shaping students' perceived self-efficacy in this setting and, therefore, may be crucial to strategies developed to enhance students' perceived self-efficacy.

Other findings that should be of interest to educators and academic librarians are those that suggest there may be a small, but nonetheless important, group of undergraduates who have a relatively low perceived self-efficacy regarding the use of online academic research services. This group appears to be especially reliant on non-library sources of electronic information. An investigation into information search strategies in Web-based science learning by Tsai and Tsai (2003) found that high Internet self-efficacy students searched more successfully, learned more (based on pre- and post-tests), and employed more fruitful search strategies than their counterparts with low Internet self-efficacy. The authors of this study concluded that "higher Internet self-efficacy could enhance students' better behavioural, procedural and metacognitive strategies for searching information in a Web-based environment and, in turn, facilitate their learning in Web-based environments" (Tsai and Tsai p.48). Therefore, the authors advise teachers to better train students on metacognitive strategies and increase students' Internet use to enhance self-efficacy prior to entering an online learning environment. (Metacognition refers to thinking or reasoning about one's own thinking).

Yet another investigation into Web searching behaviors described the impact that self-efficacy and effort-accuracy trade-offs have on Internet searches (Kuo, Chu, Hsu, and Hsieh 2004). The authors of this study discovered that high-self efficacy individuals spent less time on searches than those with low self-efficacy, but were still able to achieve a high level of accuracy. Researchers attribute this finding to the fact that high-self efficacy individuals utilize a mental model of helpfulness they developed through their experiences with a few Web sites with which they are especially familiar. Although these two studies focused on self-efficacy and Web searching behaviors (as opposed to electronic library research services), research findings regarding perceived self-efficacy have been found to be generalizable across similar tasks (Bandura, 1977).

A fundamental question for educators and librarians, then, is this: What strategies and tactics can be used to favorably influence students' perceived self efficacy in this task-specific context? Bandura (1977) proposes four sources of self-efficacy: past performances, verbal persuasion, vicarious experience, and physiological states. Of these, verbal persuasion and vicarious experience offer the most promise for librarians who want to market their services in an effective and efficient way. Although Kurbanoglu (2003) asserts, "Students should be given the opportunity of acquiring more practice" (p.641) to promote high self-efficacy, and Ren (2000) found that students' self-efficacy was significantly higher after instruction that included hands-on practice, campus libraries face significant challenges in providing students with hands-on instruction in online academic research databases. Staffing and budgetary constraints often prohibit such instruction for all students (e.g., as a requirement for enrollment). Also, demand for this instruction is difficult to predict, and because facilities and staff are limited, it is not uncommon for demand to out-pace supply significantly during peak-demand periods (e.g., whenever academic research assignments are due).

Williams (2006) asserts, "To draw [library] patrons past the Googles of the world, we [librarians] need to revolutionize how electronic resources are promoted" (p.40). Interestingly, the marketing literature suggests that low- and high-self efficacy consumers may respond differently to potential marketing communications strategies (Dabholkar and Bagozzi (2002). Marketing educators and academic librarians alike will benefit from learning more about the potential influence of marketing communications on students' perceived self-efficacy in this task-specific context – the next step in this on-going program of research.

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# **AN EVALUATION OF COMMUNICATION AND OTHER FACTORS IN THE CORPORATE E-LEARNING ENVIRONMENT**

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## **ABSTRACT**

*E-learning, sometimes referred to as virtual learning environments (VLEs), or electronic learning has diffused extensively into the corporate workplace. The purpose of this study was to investigate key factors influencing corporate student satisfaction. Shea, Fredericksen, & Pickett (2001), found that better student performance in an e-learning course was directly related to increased learning, interaction and satisfaction. For our study a total of 227 respondents from a sample of 288 online learners completed the online survey. Results from September 2002 to February 2006 indicated student satisfaction in e-learning is influenced by 3 constructs: (a) instructor variables, (b) technical issues, and (c) communications/interactivity.*

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## **INTRODUCTION**

The growth of e-learning, sometimes referred to as virtual learning environments (VLEs), has skyrocketed both in the academic world and the corporate world. International Data Corporation (IDC) estimates the corporate e-learning market will grow to nearly \$32 billion by 2007 from \$6.6 billion in year 2002, a compound annual rate of 35.6% (Hayashi, Chen, Ryan, and Wu 2004).

*An example of the impact of e-learning is illustrated by GeoLearning. GeoLearning, a technology learning firm estimates that 40 cents of every dollar spent on a person in corporate learning is spent on travel and lodging costs. Technology-delivered courses not only trim costs, but also allow for increased productivity. Rather than being on the road and largely unavailable to clients, a salesperson can schedule training sessions during lulls in the day, as well. According to a GeoLearning case study, approximately 500 sales students from International Rectifier have completed more than 5,500 courses over nine months. The cost was only \$12 per student per course. The company saved approximately \$250,000 e-learning system compared to the costs associated with onsite training (David 2006).*

This example illustrates the cost savings of e-learning. However, one of the largest issues facing corporate training is e-learning dropout rates, typically at about 70% compared with an average of 15% for onsite training. Some of the rationale given for this dissatisfaction is poor communication and or the lack of interactivity (Shea, Fredericksen, & Pickett, 2001). Shea, Fredericksen, & Pickett (2001) found that better student performance in an online course was directly related to increased learning. Assessing student satisfaction in e-learning courses is necessary to help improve the course and program offerings. Satisfaction directly affects a student's motivation (Chute, Thompson and Hancock, 1999; Donohue & Wong, 1997) and desire to succeed, and in some instances has been related to attrition rates (Astin, 1993; Edwards & Waters, 1982).

Satisfaction is extremely importance in today's business because infrequent, inappropriate, and or ineffective methods in this realm could possibly contribute to corporate failures. So understanding the specific drivers of satisfaction can enhance knowledge for attracting and keeping students in vital courses for improving long term corporate goals.

The purpose of this research study is to determine if the library employees might experience satisfaction as students in Amigos Library Services (ALS) online courses and what factors contribute to that satisfaction. Results

from this study could assist organizations adopting e-learning programs in the future in reducing these factors to improve the effectiveness of electronic learning and e-learners' satisfaction.

### **Corporate e-learning and satisfaction**

According to the Webster dictionary satisfaction is defined as "the fulfillment of a need or want" and is synonym of contentment or gratification. Traditionally, student satisfaction has been defined as a student's perception of their college experience and the value of the education received while attending an educational institution (Astin, 1993). The physical environment of the institution, administrative support, and classroom environment as defined by the instructor and students all influence a student's sense of fulfillment or satisfaction with their learning experience. Today, as we attempt to re-define satisfaction in the new environment of web-based instruction, a student's perception of their online experience will still measure their satisfaction as long as we recognize that the factors affecting their experience may be different from those involved in traditional educational environments.

Student satisfaction can be defined as the student's perception pertaining to the experience and perceived value of the education received while attending any training (Astin, 1993) and is an important issue. Student satisfaction is important because it influences the student's level of motivation (Chute et al., 1999; Donohue & Wong, 1997) which is an important psychological factor in student success (American Psychological Association [APA], 1997). Student satisfaction has been linked to student participation in a course and thus to the student's ultimate performance in the course. For example, in a study students rated the instructor's content knowledge based on perceptions of enthusiasm and on presentation style. They rated the course based on how much they thought they learned which did not actually correlate with the amount they had learned. The researchers also reported the overall course rating was strongly correlated with the final grade received in the course. Despite these problems, surveys administered to distance learners after a course has been completed can give evaluators valuable information pertaining to satisfactory or unsatisfactory aspects. In turn, this information can then be used to improve the course or program (Chute et al., 1999).

Because of the complexity of human nature a student's psychological, social and economical needs will define their expectations with a course and thus their level of satisfaction, gratification and/or attainment of the personal learning goals established. An extensive review of the literature of studies related to satisfaction as one of the measures in online courses reveals that researchers implicitly define course satisfaction according to different factors in a class. These factors measured the success of student experiences and/or of student perceptions of different components of the course. In a study conducted by the American Society for Training and Development (ASTD) and the MASIE Center (MASIE) (2001) the drivers of satisfaction were determined to be a student's willingness to take another course, their overall level of positive experience, collaboration with others, technical and subject matter support in the course, previous e-learning experiences, and circumstances surrounding where and when the current course was taken. On another study by Ponzurick, France and Logar (2000) students were asked to rate their satisfaction with each of the course format components – organization, handouts, visual materials, participation, exercises, group activities, and others – to then create the overall "satisfaction with the course" measure.

Course satisfaction can be a crucial measure when attempting to improve course quality. In a study conducted by Long, Tricker, Rangelcroft, and Gilroy (2000), a template was developed to measure differences between student expectations and student's actual experiences with the online course. Areas with significant gaps between student expectations and course services were then targeted for improvement by the provider of the e-learning training services.

### **Factors Contributing to Student Satisfaction**

Bollinger & Martindale (2004) in their research of key factors determining student satisfaction in online courses found that out of the six constructs identified in the literature as related to satisfaction – instructor, technology, course management, course Web site, interactivity and general issues – only instructor, technology and interactivity were related to course satisfaction. Bean and Bradley (1986) concluded the best predictors of student satisfaction are in the areas of integration, e-learning fit, quality and usefulness of education, and difficulty of the program.

### **Instructor issues**

The instructor is the main predictor in course satisfaction (Finaly-Neumann, 1994; Williams & Ceci, 1997). Student satisfaction is highly correlated with the performance of the instructor, particularly with his or her availability and response time (DeBourgh, 1999; Hiltz, 1993). Instructors must be available if students have questions and must be flexible (Moore & Kearsley, 1996). The instructor not only becomes a facilitator of learning but also a motivator for the student. The instructor's feedback is the most important factor in satisfaction with instructions (Finaly-Neumann, 1994).

### **Technology**

Students must have access to reliable equipment. Students with limited access are at a considerable disadvantage to learners who have unlimited access (Wegerif, 1998). Access is one of the most important factors influencing student satisfaction (Bower & Kamata, 2000). Online learners must be familiar with the technology used in the course in order to be successful (Belanger & Jordan, 2000). Students who experience frustrations with technology in the course experience a lower satisfaction levels (Chong, 1998; Hara & Kling, 2000).

### **Communication**

Moore and Kearsley (1996) mention three important types of interaction in distance learning courses: (a) learner-content, (b) learner-instructor, and (c) learner-learner. Instructors should include all type of interactions in their distance learning courses when possible and when appropriate. One way to overcome the feeling of isolation is to establish a sense of community for learners in the beginning by giving them an informal warm-up period with the use of structured exercises (Wegerif, 1998). Mood (1995) reports course goals and objectives should be clearly communicated to the students at the beginning of the course. If students know what to expect and what is expected of them, their levels of anxiety can be reduced. Instructors should encourage student participation, provide updated information, and monitor student progress. Students should also have opportunities to become self-directed learners and structure their own learning experiences (Wegerif, 1998). Learning environments include a complex and diverse gamut of components which in isolation or combination affect a student's achievement in and satisfaction with a course. Communication, collaboration and support have been found to influence satisfaction and success in online environments. For instance, collaborative learning tools which allow for group work, immediate student and instructor feedback, improve a student's opportunities to gain insight and just-in time perspectives (Bolliger & Martindale, 2004) in an otherwise not naturally interactive environment. These interactive communication tools increase the quality of instruction, raise student motivation due to increased participation access and ultimately improve student satisfaction outcomes (Hiltz, 1993). Communication must be on a regular basis (Mood, 1995); otherwise, students can experience a great level of frustration (Hara & Kling, 2000). In addition, feedback gives students the opportunity to revise assignments which acts as reinforcement of concepts introduced in the course.

### **Interactivity**

Learning environments in which social interaction and collaboration is allowed and encouraged lead to positive leaning outcomes (APA, 1997). Collaborative learning tools can improve student satisfaction in the online learning environment (Bonk, 1998). These tools allow for group work and immediate feedback. Students are able to share viewpoints and discuss them with one another in a virtual environment, thereby gaining insights and perspectives they otherwise would not have been exposed to. This type of environment allows for social interaction and creates meaningful, active learning experiences (Bonk, 1998).

Students with a positive attitude were found to be more satisfied with the online experience. These individuals spent more time being actively engaged online (Hiltz, 1993).

### **The Value of E-learning**

Corporate e-learning courses target skills in customer service, management, technology, finance, product knowledge, organization, and communication (Bonk, 2002; Comacchio & Scapolan, 2004; DeRouin et al., 2005; Pulichino, 2004; Taylor Nelson Sofres, 2001). These skills indicate employee competency and often aid in

attracting and retaining customers. In addition to training and development, businesses value e-learning because of its cost, flexibility, and immediacy. Compared to traditional face-to-face learning, researchers found that e-learning is less expensive, more accessible (anytime and anyplace), and more responsive to the learners' immediate needs and learning objectives (Bonk, 2002; Comacchio & Scapolan, 2004; DeRouin et al., 2005; Pulichino, 2004; Taylor Nelson Sofres, 2001).

Although the adoption rate of e-learning is increasing among businesses, a gap (Fig. 1) is occurring as several barriers delay its adoption (Comacchio & Scapolan, 2004; DeRouin et al., 2005; Ellis, 2003; Simmons, 2002). For example, finding time for e-learning is difficult because most employees are not required to attend and complete e-learning courses at certain times or in certain places (Ettinger, Holton, and Blass., 2005; Simmons, 2002; Vaughan & MacVicar, 2004). Low computer confidence and low employee self-efficacy may also limit the effectiveness and adoption of electronic learning (Ettinger et al., 2005; Mungania, 2003; Simmons, 2002; Taylor Nelson Sofres, 2001). Given that there are many benefits to e-learning, investigating the latent factors affecting satisfaction is extremely important.

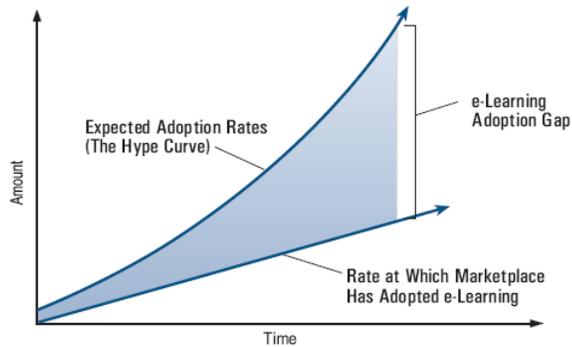


Figure 1. E-learning Adoption Gap. Dataquest: Worldwide Services Group, 1998

## PRESENT STUDY

### Background

This study stems from Dr. Victoria Perez Cereijo, Dr. Chris Myers, and ALS' research project. The ALS provides technology and training services to library workers from public school, university, and corporate libraries in the southwestern United States. In the past, the organization provided their services in the traditional face-to-face format, but recently began to offer live online and self-paced courses. The library employees' evaluation of live online courses constitutes the main objectives of this study: to assess whether the courses' technology and course design contributed to their experiences with e-learning and whether their experiences subsequently impacted their post-training skills and course satisfaction.

### Research Question

1. What factors contribute to the satisfaction of librarian personnel in the ALS e-learning courses?

## METHODOLOGY

### Sample

The population consisted of 227 library employees who completed various ALS live online courses from September 2002 to February 2006. The graduate instructional technology program was selected because it provided

the researchers with a large number of online learners; however, the instrument may be used to evaluate any online course

As shown in Figure 3, 3% of these participants were archivists, 12% were librarians with no supervisory responsibility, 3% assistant or associate directors, 3% were librarians with preservation duties, 6% were directors, 25%, were library assistants, 22% were librarians with supervisory responsibilities, and 26% were "Other." Positions included in the "Other" category were circulation desk supervisor, technical information specialist, library clerk, cataloger, library technician, purchasing/receiving/cataloging trainer, ILL library specialist, Web coordinator, data entry operator, technical support analyst, and serials processor.

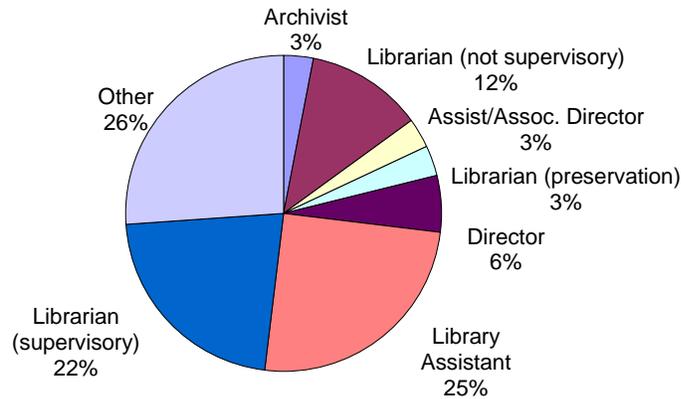


Figure 2. Library Employee Participant Positions

**Procedures**

ALS offered 54 live online courses to library staff members. The staff completed a selection of these courses with topics ranging between digital imaging (management, preservation, metadata, etc.), Web publishing (HTML, XML, style sheets, accessibility, publishing, etc.), general Internet searching, specific subject searching (legal information, science-math resources, etc.) and Online Computer Library Center (OCLC) training. Library employees individually and voluntarily signed up for specific ALS courses. They participated in exercises and/or completed homework assignments in the courses, where each may have lasted from one and a half to two hours each day for anywhere between three to four days. Participants in this study then filled out and submitted an ALS course evaluation online. Results from the collected evaluations were assessed using quantitative statistical analysis methods and multivariate statistics.

**Measure**

The 32-item ALS course evaluation survey included Likert-type, ordinal, and open-ended questions and addresses three factors: (a) instructor, (b) technology, and (c) communication. From the 32 items, 27 items were grouped under categories measuring technological, course design factors, emotional and social isolation, employee performance, or satisfaction based on the literature review findings of this study. The estimated time for participants to complete the survey was 8 minutes. Participants were asked to indicate their level of satisfaction on a 5-point Likert-type scale ranging from 1, strongly disagree to 5, and strongly agree. Table 1 identifies the major areas for our variables and how they each were operationalized. The Communication variables were identified as HANDOUTS, ACTIVITIES, and CLEAR. The Instructor variables were identified as ORGANIZED and KNOWLEDGE, while the Technology variables were identified as CONNECTION, and COMPUTER SPEED.

Additionally, we identified some variables that have an interaction effect. Based on the literature, instructor and communication variables were identified as being very important in other studies. We identified the most important instructor and communication variables, and identified interaction variables of ORGANIZED\*ACTIVITIES and CONNECTION\*HANDOUTS.

**Statistical Assumptions**

The data was examined for statistical assumptions (e.g. sample size and missing data, linearity, multicollinearity, singularity, univariate and multivariate outliers). The Pearson correlation coefficients were examined in a correlation matrix in order to determine if multicollinearity existed. Table 2 displays the bivariate correlations. Variables with a correlation coefficient in a specific range explain the relationship. Variables with correlation coefficient between .40 and .59 are considered to have a moderately strong relationship; correlation coefficients between .60 and .80 are considered to have a strong relationship; and correlation coefficient between .80 and 1.0, have a very strong relationship. Many correlation coefficients exceeded .40 and the highest correlation coefficient detected in this matrix was .87. The collinearity diagnostic demonstrated variance proportions were below .64 and this leads to the conclusion that no multicollinearity existed between any of the dependent variables. Each dependent variable was an independent measure, therefore, ruling out singularity.

**RESULTS**

**Statistical Analysis**

In our model, variables were identified as Instructor Factors, Communication Factors, and Technological Factors. These were each analyzed to determine how they contribute to the level of satisfaction of a student. As supported by our literature findings, Instructor Factors, Communication Factors, and Technological Factors may be a contributor of Satisfaction, as shown in our model, and may be defined by the variables Organized, Knowledgeable and TechSupp. In the proposed research model of this study, variables identified as Technological Factors and variables identified as Course Design Factors are all thought to contribute to feelings of Attachment in students participating in online courses. Regression analysis and bivariate correlation procedures were performed to establish existing relationships among all variables to help us support or redefine the proposed research model.

TABLE 1. OPERATIONALIZATION OF CONSTRUCTS	
<b>Handouts</b>	Handouts communicated relevant material
<b>Activities</b>	The activities communicated and reinforced your learning
<b>Clear</b>	Course content was communicated clearly
<b>Organized</b>	The instructor was organized
<b>Knowledgeable</b>	The instructor was knowledgeable
<b>Effective</b>	Satisfied with the course instruction
<b>Length</b>	The length of the class sessions was appropriate for e-learning
<b>Connection</b>	Indicate your connection level
<b>Compute Speed</b>	Indicate your computer speed level
Organized * Activities	Organized and Activities
Connection * Handouts	Connection and Handouts

Table 2. List of Variables	
1	Handouts
2	Activities
3	Clear
4	Organized
5	Knowledge
6	Satisfaction
7	Length
8	Connection
9	Computer Speed
10	Organized * Activities
11	Connection * Handouts

**Bivariate Correlations**

Table 2 displays the bivariate correlations. Variables with a correlation coefficient in a specific range explain the relationship. Variables with correlation coefficient between .40 and .59 are considered to have a moderately strong relationship; correlation coefficients between .60 and .80 are considered to have a strong relationship; and correlation coefficient between .80 and 1.0, have a very strong relationship. There were many relationships with a correlation coefficient at .40 to .80.

There are many correlations that are very important but we want to draw attention to the strong Pearson correlations between SATISFACTION and ACTIVITIES (r=.58), CLEAR (r=.67), ORGANIZED (r=.63), and KNOWLEDGE (r=.52). Additionally, ACTIVITIES is moderately correlated with CLEAR (r=.57) and ORGANIZED (r=.57).

The interaction of variable created from instructor and communication variables, ORGANIZED\*ACTIVITIES has moderately strong to very strong relationships with multiple variables. These strong correlations denote the importance of this interactive effect existing in the corporate e-learning environment.

Table 3. Correlation Table																
Var	1	2	3	4	5	6	7	8	9	10	11					
1	1.00															
2	0.36 ***	1.00														
3	0.31 ***	0.57 ***	1.00													
4	0.40 ***	0.57 ***	0.67 ***	1.00												
5	0.29 ***	0.53 ***	0.59 ***	0.71 ***	1.00											
6	0.36 ***	0.58 ***	0.67 ***	0.63 ***	0.52 ***	1.00										
7	0.32 ***	0.46 ***	0.53 ***	0.45 ***	0.39 ***	0.55 ***	1.00									
8	0.04	0.04	0.01	0.05	0.06	0.06	0.09	1.00								
9	0.02	0.00	0.06	0.06	0.06	0.02	0.02	0.15 *	1.00							
10	0.41 ***	0.86 ***	0.67 ***	0.87 ***	0.72 ***	0.66 ***	0.47 ***	0.06	0.05	1.00						
11	0.82 ***	0.27 ***	0.22 **	0.27 ***	0.17 *	0.34 ***	0.18 **	0.53 ***	0.05	0.28 ***	1.00					

\*\*\* Correlation is significant at the 0.001 level (2-tailed).  
 \*\* Correlation is significant at the 0.01 level (2-tailed).  
 \* Correlation is significant at the 0.05 level (2-tailed).

**Regression Analysis**

A regression analysis was performed to measure the level of satisfaction. We illustrate 4 models in Table 3 which denote the different levels of relationships for the displayed variables in Table 1. In Model 1, we illustrate the basic model with SATISFACTION as the dependent variable and the following independent variables: HANDOUTS, ACTIVITIES, ORGANIZED, KNOWLEDGE, CONNECTION, and COMPUTER SPEED. According to the results, these factors accounted for about 48% of the variance in SATISFACTION ( $R^2 = .48$ ), and these group of variables had an overall statistically significant relationship ( $F_{6, 204} = 31.7, p < .001$ ). Thus, in general, two of the independent variables ACTIVITIES ( $B = .277, p < .001$ ) and ORGANIZED ( $B = .463, p < .001$ ), explained some of the variation in the student's satisfaction.

In Model 2, we add an additional instructor variable in CLEAR. The results are an improvement in the model with the factors accounting for 54% of the variance in SATISFACTION ( $R^2 = .54$ ), and the model is significant ( $F_{6, 209} = 38.9, p < .001$ ). The significant independent variables in this model are ACTIVITIES ( $B = .175, p < .01$ ), ORGANIZED ( $B = .302, p < .001$ ), and CLEAR ( $B = .363, p < .001$ ). The addition an additional instructor variable adds to the level of satisfaction of the student.

Model 3 adds an additional course design factor in LENGTH. As mentioned earlier, LENGTH reflects the student's satisfaction with the allocation of effective time in administering the course. According to this model, the following factors account for about 55% of the variance in SATISFACTION ( $R^2 = .55$ ) in this significant model ( $F_{5, 214} = 52.75, p < .001$ ). In this model, the communication, instructor, and course design factors are significant: ACTIVITIES ( $B = .142, p < .05$ ), ORGANIZED ( $B = .273, p < .001$ ), CLEAR ( $B = .312, p < .001$ ), and LENGTH ( $B = .198, p < .001$ ). This model reveals that course design actors can contribute to the SATISFACTION of students in the corporate training environment.

In our final model, it was important to consider the interaction effect of specific variables because of the extant literature. Our Model 4 illustrates that their can be further improvement in SATISFACTION, by the inclusion of interactive effects of ORGANIZED\*ACTIVITIES AND CONNECTION\*HANDOUTS. According to the results, the inclusion of these factors accounted for about 57% of the variance in SATISFACTION ( $R^2 = .57$ ), and this group of variables had an overall statistically significant relationship ( $F_{4, 208} = 70.3, p < .001$ ). This model reveals that an e-learning course should allow for the following variables: CLEAR ( $B = .337, p < .001$ ), LENGTH ( $B = .2, p < .001$ ), ORGANIZED\*ACTIVITIES ( $B = .102, p < .001$ ), and CONNECTION\*HANDOUTS ( $B = .015, p < .01$ ).

TABLE 4. REGRESSION MODELS FOR SATISFACTION												
Variables	Model 1			Model 2			Model 3			Model 4		
	B	t	Sig	B	t	Sig	B	t	Sig	B	t	Sig
Constant	0.083	0.354		-0.19	-0.83		-0.25	-1.21		0.308	3.124	**
Handouts	0.052	1.441		0.047	1.395							
Activities	0.277	4.627	***	0.175	3.018	**	0.142	2.524	*			
Organized	0.463	5.111	***	0.302	3.834	***	0.273	3.634	***			
Knowledge	0.060	0.657										
Connection	0.030	1.670		0.025	1.479							
Computer Speed	0.012	0.239										
Clear				0.363	5.051	***	0.312	4.253	***	0.337	4.781	***
Length							0.198	3.599	***	0.2	3.735	***
Organized * Activities										0.102	4.747	***
Connection * Handouts										0.015	3.215	**
		F										
F		31.70	****		39.90	***		52.75	****		70.32	****

R2		0.48		0.54		0.55		0.57
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\*p < .05

\*\*p < .01

\*\*\*p < .001

### CONCLUSIONS

In this study, the extant literature has many online and e-learning studies that have researched student satisfaction. The predominant factors are in the categories of instructor, communication, and technology. We identified specific variables used in the ALS survey which focused on the areas for this study, and they were grouped under the categories drawn from the literature review. Our proposed model includes new suggested relationships which include accounting for the interactive effect of communication variables with instructor variables.

Here we demonstrate that student satisfaction is tied to specific categories of variables: Communication variables such as ACTIVITIES and CLEAR (communication), Instructor variables such as ORGANIZED. We also identified the most important instructor and communication variables, and identified interaction variables of ORGANIZED\*ACTIVITIES and CONNECTION\*HANDOUTS. It is reasonable to see that attrition or dropout rates could be improved with improvement in these areas of the courses.

### MANAGERIAL IMPLICATIONS AND FUTURE RESEARCH

There are two major managerial implications from this study. The first managerial implication is that we recommend that emphasis be placed on instructor training and communications. This was the most important aspect revealed in the study. Since we can conclude from this study that important factors may have an interactive effect, it is important to that we address the critical areas for communicating with students. It would appear that communications assists in improving understanding and satisfaction for each and every student. Secondly, our study highlights the importance of designing course evaluation surveys to measure areas of satisfaction. Although there were many items in the ALS survey, many were not directly or indirectly related to student satisfaction, thus they were not used in our analysis.

Our future research in this area is first to assist in redesign of the course surveys for librarians. With this done, we can better evaluate categories that we identified in this study as well as other categories identified by the extent literature.

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# **ABILITY AND PERFORMANCE OF COLLEGE STUDENTS: THE ROLE OF EFFECTIVE STUDY HABITS**

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## **EXTENDED ABSTRACT**

*Even if volumes of popular literature laud the benefits of effective study habits, there is little empirical research that has explored this relationship. This study attempts to shed more light on this issue. The study has three objectives. First, an attempt is made to develop an instrument that measures effective study habits of college students. Second, the study attempts to determine the relationship effective study habits have with academic success as measured by cumulative grade point average (CGPA). Finally, this research also makes an attempt to determine if the effective study habits of college students moderate the relationship between their ability and academic success. The two specific hypotheses tested in this study are as follows:*

**H1:** *Effective study habits will positively correlate with academic performance*

**H2:** *Study habits will moderate the relationship between ability and academic performance in that the influence that ability has on performance will be greater for students with effective study habits compared to students with poor ones.*

*A sample of 201 students attending a medium-size (10,000+ students) AACSB accredited state university in the south was used as the sample. Surveys were administered in six different marketing and management courses where students responded to the 18 items that measured their study habits, motivation, and demographics GPA etc. Eighteen items that focused on a variety of behaviors students display while studying were used in the survey to measure study habits. These items attempted to measure three aspects of effective study habits: The ability to pay attention while reading and listening to lectures (Concentration), taking good notes (Notes), and scheduling regular review periods (Scheduling). Data were subjected to reliability analyses using Cronbach's alpha. All items that showed low item-to-total correlation with the dimension that it was supposed to measure were dropped from further analysis (Churchill, 1979). This reduced the number of scale items from the initial pool of 18 down to 8. The alpha coefficients for the three dimensions of effective study habits varied between 0.81 and 0.91 and were acceptable as per Nunnally (1978). A confirmatory factor analysis (CFA) using LISREL 8.54 and the maximum likelihood estimation procedure met the standard fit requirements for excellent model fit (goodness-of-fit index [GFI] = 0.98, adjusted goodness-of-fit-index [AGFI] = 0.96, confirmatory fit index [CFI] = 1.00, normed fit index [NFI] = 0.98, root mean square error of approximation [RMSEA] = 0.01).*

*Both hypotheses were tested using hierarchical multiple regression analysis controlling for the variables gender, race, and age, academic load, as well as achievement striving dimension of type - A behavior as a surrogate for motivation. All variables were standardized and centered to avoid the presence of multicollinearity when introducing interactive terms as suggested by Aiken and West (1991). Hypothesis H1 that stated effective study habits to significantly relate with academic performance was partially supported. As expected, the effective study habits dimension "notes" demonstrated a positive and significant slope coefficient with cumulative grade point average (CGPA) (slope = 0.22,  $p < 0.05$ ). However, neither of the other two dimensions, "concentration" or "scheduling" showed a significant relationship with CGPA. In hypothesis H2, only the interaction between "notes" and ACT composite score demonstrated a significant influence on CGPA (slope = 0.19,  $p < 0.05$ ) as indicated by the significant slope coefficient and coefficient of determination ( $R^2 = 0.07$ ). Also, as indicated by the sign of the slope coefficients as well as the procedures stated by Aiken and West (1991), results indicate that academic*

*performance was higher for students who had a high ACT composite and also scored high for the effective study habits dimension notes compared to students who had a low ACT composite and scored low for the effective study habits dimension notes.*

*Results from both hypotheses H1 and H2 taken together have implications for instructors and students. For example, marketing majors are reported as spending more time at work than other business majors and as such are more likely to have high levels of absenteeism than other business majors. Also as college instructors, we have all witnessed at least a handful of students either sleeping, not paying attention (i.e., studying for another test), or day dreaming in each of the undergraduate marketing courses we teach (maybe they are tired after working so many hours!). These students even if they are physically present in class are unlikely candidates to be good note takers. Considering the fact that marketing students are more likely to be in academic trouble than other business major, it will benefit these students mostly if they have access to a good set of notes. Having a good set of notes will help them do well academically when the study problems they face meet these circumstances. As professors we can fully support our students' efforts to create a good set of notes by taking advantage of the many ways (e.g., blackboard, personal or textbook websites) that are available to communicate information to our students today.*

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## **IF THE FAT LADY NEVER SINGS, CAN IT EVER BE OVER? THE IMPACT OF A MODEL'S BODY SIZE ON THE EFFECTIVENESS OF THE ADVERTISEMENT**

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### **DETAILED ABSTRACT**

*Western culture has made beauty synonymous with thinness (Dittmar and Howard 2004; Wiseman 1992). Constantly reinforced by super-thin models, Americans are led to believe that the ideal body can be obtained by diet and exercise (Arugueté, et al. 2006, Dittmar and Howard 2004). Models in the media and in advertising messages set a standard that the average women realistically cannot meet. Truth is, the average model does not look like the image that appears in the advertisement either because the images in the media are intensely edited and refined prior to printing (Monro and Huon 2004).*

*The mass media has been referred to as the "loudest and most aggressive purveyors of images and narratives of ideal slender beauty" (Dittmar and Howard 2004). The average American woman does not look like Barbie. The average American woman does not look like a super model. Even Katie Couric has discovered that talent and skill can take the back seat to unrealistic expectations on body shape and size. The average American woman is 5 foot 4 inches and 143 pounds versus the average American model being 5 foot ten inches and weighs 107 pounds (Salvatore 1999). The media portrayed 'ideal' image of a woman keeps getting smaller and smaller ad the average US women's body weights are instead increasing (Dittmar and Howard 2004).*

*Academic researchers have long confirmed that an intended consumer's response to an advertising message can translate into feelings about the product (Burke and Edell 1989). Therefore, it is not surprising that the fashion industry claims that they are simply meeting customer expectations (Dittmar and Howard 2004). Marketers insist they are responding to consumer demands -- beautiful, skinny models sell more product. Modeling agencies contend that they are supplying the type of model demanded (Gillian, 2000). Academic research has confirmed that ads with attractive models out perform ads with less attractive models (Baker and Churchill). Consequently, there is no rush to change either the type of model delivered nor the type of model utilized (Dittmar and Howard 2004).*

*Unfortunately, some have argued that the impossibility of imitating a model's appearance might be damaging to self-esteem and could lead to dissatisfaction with body image (Engeln-Maddox 2005). While it is empirically unclear the extent to which these negative consequences occur, Dittmar and Howard (2004) found that the use of average-sized models in advertisements did reduce body-focused anxiety among the readers. The potential negative consequences might be avoidable if consumers respond equally well to average sized models.*

*Academic researchers have found that attractiveness is not necessarily a function of body size. Contrary to what many in the fashion industry might believe, at least one study has suggested that equally attractive models can be equally effective even without the need for excessively thin models (Dittmar and Howard 2004). There are several examples of effective campaigns using of normal-sized models (Williams 2005). Furthermore, product category may impact consumers' perceptions about the advertisement (Caballero 1984).*

*This study experimentally examines the relationship between body size and attitude toward the ad. Mock advertisements were created containing a standardized, attractive model's head on four different body types. A control ad containing a body type typically used in a swimsuit or lingerie ads was compared to three treatment conditions (ultra thin body type, plus size body type and a body with average body proportions of an average weight woman in the US). Two similar, but unique, product categories were included. Perfume was considered to be viewed as a beauty product and a more emotional purchase. Air freshener was considered to be viewed as a household cleaning product and a more rational purchase. A discussion of results and managerial implications are provided.*

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## **FORBIDDEN AND TAINTED FRUIT” THE MARKETING IMPACT OF MATURE RATINGS ON VIDEO GAMES**

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### **DETAILED ABSTRACT**

*The United States has relied on the use of consumer warning statements, in advertising and on packages, to shape consumer behavior since the introduction of cigarette health warnings in the 1950s. Since their inception, academic scholars have attempted to ascertain the degree to which warnings are an effective means of modifying consumption behavior. Determining the overall effectiveness of any type of warning systems, such as cigarette warning labels and movie rating systems, is onerous and problematic, in part, because of the number of extemporaneous factors which contribute to consumer decision making. Most typically, elements of the warning statement itself (content and intensity) have received the majority of the academic attention.*

*Researchers have frequently concluded that warnings do not generate the intended response from consumers. Several psychological theories have been used to predict the degree to which a consumer will reject a statement of warning. Forbidden fruit and tainted fruit are illustrations used to describe the possible effects warning labels and advertising campaigns have on consumers. The terms describe an almost reverse psychology effect, where an individual is going to do the opposite of what they are told. Meaning, “anything I shouldn’t have is probably really fun to have” (Bushman 1998). The “fruit” therefore becomes a stimulus to which consumers are going to react. Social psychology’s “reactance theory” is another. In this case, threats to freedom are the reactance to which an individual might respond. Freedoms include liberty, mental or physical (Clee and Wicklund 1980). Individuals act upon infringements to said freedoms because of social and personal behavior characteristics. Both theories can be used to predict a consumer rejection of a warning.*

*The previous research in warnings, most commonly in the product areas of cigarette, alcohol and drugs, provide foundational insight into how consumers will respond to other types of warnings. Similar to other previously studied product categories, computer and video games have a warning label system designed to inform consumers of the content found in the game. The Entertainment Software Rating Board (ESRB) exists to monitor game content and thereby assign a proper warning label. Labels recommend the age a player should be to play before being allowed to buy a computer or video game.*

*In theory, the ratings on computer and video games help parents monitor content of the games children play and allow children to select age appropriate games. Game ratings are largely based on the degree to which the games contain violence and sexual content. While a mature rated game “M” “may contain intense violence, blood and gore, sexual content and/or strong language,” a game rated “E” contains “minimal cartoon, fantasy or mild violence and/or infrequent use of mild language” (Entertainment Software Rating Board 2006). Unfortunately, little to no academic research has examined the extent to which the ratings are effective.*

*One potential, unanticipated and undesirable outcome of the ratings would be for the more intense warnings (e.g. Mature, Adult or Teen) to make the game more appealing, rather than less appealing, to children. An application of the forbidden and tainted fruit theory would suggest that consumers will desire to have that from which they have been warned away. The worst case scenario would be one where children would strongly desire and seek out inappropriate games with graphic sex and violence and young adults would reject games appropriate for all ages as immature and boring. In other words, the more graphic the sex and violence, the more appealing the game will be to children in an inappropriate age range. On the other hand, a label indicating limited sex and violence might make an all-age appropriate game seem unappealing, particularly to individuals old enough to have more mature games. If the history of cigarettes and alcohol are any indication, children will obtain that which they are denied by using a variety of creative approaches.*

*The purpose of this study is to examine the degree to which video game rating are associated with desirability and intention to buy measures. Using random assignment to control and treatment groups, individuals in the age range of 10 to 21 were asked evaluate a fictitious new video game. The control advertisement was for a game rated E10+. The two treatment game ads were for games rated teen (“T”) and mature (“M”). All other*

*elements of the ad, including mock consumer evaluations of the new game, were held constant. Comparisons across groups are provided. Public policy implications are considered.*

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# **ATTITUDES, DEMOGRAPHICS, EXPERIENCE, AND PERSONALITY: A COMPARISON OF ONLINE SHOPPERS AND NON-SHOPPERS**

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## **ABSTRACT**

*Understanding the factors influencing the success of eBay auctions has recently received much interest from academic researchers. Most studies concentrate on the effects of auction characteristics on auction success. A few studies examine consumer demographics and characteristics of the communities in which they live as predictors of auction success. To date, however, no study has attempted to identify consumer personality traits, values, and attitudes that may help predict auction success. This study examines some of these variables and their impact on eBay participation by consumers. Both family size and consumption motivation have positive impacts on eBay participation.*

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## **INTRODUCTION**

Electronic commerce is becoming increasingly more important to both sellers and buyers, including large corporations. Though still considered to be in its infancy, Internet usage and online marketing are growing explosively. During 2003, approximately 40 million households in the U.S. alone made at least one consumer purchase from the Internet, up from only six million in 1994. Online retailing has become, and will continue to become, a full and complete business model for some companies. Internet firms such as Amazon.com, eBay, Yahoo!, and Netscape, have proven this type of business model can be very successful.

One of the most powerful of the many players in e-commerce is eBay. According to eBay's recent report of its 2005 financial results, it had approximately \$4.552 billion in revenue in 2005, up 39% from 2004. In addition, 1.9 billion products were listed for sale on eBay in 2005 and the total value of all successfully closed listings on eBay was a record \$44.3 billion. eBay has grown faster than any other company in history, including Microsoft, Dell, and Wal-Mart. Some 71.8 million active users bought and sold merchandise on eBay in 2005 (eBay Annual Report 2005). This is more than the gross domestic product of over half of the world's countries. If eBay was a brick-and-mortar retailer, rather than the world's largest on-line marketplace, it would be larger than Best Buy and Lowe's. If eBay actually employed the 500,000+ people who earn all or most of their income selling on the site, it would be the second largest employer on the FORTUNE 500, with only Wal-Mart employing more people.

Consumers are also increasingly finding the value of utilizing eBay to obtain items more inexpensively, more conveniently, etc. As the economy continues to be in a state of flux and consumers are uncertain about gas prices, the future of interest rates, etc., will they turn more to eBay as a means of reducing financial risk? If some increase their utilization of eBay and some do not, what are the individual attitudes and personalities that drive these consumers in their eBay activities?

Advances in technology and increasing ease of using the Internet are leading to a proliferation of online business. Consumers who have access to computers can now research products easily and in a fraction of the time that was required in the past. Further, ordinary consumers, not just the technologically savvy ones are making on-line purchases (Grewal, Munger, Iyer, and Levy, 2003). However, a considerable gap exists between the practice of internet-based marketing and sound theory-based insights and principles for guiding that practice. Past research suggests that understanding online customer behavior is one of the key factors causing this gap. Unfortunately, to date there have been no studies comparing eBay consumer characteristics to characteristics of consumers who do not utilize eBay.

One recent study identified four categories of online shoppers and four categories of online non-shoppers, along with characteristics for each of these eight categories (Swinyard and Smith, 2003). This type of categorization and comparison between eBay users and non-users has never before been performed, even though there are more eBay consumers than consumers of any other single online marketing site. Therefore, this paper is a first step toward identifying differences.

### HYPOTHESES

When the CEO of eBay, Margaret C. Whitman, had the audacity to describe eBay as a “dynamic self-regulating economy,” no one even blinked (Hof 2003). Several aspects of eBay have been specifically designed to support the principles of an almost free-standing economy. First, eBay set up a free market. Founder Pierre Omidyar let people decide what they wanted to sell, encouraging organic growth that continues today as eBay approaches \$20 billion in gross annual sales (Hof 2003). Second, eBay lets the users or “citizens” of the site dictate what direction it will go. It wasn’t planned, but as users plunged into consumer electronics, cars, and industrial gear, eBay followed. Today, eBay has 27,000 categories, including eight with gross sales of more than \$1 billion each (eBay Annual Report 2005). Every couple of months, eBay brings in as many as a dozen sellers and buyers to ask them questions about how they work and what else eBay needs to do. At least twice a week, it also holds hour-long teleconferences to poll users on almost every new feature or policy, no matter how small (Hof 2003).

Third, eBay has set up a “legal” system for policing itself. Promoting self-governance, eBay devised a feedback forum to let users rate one another to discourage fraud. Now, eBay is taking on a more overt government role, writing software to catch crooks early and limiting or banning sales of certain merchandise, such as guns and Nazi memorabilia. Fourth, eBay educates its “citizens.” eBay holds constant classes (eBay University) in cities around the country to teach people how to use the site. Participants generally double their selling activity on eBay after taking one of these classes (Hof 2003). Fifth, eBay has created its own banking system. Last year, eBay bought the on-line payment processing company Pay Pal for \$1.5 billion to speed up the velocity of trade. Pay Pal is now offered on 84% of eBay listings, up from 69% a year ago (Hof 2003). Sixth, eBay promotes free trade. Since 2000, eBay has been on an international expansion binge, buying sites in Germany, Great Britain, South Korea and China. Its overseas sales now contribute 30% of revenues (Hof 2003).

It is clear that eBay itself is doing what it can to increase its revenues, but it also seems to be buying into the relatively new concept of relationship marketing. eBay wants to design itself in such a way that both buyers and sellers can use and benefit from it as much as possible. Therefore, eBay is doing its part; however, there are many factors outside of eBay’s control that impact eBay consumer behavior. Recent research shows consumer demographics, such as location of residence, gender, age, etc., is helpful in predicting eBay utilization (e.g., Black 2005a; Black 2005b; Black 2005c). Other factors are also likely to be related to individual consumers’ utilization of eBay, such as their personalities and attitudes. See Figure 1 for a model depicting this study’s hypotheses.

#### Hypothesis 1: Consumer Demographics

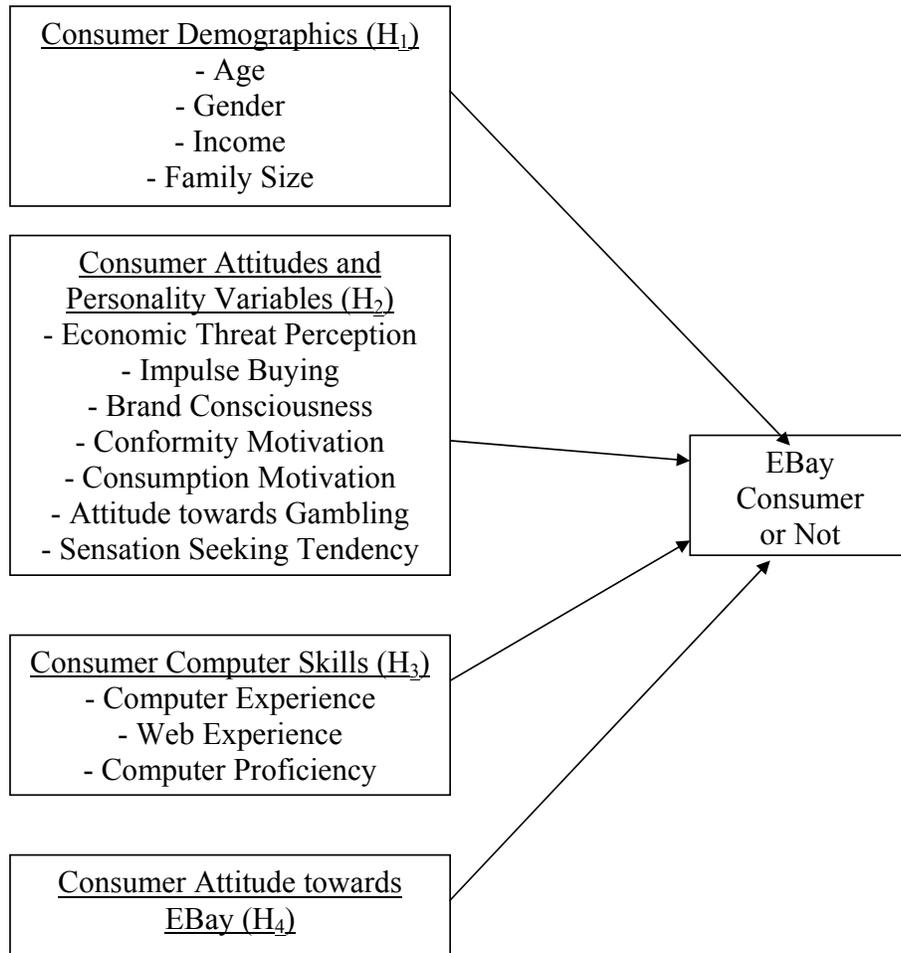
**Age.** Previous research has shown that consumer demographics play a significant role in determining eBay consumer behavior (e.g., Black, 2005a; Black 2005b; Black 2005c). Similar variables should also have an impact on whether consumers are willing to take a chance by making on-line payments. In these previous studies, the average age of the communities in which eBay consumers reside was used. However, the researcher did not analyze the actual self-reported age of consumers in relationship to eBay participation. Findings from other research suggest older people who did not grow up in the computer age, which began in the 1970s, did not have as many opportunities to become familiar with computers as did younger people who grew up in the 70s, 80s and 90s. Familiarity with the computer contributes to familiarity with Internet usage. Research indicates this familiarity with the computer and with the Internet, in turn, contributes to an increase in online purchasing activity (George, 2002; Miyazaki and Fernandez, 2001). Therefore, the following relationship is hypothesized.

H<sub>1a</sub>: On average, eBay consumers are younger than are consumers not utilizing eBay.

**Gender.** Gender has also been found to significantly impact perceptions toward Internet shopping. Females view shopping as a social activity and were found to be less technology-oriented than men (Slyke, Comunale, and Belanger, 2002). These characteristics suggest women spend less time on the Internet, so are less

familiar with it (George, 2002; Miyazaki and Fernandez, 2001). However, a recent study found contrary results. This study found that though females may generally make fewer online purchases, they actually account for more eBay purchases than do men (Black, 2005a). Therefore, the following hypothesis is proposed.

**Figure 1: Model of the Hypothesized Relationships**



H<sub>1b</sub>: Female consumers are more likely to utilize eBay than are male consumers.

**Income.** An important predictor of consumers' Internet experience and thus their willingness to pay online is income. One recent study found income to be significant in determining consumer behavior related to eBay (Black 2005b). However, this study used average income of the community in which eBay consumers actually reside. A more accurate method of assessing the impact of income on eBay consumer behavior is use an income range, as self-reported by consumers. Consumers with higher incomes are more likely to have more experience with the Internet because of more access to computers; thus, they will be more likely to participate in eBay purchasing behavior. Therefore, the following is proposed.

H<sub>1c</sub>: The average income of eBay consumers is higher than the average income of consumers not utilizing eBay.

**Family Size.** Family size is another factor that should help predict whether a consumer will utilize eBay. The impact of family size on consumer behavior concerning eBay has not previously been assessed. Larger families would be more likely than smaller families to utilize cost-saving strategies for obtaining consumer products. It is common knowledge that eBay provides many opportunities to save money on household items, clothing, etc. Findings from one study suggested a high percentage of mothers spend time on the Internet with their children, and much of this time is spent making purchases for both their families and themselves (Owens 2001). Thus, the following hypothesis is offered.

H<sub>1d</sub>: Families of eBay consumers are larger than are families of consumers who do not utilize eBay.

## **Hypothesis 2: Consumer Attitudes and Personality Variables**

**Economic Threat (Domestic).** Consumers are faced with an increasing number of choices in every product category. In many product categories, competition is from both domestic and foreign producers. Promotional activities used to market these various products are often long on hype and short on actual information. It is natural for a consumer to desire more information before making a purchase decision. One of the best sources of product information available to consumers is the Internet. In fact, when consumers utilize eBay, sellers often include detailed product descriptions with the product they are trying to sell. As a consumer's economic threat/risk increases, he/she will be more likely to search for information online and make online purchases from sites like eBay. Economic threat can be defined as the degree to which a person believes the security of the domestic economy is threatened by foreign competition (Sharma, Shimp, and Shin 1995). Based on the above reasoning, the following relationship is proposed.

H<sub>2a</sub>: eBay consumers perceive more economic threat than do consumers who do not utilize eBay.

**Impulse Buying.** eBay sellers often report buyers who bid high for a product and then are reluctant to pay, if they pay at all (Black 2005b). This is a sign of impulse buying. Impulse buying is described as "a consumer's tendency to buy spontaneously, unreflectively, immediately, and kinetically" (Rook and Fisher 1995, p. 306). However, unlike making an impulse purchase in a brick-and-mortar retailer, eBay consumers may elect to not pay. A consumer may get excited in the bidding process and keep bidding in order to win. However, for some eBay consumers, winning an auction is a different action than actually paying for and obtaining the item won. eBay gives consumers an opportunity to "play the game" without actually having to part with any money or obtain the product. Thus, impulse buying on eBay is less risky, and more convenient for consumers, making it more likely for eBay consumers to engage in this behavior. Therefore, the following is hypothesized.

H<sub>2b</sub>: eBay consumers have a more positive tendency to engage in impulse buying than do consumers who do not utilize eBay.

**Brand Consciousness.** Recent research indicates that consumers residing in rural areas account for a higher percentage of eBay purchases (Black 2005a; Black 2005b). These studies focused only on rural vs. urban residency and did investigate brand consciousness. However, the author speculated that one of the reasons that rural consumers may buy more on eBay is because they may not have easy access to brick-and-mortar retailers where the most popular brands are sold. This may lead these consumers to explore Internet options, including making purchases of brand names from eBay sellers. Brand consciousness can be defined as a shopping orientation that is characterized by the extent to which a consumer focuses on buying well-known brands (Shim and Gehrt 1996). Therefore, the following is hypothesized.

H<sub>2c</sub>: eBay consumers are more brand-conscious than are consumers who do not utilize eBay.

**Conformity Motivation.** Similar to the reasoning above for brand consciousness, many consumers want to be able to purchase and use the same products and brands used by their peers, contemporaries, and role models. In other words, they feel a need to conform to the norms for the groups with which they relate. Conformity motivation has been defined as the degree to which a consumer is concerned about adhering to group norms regarding what products/brands to buy (Kahle 1995). Again, because of the readily available variety of products and brands offered by eBay sellers, those with a stronger motivation to conform should utilize eBay more heavily. Thus, the following hypothesis is proposed.

H<sub>2d</sub>: EBay consumers have a higher conformity motivation than do consumers not utilizing eBay.

**Consumption Motivation.** In a perfect world, consumers would always be able to find the products for which they are searching that work and can be obtained for a reasonable cost. The ability to shop online enables consumers to shop and compare a wide variety of products more efficiently and less expensively than consumers who shop exclusively in brick-and-mortar retailers. As suggested above, even if a certain product cannot be obtained locally in a brick-and-mortar retailer, eBay consumers can often find exactly what they are looking for and purchase it for a price that is less than what they would pay otherwise. Because of the explosion of the number of eBay sellers and the numbers of products being sold on eBay, consumers are rarely disappointed by not being able to find the product for which they are searching. Consumption motivation can be described as the importance a consumer places on objective, functional, and economic issues before buying common products (Moschis 1981). Therefore, the following is hypothesized.

H<sub>2e</sub>: EBay consumers have more consumption motivation than will consumers not utilizing eBay.

**Attitude toward Gambling.** The increasing consumer popularity of gambling, such as poker and casino gambling, makes it important to include a consumer's attitude toward gambling in assessing many different consumer behaviors. A recent study suggests that participating in eBay auctions is addictive for consumers susceptible to gambling, alcohol, cigarette, and drug addiction (Young 2004). Buyer's remorse, or the tendency for buyers to regret buying a product after the purchase, has also been identified by eBay sellers, and even by eBay itself, as a problem. eBay consumers get caught up in the competition of the auction and may bid too high for an item. They then may regret bidding that high (Black 2005a). In addition, if a gambler does not pay a gambling debt, severe consequences may occur; however, the penalties are less strict for not paying for an item that a consumer wins on eBay. With less severe penalties, eBay offers fertile ground to attract people with a gambling tendency, and this "gambling safety" increases the likelihood and frequency and quantity of gambling (Delfabbro 2004). Attitude toward gambling is defined as a consumer's agreement about the effects (both positive and negative) of gambling (Mascarenhas 1990). Therefore, the following is proposed.

H<sub>2f</sub>: EBay consumers have a more positive attitude toward gambling than do consumers who do not utilize eBay.

**Sensation Seeking.** Motivation for gambling has been linked to sensation seeking in recent research as "motivation toward stimulation" (Clarke 2004, p. 319), attempts to satisfy "strong immediate sensations" (Ozorio and Fong 2004, p. 27), and sensation seeking itself (Hong and Jang 2005). Sensation seeking among consumers can be described as a consumer's need for varied and novel sensations as well as one's willingness to take the risks necessary to achieve those sensations (Steenkamp and Baumgartner 1992). Therefore, following similar logic to the previous hypothesis, the following is proposed.

H<sub>2g</sub>: EBay consumers have a higher need for sensation seeking than do consumers not utilizing eBay.

### Hypothesis 3: Consumer Computer Skills

Familiarity with the computer contributes to familiarity with Internet usage. Research indicates that this familiarity with the computer and with the Internet, in turn, contributes to an increase in on-line purchasing and on-line payment (George, 2002; Miyazaki and Fernandez, 2001). The experience a consumer has with the computer, with the Web, and his/her own self-reported computer proficiency should be positively related to their eBay utilization. Therefore, the following relationships are hypothesized.

H<sub>3a</sub>: EBay consumers have more computer experience than do consumers not utilizing eBay.

H<sub>3b</sub>: EBay consumers have more experience with the Web than do consumers who do not utilize eBay.

H<sub>3c</sub>: EBay consumers report more computer proficiency than do consumers who do not utilize eBay.

### Hypothesis 4: Consumer Attitude Towards eBay

The success of eBay suggests that all eBay users, including consumers, organizational customers, and sellers, are generally satisfied with eBay. Despite occasional problems with payment security (Black 2005b), sellers' occasional inability to collect payment, and buyers' occasional inability to obtain products which they have bought on eBay, the fact that people continue to flock to this popular Internet auction site is testament to the overall, general satisfaction with eBay. Therefore, the following is hypothesized.

H<sub>4</sub>: eBay consumers have a more positive attitude toward eBay than do consumers who do not utilize eBay.

### METHODOLOGY

The investigator has gathered attitude, personality, demographic, and other data from individual 82 U.S. consumers. Of these 82 consumers, 42 had made at least one purchase on eBay and 40 had never made a purchase on eBay. The data analyzed for this paper was collected from undergraduate students majoring in business at a major university in the Southwest. Students were considered to be an appropriate sample for this exploratory study for several reasons. First, a student sample is an excellent place to begin this stream of research because university students are more computer savvy than the general population and are likely to have more experience with online purchasing. Thus, they will be more familiar with the variables of interest (Calder, Phillips, and Tybout 1981). Second, these university students are enrolled in business courses and should be knowledgeable and have well-formed opinions on the issues of interest (Asher 1988; Cox 1980). Finally, if these hypothesized relationships exist among a population somewhat equal in computer utilization, the relationships should be even more likely to occur in the less computer-savvy general population.

The questionnaire used to collect the data included several single-item measures. These single items measured age, gender, income, family size, computer experience, Web experience, and computer proficiency. Multiple item measures were used to measure the remaining constructs: economic threat, impulse buying, brand consciousness, conformity motivation, consumption motivation, attitude toward gambling, sensation seeking, and attitude towards eBay. Measures for two constructs—attitude toward gambling and sensation seeking—were modified and extended in this study. The multiple item

**Table 1: Summary of Multiple-Item Measures**

Construct	Hypothesis	# of Items	Cronbach's Alpha	Reference
Economic Threat	2a	3	0.8267	Sharma, Shimp, and Shin 1995
Impulse Buying	2b	9	0.8717	Rook and Fisher 1995
Brand Consciousness	2c	4	0.8431	Shim and Gehrt 1996
Conformity Motivation	2d	7	0.8431	Kahle 1995
Consumption Motivation	2e	5	0.7046	Moschis 1981
Attitude Toward Gambling	2f	15	0.7067	Mascarenhas 1990
Sensation Seeking	2g	48	0.8419	Steenkamp and Baumgartner 1992
Attitude Toward eBay	4	9	0.9653	Original with this study

measures were tested for reliability, using Cronbach's alpha (Cronbach 1951). Note that all multiple-item measures are reliable (Cronbach's alpha  $\geq .70$ ), making them suitable to be used to test the hypotheses. Table 1 summarizes these multiple-item measures, their reliabilities, and their sources.

### RESULTS

To examine the hypotheses in this study, both t-tests and logistical regression were used. The results are summarized in Table 2.

The first set of hypotheses compares eBay consumers to non-eBay consumers over a set of demographic variables: age, gender, income, and family size. Frequencies reveal differences in all demographic variables. The

average age of eBay consumers was 25.17 years old, with the ages ranging from 19 to 52 years old. The average age of non-eBay consumers was 24.00 years old, with the ages ranging from 19 to 46 years old. Of the 42 eBay consumers, 19 (45.2%) were females and 23 (54.8%) were males. Of the 40 non-eBay consumers, 19 (47.5%) were female and 21 (52.5%) were male. The average income of eBay consumers was \$37,321.43, while the average income for non-eBay consumers was \$34,062.50. Finally, the average size of eBay consumer families was 2.74 people, while the average size of non-eBay consumer families was 2.90 people. Despite these differences, of the four demographic variables, statistics reveal that eBay consumers and non-eBay consumers differ only on family size ( $t = 3.287, p \leq .10$ ). Therefore, these analyses support  $H_{1d}$ , suggesting that eBay consumers have larger families than do non-consumers. The findings do not support  $H_{1a}$ ,  $H_{1b}$ , and  $H_{1c}$ , suggesting there are no differences between eBay consumers and non-consumers on age, gender, and income.

The second set of hypotheses compares consumer attitudes, values, personality traits, etc., among eBay consumers and non-eBay consumers. According to predictions, eBay consumers perceive a higher economic threat than do non-eBay consumers ( $t = 2.747, p \leq .01$ ), supporting  $H_{2a}$ . In addition, eBay consumers have a higher consumption motivation than do non-consumers ( $t = 2.012, p \leq .053$ ), supporting  $H_{2e}$ . However, statistics do not support  $H_{2b}$ ,  $H_{2c}$ ,  $H_{2d}$ ,  $H_{2f}$ , or  $H_{2g}$ . This lack of statistically significant findings for those hypotheses suggest that there is not difference between eBay consumer

**Table 2: Results of Hypotheses Testing**

Hypothesis	Primary Variable	Related Variable	Test Statistic
H1a	Ebay Consumer or Not	Age	1.564
H1b	"	Gender	0.148
H1c	"	Income	0.087
H1d	"	Family Size	3.287*
H2a	"	Economic Threat	2.747***
H2b	"	Impulse Buying	1.301
H2c	"	Brand Consciousness	1.242
H2d	"	Conformity Motivation	1.180
H2e	"	Consumption Motivation	2.012*
H2f	"	Attitude Toward Gambling	0.323
H2g	"	Sensation Seeking	1.182
H3a	"	Computer Experience	1.106
H3b	"	Web Experience	0.548
H3c	"	Computer Proficiency	0.005
H4	"	Attitude Toward EBay	2.483**

\*\*\*Statistically significant at  $p < .01$

\*\*Statistically significant at  $p < .05$

\*Statistically significant at  $p < .10$

and non-eBay consumers on their tendency toward impulse buying, their brand consciousness, their conformity motivation, their attitude toward gambling, nor their tendency toward sensation seeking.

The third set of hypotheses compares computer and Internet experience and proficiency between eBay consumers and non-eBay consumers. Frequencies reveal differences on all computer-related variables, suggesting eBay consumers have more computer experience (11.71 years vs. 11.30 years), more Web experience (8.60 years vs. 7.68 years), and more self-reported computer proficiency. However, statistical analyses reveals no significant differences; thus, there is no support found for  $H_{3a}$ ,  $H_{3b}$ , nor  $H_{3c}$ .

The fourth hypothesis suggested that eBay consumers would have a more positive attitude toward eBay than do non-eBay consumers. Statistical analysis indicates support for this hypothesis ( $H_4$ ), suggesting that eBay consumers are more favorably disposed toward eBay than are non-eBay consumers ( $t = 2.483, p \leq .05$ ).

## DISCUSSION AND CONCLUSIONS

The results of this study confirmed several hypotheses. eBay consumers appear to have larger families than do non-eBay consumers. Several possible reasons may contribute to this finding. Consumers from larger families have more household expenses and must expend more resources to provide clothing, etc., for their families. eBay is a known source of “good deals” and the motivation to be more fiscally frugal for these larger families may lead them to make eBay purchases. Not only do larger families require more financial resources, they also require more time. eBay may also be a time-saving resource to consumers from larger families. Rather than having to take time to go shopping at brick-and-mortar retailers, shopping on eBay can be done from the comfort of the consumer’s home, and perhaps even from work. Despite this study’s findings, further investigation is required to assess whether larger families is an accurate predictor of eBay consumerism.

This study also reveals a difference in consumption motivation between eBay consumers and non-eBay consumers. Consumption motivation is a concept describing a consumer’s desire to have an objectively, functionally, and economically satisfying buying experience. eBay consumers scored higher on this concept than did non-eBay consumers. This finding suggests the need to have a satisfying and successful experience in satisfying a purchase goal to be a motivator for consumers to use eBay. One can easily compare prices, sellers (by looking at sellers’ feedback ratings), and products on eBay and then determine how much one is willing to pay for that item. If the selling price actually exceeds the price the consumer is willing to pay, the consumer will not have to purchase that particular item. The consumer can then find another similar item and bid on it. This consumption motivation may be more difficult to experience in a brick-and-mortar shopping experience because of the extra time and other resource requirements.

It is good news to the eBay company that this study also shows that eBay consumers have a more positive attitude toward eBay than do non-eBay consumers. This finding suggests eBay consumers are having experiences that are positive enough to improve their opinions about eBay, despite the sometimes negative experiences both buyers and sellers can experience with eBay.

In this study, the non-findings are nearly as interesting as the findings. It is surprising that other demographic variables—age, gender, and income—are no different between eBay consumers and non-eBay consumers. Findings from other related studies suggested there would be differences between these variables. It is also interesting that no other attitude/value/personality variables were significantly different between eBay consumers and non-eBay consumers. Especially surprising is the finding that attitude toward gambling, sensation seeking, and impulse did not prove to be different between these two groups of consumers.

The limitations of this study can possibly explain these non-findings. This study included only 82 consumers. Many of the variables were very close to showing significant differences, but the small sample size may have prevented significance. Also, this study did not consider more complicated models, such as interactions between variables, to explain differences between eBay consumers and non-eBay consumers. Future research is necessary to investigate the postulation that this study’s limitations prevented additional significant relationships between the variables.

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## **E-COMMERCE CONSUMER BEHAVIOR AND THE CUSTOMER LIFE CYCLE**

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### **ABSTRACT**

*As E-commerce customers move through the stages of customer acquisition, customer retention, and becoming an ex-customer, their needs and purchasing behavior will change. An eight stage model of development and dissolution is proposed. Changes in technical considerations (speed, usability, and utility) and other methods of increasing the value of the relationship (service, customization, and security) and enhancing the process. Finally, implementation components including search engine optimization, customer experience management, and customer service are offered.*

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### **INTRODUCTION**

Marketers are still trying to understand the goals and behaviors of ecommerce customers. One area in which there is a paucity of information is the responsibility of the marketer as the customer moves through the various stages of customer acquisition, customer retention, and becoming an ex-customer. Some of these ex-customers may again become customers (customer win-back). Several authors (see Griffin 1995, Raphael and Raphael 1995, Griffin and Lowenstein 2001, for examples) have provided descriptions of the characteristics of the customer in each of these stages. This paper modifies these models to the ecommerce environment. The proposed stages modified from the existing models and demonstrated in Exhibit 1 include the activities of acquisition, which will be referred to as the "surfer group" (pre-contact stage, first-time visitor, repeat visitor, first-time buyer); retention or "user" group (repeat buyer, client, and advocate); and winback.

### **CHANGES IN FOCUS**

The surfers have many potential goals which may or may not include shopping. Surfers also include someone looking at design, comparing features, or a competitor performing competitive research. The surfer group includes pre-contact activity, where the major goal is to make the potential customer aware of the product. Advertising, mail, e-mail, word of mouth, and activities designed to increase the probability of being directed toward your site are important here. The focus of these efforts should project a leadership image and allay apprehensions. Messages should include interest generating tools as product guarantees, demonstrations, free consultation, and feed-back mechanisms which encourage client suggestions.

The first-time visitor is likely a shopper who either found the site via search engine, through a previous visitor, or through promotional activities, such as those discussed above. Your goal is to build confidence in your company. The Repeat visitors group includes those who have not yet purchased, but who return to the site to get additional information. To get the surfer to the first-time buyer stage, you must become familiar and recognizable to the surfer, give them the information they need, use honest facts and figures to back up claims, and to only promise what you can deliver. The guarantees, demonstrations, consultation, and feed-back discussed above are keys to making this a happy experience.

The first time buyer may come from any one of the surfer categories. The single most important consideration is to consider the first purchase to be a *trial* of your services. You should exceed the customer's expectations and provide a reason for them to come back. An automatic thank you for your business and invitation to return should be included. Depending upon your product, you probably should consider a post-purchase evaluation. Skilled agents in multi-channel call centers must be available to answer questions.

The strategy for repeat customers can be best approached when you know why customers don't return to the site. Both the depth and breadth of your product or service line become important as customers have the opportunity to both purchase value-added or complementary products and to buy other less related products. Promotional elements should use both coupon/special offers and reminding customers of the utility of your services through advertising and other communications.

To move the customer into the client (brand-loyal) and then into the advocate (word of mouth promoter) your strategies (Griffin, 135-149) should be to keep your customers protected from competitive attack; make top spenders your biggest priority; unite supply chain management; develop a valuable frequent buyer program; and know what the customer needs and communicate that. Finally you should hire, train, and motivate employees based on a loyalty strategy. With the exception of the frequent buyer program and the development of a knowledge base of customer needs, these strategy elements are difficult to invent. What can be done, however, is to offer products based on the customer's unique needs and use each interaction to provide value to your customer database. Increasingly, communication will be direct contact rather than mass communications.

Winback may occur only after the customer stops buying from you. By developing a list of the reasons former customers have left, you can develop a system to forestall such problems. Additionally, current customers' frequency of use should be continually monitored to get early warnings. Finally, complaints should provide an opportunity to build loyalty and to fix the problem.

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Exhibit 1 about here

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### **Technical Considerations and Value Increasing Activities**

There are several technical considerations which should be considered to move the customer through the customer evolution. As can be seen in Exhibit 1, these include speed, usability, and utility.

Speed - According to [www.WebSiteOptimization.com](http://www.WebSiteOptimization.com), a page should load in under 8.6 seconds to avoid abandonment. Load time tolerance is a balance of usability, utility and likeability. Page performance should be near the apex of website issues with only architecture ruling over it. Some ways to optimize include using graphics sparingly, break pages into smaller ones (size of less than 20 Kb is recommended), use Cascading Style Sheets to format pages, and use online analyzers to pin point bottlenecks.

Usability- The website needs to be usable and easy to follow. Minimize implementing new technologies which will only lead to confusion for the majority of customers. Go with what they know. Minimize clicks to the fewest as possible. It is recommended that ordering an item should take no more than three clicks.

Utility- A website should offer multiple features in order to attract a variety of customers. Offer a gift registry, online coupons, and other value-added features. A Really Simple Syndication (RSS) feed is the latest way customers are keeping up to date on website content. Implement one of these to advertise sales items.

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Exhibit 2 about here.

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Exhibit 2 demonstrates three ways of increasing the value of the relationship over the customer life cycle. These include service, customization, and security, discussed below.

Service - Useful descriptions of products and services must be easily found and prominently displayed. Users must be allowed the option to opt out of marketing emails. If product descriptions are not informative, then do not expect to sell much. Give them all the information possible on an item: pricing, dimensions, sizes, options, accessories, customer reviews and good images.

Customization- Making the shopper feel like a part of the site will cause repeat visits. Customizing the site to the user's preferences, searches and purchases is likely to increase sales by providing targeted product information. This feature meets several of the basic types of personal values including sense of belonging,

excitement, warm relationships and self-fulfillment. This is one of the best ways to make a first-time buyer into a repeat.

Security - Research has shown that perceived risk is a major detriment to online purchasing (Drennan et al). Many users are still scared to provide personal and financial information online. Comfort them with proof that the website will encrypt their data and that their transactions will be secure.

### **PUTTING IT ALL TOGETHER**

There are several areas of concern in combining the strategic and technical considerations above, Discussed below are Search Engine Optimization, Customer Experience Management, and Customer Service.

Search Engine Optimization (SEO)-SEO should be first priority for a new website. Google's "Golden Triangle" is where you want the website to appear since it is the most heavily focused area of Google's search results. Use Meta tags on the site to provide keywords and a site description for a search engine's robot. The keywords Meta tag should contain about ten single, comma delimited, non-repeating words which are descriptive of the site and also appear frequently throughout the site. It is not advisable to put keywords in the meta tag that do not pertain to the site. Some search engine algorithms will treat this as spam and will lower the site's ranking as a result. Keywords should be used in other areas of the site as well such as the domain name, page titles, and, most importantly, the body itself. Words that use HTML tags to make them larger and more prominent (such as titles and headers) get indexed by the SEO robot as important.

Words that are bold, near the top of the page or used most often are also flagged as important by the search engine robot. For images, Alt and Title attributes should be used since they not only add to the site's keywords but also aid the handicapped in using the site. Search engines take spam seriously, so any abuse of keywords will cause the site to be marked as irrelevant in which case it will not be listed. The oldest spam trick is to put keywords on a site which are the same color as the background. This hides them from the normal viewer but robots search specifically for such a trick. Keep Keywords specific to the site and robots will have no problem with listing the site near the top.

Many other criteria are involved in Google's indexing algorithm. The older the domain name the more trusted the site is which, in turn, earns it a higher ranking. Frequency of page changes is also another big factor. If a site has content that is updated periodically, it will rank higher on the list than a site that has old, stale content. Freshness of links are also important to the scoring of a site. Google will evaluate the date for a link and also the date of the page the link points to. Be careful for what Google has labeled "link churn" which is when link dates turnover too rapidly. Google will treat this as another form of spam. Google's most recent algorithm patent also states that they will use historical data in their analysis. Historical data is collected on all things previously mentioned along with some other items such as query results and links to other sites. For best results, a site should be updated often.

Customer Experience Management-The customer experience a site conveys is an extremely important part in the transition from site visitor to advocate. "Strong e-commerce brands are built not by creating cool websites but by creating a customer experience that delivers the proposition again and again through processes and people" (Smith & Wheeler, 133). One study found that there is a strong correlation between an experiential site and customer impression (0.81), a moderate correlation with attitude (0.46) and a strong correlation (0.76) with purchase intention (Schmitt). In order to provide customers with an experiential site, the site needs to follow five steps: 1. Analyze the customer's wants and needs 2. Form a strategy on how the site will affect the customer 3. Design the look and feel 4. Provide a structured interface 5. Continuously innovate.

Step one is to identify what it is the customer needs. Many technology products have already become lifestyle products. From the iPod to Myspace.com, customers (mainly teens and young adults) want tech-infused products. Forming the website's strategy with this in mind will help pave the way to advocates. Companies developing consumer durables are trying to incorporate more technology into appliances that are a part of people's everyday lives. They are called "Information Appliances" and many companies are seeking to internet connect their products in order to fully integrate the Web into people's lives (Schmitt, 55-56). There are several factors to consider when

targeting customers: Whether the customer is a business or consumer; whether the visitor is a purchaser or a user, the level of usage (the more you do something, the more detailed and precise your view of that something becomes) & Loyalty Groups (Schmitt, 57). Each of these will have implications for site design.

Step two is to formulate a plan of attack. The three strategic points of the plan should consist of experiential positioning (what the brand stands for), experiential value promise (what the customer gets), and overall implementation theme (style and content of overall core message).

Step three begins the implementation phase. Websites are a mixed situation between static and dynamic content. Static graphics should be used to design the feel for dynamic content such as searches, ecommerce features, chat rooms, etc. Many sites today are cluttered with advertisements ranging from banners to small buttons to ads that fly across the entire screen. "Advertising has to provide value; it must inform and entertain. Otherwise, the customer will not allow the message through" (Schmitt, 133). Internet users have already begun to filter ads out of sites. Mozilla Firefox, the second most highly used web browser, allows for the creation and installation of browser extensions. Many extensions have already been developed, such as Adblock, which allow blocking of images from any specified domain. With the rise in the popularity of interactive advertisements developed in Adobe Flash, an extension called FlashBlock has been created which replaces all Flash content with white space and a "play" button in the center. The Flash content is thereby disabled until the user clicks the play button to specifically allow that one element to play. Many technophiles believe that the rise in advertisement blocking will ultimately force content providers to start charging a subscription fee for their services.

Step four is to provide an interface to the site that is easy to follow. The customer interface includes three types of exchanges and interactions: Face-to-face (brick and mortars), Personal-but-distant (phone, fax, writing), and Electronic (email) (Schmitt, 142). To do a better job of designing the customer interface and integrate its entry points (store, phone calls, website) the company must address three key issues: the right mix of essence and flexibility; the right mix of style and substance; and time in relationship to the interface" (Schmitt, 155). In the first issue, essence and flexibility, essence consists of operations, exchanges and interactions. An example of flexibility is a fresh interface that leads the customer to believe that customer service is indeed a human and not a robot interaction. The second issue, style, is the manner in which essence and flexibility are expressed while substance is the tangibles associated with style. Too much style makes for a visually busy website. Too much substance leads too many pages of boring information. The third issue, time, is addressed by observing customers and how they browse sites. Know the customer's processes for locating products in order to build a successful interface. Brick and mortars should replicate in-store experiences online

Innovation (step 5) is the key to keeping the customer interested and excited about using the site. A company that can drive technology innovation adds tremendous experiential value to the interaction. If not, it will acquire the image of being old-fashioned and stuck in the past and its customer will migrate toward competitors that display an innovative approach. The best innovation a site can make is to offer services that save time and aid in decision making. A currently rising innovation is Really Simple Syndication (RSS). RSS is an XML file that is usually dynamically generated from a database. This XML file can be read and interpreted by browsers, email readers and other websites. If an ecommerce site has a clearance section then it should create an RSS feed so customers can subscribe to the feed and keep up to date on sales. In a browser, the feed appears as a bookmark that when hovered over, is downloaded, interpreted and displays the list of content that is contained within the XML file. This is a quick and easy feature that can save customers lots of time and many analysts predict that as RSS feeds gain in popularity, they will become a source of advertisement revenue.

Blogs can also be a key point of innovation. A large percentage of teens and young adults are heavily involved in the social aspects of blogging, and by incorporating an e-commerce blog into that realm, the site can take advantage of a new innovation. Blogs not only help in making new customers, but satisfied customers may blog about an item they purchased from the site or perhaps even their website experience, which can create buzz in the blogger's community. "Once we involve others in spreading the innovation, we have a buzz campaign" according to Berndt Schmitt, (2003,184). Buzz can be a vital part in starting an ecommerce site. "As a concept and practice, however, it has an even more exciting aspect. It is a creative technique that falls outside the realms of traditional company-controlled strategic management and communications: once seeded, it takes on its own dynamic and spreads like a virus" (Schmitt, 185). According to a 2001 report by consulting firm McKinsey & Company, word of mouth influences 67 percent of U.S. consumer goods sales Schmitt, 186). Before entering the

blog circuit, customer service should be the proverbial lean, mean, service machine. It is more likely someone will blog about a poor experience than a good one so protect the company by offering top-notch service.

Customer Service- There are several key dimensions to maintaining a perception of high level services. Basically they distill into minimizing the time the consumer spends, minimizing the time to receive the product, and maximizing the convenience of the customer. There are several keys to improving perceived service (Smith & Wheeler, 51). The first key is to finish strong. Customers remember the end of the experience more than any other part of it. Keep the online customer positive by listing if a product is in stock or not, make canceling an order a painless process and keep checkout procedures as simple as possible. The second key is to get the bad experiences out of the way early. If an item is out of stock, display that information early and offer the customer alternatives. Key number three is to segment the pleasure and combine the pain. Searching a site for a product can be a pain. Make the experience more pleasurable by displaying a message or an animation on the screen, which not only lets the customer know their search is running, but it also gives them some entertainment value. The fourth key is to build commitment through choice. A site should have many more than adequate similar items to choose from, give the customer a choice of shipping options, and accept as many forms of payment as possible. The last principle is to give people rituals and stick to them. Develop a sales page that changes daily and encourage customers to check it everyday. Provide tools such as an RSS feed for the sales page.

Giving your customers the ability to get an answer to a problem, in sufficient detail and in minimal time, is a gift they will receive gladly. A stronger bond of loyalty will be created, ensuring you a larger share of that customer's commerce" (Sterne, 8). There is no substitute for customer service (CS) when it comes to ecommerce. Many things can go wrong when purchasing online, and CS is a valuable tool that can comfort and retain troubled customers. Customers expect quality products when making a purchase and they also demand quality service along with it. The latest in online CS is live, interactive, one-on-one chat sessions with a service representative. This gives the customer instant help and satisfaction. It can also save the company 1-800 telephone fees by reducing the number of incoming CS calls. Other CS tools that should be incorporated into the site include Frequently Asked Questions (FAQs), a searchable Knowledge Base, and a Troubleshooting Guide or an Answerbot. Value of information contained in these tools must be high in order for the customer to perceive the time it takes to find that information as not a waste of their time. If a customer has a slow connection, half of their time on the web could be spent waiting on pages to load. Review site analysis to see what users search for the most and what pages are hit the hardest so you can tailor the site to make that information more readily available. The same information can also be used for short marketing emails.

When it comes to email, CS and timely responses to them are critical. Someone should be assigned to a contact email just like a switchboard. Use of an autoresponder lets the customer know their email was received and that it is in the queue. "A late answer can often be worse than no answer at all...But an e-mail that comes way too late to be useful only means one thing – the company is disorganized beyond help, and buying from you again is not going to be on the top of the customer's list" (Sterne, 90). Analyze email contents in order to identify trouble areas and to add to the site's list of FAQs. "If your message isn't meaningful to them, it's junk. Customers generally like to receive industry news, product promotions, helpful hints, and anything that will help them make better use of your products. Stories told by other customers on unique ways to use your products and suggestions on how to save money and time are also smiled upon" (Sterne, 108-109). Email communication should be clear. The Subject line should be short but descriptive. When replying to a question, be sure to use part of the question in the answer. The answer should be complete, thorough, clear and not stray from the question. The goal of email CS is to lower the cost of phone CS. Use email correctly and the phone bill will lower.

Users love customization. It makes their shopping experience more personalized and exciting. Customization can recommend new items based on previous purchases, which will increase sales and keep the customer coming back.

Most shopping carts are abandoned in some part of the checkout phase. Many analysts believe that sites lose 5% of customers per click in the order process. Products should be accessible in one click and without having to search for the link. "If your customers can see what you have and where you have it, they can make better decisions about what to order and when" (Sterne, 268). Another reason for abandonment is the number of steps involved to get a final price. Provide shipping costs early in the order process. It is best to display it when an item

is added to the cart. The user should be presented with either a zip code field for calculating shipping costs or either a dropdown of shipping choices with prices listed.

Conclusion-Customer Win-Back-Customer win-back is one of the biggest problems an ecommerce site faces. Low price search-engines, coupon websites, auction sites and the sheer number of competitors can all cause a customer to leave at the blink of an eye. Win-back should be practiced throughout the cycle in order to curve a potential defector. Some ways to accomplish this are excellent customer service, sales and coupon emails, company newsletters, RSS feeds, customization, valuable features, fast shipment, quick order processing and competitive pricing. By practicing win-back at every point in the process, the probability of losing an individual customer will be significantly decreased.

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Web Site Optimization; <http://www.websiteoptimization.com>

Exhibit 1  
The E-Commerce Customer Evolution

Site Issues	Surfer	First-time Visitor	Repeat Visitor	First-time Buyer	Repeat Buyer	Client	Advocate
Speed	Depending on purpose and tolerance will vary	Not likely to wait long. May compare speed of service.	Still does not want to wait. If a page takes too long or too many clicks, the shopper may abandon.	Shoppers want to get in and get out. They want to find the item(s), purchase them and get on with life.	Was pleased with previous purchases so will tolerate some delays.	Is willing to utilize patience in the order process.	Greatest tolerance.
Usability	Purpose dependent.	Wants ease of navigation and layout. Site must aim for function, not form.	Function still overrules form.	Checkout must be quick and painless. The shopping cart must minimize clicks while providing required information.	The site should recall the user's previous information.	Wants to easily find everything so they can purchase it.	Already knows the site and a major design change is just a temporary hurdle for them.
Utility	Likely interested since it applies to multiple goals.	Wants to know if any features on the site are of interest.	High interest in this issue since they are more likely to place an order.	Interested in order tracking and timely processing of order.	Offer a frequent buyer program. Maintain order history.	Will likely want to utilize every feature the site offers. RSS feed user.	Wants more so they can refer more. Loves to "email a friend".
Security	Only for evaluations.	Security is not a concern.	More concerned with security.	Wants to be assured that security is intact. Proof must be displayed in the checkout process.	Not as concerned as the first purchase but still wants to make sure information is safe.	Very important since orders may be very large.	Security is a must since they are likely to refer

Exhibit 2  
Increasing Value in the E-Commerce Customer Evolution

Site Issues	Surfer-Pre-contact Stage	First-time Visitor	Repeat Visitor	First-time Buyer	Repeat Buyer	Client	Advocate
Service	Only for evaluation	Wants to know that help is available if needed.	Detailed and easy to follow.	Information should be easily found and simply stated.	Returns and troubleshooting are of major concern. Life help would be a great asset.	Demands fast and quality service.	Demands fast and quality service.
Customization	This feature is probably not much value.	Not interested in customization on the first visit.	Like to see page tailored to their search results. Recommended products based on them. Allow saving shopping cart in case of future purchasing.	Show most popular items based on contents of first order.	Wants the site to conform to their previous orders and make recommendations based on those.	Would like to know what new items are available	Will utilize this area to the fullest.
Security	Only for evaluation	Security is not a concern.	More concerned with security since walking the line between visitor and buyer.	Wants to be assured that security is intact. Proof must be displayed in the checkout process.	Not as concerned as the first purchase but still wants to make sure information is safe.	Very important since orders may be very large.	Security is a must since they are likely to refer others.

# **AN EXPLORATORY LOOK INTO THE CONTENT OF BLOGS**

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## **ABSTRACT**

*Did you see what their blog said? Welcome to the new Internet subculture of blogs and bloggers. Blogs, a version of an online diary with commentary on current news topics, are read by millions of online consumers internationally. This paper is an exploratory look into what makes up a blog. The findings from a content analysis of the top blogs are presented along with suggestions for future research in the area.*

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## **INTRODUCTION**

In June 2003, over four million Americans went online and accessed blogs to find out breaking news and information about the war in Iraq (Rainie et al 2003). By February 2005 over 32 million internet users were also blog readers (Rainie 2005) with the blogging world almost doubling in size about every 6 months (Sifry 2006). So, what is a blog and why are so many people reading blogs? In 1998, Jesse James Garrett, the editor of Infosift website, began to compile a list of other Internet sites that were similar to his own site. He then sent that list to another website owner who sent it another website owner and so forth (<http://rebeccablood.net> 2003). A blog (the shortened form of the words- "web-logging") is a website that information is updated frequently and is usually presented in reverse chronological order with a list (or links to) other Internet sites and stories ([www.cjr.org](http://www.cjr.org) 2003). As of early this year, there are at least 27 million active blogs online (Sifry 2006). This paper is an exploratory look into the world of blogs; i.e. what does a blog exactly consist of?

## **RESEARCH QUESTIONS**

While there have been a number of news articles and online discussions concerning blogs (especially among bloggers, the people who run the blogs), there has been little academic research in this area, with most of the research being done in the management information systems and communication areas rather than in the marketing arena (Lee, Hwang, and Lee 2006; Wagner 2006). One of the few marketing studies is Holzwarth, Janiszewski, and Neumann (2006) who discussed avatars (graphic representations of users or other people online) and their impact on shopping habits on websites, including blogs. From a public relations perspective, Trammell (2006) outlined the integration of blogs into presidential candidate websites and Schoroeder (2006) discussed the dilemma of whether an employee should or should not blog about work. Herring & Paolillo (2006) also examined content on blogs in terms of gender stylized writings of the blog authors. However, very few studies have examined the actual make-up of the blog itself. The purpose of this study is to provide preliminary research regarding the actual blog itself. The research questions this paper will be addressing are: (1) What are the characteristics of a blog?, (2) What revenue models are utilized for blogs?, and (3) Is there a relationship between the popularity of a blog and the number of connections/links it has to the Internet? First, a look at how the data was collected.

## **RESEARCH METHODOLOGY**

While content analysis is a standard data collection tool used in advertising, it is only recently that this technique has been applied to websites (Macias and Lewis 2003-4). Content analysis was also used by Bichard (2006) to investigate communication framing dimensions of time, space, tone and topic on the official blogs of presidential political candidates in 2004. This paper strives to extend the use of content analysis further into the world of blogs. Therefore, a content analysis was conducted of the top 20 blogs (internationally) for this exploratory research study. The top 20 blogs were selected based on average daily traffic recorded by SiteMeter ([www.sitemeter.com](http://www.sitemeter.com) 2004), a widely used internet tracking service (by both blogs and other webpages). Two of the top 20 blogs by volume were not accessible at the time of data collection; therefore, two extra blogs were analyzed

(numbers 21 and 22 by volume). Thus, the complete sample size for data collection was 20. Each blog was analyzed on the same day by a coder using a coding sheet developed for this project.

**Table 1**  
Top 20 Blogs by Volume (Internationally)

Ranking	Name of Blog	Address
1	Daily Kos	<a href="http://www.dailykos.com">http://www.dailykos.com</a>
2	Instapundit	<a href="http://www.instapundit.com">http://www.instapundit.com</a>
3	Echatron (Atrios)	<a href="http://www.atrions.blogspot.com">http://www.atrions.blogspot.com</a>
4	Andrew Sullivan	<a href="http://www.andrewsullivan.com">http://www.andrewsullivan.com</a>
5	Blogcritics*	<a href="http://www.blogcritics.com">http://www.blogcritics.com</a>
6	Gizmodo	<a href="http://www.gizmodo.com">http://www.gizmodo.com</a>
7	Blog for America	<a href="http://www.blogforamerica.com">http://www.blogforamerica.com</a>
8	Smoking Chimp	<a href="http://www.smokingchimp.com">http://www.smokingchimp.com</a>
9	CalPundit	<a href="http://www.calpundit.com">http://www.calpundit.com</a>
10	Tom Tomorrow	<a href="http://www.thismodernworld.com">http://www.thismodernworld.com</a>
11	Volokh Conspiracy	<a href="http://www.volokh.com">http://www.volokh.com</a>
12	Filchyboy*	<a href="http://www.filchyboy.com">http://www.filchyboy.com</a>
13	Dave Barry	<a href="http://www.davebarry.com">http://www.davebarry.com</a>
14	Brad DeLong	<a href="http://www.j-bradford-delong.net/movable_type/">http://www.j-bradford-delong.net/movable_type/</a>
15	Pandagon	<a href="http://www.pandagon.net">http://www.pandagon.net</a>
16	Hugh Hewitt	<a href="http://www.hughhewitt.com">http://www.hughhewitt.com</a>
17	Talk Left	<a href="http://www.talkleft.com">http://www.talkleft.com</a>
18	Liberal oasis	<a href="http://www.liberaloasis.com">http://www.liberaloasis.com</a>
19	Scrappleface	<a href="http://www.scrappleface.com">http://www.scrappleface.com</a>
20	Buzz Machine	<a href="http://www.buzzmachine.com">http://www.buzzmachine.com</a>
21	How Appealing	<a href="http://www.appellateblog.com">http://www.appellateblog.com</a>
22	Kim du Toit	<a href="http://www.kimdutoit.com">http://www.kimdutoit.com</a>

\* Blogs not available during data collection  
Internet address subject to change without notice  
([www.sitemeter.com](http://www.sitemeter.com), 2004)

The coding sheet was developed to capture the information needed to address the above listed research questions. The coding sheet included variables such as: web volume statistics, the presence or absence of a comments section, number of posts per day selected, linkages to other sites, whether donations are solicited or not, the presence or absence of advertising on the blog, and subjects covered by the blog. Due to a lack of academic research into content analysis of blogs, the author of the paper used her own expertise to design the coding guide for this study since this study is exploratory in nature and is meant to be a starting point for future research (specifically a re-designed coding guide if necessary).

### CHARACTERISTICS OF BLOGS

Of the twenty blogs that were evaluated, a majority of the blogs were run by individuals (55%) rather than by a group of people (45%). On average, these blogs had 31,224 hits each on the day coding was done. This daily number ranged from 4,190 to 100,401 hits, which highlights the wide variation in volume of these twenty blogs. It is evident that these blogs had been online for some time- the average total volume for the sites was over 4.5 million hits for the lifetime of the blogs. Each blog posted on average seven posts per day with some blogs containing as many as 20 posts per day. There were four blogs which registered only one post for the day (a full 24 hour day time period was used to calculate the number of posts per day). Sixty percent (12) of the blogs analyzed allowed for readers to comment on the posts made by the blog author; the style of comments ranged from actual sections of the blog devoted to comments (i.e., that the reader can post his/herself) to the posting of comments sent by email to the blog author (i.e. read through and then posted by the blog author). Forty percent (8) of the blogs did not allow comments to be posted in any fashion, but did provide an email address if the reader did wish to comment on a certain post or topic. The main subject area covered in the blogs was politics; fifty-five percent (11) of the blogs

contained a majority of posts covering that topic. Legal issues came in second as the main blog subject accounting for 15% (3) of the blogs. Multiple subjects tied for third place- there were five blogs which contained a main subject that no other blog had as a main subject (Technology, Terrorism, Economic/Business, Entertainment, and Other (Guns)). Six of the blogs kept to their main subject and did not venture out into other areas, while the rest of the blogs contained posts outside of their main subject area.

### **REVENUE MODELS FOR BLOGS**

A majority of the blogs reviewed (60% or 12) accepted donations to the blog. Many of the blogs accepted donations through PayPal and Amazon while some blogs only had wishlists setup on Amazon for readers to purchase various products to be sent to the person or persons running the blog. Two of the blogs surveyed had links to online stores which sold merchandise related to the blog (i.e., T-shirts or other material with the blog's name or slogan). None of the blogs analyzed were actively asking for donations in the posts: the PayPal or Amazon logo was part of a sidebar or located outside the posting area of the blog. None of the blogs require a donation by readers to be able to access the blog (unlike many commercial online content providers); however fifty-five percent (11) of the blogs contained banner advertising or some other type of online advertising. From this it could be assumed that some of the bloggers pay a majority of costs associated with the blog since it is unlikely that donations would cover all of the costs of running a blog. It would be interesting in further research to survey the bloggers themselves (i.e., person or persons running the blog) to find out how much the online advertising and/or donations bring into the site in relation to website costs. A minority of bloggers (20%) did not accept donations or have any online advertising. Interestingly enough, six of the blogs also had links for readers to donate to either political organization/candidates or charities.

### **POPULARITY OF BLOGS**

As mentioned earlier, the blogs were rated based on average daily traffic. It was of interest to the researcher to find out whether popularity (as measured by traffic) was related to the number of links featured on the blog. Links were measured by the actual number of links the blog possessed to any type of website, whether it be another blog or another general website (the only type of links that were not counted were links for donations or to Amazon wishlists). Only one of the blogs had no links to other websites or blogs. Out of the other 19 blogs, the average number of links was 166 with the lowest number of links at 10. In fact, there were four blogs with over 500 links. Correlation was run between the blog ranking and the number of links that the blog contained. The rationale behind this idea being the more a blog links to other blogs or websites, the more likely the readers of linked blogs or websites are to read the original linking blog and the more likely it is that readers of other non-linked blogs and websites will hear about and go to the original linking blog. However, the correlation between blog ranking and number of links was not significant ( $R=.182$ ,  $\text{significance}=.444$ ). Obviously, there are other variables than the number of links which impact blog volume. Since a majority of the blogs have politics as a main subject area, further research should be done in regard to this issue as having "drawing power" due to the election coverage for political candidates which occurred during the time of data collection (February 2004).

### **FUTURE RESEARCH AREAS AND LIMITATIONS OF THIS STUDY**

The sample size was kept small in this study since the research was exploratory in nature. Obviously, future research would need to sample a much larger segment of the blogging population, whether or not the research covers the blogs, the bloggers or a combination study which matches information from the two populations together. This study was a snapshot in time- one day out of 365 days in a year. It is possible that a blog which was covering a breaking news story might have more traffic during that time period than would be normal for the blog. While this study is an accurate representation for these twenty blogs for this day, no tracking was done for this study to see if these twenty blogs ranked this high in volume on a regular basis. A longitudinal study design could be utilized to address this issue. Further issues regarding blog content that need to be examined are: the use of trackback features to the website, the impact of political advertising on the blog, the relationship between traditional media and blogs (i.e. what happens when the blog or the blog writer is connected to a traditional news source?), the software used to set-up and run the blog, and other forms of technology used in the blog (i.e. RSS feeds or podcasts). While this study focused on the content of the blog itself, more research needs to be done addressing the person or persons who write the blog. It was noticed during research that a number of blogs were run anonymously. A subject of interest would be if there were differences between bloggers who value their anonymity versus those who freely gave out

names and information about themselves. Furthermore, as businesses such as Boeing (Holmes 2006) and GM (Baker and Green 2005) run their own blogs, issues of openness, trust and source credibility will become more important to blog readers and consumers. The world of blogging and bloggers is a wide-open field in regard to academic research- a field which is going to expand tremendously as the number of blogs increase and the reading of blogs becomes more widespread.

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## **THE STUDENT DRIVEN E-BUSINESS CONFERENCE: CREATING RELEVANCE THROUGH AN EXPERIENTIAL LEARNING APPROACH**

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### **ABSTRACT**

*Marketing practitioners, faculty, and university students are partners in the learning process. This teaching innovation describes the increased motivation and learning springing from an e-business conference bringing these three partners together. Students in an e-business class prepared and presented papers, faculty chaired sessions, and practitioners served as paper discussants. Students in the collegiate AMA chapter planned, organized, and promoted the conference. In a post-conference survey, students rated the learning experience as much better than traditional classroom activities, the AMA students rating their learning as above average, and the practitioners felt the conference content and usefulness were above average.*

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### **INTRODUCTION**

Marketing practitioners are important partners in the learning process with faculty and university students (Dibb and Stern 2000). They bring relevance to the marketing curriculum through guest lectures, internships, and curriculum input. In the classroom, client-based projects provide students with actual marketing problems, allowing them to develop critical thinking, presentation, teamwork, and other skills valued in the workplace. Further, students are highly motivated to work on projects with practitioners because they believe their recommendations will be used by the client firms (Fox 2002). In spite of the tremendous value to students, many faculty are reluctant to use client-based activities because of the huge time commitment in locating and managing client relationships and grading multiple report drafts (Lopez and Lee 2005). This creates many challenges for faculty who want to bring relevant material into marketing education.

This was especially difficult for a course in e-business at a university located on a remote island with a relatively small business community. The first challenge was to create an innovative classroom activity that involved practitioners without the typical client-based project time commitment. In a small business community, university interactions with practitioners serve the dual purpose of educating students and helping marketing managers keep up-to-date. This is particularly true for entrepreneurs in any size community, who count on the university for building important skills. The second challenge was to find the best way to introduce students to the course content using active learning. This was important because of the solid research showing the value of field projects and experiential learning over the lecture for student learning in marketing classes (e.g., Smart, Kelley, and Conant 1999). Opportunities for these types of academic-practitioner exchanges are typically extremely limited and very costly for our students, especially if off-island travel is involved. Thus, we wanted to find an efficient way to bring students and practitioners together to discuss the impact and value of e-business as it relates to a global business environment. The subject matter is relatively new in our location and has undergone tremendous development in a short period of time.

As outlined in the course syllabus, the students were expected to accomplish learning objectives for the e-business course in three general areas, as outlined below.

- Cognitive-based. A number of goals outlined knowledge the students would learn, such as, to understand the business implications of the Internet for local, regional and global businesses and to apply e-commerce models to business processes.
- Skill-based. The course gave students practice to develop research, report writing, presentation, and team skills.
- Networking techniques. One important learning objective focused on providing networking opportunities within the local professional business community.

These objectives are fairly typical for marketing courses, however, in a small community, it is critical that students network and build relationships with the business community. During the process, students gain feedback for their careers and practitioner perspectives on their academic learning. These objectives, and the opportunity to bring students and practitioners together to discuss e-business, set the stage for an innovative interactive learning activity.

### **THE E-BUSINESS CONFERENCE**

Toward the end of the spring 2005 term, students were tasked with the planning and production of an e-Business conference (see Appendix A). The conference was targeted to both the academic and professional communities within the local environment. A total of 100 students, faculty, and professionals attended the conference. Each session included an academic faculty member as chair and a business practitioner as paper discussant (to give feedback to student presenters and lead discussion among attendees). These were selected based on their knowledge and experience within the specific session. Each provided relevance and helped to expand the scope of the topic within the session.

The conference was a joint effort between students registered in the fall e-Business course and students in the Collegiate Chapter of the American Marketing Association (AMA). Notably, some students belonged to both of these groups. The AMA students were responsible for the conference coordination and logistics, including development of promotional materials, venue arrangements, sponsorship solicitation, booklet development, production of conference proceedings, and attendee registration. Additionally, AMA students raised funds during the academic year through the execution of various marketing projects for local businesses. These funds allowed all students to attend the off-site conference at no fee, and fully sponsored a keynote speaker from a distant location.

Students from the e-Business course were responsible for the development of session themes, preparation of research papers, and presentations. The primary learning tool was the preparation, presentation, and attendance at the conference. Students were required to attend at least three sessions other than their own. This is an upper-level course, designed as an elective for business majors. Prior to enrollment in this course, students were expected to have existing knowledge of basic business concepts, marketing principles, and information technology. This course synthesizes these areas and students learn how improved business practices have evolved. During the course, students learned how the Internet and electronic technology have changed daily operations and created a major shift in business operations and the economy, as well as how these improve productivity and create opportunities for the future.

The course material was delivered through a combination of lectures, video presentations, case analysis, and student research report presentations. During the course and in preparation for the conference, students were provided with instructor assistance in preparation of the research papers. Some of this was included in the course outline, as well as through class handouts (e.g., sample APA format, journal articles related to the overall topic, action plan, and agenda). The instructor also worked closely with AMA students, providing guidance and samples of correspondence, booklets, and agendas from similar marketing conferences.

This innovative learning approach contributed to achieving the course learning objectives. Involving the AMA students in the conference leadership was thought to be a way to reduce the instructor's time commitment, however, it did not develop that way. The AMA students needed much supervision and guidance as they planned, promoted, and managed the conference. As with other client-based projects, we became very involved because we felt responsible for the quality of the event. As found in previous research, the students were quite motivated to produce quality papers because they were presenting to practitioners. Additionally, the conference created a great

mechanism for including students from outside of the marketing discipline, as well as relevance to classroom learning via professional participation from the local business community. Students and practitioners were exposed to many new ideas and state-of-the-art practices that can help to improve their abilities as managers and leaders.

#### ASSESSMENT METHODOLOGY

The assessment of this learning activity was measured from four perspectives. Foremost, the instructor evaluated learning by grading the student papers and presentations delivered at the e-business conference. We found that student work was much improved versus traditional term paper assignments. Second, after the conference, students were surveyed regarding perceptions of their learning experience (Table 1). The response rate was 31%. Students indicated that the conference was above average on all dimensions, but especially good for learning e-business content, developing presentation skills, and networking with professionals: three important course learning objectives. As well, students were asked “how you would rate the work you did for the conference and actual event in terms of your learning.” The mean response was 2.00 on the scale from 1 (much better than traditional classroom learning activities) to 5 (much worse).

Next, AMA students were surveyed about their experiences (Table 1). They perceived their work at event planning, management, and organization to be above average in terms of their learning experience (2.33).

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**Table 1**  
Perceptions of Students Regarding Learning Experience at E-Business Conference

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<b>e-Business Students</b>	<b>Mean n=20</b>
Understand the business implications of the Internet for local, regional and global businesses	2.00
Solve problems related to e-commerce	2.42
Develop research and report writing skills	2.32
Develop presentation skills	2.00
Develop team skills	2.89
Network with e-commerce and business entrepreneurs and professionals	2.15
<b>AMA Students</b>	
Develop event planning and management skills	2.33
Develop event promotion skills	2.33

**Scale: 1-5 (1 = excellent to 5= poor)**

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Finally, faculty and professional conference participants were surveyed regarding their perceptions. Although only three faculty and three practitioners completed the survey, it is encouraging to note that they rated the conference content quite high and would attend another similar conference, possibly using it to recruit students as future employees (Table 2).

**Table 2**  
Perceptions of Faculty and Practitioners Regarding E-Business Conference

Conference Ratings	Mean n=6
Overall conference	2.17
Topic content	1.67
Topic coverage breadth	2.17
Your knowledge improvement	2.67
Presentation quality	2.33
Conference set-up	1.67
Usefulness to business professionals	2.83
<b>Scale: 1-5 (1 = excellent to 5= poor)</b>	
<b>How likely would you be to...</b>	
Attend next year's AMA conference if the topic was of interest	2.17
Recommend next year's conference to a friend	2.17
Look for new hires among student presenter at the conference	2.17
<b>Scale: 1-5 (1= very likely to 5= very unlikely)</b>	

### OVERALL ASSESSMENT

Overall, the conference was a big success. The class learning objectives were met with high student satisfaction. It was an exciting and unique project for all participants. However, improvements can be made. For example, pre-conference promotions could have been more effective, which may have increased the level of attendance by local marketing professionals. Also, there were a few minor details (name tags, packet preparation, and so forth) that were left to the last minute, thus, creating stress for the students. The key problem was having only one instructor to oversee the entire event—responsible both for the supervision of the AMA student club member activities related to conference logistics, and for running the course and reviewing and editing all papers and presentations. Involving the AMA students as a time saving approach did not work out entirely as expected due to the level of supervision needed, but it was a gratifying teaching experience and the students found it to be a positive learning tool, nonetheless. This learning activity would be more appropriate for a two-faculty collaboration across courses. Alternatively, maybe this can be a project started in one semester and culminating in a conference in the second semester. Finally, given that the conference occurred in the same semester as the students were enrolled in the course, there was limited time for a comprehensive review of the papers by both the professionals and the academics. The majority of the papers were provided to the session chairs and discussants a week prior to the conference, however there were a couple of late submissions which made it difficult for a thorough review.

This learning approach can easily be adapted to other marketing courses used by combining several marketing courses with a unifying theme. Ideally, the students should be upper-level undergraduate or graduate students with an adequate foundation in business and basic marketing coursework, as well as good communications skills (written and oral). A conference of this nature would not be appropriate for an introductory marketing course. By the time they reach the elective courses at higher levels most students are able to converse with practitioners using marketing vocabulary to describe cutting edge practices. The AMA students are in a unique position to take on the conference logistics and promotion because of their experience with events for the student chapter.

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# **CLASSROOM TEAM PROJECTS: WHAT MARKETING CAN LEARN FROM MANAGEMENT**

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## **ABSTRACT**

*The benefits of using classroom teams (collaborative learning) in higher education are widely recognized in academic literature. University and College professors are increasingly relying on team projects to provide a more meaningful learning experience for students. However, not all disciplines are equal when it comes to effectively understanding and using teams in the classroom. Working on a successful team not only helps students academically, it also helps to prepare them for the highly team-oriented workforce. The purpose of the paper is to identify what Management professors know about teams, identify the benefits and challenges of classroom teams, and provide recommendations for the effective use of teams in the classroom.*

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## **INTRODUCTION**

Author C. S. Lewis once wrote, "Two heads are better than one, not because either is infallible, but because they are unlikely to go wrong in the same direction." This quote simply illustrates an important benefit of using groups/teams in the classroom. Research has "shown that together, students are able to achieve and learn more than any student is able to individually" (Pfaff and Huddleston 2003). Furthermore, many organizations rely on teamwork, and many companies are asking prospective employees their experience with working in groups/teams (Brooks and Ammons 2003).

Academic teams, a form of cooperative learning, are becoming an important learning tool in many college classrooms. Many institutions have enjoyed remarkable success with teams in the classroom and have reaped many benefits from involving students in team-based learning (Leon and Tai 2004). However, after a review of the basic Marketing textbooks, students and professors receive little or no information on the effectiveness of groups and teams. A lot of Marketing majors receive their first experience with groups/teams when they walk into an upper-level Marketing class and are told that there is a group/team project. At least with the Management majors they receive an introduction of groups/teams in their basic Management text. It is imperative that Marketing professors realize that a lot of their marketing students are not familiar with the benefits with working in groups/teams and also, the problems. It is a common practice that Marketing professors bring a group of students together and assign them a class project. Students receive only project guidelines and little or no instruction on being an effective team. In one study, when asked for the reason for the negative reactions toward teams, the students freely expressed themselves. The students felt that teams were unproductive or unpopular because students new little about team dynamics: i.e., how to build a team and maintain team effort (Buckenmyer 2000). Marketing professors can learn something from Management professors in the transition from individual projects to team projects. It is important for professors, and student team members alike, to understand the challenges of team work in order to promote a successful class project.

## **ACADEMIC TEAMS DEFINED**

Marketing professors should keep in mind that there are differences between "groups" and "teams". In groups, people work independently, they are told what to do and they don't understand the roles of other members. In teams, members recognize their interdependence and understand that both personal and team goals are best accomplished with mutual support (Lussier 2006). It is advantageous for faculty members to move from using groups to building teams in the classroom.

One of the most commonly cited definitions of a team is by Katzenbach and Smith. (1993). "A team is a small number of people with complementary skills who are committed to a common purpose, performance goals,

and approach for which they are mutually accountable.” It has become increasingly popular to have college students in business courses working in teams rather than completing assignments on an individual basis. Proponents of team-based learning suggest that if work teams result in higher productivity in the work force, then the same relationship should also hold in the educational process (Bacon 2005). The basis of the cooperative learning theory is that students working in teams are able to apply and incorporate information in more complex ways than students working individually. Academic teams represent a classroom strategy that is a form of cooperative learning. Basically, small groups of students work together toward a common goal. In academic teams, students are given the opportunity to maximize their own learning and enhance the learning of their team members. Teams can be structured in a variety of ways and team assignments and activities may vary as well. Carefully structured cooperative learning ensures that students are actively involved in constructing their own knowledge while at the same time encouraging each other to achieve their learning goals (Amato and Amato 2005).

### **BENEFITS OF ACADEMIC TEAMS**

Many potential benefits arise when cooperative learning is used in college instruction (Riley and Auderson 2006). Benefits of academic teams can fall into two categories: benefits in the classroom and benefits to the individual. Benefits in the classroom include: Accomplish projects an individual cannot do (Many desirable class projects are too large or too complex for one individual to complete alone). Brainstorm more solution options: Different individuals looking at the same problem will find different solutions. A team can review ideas and put together a final solution, which incorporates the best individual ideas. Detect flaws in solutions: A team looking at different proposed solutions might also find pitfalls that an individual might miss. The final solution is that much stronger. Build a classroom culture: Members of effective teams can form personal bonds, which are good for the individual and classroom morale. Also, students on teams may form bonds, which extend beyond the classroom.

The popularity of academic teams in college classrooms has risen because of the numerous known benefits. Many university professors are using academic teams in their classrooms, as opposed to the traditional lecture method. “The effectiveness of cooperative learning as a teaching strategy has been well established” (Phipps, Phipps, Kask, and Higgins 2001). In addition to preparing for their future careers, students also benefit from working in teams. Some of the main benefits to the individual of academic teams are that they increase student participation, enhance social and communication skills, promote diversity, individualize instruction, decrease student anxiety, and enhance self-management.

#### **Increase Student Participation**

In academic teams, students working together are actively engaged in learning instead of passively listening to a teacher lecture. In a teacher-centered class, the teacher speaks about 80% of the time. Thus it is estimated that in this typical classroom, with 30 students in a class—much less than in many classrooms—each student speaks less than 30 seconds each one-hour class period (Lie 2004). As active learners on academic teams, students are constructing knowledge and developing higher level thinking skills.

#### **Enhance Social and Communication Skills**

Another positive component of academic teams includes training students in the social skills needed to work collaboratively with others. People need to collaborate in their families, jobs, and in their social lives. In individual projects, classroom competition is valued over cooperation. In cooperative learning teams, students can exercise their collaborative skills and practice to work with others to achieve mutual benefits for everyone (Lie 2004). A team relies on communication among members. Through team projects students can learn to actively and effectively listen to their team members to understand their ideas and concerns. Team members must effectively articulate their ideas or their concerns to others and provide genuinely constructive feedback to team members.

#### **Promote Diversity**

Cooperative groups may include students of varied racial or ethnic backgrounds. Because students are actively involved in studying classroom issues and communicating with each other on a regular basis they are provided with opportunities to appreciate differences. As students are exposed to methods and ideas that come from

a diverse team, they learn different ways of approaching a problem. Teams can provide opportunities for students to understand differences and learn how to capitalize on them.

### **Individualize Instruction**

“With cooperative learning groups, there is the potential for students to receive individual assistance from teachers and from their peers. Help from peers increases learning both for the students being helped as well as for those giving the help” (Lie 2004). In classrooms that emphasize the lecture method, teachers cannot always stop to help students who are having trouble keeping up with the class. Many times, traditional teachers have to simply direct their instruction to the average students in the class.

### **Decrease Anxiety**

Many students do not speak out in a traditional classroom setting because they fear appearing foolish. “In contrast, there is less anxiety connected with speaking in the smaller group” (Lie 2004). When students work in teams, the product comes from the team rather than from the individual. Therefore, the focus is removed from any one student and the entire team becomes responsible. Cooperative groups provide a safe environment for students to communicate ideas without the fear of criticism.

### **Enhance Self-Management**

“One purpose in education is to enable students to become life-long learners, people who can think and learn without teachers telling them what to do every minute. By shifting from dependence on teachers, cooperative group activities help students become independent learners and form a community of learners among themselves” (Lie 2004). Participating in academic teams’ calls for self-management by students and the student may do more academic work. Some students may accomplish more in order to keep up with the rest of the team. This can be a combination of not wanting to let the team down or not wanting to look unprepared. In order to perform within their team, students need to be prepared with assignments completed.

## **CHALLENGES OF ACADEMIC TEAMS**

“Although the positive outcomes of teamwork are numerous, there are problems related to work in group contexts. Some problems in team-oriented work result from the actions of the students themselves” (Pfaff and Huddleston 2003, p.38). It is important for college professors to be aware of these challenges when incorporating academic teams in their classrooms. Students should also be made aware of these possible challenges, in order to prepare for them. Some of the challenges that academic teams can be faced with are social loafing, scheduling conflicts, grading method, team member conflicts, and task perception.

### **Social Loafing**

One common problem with academic teams occurs when a team member does not contribute equally in the group. “[Research results] suggest that as the size of the team increases, social loafing (i.e., the tendency of certain team members to free ride on the efforts of others) is more likely” (Deeter-Schmelz, Kennedy, and Ramsey 2002, p.115). “[Social loafing] can be addressed by changing team membership or by increasing individual accountability” (Pfaff and Huddleston 2003, p.38). Providing an opportunity for students to evaluate each other’s contributions may also decrease the occurrence of team members not contributing to the group. To avoid any fear of social consequences linked to grading each other, the team members’ evaluations should remain confidential. Unfortunately, some students will not fully participate, leaving the other team members to carry the slack. It is important to set up some sort of accountability for team participation, for example peer evaluations.

### **Scheduling Conflicts**

Although students are expected to work outside of class, teamwork adds the burden that students must be free outside of class at the same time. Many college students have jobs and family responsibilities that make coordinating times for teamwork difficult. One way to alleviate some of the problems involved with time coordination is for the teacher to provide class time for teams to work together (Koppenhaver and Shrader 2003).

Encouraging or requiring the students to use email and/or chat rooms, can provide another means for students to easily communicate with each other outside of class.

### **Grading Method**

Students are very anxious about being in a situation where their individual grade depends on the performance of other individuals. A professor's grading method for individuals and teams can also be problematic. Due to the nature of team grading, a student may feel that they have lost control of their academic destiny. "Students frequently complain, and express dissatisfaction, when their personal grade is heavily weighted by team output as opposed to individual accomplishment" (Boughton 2000). "Relying solely on instructor-based evaluation can also cause problems; not including a peer evaluation in the grade may adversely affect student attitudes toward teamwork" (Pfaff and Huddleston 2003, p.38). Project preparation by the instructor is important so the students know that grading for a team project consists of more than just a team grade, but an assessment that is balanced. The key word is balanced. Individual accountability should be built into the project from the beginning to be most effective. Most experts recommend splitting a team project grade into a team component and an individual component. For example, the instructor determines the average team grade and the input from the members are used to assign individual grades. The two grades can be added to determine the individual student's overall project grade.

### **Team Member Conflicts**

Putting together groups of individuals with different backgrounds and ideas will inevitably lead to disagreements and conflict. Many times, conflict occurs when professors have control over assigning team membership. Students need to find ways to handle this kind of challenge. One solution is to let students take charge of team management. The team members choose how to resolve the problem. The professor abides by the team decision as long as documentation of the offense is presented. Another way a professor can alleviate this problem is to provide team building and team maintenance instruction within the structure of the assignment (Cook 2003). It is important to emphasize to the students that some disagreement in teams is normal and can actually be productive. Remind the students that conflict is a part of the team building process. Without it, teams may not be able to examine all points of view and synthesize information.

### **Task Perception**

Another challenge that affects the success of academic teams is student perception of the required task. If the students perceive the group assignment as "busy work", the attitude of the students will be poor and the quality of the experience will be minimal if any at all. One way to avoid this problem is to allow students the flexibility to choose their own topic for study. The teams will likely choose something that is relevant and meaningful to them. This helps avoid the idea of only "busy work." Another solution is for the professor to emphasize the importance of teamwork in real-world situations. "Discuss the importance corporate recruiters place on being able to work in teams as a hiring criterion in cooperative and job recruitments and interviews. Stress the interpersonal skills that can be acquired by working in teams" (Pfaff and Huddleston 2003, p.43). When students realize the personal benefits of teamwork, the problem of poor attitudes toward group work should decrease dramatically.

## **MOTIVATION TECHNIQUES**

Unfortunately, there is no single recipe for motivating students. "Not only are students motivated in multiple ways, but their motivation can vary depending on the situation or context in the classroom or school" (Linnenbrink and Pintrich 2002, p.314). An important consideration when thinking of ways to motivate college academic teams is that adult learners are motivated by different techniques as compared to younger learners. Adults are not impressed or motivated by gold stars and good report cards. Instead they want a learning outcome which can be put to use immediately, in concrete, practical, and self-benefiting terms (Stewart and Powell 2004). The good news is that, by their very nature, academic teams can easily incorporate self-motivating strategies. Many of the benefits of academic teams are related to intrinsic motivation. In a study comparing cooperative learning to whole group instruction, "the most consistent results of [the] study related to student motivation, all aspects of which were more positive during cooperative learning" (Peterson and Miller 2004, p.131).

Motivating students is never easy and getting them to accept team projects is even harder. Since teamwork is a learned skill, it is important that the students are educated about the teamwork process. This can include a short presentation and question and answer sessions; giving out guidelines for teamwork in the syllabus; or referring students to guidelines on student teamwork. To help with the motivation process the following topics should be considered: setting the stage, assigning membership, project selection, give control, and feedback.

### **Setting the Stage**

While some students may be enthused about the opportunity of working in teams, it is not uncommon that most students are reluctant to participate in any sort of team or group activities. The first step is to work on creating a class climate that encourages cooperation. Communicate clear expectations to students about team projects on the first day. Explain why teams are used and how they can benefit from them. Provide a non-threatening, hands-on, introduction to teamwork that students can easily accomplish. Instead of just telling students teamwork can be fun, demonstrate it by letting them develop team logos and team names.

An important step to team building is for the team members to be acquainted. Encourage students to share information about their interests, likes, and dislikes. At the very beginning some time needs to be given to aid in the team socialization process. Some short brainstorming exercises can help students get used to the team process and understand the benefits of comparing different points of views (Nelson 2004). This first step of team building is simply getting acquainted and becoming socially cohesive.

### **Assigning Membership**

A key to a motivated and successful team is how the members are assigned. Three options are available: 1) students pick their own partners, 2) partners are randomly assigned, or 3) partners are strategically matched by the instructor.

The one thing almost every expert recommends is, do not let students form their own teams, unless it is for a very short, in class project. When students form their own teams, the potential for cliques to form within a team greatly increases, thus potentially excluding some team members. Oakley, et. al. (2004) lists several pitfalls of letting students select their own groups. First, students of similar abilities tend to congregate together: strong with strong, weak with weak. This limits interaction by preventing weaker students from learning how stronger students approach problems and robbing the stronger students of the educational values of peer teaching. A second pitfall is that group's will likely form around pre-existing friendships. This decreases the exposure to different ideas, and such groups are more likely to encourage and cover for inappropriate behaviors like non-participation and free riding (Brooks and Ammons 2003). Also, self-selection can pose a problem for under-represented minorities.

Randomly assigned membership may be effective, but more likely it is problematic. It is possible that randomly assigned teams may be composed of groups of students who all have similar skills and are lacking the requisite skills to complete particular tasks or assignments. The groups may be composed of groups of individuals who share similar opinions, when it might benefit them to work with students whose ideas are different from their own.

A commonly recommended strategy is to group members of mixed talents and temperaments (Adams 2003). Student assets should be evenly distributed among the teams. Student assets typically include such things as work experience, previous relevant course work, skills, and perspectives from other cultures. Balancing the strengths and weaknesses of members can help insure that the groups function well and do not have distinct advantages over one another.

Team membership should be stable. It takes the students' time to get comfortable and efficient working with a group of people. If membership is switched frequently, students never have a chance to develop team loyalty, which is essential for team success.

### **Project Selection**

Capitalize on students' existing needs and interests. Students will be much more committed to a team project that has value for them, which they can see as meeting their needs, either long term or short term (Scribner, et al. 2003). Students need to feel that the project is significant, valuable, and worthy of their efforts. Students learn best when assignments provide meaningful and authentic experience. To increase motivation and sustain learning, team assignments should be designed to address these kinds of needs and interests. Help students find personal meaning and value in the activity. Students are more engaged in activities when they can build on prior knowledge and draw clear connections between what they are learning and the world around them. Once a topic for the team project is agreed upon, the team needs concrete tasks to accomplish and specific goals to meet in order to be motivated to work together.

### **Give Control**

Teams and team members want to have some control over what activities they pursue and when and how they choose to engage in them. In environments where others rigidly prescribe the students tasks and activities, levels of responsibility and commitment often wane. It is important to relinquish some control to the students. This can be done in any number of ways, for example, giving teams choices between projects, developing their own topics, minimizing supervision over the project, and letting the team pick their own leader. Even small opportunities for choice, such as during class time, whether to work in the classroom or some other location, gives students a greater sense of autonomy. As most educators intuitively know, students learn more when they are creating their own learning opportunities (Bradford 2005). Giving students control does not mean giving up control. There are some aspects of the project that the students will not like, but they are essential. Fortunately, research suggests that students feel some ownership of a decision if they agree with it, so getting students to accept the reasons some aspects of a team project are not negotiable is a worthwhile endeavor (Ashraf 2004).

A characteristic of cooperative learning is that team members are obliged to rely on one another to achieve their goal. If any team member fails to do their part, everyone suffers the consequences. Giving members control through peer reviews or being able to fire a member can help motivate the team members (Ashraf 2004).

### **Feedback**

If used correctly, feedback can function as a very powerful tool to motivate students to participate and learn. Give students constructive feedback on a regular basis. The effort students put into team projects outside of class needs to be acknowledged with sufficient feedback to make them feel that the effort was worthwhile in moving them toward their goals. Teams need some indication of how well they are doing and how to improve. It is more motivating to have direction than to wonder about potential problems. Although it is important to evaluate the progress of the team project, critiques need to be presented with tact. Feedback in the form of grades should include peer evaluations (Chen and Lou 2004). This provides a way for students to feel more in control of their group evaluation. Teams need to be able to process or reflect on how well they are working together.

Teaching team members to give and receive constructive feedback (both positive and negative), and allowing them time in class to do so, helps to focus their attention on their interdependence. Asking for feedback from students about the project, especially early in the semester, demonstrates to them the instructor's interest in their learning, and often generates renewed enthusiasm because students feel that they can help shape the project in ways that also help them achieve their goals.

## **CONCLUSION**

Academic teams, a popular approach to cooperative learning, have become a necessary aspect in today's college classroom. Aside from increasing student motivation and interest, cooperative learning prepares students for the competitive job market where group cohesion and productivity are essential. "To remain innovative and competitive, businesses are looking for employees who can work and learn effectively in teams" (Pfaff and Huddleson 2003, p.37). Furthermore, an analysis of the benefits of using academic teams demonstrates their effectiveness in enhancing the quality of education. Cooperative learning can potentially: increase student

participation, enhance social skills, promote diversity, individualize instruction, decrease student anxiety, and enhance self-management skills. Many educators, in spite of the established benefits, may be reluctant to stray from traditional methods, such as lecture. However, problems are inevitable when implementing any new teaching strategy. Practice and commitment to the group process enables participants to avoid challenges such as: social loafing, scheduling conflicts, undesirable grading methods, team member conflicts, and task perception issues. Many would agree motivating students is no easy task. Motivational techniques involving: meaningful assignment selection, active student participation, positive social connections, and timely instructor feedback are easy to incorporate and strengthen the teamwork process. In spite of potential challenges of using academic teams, in the end, the lessons learned will transcend far beyond the bounds of the classroom.

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## **SERVICE LEARNING CREDIT USING A MARKETING RESEARCH PROJECT**

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### **ABSTRACT**

*This article explores the trend toward service learning projects in higher education and provides an example for use in the field of marketing. This project involves designing a marketing research plan for a local non-profit performance arts organization.*

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### **INTRODUCTION**

This article explores the trend toward service learning projects in higher education and justifies their use in the field of marketing. Service learning involves placing students at nonprofit organizations where the organization benefits from the service provided by the students and the students gain from an experiential learning technique. One example of a service learning marketing project involves designing a marketing research plan for a local non-profit performance arts organization.

### **LEARNING TRENDS**

According to the Educational Resource Information Center (ERIC), *learning* is the process of acquiring knowledge, attitudes, or skills from study, instruction or experience.

College marketing instructors are responsible for creating a learning environment where students will be able to demonstrate understanding of marketing concepts, theories, and practices (Hamer, 2000).

Presently, higher education institutions across the country are experimenting with a variety of innovative learning techniques (Bobbitt, Inks, Kemp, and Mayo; 2000). Learning techniques may be passive learning or active learning. The more traditional learning technique is the lecture format. It is considered a form of passive learning whereas the instructor conveys the needed information to the students. It is believed that this format works best when a large amount of information needs to be conveyed to a large audience in a limited amount of time. It is sometimes necessary when the size of the class prohibits a more active learning technique (Hamer, 2000). Experiential learning is an active learning technique. Kolb (1984) defines experiential learning as “a process whereby knowledge is created through the transformation of experience.” Experiential learning techniques require students to perform activities that are based on course concepts. These activities may include case studies, computer simulations, or role-playing which are best performed in small groups. Experiential learning activities range from semi- structured, which are shorter very focused and controlled projects, to loosely structured, which are typically completed over a longer time frame and are more complex (Hamer, 2000). Generally, as tasks become less structured their amount of difficulty increases; therefore increasing the amount of deep processing required by the student to complete the task (Hamer, 2000).

Most scholars agree that experiential learning projects have a higher success rate of transferring knowledge and skills from the instructor to the learner than traditional lecture-discussion formats. “Experiential learning techniques create opportunities for students to apply real-life situations to the concepts and theories they have learned” (Bobbitt, et al; 2000).

In a study by Young, Klemz and Murphy (2003), the data suggests that learning outcomes in marketing education are a function of instructional technology, learning styles, instructional methods, and student behavior. Young et al. (2003) state that project-based instructional methods that enhance involvement and motivation lead to enhanced learning outcomes; therefore they suggest that the trend toward experiential learning in marketing education seems fitting. By increasing the students’ involvement in the learning process, student learning will be enhanced. (Young et al., 2003; Bobbitt, et al, 2000).

Another benefit of experiential learning is “experiential learning activities encourage student-faculty contact as students seek direction, assistance and insight from instructors as they work through the various exercises” (Gremier et al., 2000).

This paper examines a team-based, loosely structured experiential learning project, oriented around a live case study. Using live case experiential learning eliminates the potential for academic dishonesty that can occur in simulation exercises where students may be able to benefit from previous-player information or “stealing” of information from other teams.

Because the “client” in this case is a not-for-profit organization, this project qualifies as a service-learning project. “Service-learning is a pedagogical process whereby students participate in course-relevant community service to enhance their learning experience” (Petkus, 2000). Petkus suggests that nonprofit organizations which often lack resources to perform marketing research may provide an opportunity for marketing students to contribute to their community while engaging in experiential service learning.

#### **INSTITUTIONAL SERVICE LEARNING COURSE REQUIREMENTS**

The mission of the author’s college is to prepare its graduates for life and leadership in an increasingly complex world, recognizing equal value in the liberal studies and professional programs aimed at preparing graduates who are dedicated to both their local and global communities. As a past winner of the Presidential Points of Light National Service Award, the college’s students have contributed greater than 30,000 hours in volunteer work and service learning activities in 2005. The students complete at least 60 hours of service before graduation and choose from a variety of for-credit service learning courses in departments ranging from economics to philosophy. Through service learning opportunities, students gain valuable experience applying academic learning to real-life situations.

Presently, the author’s institution requires that all students complete three credit hours of Service Learning before graduation. These three credit hours may be earned by completing a course specifically designed to provide a service learning component or by earning elective “add-on” service learning credits to traditional courses where the instructor agrees to provide a service learning project subject to the approval of the college service learning director. Below is an outline of the college requirements for service learning credit.

1. Student action in the community will address an identified need, as approved by the College Service Learning Director. This action must equal 20 hours of active service for each credit of service learning awarded. An official log of hours served must be kept and include the signature of an approved agency contact person.
2. Student reflection is required in the form of writing assignments or other methods as identified by the course instructor. These assignments can take various forms such as reflective journals, reflective papers, video or audio taped presentation, or other creative and appropriate avenues of expression.
3. Structured time must be provided for students to think about and discuss the service activities.
4. If the service learning component is attached to an academic course, the service learning component must be relevant to the course content and help the student master the course concepts.

#### **MARKETING RESEARCH PROJECT**

Marketing research can help implement the marketing concept by identifying consumers’ problems and needs, improving efficiency, and evaluating the effectiveness of marketing strategies. A college marketing research class conducted a study to examine a performance arts organization and their marketing practices. In addition to performing a competitive analysis, a survey instrument was designed to collect patron demographic and patron preference data for a small performance arts theater located in the theater district of this metropolitan area. This study addressed the following questions: Is the small performance arts organization delivering customer satisfaction

and value? Is the small performance arts organization attracting new customers and retaining and building relationships with current customers? Who are the customers of this organization? The survey took place for approximately one month, the time of one performance run. After all survey information was collected, the students analyzed the collected data using SPSS, a statistical software package. The students communicated their findings and their implications to the selected organization and to the college community at the college's annual Academic Festival. This project took place over the length of a college semester as students were responsible for completing the following ten steps of the marketing research process:

1. Problem discovery
2. Selection of exploratory research technique
3. Problem definition
4. Selection of basic research method
5. Selection of sample design
6. Collection of data
7. Editing and coding data
8. Data processing and analysis
9. Interpretation of findings
10. Report

In addition to the students registered for the marketing research class, students registered in the principles of marketing class were also invited to participate in the administering of survey instruments, coding and data processing. The students of the "principles" class registered for one credit hour each which requires 20 hours of service time. If the students decide later in the semester to complete a total of 40 service hours, they are able to register at any time during the semester for the additional service learning credit hour. Also, if a similar service learning opportunity presents itself the following semester, the "principles" students may register for service learning credit hour(s) that will be linked retroactively to the principles of marketing course. In this manner, the Business Administration Department hopes to provide students with service learning opportunities that are flexible and relevant to the students' professional interests.

#### **SERVICE LEARNING AND CIVIC RESPONSIBILITY**

It is the intention of the institution to instill a sense of civic responsibility in all of its graduates. Civic responsibility is grounded in an appreciation that the health of local, national and global communities is dependent on the direct and active participation of all community members contributing to the well-being of the community. As a whole civic responsibility entails a life-long commitment to addressing problems these communities face.

This class project engages the students in civic responsibility. A national funding crisis is affecting the arts community and therefore, there exists a potential for a negative impact on local community quality of life issues. As performance arts organizations struggle with less funding from national, state, and local governments, it is imperative for their survival to look to their patrons and individual donors for support. To provide a performance arts organization a better understanding of their patrons, the students volunteered their services with the assistance of the institution business department funds. In this manner, the students while providing one organization with marketing information that is important to their organization health, the students are also indirectly providing a service to the local community. As a result of this project, students have contributed to the quality of life aspects in their community by playing a role in the continued viability of an arts organization.

#### **CONCLUSION**

In conclusion, students have put into practice the marketing research concepts necessary to conduct successful research. By using a live case study, studies have shown students may have better retention of discipline concepts over lecture style teaching only. Students may experience civic responsibility at the local level that fosters success of communities. At the conclusion of this project, not only will students retain the information relevant to be successful marketers, but they may also be encouraged to continue to serve their community by volunteering valuable services.

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# **THE RELATIONSHIP BETWEEN PERCEIVED CONSUMER EFFECTIVENESS AND SEARCH FOR INFORMATION ON ENVIRONMENTALLY FRIENDLY PRODUCTS**

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## **ABSTRACT**

*Much research has been conducted on various forms of environmentally concerned consumer behavior, and their determinants. However, there is little research focus the impact of perceived consumer effectiveness and income on search for information relating to environmentally friendly goods and services. An investigation of the role of perceived consumer effectiveness and income on search for information was conducted, through a national survey (n=213). Results support the hypothesis that 19 percent of the variation in search for information is accounted for by perceived consumer effectiveness, while six per cent is accounted for by income. The study theorizes the role of perceived consumer effectiveness, and offers research and other implications.*

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## **INTRODUCTION**

Consumer concern for the earth's physical and natural environment has grown rapidly since the 1990's (Egri and Herman 2000; Keesling and Kaynama 2003). The understanding of environmentally concerned consumer behavior is of importance to consumers, business, marketing, educationists, public policy makers, thinkers and academicians (Egri and Herman 2000; Keesling and Kaynama 2003; Joonas, 2004; Joonas, Davila Ruiz, and Tandon 2005). Research has been conducted on environmentally concerned consumers' search for information on pro-environmental goods and services (Ling-yee 1997; Minton and Rose 1997). In addition, literature describes perceived consumer effectiveness as a determinant of environmentally concerned consumer behavior (Anderson, Henion and Cox 1974; Antil 1978; Balderjahn 1988; Henion 1976; Kinnear et al 1974; Roberts, 1996; Rotter 1990; Webster 1975). However, the role of perceived consumer effectiveness as an antecedent of search for information on environmentally friendly goods and services has not been examined in the literature. The first purpose of this study is to investigate the impact of perceived consumer effectiveness as an antecedent of search for information on environmentally friendly goods and services. Furthermore, the role of income in producing environmentally concerned consumer behavior has been examined in the literature, with equivocal results (Antil 1978; Balderjahn 1988, Ling-yee, 1997; Webster 1975). Therefore, the second purpose of this study is to shed light on the direct effects of income on the formation of search for information.

The significance of this study lies in the fact that, in relation to environmentally conscious consumer behavior, search for information on environmentally friendly products comprises an important behavioral outcome (Ling-yee 1997; Minton and Rose 1997). An empirical investigation of the direct linkage between antecedents of search for information, such as perceived consumer effectiveness, and income, would address the lacunae in this area.

## **LITERATURE REVIEW**

### **The Search for Information Construct**

The information processing theory (Bettman 1979) contains assumptions about how consumers respond to information provided by various sources, and then use the information in specific choice situations. "The basic elements of the theory are the concepts of processing capacity: motivation, attention and perception, information acquisition and evaluation, decision rules and processes, and consumption and learning. In addition, mechanisms

for continually examining the environment (a scanner), and interrupting current behavior, if necessary, and means for handling conflict are needed ... the operation of the theory is influenced by three other factors: individual differences, situational influences, and effects of different types of stimuli (Bettman 1979:16).

Further, the search for information may be internal (retrieval from memory), or external (from Consumer Reports, retailers, friends and acquaintances). Again, the search for information may be active (when a person has a specific goal in mind, e.g. a purchase goal), or passive (e.g. when a person has no purchase goal in mind). Information is in many cases actively evaluated by customers. The particular information found may lead to interrupts or changes of goals.

In relation to environmentally conscious consumer behavior, search for information on environmentally friendly products comprises an important behavioral outcome (Ling-yee 1997; Minton and Rose 1997). This includes, for instance, the frequency of comparing package label information, noticing and paying attention to advertisements, and talking to family, friends and co-workers about environmentally friendly products and activities. In this study, the term search for information is used per the definition of Minton and Rose (1997).

### **Perceived Consumer Effectiveness and Its Main Effects**

Perceived consumer effectiveness is defined as a measure of the subject's judgment in the ability of individual consumers to affect environmental resource problems (Antil 1978), and is similar to the concept of internal locus of control (Rotter 1954, 1966). The environmentally conscious consumer is convinced that he can actually change the status quo of continued environmental deterioration (Henion 1976). Socially conscious consumers are convinced that they can do something about pollution (Webster 1975). In this study, I use Antil's (1978) definition of perceived consumer effectiveness.

The concept of internal-external locus of control is rooted in social learning theory (Rotter 1954, 1966). "... the stimulus for studying such a variable has come from analyses of patients in psychotherapy, and from an attempt to explain certain discrepancies in learning studies of performance and extinction" (Rotter et al 1962: 474).

A distinction is made between internal versus external control of reinforcement. Individuals with an external locus of control comprehend reinforcements resulting from behavior as a direct result of luck, chance, or fate. On the other hand, individuals with a faith in internal control understand the same reinforcements to be linked with their own ability or actions (Rotter 1966). The earlier interpretation of locus of control related to learning processes was that the probability of behavioral change, following positive or negative behavioral reinforcement, is higher for individuals with a belief in internal control, as compared with individuals with a belief in external locus of control. Behavioral change is contingent upon the value of the reinforcement. For instance, individuals with an internal locus of control attach greater relevance to perceived reinforcements of value, since they believe that they have control over reinforcements; accordingly, they change their behavior. However, individuals with an external locus of control believe that all outcomes depend on luck, chance, powerful others, or destiny; consequently, they are less likely to change their behavior, for in their perception, a change in behavior would have no effect on their reinforcements (Rotter 1966).

Locus of control helped explain the linkage between certain cognitions and behavioral change; however, it is incorrect to assume that qualities of individuals with internal locus of control are all positive, and vice versa (Rotter 1975). The concept of locus of control was the key to the transition in research from trait-based to behavior-based research. In current literature, the heightened attention to locus of control lies in its utility in comprehending the way social problems are conceptualized in Western culture, and the resulting sense of powerlessness. This utility accounts for the proliferation of locus of control in several fields, including mental health (Rotter 1990).

A related concept is Anderson, Henion and Cox's (1974) "intensity hypothesis," which these researchers had theorized and empirically tested. These researchers made a distinction between the "traditional" socially concerned consumer, and the environmentally concerned consumer. They hypothesized that the environmentally concerned consumer would possess certain demographic characteristics, and more so, psychological characteristics to a significantly greater degree than the (traditional) socially concerned consumer. This expectation, which was referred to as the "intensity" hypothesis was conceptually justified on the basis that the environmentally concerned consumer would be much more vehement about his desire to right the environmentally related wrongs of society

(Henion 1976: 34). Support was found for the intensity hypothesis on basis of the exceptions with respect to two of the psychographic characteristics, alienation and personal competency, that were especially revealing. Contrary to expectations, the environmentally concerned consumer was shown to be more alienated, and more competent, than the (traditional) socially conscious consumer.

The term "perceived consumer effectiveness" was first described by Kinnear et al (1974), as the conviction of the environmentally concerned consumer, that he can actually change the status quo of continued environmental deterioration. Kinnear et al (1974) conducted a mail survey among 500 members of Canadian Family Opinion, University of Western Ontario Consumer Panel. These researchers treated environmental concern as the dependent variable (comprising attitude and purchase behavior), and observed the direct effects on these, of ten predictors (comprising socio-economic and personality variables, one of them being perceived consumer effectiveness). Results from multiple cluster analysis, a dummy variable regression procedure evidenced that consumers show more concern for the environment when they perceive that individuals can be effective in stemming pollution. Perceived consumer effectiveness was found to be the best among 10 predictors of ecological concern, with an MCA regression coefficient ranging from -2.49 for "low perceived consumer effectiveness" to 2.54 for "high perceived consumer effectiveness", with model mean = 11.31, and  $R^2 = .28$  (Kinnear et al 1974).

On the basis of a mail survey of 432 customers of a refuse collection agency in New England, Webster (1975) describes environmentally concerned consumers as more accepting of the views of others (high tolerance scores), and willing to exercise initiative (dominance) based on a conviction that their own actions can make a difference (perceived consumer effectiveness).

Based on the above findings, Henion and Wilson (1976) examined whether the environmentally concerned consumer could be described in terms of locus of control. The results of the study lend support to the locus of control hypothesis. A correlation was undertaken, between the locus of control scale, and two separate measures of environmental concern viz. Maloney and Ward's (1973) ecology scale, and Taylor and Kinnear's index of ecological concern. As expected, the scale and the index varied directly with internal-type, and inversely with two external-type measures of locus of control, viz. "chance" and "powerful others". So did the important attitude of perceived consumer effectiveness (Henion and Wilson 1976).

The construct perceived consumer effectiveness also finds support in the theory of planned behavior, which provides a conceptual framework to address the problem of incomplete volitional control (Ajzen 1985, 1988). An extension of the theory of reasoned action, it accounts for the factor of volitional behavioral control. This factor refers to the perceived ease or difficulty of performing the behavior, and reflects past experience as well as expected impediments. The antecedents of perceptions of behavioral control are control beliefs of the person. These control beliefs may be based on past experience with the behavior, but may also be influenced by second-hand information about the behavior, and by observing the experiences of their acquaintances and friends. The more resources and opportunities individuals think they possess, and the fewer impediments they anticipate, the greater should be their perception of control over behavior (Ajzen 1985, 1988). This reflects the locus of control construct (Rotter 1954; Rotter et al 1962; Rotter 1966, 1975, 1990); however, in Ajzen's (1985, 1988) conceptualization, the perception of control rests on information, which the individual accumulates either at first hand, or through personal or other sources.

The above results were further supported by subsequent empirical findings. For instance, Balderjahn (1988) conducted a survey among 791 adults in the Federal Republic of Germany in 1980, and evaluated the direct effects of four determinants (i.e. demographic characteristics, socio-economic characteristics, personality, and attitude) on five dimensions of consumption (i.e., energy conservation, home insulation, energy curtailment, type of products purchased, support for an environmental organization, and the use of automobiles). Results from a multiple indicator measurement (LISREL) model revealed that, on the basis of path coefficients, that the attitude of perceived consumer effectiveness is an important determinant of environmentally concerned consumer behavior. Perceived consumer effectiveness has significant direct linkages with two dimensions of consumption, i.e., energy saving (path coefficient .24) and purchase of non-polluting products (path coefficient .25). The model had a goodness of fit index of .866 (Balderjahn 1988).

The most striking results in support of perceived consumer effectiveness were obtained in a study by Roberts (1996). With the objective of segmenting environmentally concerned consumers in the U.S., a study was

conducted on a random sample of 582 adults from six test-marketing regions. The dependent variable, environmentally concerned consumer behavior, was regressed on five demographic variables, viz. environmental concern, perceived consumer effectiveness, and liberalism. In a hierarchical model of multiple regression, it was observed that demographic variables explained only six per cent of the variance ( $R^2 = .06$ ,  $F = 7.29$ ,  $p \leq .0001$ ,  $df = 5.531$ ). However, in the full model, which included attitudinal and demographic variables,  $R^2$  increased to 45 per cent ( $F = 52.52$ ,  $p \leq .0001$ ,  $df = 8.519$ ). Perceived consumer effectiveness accounted for 33 per cent of the variation in behavior, compared to only five per cent for environmental concern, and two per cent for liberalism.

As noted earlier, literature has not probed the potential direct linkage between perceived consumer effectiveness and search for information. I will proceed to specify this direct linkage, which I will also empirically examine.

Some empirical studies evidence that consumers' difficulty in locating environmentally directed products is rooted partly in lack of information (e.g. Brown and Wahlers 1998). These researchers further state that environmentally concerned consumers, on the contrary, feel serious about the environment, are aware and informed, and take responsibility for preserving the environment. Environmentally concerned consumers are characterized by strong perceived consumer effectiveness, the conviction that they can actually change the status quo of continued environmental deterioration (Anderson, Henion and Cox 1974; Balderjahn 1988; Henion 1976; Henion and Wilson 1976; Kinnear et al 1974; Roberts, 1996; Webster 1975).

On the basis of the preceding theoretical and empirical support, I posit that:

H<sub>1</sub>: Perceived consumer effectiveness will be significantly and positively related to search for information.

#### **Income as a Control Variable**

Literature on environmentally concerned consumer behavior is equivocal on the effects of income. Studies like Antil (1978) reported that income as a factor fails to predict environmentally concerned consumer behavior. Roberts (1996) found income to be negatively related to environmentally concerned consumer behavior, explaining only two per cent variation in the dependent variable. Balderjahn (1988) and Webster (1975) suggested high income levels of environmentally concerned consumers. These findings were supported in study by Ling-ye (1997), which reports a moderating effect of income, on the direct relationship between collectivism and environmentally concerned beliefs and attitudes, on environmentally concerned purchase behavior.

Based on the preceding, I treat income as a control variable, and posit that:

H<sub>2</sub>: Income will be significantly and positively related to search for information.

Below is described the methodology adopted for the present study.

#### **METHODOLOGY**

The national random survey was conducted on the web site of a school accredited by the Association to Advance Collegiate Schools of Business International (AACSB). Respondents were members of environmental organizations in the U.S.A., who accessed the survey through a link on a Department of Natural Resources web site. Some of the Department activities included communication about environmental issues, organizing field trips on nature trails, and advocacy with business and government. Being highly concerned about environmental issues, and knowledgeable about the terms and concepts used in that context, such individuals might be suited to the purpose of the study; viz. to understand the behavior of environmentally concerned consumers. Data collection was completed by the winter of 2004. The survey was voluntary, anonymous, and structured. A cover letter described the objectives of the study and assured confidentiality.

The dependent variable, search for information (six items), is a scale from Minton and Rose (1997), a 7-point Likert-type scale with 1= "almost never" and 7= "very frequently". Minton and Rose (1997) reported an alpha of .90. Perceived consumer effectiveness (4 items) is taken from Roberts (1996), rated on a 7-point Likert-type scale, anchored by 1= "strongly disagree" and 7= "strongly agree". Roberts (1996) reported an alpha of .72. The

control variable annual income in dollars was treated as a categorical predictor, and was dummy coded as 0= “9,999 or less”, 1= “10,000-14,999”, 2= “5,000-19,999”, 3= “20,000-29,999”, 4= “30,000-49,999”, 5= “50,999-99,999”, and 6= “100, 000 and over”.

**STATISTICAL ANALYSIS AND TESTING OF HYPOTHESES**

Data were collated and analyzed with the use of SPSS software. Reverse coded items were recoded. Missing values were substituted by “trend at a point”. Diagnostic tests were undertaken; extreme values were ascertained to be ≤.05 percent of observations; normality was confirmed; and no pattern was observed in the distribution of error terms. In addition, psychometric assessment of measurement scales was also undertaken: scale dimensionality through factor analysis using Principal Component Analysis, and scale reliability through item-total correlations and Cronbach’s α. Hierarchical regression analysis and analysis of variance were conducted to examine the direct linkage between income, and perceived consumer effectiveness, on search for information. In Model<sub>1</sub>, the dependent variable, summated, averaged score of on six items on the search for information scale (SCHINFO), was first regressed against the control variable income (HHY). In Model<sub>2</sub>, the summated averaged score of the six items on the search for information scale (SCHINFO) was regressed against the control variable income (HHY), and the independent variable, the summated average score of perceived consumer effectiveness (PCEFFE). The best-fit model was assessed through comparing R<sup>2</sup>, change in R<sup>2</sup>, change in Regression F with the level of significance, and Model F, along with the level of significance.

The members of various environmental organizations formed the sampling frame for this study. A total of 231 surveys were received. However, 18 of them were incomplete. It was decided to utilize the 212 completed surveys for analysis. There was no indication of nonresponse bias.

The sample was about 31 percent male, with a median age of 35-44 years, and with a median income of \$50,000- 99,999 per year. Of the sample, 3.7 percent had some schooling, 6.6 per cent had some college experience, 31.6 percent held a college degree, 37.2 percent held a master’s degree, and 21.2 per cent held a doctoral degree. In addition, 68.1 percent were in a technical or professional occupation, 8.6 percent worked in a managerial capacity, 7.1 percent held a clerical or sales position, 10.3 per cent were students, and 2.8 per cent were homemakers.

Discriminant validity was assessed through a correlation analysis. This ruled out a high correlation (≥.4) among the study variables that, based on theory, should not be highly correlated. One significant correlation was greater than 0.40, perceived consumer effectiveness↔search for information, and this was expected to be strongly correlated.

Data were confirmed to be adequate for factor analysis of the scales. The search for information scale showed KMO Measure= .813, Bartlett’s test of sphericity= approx.  $\chi^2= 796.919$ , df= 15, p=.000. Furthermore, the perceived consumer effectiveness scale had KMO Measure= .941, Bartlett’s test of sphericity= approx.  $\chi^2= 4326.871$ , df= 120, p=.000. With initial communalities ≥1, and item loadings ≥.4, factor analyses confirmed the unidimensionality of each construct (Hair, Anderson, Tatham 1987).

Scale reliability was assessed by using the alpha method (Nunnally 1967). For search for information n=6, Hotelling’s T= 469.265, F= 92.082, df<sub>1</sub>=5, df<sub>2</sub>=208, p=.000, and Cronbach’s α=.880 (.95 reported by Minton and Rose, 1997). For perceived consumer effectiveness, n= 4, Hotelling’s T was 226.857, F= 74.906, df<sub>1</sub>=3, df<sub>2</sub>=210, p=.000, and Cronbach’s α= .506 (.76 reported by Ling-yea 1997). In view of this analysis, and to retain the original psychometric properties of the scale, all items were retained on each scale. Reliability estimates (Anderson and Gerbing 1988) are given in Table 1 below.

**Table 1**  
Reliability Estimates

Search for Information Scale Items	Component 1 <sup>a</sup>
1. How often do you compare package label information about the environmental safety of the product and/or package while you are in a grocery store?	.863

2.	How often do you notice advertisements about environmentally friendly products?	.854
3.	How often do you actually pay attention to advertisements about products which are safe for the environment?	.830
4.	How often do you talk to your neighbors about various environmentally friendly products or activities?	.752
5.	How often do you talk to your close personal friends about environmentally friendly products or activities?	.749
6.	How often do you talk to your family members about environmentally friendly products or activities?	.701

Scale  $\alpha$  (n= 213, Scale n= 6, F= 92.082, p= .000) = .880

Perceived Consumer Effectiveness Scale Items	Component 1 <sup>a</sup>
1. It is worthless for the individual to do anything about the environment.*	.527
2. When I buy products, I try to consider how my use of them will affect the environment and other consumers.	.745
3. Since one person cannot have any effect upon pollution and natural resource problems, it doesn't make any difference what I do.*	.784
4. Each consumer's behavior cannot have a positive effect on society by purchasing products sold by socially responsible companies.*	.546

Scale  $\alpha$  (n= 213, Scale n= 4, F= 74.906, p= .000) = .506

\* Reverse-coded.

Extraction Method: Principle Component Analysis.

a. One component extracted. The solution cannot be rotated.

The selected scale items for the study variables were summated and averaged. Search for information was found to be normally distributed, with mean= 4.42, and standard deviation=1.21. Similarly, perceived consumer effectiveness was found to be normally distributed, with mean= 5.86, and standard deviation=0.88.

Hierarchical regression analysis (Cohen and Cohen 1978, 1983) was conducted, as it helps isolates the unique contribution of study variables. In Model<sub>1</sub>, the control variable income was entered as a predictor of search for information, while in Model<sub>2</sub>, perceived consumer effectiveness was added as the predictor. Parameter estimates for the best model fit are presented in Table 2 below (Model<sub>2</sub>, R<sup>2</sup>= .250, R<sup>2</sup><sub>change</sub>= .196, F<sub>change</sub>= 35.032, p<.000, df<sub>1</sub>=1, df<sub>2</sub>=210, F<sub>model2</sub>= 54.868, p<.001).

**Table 2**  
Results of Hierarchical Regression Analysis Predicting Search for Information

Parameters	Model <sub>1</sub>		Model <sub>2</sub>	
	b	t-value	b	t-value
Constant	3.594	14.353***	n.s.	
Control Variable				
Income	.200	3.479***	.146	2.821**
Hypothesized Predictor				
Perceived Consumer Effectiveness	--		.617	7.407***
Model fit				
R <sup>2</sup>	.050		.054	
R <sup>2</sup> <sub>Change</sub>	.250		.196	
F <sub>Model</sub>	12.106***		54.868***	
F <sub>Change</sub>	12.106***		35.032***	

\*\*\* *significance < .001*

\*\* *significance < .01*

*n.s. not significant*

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According to Model<sub>2</sub>, at the .001 level of significance, about 14.6 percent of the variation in search for information was accounted for by income, and about 61.7 per cent of the variation in search for information was explained by perceived consumer effectiveness. The regression equation for this model was:

$$\text{SCHINFO} = .146 \text{ HHY} + .617 \text{ PCEFFE}$$

Where:

SCHINFO= summated average score of six search for information scale items

HHY= income

PCEFFE= summated average score of six perceived consumer effectiveness items.

### RESEARCH FINDINGS

Hypothesis H<sub>1</sub> suggested that perceived consumer effectiveness would be significantly and positively related to search for information. Regression results provided support for Hypothesis H<sub>1</sub>. Perceived consumer effectiveness ( $b = .617, t = 7.407, p = .000$ ) was evidenced to be significantly and positively related to search for information. Thus, a unit increase in perceived consumer effectiveness would result in a .167 units increase in search for information at the .001 level of significance. It may be noted that the direct linkage between perceived consumer effectiveness and search for information has not been examined earlier in the literature, and comprises a research contribution of this study.

Furthermore, Hypothesis H<sub>2</sub> posited that income would be significantly and positively related to search for information. Regression results indicate that income ( $b = .146, t = 2.821, p < .01$ ) is significantly and positively related to search for information. In other words, at the .01 level of significance, a unit increase in income level would result in a .167 units increase in search for information.

### DISCUSSION AND CONCLUSIONS

Hypothesis H<sub>1</sub> suggested that perceived consumer effectiveness would be significantly and positively related to search for information. Empirical results supported this hypothesis. Results are in line with extant literature (Anderson, Henion and Cox 1974; Balderjahn 1988; Henion 1976; Henion and Wilson 1976; Kinnear et al 1974, Roberts 1996; Rotter 1966, 1975, 1990; Webster 1975). This finding has implications for business and marketing, environmental groups, as well as public policy makers and local agencies.

The "well-baby" approach would be an effective tool, reinforcing the perception that individual efforts can, and do, impact the environment. Environmental compliance would be better achieved through the portrayal of a positive and achievable vision of the environment (Roberts 1996), as opposed to doomsday predictions (Carson 1962). The protection-motivation model might be relevant in this context (Tanner, Hunt and Eppright 1991). Additionally, the role of educational institutions, particularly business schools, needs to be highlighted in relation to perceived consumer effectiveness. For instance, AACSB standards require business schools to incorporate environmental consciousness through the curriculum (Joonas, Davila Ruiz, and Tandon 2005). The focus of environmental education should be on strengthening the perceived consumer effectiveness of potential business executives and citizens. A similar strategy needs to be adopted by government and environmental groups, in their public communications. Such measures will encourage search for information on environmentally-friendly products. Finally, consumer groups need to intensify efforts to strengthen the perceived consumer effectiveness among consumers in general, so as to increase the search for information on environmentally friendly goods.

Furthermore, Hypothesis H<sub>2</sub> suggested that income would be significantly and positively related to search for information. Empirical results supported this hypothesis. Results are in conformity with extant literature (e.g., Hofstede 1980, 1997, 2001; Ling-yee 1997; McCarty & Shrum 1994). This would imply that in the short run, business and marketing should target their offerings at higher income group. Also, there is a need to undertake a

concerted awareness campaign for environmentally friendly products among the middle income group. In the long run, however, attempts should be made to grow the market, and reap economies of scale, to make environmentally friendly products desirable and accessible across more income groups.

A limitation of this study is that it does not take into account numerous other factors that go into the making of search for information. Among demographic factors, only income has been considered as a control variable. In addition, the study is constrained by virtue of being cross-sectional in nature. A longitudinal study would shed light on the potential mutuality of cause and effect among the variables of interest. Furthermore, the study relies on scales that were developed during the nascent stages of the environmental movement, and may need closer examination.

In conclusion, it may be mentioned that the direct linkage between perceived consumer effectiveness and search for information has wide-ranging implications for the various environmental stakeholders, namely consumers, business and marketing, educational institutions, government, and environmental organizations, in their quest to preserve and protect the earth's physical and natural environment.

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# **INVESTIGATING BELIEFS, ATTITUDES, AND PURCHASE INTENTIONS OF CHINESE CONSUMERS ABOUT GENETICALLY MODIFIED PHARMACEUTICALS**

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## **EXTENDED ABSTRACT**

*This study investigates beliefs, attitudes, and purchase intentions of biopharmaceuticals among Chinese consumers. Biopharmaceuticals are a new group of medicines derived from cell cultures (either plant or animal based) and other genetically modified organisms that have the potential to cure illnesses such as cancer and HIV. The study tests two key relationships: (1) the relationship between the general beliefs and attitude consumers have about biotechnology in general and biopharmaceuticals specifically, and (2) the relationship that attitude has with intentions to purchase biopharmaceuticals. Data for this research were collected from 173 students who were attending a large university in the People's Republic of China. College students can be considered an appropriate sample here because general consumers are not knowledgeable about biotechnology and therefore unlikely to respond to a survey in a meaningful manner. Students were provided the survey that was in Cantonese and were asked to respond to the survey on a voluntary basis during class.*

*The scale developed and used by Nonis, Guha, and Segall (2004) to measure consumer beliefs about biotechnology and genetic engineering was used to measure the four belief dimensions, risks to health and environment (Safety), ethics and morality (Ethics/Morality), trust and credibility of regulatory agencies (Trust), and benefits of biopharmaceuticals (Benefits). Eight bipolar adjectives measuring the consumer's overall attitude toward biopharmaceuticals were used. The behavioral intention scale used by researchers such as MacKenzie, Lutz, and Belch (1986) and Day and Stafford (1997) was employed to measure intentions to purchase biopharmaceuticals.*

*Confirmatory factor analysis (CFA) of 11 items of the belief scale met (one item was dropped) standard fit requirements that was satisfactory (goodness-of-fit index [GFI] = 0.94, adjusted goodness-of-fit-index [AGFI] = 0.91, comparative fit index [CFI] = 0.93, normed fit index [NFI] = 0.84, root mean square error of approximation [RMSEA] = 0.05). These results seem to suggest the possibility of using the survey instrument developed by Nonis, Guha, and Segall (2004) to measure beliefs relating to genetic engineering and biopharmaceuticals in a different culture.*

*The mean value for attitude and purchase intentions showed Chinese consumer to be more favorable than unfavorable about genetically modified products and more likely than not to purchase these products in the future. This should be good news to companies that are looking at China as a potential market for genetically modified products.*

*Three of the partial correlation coefficients between beliefs and attitude about biopharmaceuticals were statistically significant. The belief dimensions perceived benefits ( $r = 0.16, p < 0.05$ ), ethical and moral issues ( $r = -0.16, p < 0.05$ ), trust and credibility of governmental agencies ( $r = 0.17, p < 0.05$ ) related significantly with attitude consumers have about biopharmaceuticals. Also, the relationship between attitude and purchase intentions consumers have about biopharmaceuticals was also significant ( $r = 0.18, p < 0.05$ ). Chinese consumers seem to trust their governmental agencies as a source of information in developing beliefs about genetic engineering as demonstrated by the significant positive relationship. Of course, it is unlikely that they have been exposed to any media or other information source that would contradict these agencies. Also, the negative correlation that ethical and moral beliefs showed with attitude seems to indicate the concern Chinese consumers have about the wisdom of manipulating nature. Chinese consumers are classified as high on the cultural value dimension uncertainty/avoidance as demonstrated by Hofstede (1980) and these consumers prefer to live in harmony with nature and than environment rather than controlling it. As expected, attitude provided a significant positive correlation with purchase intentions. Obviously, those consumers who have a positive attitude about biotechnology*

*and genetic engineering are more likely to purchase a genetically modified pharmaceutical or a biopharmaceuticals.*

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## **CONSUMERS INTERNET SHOPPING BEHAVIORS BASED ON THE PRODUCT INVOLVEMENT**

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### **EXTENDED ABSTRACT**

*The Internet market share is under two percent of total retail spending (U.S. Census Bureau, 2004), but the Internet market expects to increase to 15-20 percent of all purchasing by firms and individuals in 2010 according to the present growth rates (The Economist, 2000). Although some researchers have assumed that the future markets depend on the Internet, there is a lack of research about the consumers' Internet behaviors.*

*The Internet is an important tool for college students because the Internet provides entertainment, socializing, study sources and shopping. Even though, college students were early adopters and heavy users of the Internet, theoretical approaches to and data about Internet college shoppers are limited in the academic literature (Pew Internet and American Life Project, 2002). Therefore, the purpose of this study was to examine college students' Internet shopping behaviors and situational influences based on product involvement. Especially, this present study focuses on the clothing consumption of college students.*

*The results indicated that most college students were highly involved in clothing. This study found that high product involved consumers were more affected by three shopping orientation factors (brand consciousness, fashion oriented, and shopping interest) than low product involvement consumers. The college students frequently use market media and personal information sources when they are shopping on the Internet. High product involvement consumers were more influenced by market, media, and personal information sources than the low product involvement consumers. This was consistent with the findings of previous research that high involvement consumers are more likely to use variety information source (Shim & Kotsiopoulos, 1992; Warrington & Shim, 2000).*

*Situational influences, such as convenience, influenced reasons for shopping in direct markets (Shim & Kotsiopoulos, 1993). High level of product involvement consumers was more likely to browse on the internet than low level of product involvement consumers. The factor of situational influence, "Internet Shopping Facilities," is affected higher by the high product involvement consumers than low involvement consumers. However, low product involvement consumers were more likely to shop on the Internet for "Internet Shopping Convenience" than high involvement consumers.*

*Consumers who have a previous Internet purchase experience had higher scores on future shopping intention on the Internet than consumers who have no previous Internet purchase experience. Hence, previous Internet shopping experience helped to increase the future intent to shop on the Internet. This finding supported past research that previous Internet shopping experience had direct effects on the future intention of shopping through the Internet (Shim & Drake, 1990; Lohse, Bellman, & Johnson, 2000).*

*Because this study was limited to University of Tennessee students and focused on a single product, clothing, it would be of value to conduct similar research at other universities to obtain a clear picture of college consumers' shopping behaviors on the Internet. Future research could study consumers' Internet shopping behaviors within a broader geographic area with a larger sample size. Since clothing is considered a relatively high involvement product, future research might investigate whether product involvement would be useful in differentiating consumers for low involvement products, such as food or common products.*

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# **ON MODELING CAPACITY ALLOCATION POLICIES FOR A MONOPOLISTIC SERVICE PROVIDER**

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## **ABSTRACT**

*This paper formulates blitz policies (BP) and arithmetic sequence policies (ASP) and compares their performances for service capacity allocation in a monopolistic scenario. Based on the chosen model parameters, it is found that the policy of evenly allocating the service capacity over time dominates the various types of BP and ASP considered in the numerical study.*

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## **INTRODUCTION**

Advance selling occurs when purchases are made by consumers at a time preceding consumption (Xie and Shugan 2001). Advance selling is widely practiced in service industries. Owing to recent technological advances such as electronic tickets, smart cards and online prepayment (Shugan and Xie 2004), service providers now can conveniently advance sell their services in periods before the time of consumption. For example, travelers in the U.S. are increasingly purchasing airline tickets and paying for hotel room nights in advance from online websites.

In spite of the growing practice of advance selling by various service industries, the literature on advance selling (and related capacity allocation and pricing) has been so far rather limited. In a pioneering study, Shugan and Xie (2000) provide the conditions for the superiority of advance selling by modeling buyers' consumption states. They further propose several advance pricing strategies under certain conditions of service capacity (Xie and Shugan 2001). In a more recent article, Shugan and Xie (2004) highlight the advantage of advance selling and means of implementing advance selling strategies. Based on a two-period model, Png (1989) argues that a service reservation provides insurance for risk-averse buyers against the uncertainty in service valuation and unavailability of service capacity. Lee and Ng (2001) incorporating price sensitivity in their modeling framework, analytically determine the optimal allocation of service capacity over a two-period planning horizon and corresponding pricing strategies. While these efforts have made substantial contributions to the literature on service capacity allocation, a key strategic question remains partially answered: For a firm maximizing its profits, what is the optimal scheme of allocating capacity over time?

As an extension of a recent study (Zhang 2006), our present study attempts to address the above question. This paper, like the one of Zhang (2006), is significantly different from the studies reviewed above in several ways. First, a general  $n$ -period planning horizon is taken into account in our study. Second, for illustrative purposes, the performances of capacity allocation schemes are numerically determined under diminishing, increasing and constant sensitivities. The problem that we intend to solve can be specifically stated as follows: What is the best scheme for the service provider to exhaustively allocate a capacity of  $K$  identical units over an  $n$ -period planning horizon for spot and advance selling when competitive entry is unanticipated so that its profit is maximized? The study of Zhang (2006) has investigated the issue of whether a uniform or even allocation policy is superior to a cyclic or pulsation policy under diminishing, increasing and constant price sensitivities. This paper intends to examine the performances of Blitz Policy (BP), Arithmetic Sequence Policy (ASP) and Uniform Policy (UP) for service capacity allocation. These policies are defined below:

- (1) Uniform Policy (UP): According to this policy, the firm allocates an equal amount of its service capacity to each period of the entire planning horizon.

- (2) Blitz Policy (BP): This is a one-pulse policy in which the firm allocates its capacity entirely to a single time period of the  $n$ -period planning horizon. The blitz policy that allocates the total capacity to period  $i$  is denoted as  $BP_i$ .
- (3) Arithmetic Sequence Policy (ASP): Under this policy, the amounts of capacity allocated to the  $n$  periods of the planning horizon form an arithmetic sequence. If the sequence increases over time, the policy type is denoted as ASP-I. An ASP-II type is the one in which the sequence is decreasing over time.

### MATHEMATICAL MODEL

As in the study of Zhang (2006), we here consider a service provider in a monopolistic environment where there is no competitive entry. The firm wants to optimize its profit by allocating a service capacity of  $K$  identical units over a planning horizon of  $n$  consecutive time periods. We make the following basic assumptions:

- (1) The price charged for a unit of service capacity is constant in a period but may vary across different periods in the  $n$ -period planning horizon.
- (2) The capacity is produced and consumed in period  $n$ .

Beginning from the starting point of the planning horizon, the  $n$  periods are successively denoted as period  $i$  ( $i = 1, 2, \dots, n$ ). Periods  $1, 2, \dots, n-1$  are referred to as advance periods in which advance selling occurs, while period  $n$  is called the spot period in which both the consumption of service and spot selling take place.

Service providers in general operate with high fixed costs,  $C$ , much higher than the variable costs of capacity. We only consider the case in which  $C$  is constant and exogenously determined, and variable costs are sufficiently small to be ignored, as in the study of Lee and Ng (2001). Several terms are defined below to formulate the optimization problem stated in the first section:

- $P_i$  = price of a unit of capacity in period  $i$ ;
- $x_i$  = amount of capacity allocated to period  $i$ ;
- $\pi$  = profit from selling service capacities over the planning horizon;
- $R$  = total sales revenue from selling service capacities over the planning horizon.

As in the study of Lee and Ng (2001), we assume that price is a linear deterministic decreasing function of total capacity available for utilization at any point of time. Thus, the price for period  $i$  of an  $n$ -period planning horizon can be stated as

$$P_i = \alpha - \beta_i \sum_{j=i}^n x_j, \quad (1)$$

where,  $\alpha > 0, \beta_i > 0, i = 1, 2, \dots, n$ .

In expression (1), the coefficient  $\beta_i$  represents the price sensitivity for period  $i$ , which measures the change in the price of service for period  $i$  due to a unit change in the amount of service capacity available in that period. It is assumed that price sensitivity is constant over a single period but may vary across different periods in the  $n$ -period planning horizon.

Consumers are assumed to entirely purchase the capacity allocated to each period and thus, the total sales revenue  $R$  and profit  $\pi$  of the service provider generated by advance and spot selling over the entire  $n$ -period planning horizon are stated as

$$R = \sum_{i=1}^n P_i x_i = \sum_{i=1}^n (\alpha x_i - \beta_i x_i \sum_{j=i}^n x_j); \quad (2)$$

$$\pi = R - C = \sum_{i=1}^n (\alpha x_i - \beta_i x_i \sum_{j=i}^n x_j) - C. \quad (3)$$

Since the fixed cost  $C$  is a constant independent of the capacity allocation scheme,  $x_i$  ( $i = 1, 2, \dots, n$ ), maximizing the profit (3) is equivalent to maximizing the total sales revenue (2). Therefore, the total sales revenue (2) is chosen to

measure the performances of the capacity allocation policies considered in this paper, namely, UP,  $BP_i$  ( $i = 1, 2, \dots, n$ ), ASP-I, and ASP-II. It is obvious that if the service provider adopts UP to allocate the capacity  $K$  over the  $n$ -period planning horizon, then  $x_i = K/n$  ( $i = 1, 2, \dots, n$ ). If the service provider adopts  $BP_i$ , then  $x_i = K$  and  $x_j = 0$  for all  $j \neq i$ . Under the firm's ASP-I or ASP-II, the capacity allocated to period  $i$  ( $i = 1, 2, \dots, n$ ) is given by

$$x_i = x_1 + (i-1)d, \quad (4)$$

where, the common difference  $d$  takes a positive value for ASP-I and a negative one for ASP-II. Apparently, both ASP-I and ASP-II are determined over an  $n$ -period planning horizon by the values of the parameters  $x_1$  and  $d$ . Since the capacity  $K$  is entirely allocated over the  $n$  periods,

$$K = \sum_{i=1}^n x_i = \frac{n}{2}(x_1 + x_n). \quad (5)$$

### A NUMERICAL ILLUSTRATION

In our numerical example, we assume that the monopolistic service provider has a capacity of  $K = 2000$  units available for consumption in the spot period (period  $n$ ), which will be entirely allocated over the  $n$ -planning horizon. Assume that  $\alpha = \$500$ , and the length of each period  $T = 1$  unit of time. For illustrative purposes, let us consider a planning horizon that consists of  $n$  equal time periods, each of which has the same duration  $T$ . Here, three particular cases of consumers' aggregate response to price are examined: (i) decreasing price sensitivity, (ii) increasing price sensitivity, and (iii) constant price sensitivity over time. When price sensitivity decreases over time, consumers are less price-sensitive to price variations in making their purchases as the time of consumption approaches. When price sensitivity increases over time, late arrivals are more price-sensitive than early arrivals. Constant price sensitivity indicates that consumers' response to price variations remains unchanged over time.

Let the price sensitivity for the spot period  $\beta_n = \$0.20$  per unit of capacity. For the case in which price sensitivity decreases over the planning horizon, let  $\beta_i = \beta(e^{-(i-1)\mu T} + e^{-i\mu T})/2$  ( $i = 1, 2, \dots, n$ ), where  $\mu = 0.01$  and  $\beta = 2\beta_n/(e^{-(n-1)\mu T} + e^{-n\mu T})$ . That is, the price sensitivity for period  $i$ ,  $\beta_i$ , is assumed to be the mean of the two values that the exponential function,  $\beta e^{-i\mu T}$ , takes at the two end points of period  $i$ , respectively.  $\{\beta_i\}$  is a decreasing series over the  $n$ -period planning horizon, reaching \$0.20 per unit of capacity in the spot period. For the case in which price sensitivity increases over the planning horizon, let  $\beta_i = \beta[(\gamma - e^{-(i-1)\mu T}) + (\gamma - e^{-i\mu T})]/2$  ( $i = 1, 2, \dots, n$ ), where  $\gamma = 2.5$ ,  $\mu = 0.01$  and  $\beta = 2\beta_n/[(\gamma - e^{-(n-1)\mu T}) + (\gamma - e^{-n\mu T})]$ . The series  $\{\beta_i\}$  defined in this way increases over the  $n$ -period planning horizon and reaches \$0.20 per unit of capacity in the spot period. For the case in which price sensitivity is constant over the planning horizon, let  $\beta_i = \$0.20$  per unit of capacity ( $i = 1, 2, \dots, n$ ).

It is worth mentioning now that ASP-I considered for illustrative purposes in this numerical example is the one that allocates a zero capacity to period 1 ( $x_1 = 0$ ); ASP-II is the one that allocates a zero capacity to period  $n$  ( $x_n = 0$ ). It can be easily shown from expressions (4) and (5) that under the policy of ASP-I,  $d = 2K/n(n-1)$  and under the one of ASP-II,  $x_1 = 2K/n$  and  $d = 2K/n(1-n)$ .

Due to space limitations, we only report in Table 1 the performances of  $BP_i$  ( $i = 1, 2, \dots, n$ ), ASP-I, ASP-II, and UP under the decreasing price sensitivity. For example, if the planning horizon consists of three periods and price sensitivity decreases over time, the sales revenues yielded by  $BP_1$ ,  $BP_2$ ,  $BP_3$ , ASP-I, ASP-II, and UP are \$183800, \$192000, \$200000, \$375100, \$366100 and \$459500, respectively. It is found that, given the chosen model parameters, UP is superior to all the other allocation policies and the two types of ASP are superior to all the blitz policies, regardless of whether the price sensitivity is decreasing, increasing or constant (the computational results for the cases of increasing and decreasing price sensitivities are not reported here). Apparently, the service provider should evenly allocate its capacity over the entire planning horizon to optimize its sales revenue (and profits).

It is shown in Table 1 that under decreasing price sensitivities the sales revenue yielded by  $BP_i$  is smaller than  $BP_{i+1}$  for  $i = 1, 2, \dots, n-1$ . In contrast, this result is reversed under increasing price sensitivities (see Table 2). Under constant price sensitivities, it is found that the performances of all the considered blitz policies are the same. Table 1 also indicates that ASP-I dominates ASP-II under decreasing price sensitivities; however, this result is reversed under increasing price sensitivities.

It is noted in our findings that increasing the number of periods within the planning horizon appears to boost sales revenues yielded by ASP-I, ASP-II and UP. However, this is true for the blitz policy,  $BP_i$ , only under increasing price sensitivities.

**Table 1**  
Performances of the Considered Allocation Policies under Decreasing Price Sensitivity over Time (measured in 100,000 dollars)

<i>n</i>	$BP_1$ $BP_6$	$BP_2$ $BP_7$	$BP_3$ $BP_8$	$BP_4$ $BP_9$	$BP_5$ $BP_{10}$	<i>ASP-I</i>	<i>ASP-II</i>	<i>UP</i>
10	1.247 1.674	1.334 1.756	1.420 1.838	1.505 1.920	1.590 2.000	5.266	5.080	5.327
9	1.334 1.756	1.420 1.838	1.505 1.920	1.590 2.000	1.674 -	5.219	5.048	5.311
8	1.420 1.838	1.505 1.920	1.590 2.000	1.674 -	1.756 -	5.155	4.998	5.284
7	1.505 1.920	1.590 2.000	1.674 -	1.756 -	1.838 -	5.064	4.922	5.241
6	1.590 2.000	1.674 -	1.756 -	1.838 -	1.920 -	4.931	4.803	5.175
5	1.674 -	1.756 -	1.838 -	1.920 -	2.000 -	4.730	4.615	5.070
4	1.756 -	1.838 -	1.920 -	2.000 -	- -	4.395	4.293	4.899
3	1.838 -	1.920 -	2.000 -	- -	- -	3.751	3.661	4.595
2	1.920 -	2.000 -	- -	- -	- -	2.000	1.920	3.960

### CONCLUSIONS

In this paper, the aggregate response of consumers to the price of the services of the monopolistic service provider is delineated by a linear demand function. Using a simulation approach, we address the problem of allocating a service capacity over a general  $n$ -period planning horizon to determine total sales revenue (and profit) for the service provider. Our research findings suggest that (i) allocating the capacity evenly over time appears to be a dominant strategy, and (ii) dividing the planning horizon into more time periods would yield higher sales revenue (and profit).

The modeling effort in this paper is exploratory, revealing many possibilities for future research. First, a plausible direction for future research would be to increase the scope of the simulation studies by using a wider range for each parameter or to attempt to arrive at analytical solutions particularly for the challenging cases of decreasing and increasing price sensitivities over time. Second, in this exploratory study we focus on a monopolistic service provider. An interesting research direction for the future would be to apply the game theory to address the

problem of capacity allocation in the presence of competitive entry. Third, the paper provides several results obtained through simulation that can be investigated empirically in the future.

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# **GIVE THEM SOMETHING TO SMILE ABOUT: A MARKETING-ORIENTED APPROACH TO VOLUNTEER RECRUITMENT AND RETENTION**

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## **ABSTRACT**

*Using a marketing perspective, this study investigates whether the issue of “fun at work” would appeal to volunteers as a part of an effort to enhance recruitment and retention. Specifically, we examined volunteers’ attitudes toward fun, their perceptions of what is fun and what is not, and the relative importance of workplace fun in what they perceive as an ideal volunteer position. In general, we found that volunteers had positive attitudes towards fun and experiencing fun at work was associated with higher job satisfaction and lower turnover intentions. Although “a fun workplace” was ranked relatively low in importance relative to other reasons why they volunteer, creating such an environment could enhance retention. Some age and gender differences were found in the perceptions of whether certain activities are fun or not. The implications of these results and directions for future research are discussed.*

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## **INTRODUCTION**

Volunteers are a critical human resource for many organizations. While nonprofits have traditionally depended on volunteers in lieu of paid employees, public organizations are now also increasingly adding such workers to their ranks (Brudney, 1999, 2000; Frederickson, 2004). According to a study conducted by Independent Sector, the estimated dollar value of volunteer time in the U.S. was \$18.04 per hour for 2005 (Value of Volunteer Time, 2006). Given the benefits of this valuable and unique human resource, organizations are recognizing that the key to their success is often dependent on the effective recruitment and retention of volunteers.

To accomplish these efforts, it has been suggested that such organizations adopt a marketing approach to the recruitment and retention of their volunteers. Many private sector employers are beginning to use such an approach in their human resource recruitment efforts through such concepts as “branding” their image in employment advertisements and “selling” the brand image in how they portray their organization (Martinez, 2000). Likewise, volunteers can be viewed by their “employing organizations” as customers. Indeed, it has been said of nonprofit organizations that volunteers are their most important group of customers in that those needing services are plentiful but the supply of volunteers is scarce (Wright, Larsen & Higgs, 1995). Successful marketers understand the importance of serving their customers better than competitors. Thus, it is critical for organizations to understand their “customers” and what their needs or motives are for volunteering.

Fortunately, there has been considerable research examining the motivations of volunteers (e.g. Bussell & Forbes, 2002; Clary, Snyder, Ridge, Copeland, Stukas, Haugen & Miene, 1998; Gillespie, & King, 1985; Hwang, Grabb, & Curtis, 2005; Smith, 1994; Unger, 1991). These studies suggest that many individuals volunteer for altruistic reasons (i.e., a desire to help others or do something to benefit society or the community); personal development or career enhancement (i.e., gain new skills and useful experience); the desire to feel useful, productive, or to occupy spare time; and social rewards (i.e., sense of belonging, meet new people). While knowledge of these motives is helpful for recruiting volunteers, retention of this valuable resource is equally important. Evidence shows that it costs at least five times more to develop a new volunteer than to cultivate greater exchanges with existing ones (Mitchell & Taylor, 2004). It has also been suggested that what attracts volunteers to an organization is not necessarily what sustains them once they are “on board” (Bussell & Forbes, 2002).

Given the importance of retaining volunteers, it is imperative that organizations also create an internal marketing plan focused on increasing volunteers' commitment and long-term loyalty. In designing such a plan, Mitchell and Taylor (2004) recommend focusing on the "4 Ps" that make up the marketing mix. The *product* is the volunteer experience; *price* is the monetary and non-monetary costs of volunteering; *place* refers to ease of donation in terms of time and effort; and *promotion* refers to communications between the volunteer and organization. In expanding on the concept of *product*, the organization should consider a host of factors which impact the volunteer's experience. This involves not only sensitivity to the individual's desire for challenge or stimulation in their work role, but attention to the workplace environment and whether social needs are being met. For example, Bussell and Forbes (2002) argue that "a person may be motivated to volunteer for altruistic reasons, yet at the same time be satisfied with the experience because it meets socialization needs" (p. 263). Others have argued that retention is enhanced by positive relations between paid staff and volunteers (Callow, 2004; Mitchell & Taylor, 1997; Wilson and Pimm, 1996). Mitchell and Taylor (2004) also cite the importance of recognizing and celebrating volunteer achievements as an important means of continued commitment.

In their efforts to enhance motivation, teamwork, and retention, many private sector organizations have incorporated fun into their organizational culture (Marriotti, 1999; McGhee, 2000; Meyer, 1999; Paulson, 2001; Ramsey, 2001; Weiss, 2002). In fact, many of the companies who have been recognized as one of the *The 100 Best Companies to Work for in America* have made having fun a part of their corporate mission (Levering & Moskowitz, 1994). Others have suggested that workplace fun will enhance customer satisfaction (Berg, 2001; Lundin, Christensen, Paul, & Strand, 2002; Lundin, Paul, & Christensen, 2002, 2003). Matt Weinstein (1996), author of the popular press book *Managing to Have Fun*, supports this idea by stating "You can't expect your employees to provide "service with a smile" if you don't give them something to smile about!" (p. 21).

While such a concept is having success in the private sector, would it work with equal success in a nonprofit or volunteer work environment? Although limited, there is some evidence of support for this philosophy. For example, Temkin (1994) argues that encouraging fun is a critical component for building commitment in nonprofit organizations through such activities as work parties, social get-togethers, food, and mingling time at meetings. Similar viewpoints were expressed in several articles published in *Staff Leader*, a newsletter for nonprofit administrators. For example, according to "No kidding: Putting fun into productivity (2002)," the writer suggests that managers should consider including fun in the workplace as a way to retain employees or form fun committees as outlined in "Fun is what you do by committee! (2000)". The benefits of humor in the workplace, including reducing stress, promoting trust and increasing camaraderie, are discussed in "Can your workplace be both funny and fair (2003)?" According to consultant, Bernie DeKoven, play and sense of fun are especially important to the success of volunteer-based efforts. "In my experience, no organization suffers more from the 'serious syndrome' more than nonprofits, especially for the volunteers" (Gilbert, 2001). Similarly, Muehrcke (2005) opines that "without laughter, there's no energy, no joy, no spirit. And without spirit, there's low productivity and scant chance of fulfilling dreams." While these sources provide anecdotal support, what is sorely lacking is any empirical research on this issue.

The purpose of this paper is to empirically investigate the idea of creating a "fun work environment" for volunteers in a non-profit work environment. Specifically, we will examine volunteers' attitudes toward workplace fun, the extent to which volunteers say they experience fun in their volunteer work and its impact on their satisfaction and turnover intentions, the relative importance of workplace fun to volunteers, and their perceptions of what is fun and what is not.

### **Attitudes Toward Fun**

While many supporters of fun at work have argued that fun can and should be infused in to every workplace (e.g., Yerkes, 1997), Aldag and Sherony (2001) have cautioned that "it would be simplistic to expect that all individuals would have similar views about fun at work." Evidence suggests that there are differences in attitudes toward workplace fun based on demographic differences. For example, in a recent study of age and gender differences in attitudes toward workplace fun, women generally perceived fun at work to be more important than men and gave higher ratings to most "fun" activities (Karl & Harland, 2005). While there was no relationship between age and respondents' attitudes toward fun, younger respondents generally rated most activities as being more fun than older workers. Attitudes towards fun have also been examined across employment sectors, namely private, public and nonprofit workers. Although workers in all three sectors had positive attitudes towards fun, there

were significant differences between sectors in worker's ratings of forty fun activities (Karl, Peluchette, Harland & Hall, 2005). Public sector employees tended to rate the activities as less fun than at least one of the other two groups. Nonprofit employees rated outings (e.g., organization wide trip to an amusement park or baseball game) as more fun than either of the other two groups.

To date, there has been no research examining the attitudes of volunteers regarding workplace fun. However, as stated earlier, the results of several studies suggest that many individuals volunteer for altruistic reasons (e.g. Bussell & Forbes, 2002; Clary, Snyder, Ridge, Copeland, Stukas, Haugen & Miene, 1998; Gillespie, & King, 1985; Hwang, Grabb, & Curtis, 2005; Smith, 1994; Unger, 1991). Based on these findings, it could be argued that workplace fun may not be important to volunteers. On the other hand, there are those who argue that paying attention to the workplace environment can make a difference in the recruitment and retention of volunteers. For example, it has been found that the social environment (Stevens, 1991) and perceived organizational support (Farmer & Fedor, 1999) are related to turnover intentions among volunteers. In addition, Callow (2004) found that decisions to volunteer and to remain a volunteer were influenced by the perceived costs and benefits of doing so. Many volunteers were conscious of the fact that they were dedicating their free time to help out when it could be dedicated to other, more self-indulgent activities, reinforcing the importance of volunteers wanting to feel recognized and appreciated for the 'effort' they had put into such endeavors. This suggests volunteers may have positive attitudes toward fun in the workplace, seeing such activities as a welcome release from work that is often undervalued and underappreciated. Additionally, since volunteers are unpaid, fun activities may be an important source of non-monetary compensation.

Given that past research found that employees in all three sectors have positive attitudes toward workplace fun, we predict that volunteers will also have positive attitudes toward workplace fun.

### **Experienced Fun**

Experienced fun is the extent to which a person perceives the existence of fun in their workplace. Proponents of fun at work claim that when people have fun doing their jobs, they are more energized and motivated (Stern & Borcia, 1999), get along together better (Meyer, 1999), provide better customer service (Berg, 2001), experience less stress (Abramis, 1989a, 1989b; McGhee, 2000; Miller, 1996), and are less likely to be absent or leave the organization (Marriotti, 1999; Zbar, 1999). Therefore, we predict that experienced fun will be positively related to job satisfaction and negatively related to turnover intentions of volunteers.

### **The Relative Importance of Workplace Fun**

While workplace fun may result in positive benefits for volunteers, another important consideration is the relative importance of workplace fun to volunteers compared to other factors. That is, would the inclusion of fun activities enhance the recruitment and retention of volunteers? While there are numerous studies on why individuals do volunteer work, there is limited research examining the relative importance of various motives for volunteering. One exception is a study by Hwang, Grabb and Curtis (2005) who compared the survey responses of American and Canadian volunteers (N= 907 and N=739, respectively) to a set of 14 possible reasons for being active in voluntary associations. Those rated as the most important were: compassion for the needy; to repay, give back something; contribute to local community; sense of duty, moral obligation; and to give hope, dignity to disadvantaged. Those rated as least important were: did not want to, couldn't refuse; social reasons, to meet people; and time on my hands. Based on these results, we expect that workplace fun, which is typically a social activity, will be less important to volunteers than altruistic factors such as helping others or benefiting society.

Finally, there is some research that suggests that there are age and gender differences in why people volunteer. For example, some studies suggest that women are more likely than men to volunteer for social reasons (King & Fluke, 1990; Ibrahim & Brannen, 1997; Morrow-Howell & Mui, 1990; Omoto & Syder, 1990), to place a higher value on a sense of accomplishment (Wymer & Samu, 2002), and to derive a sense of personal satisfaction and growth from volunteering (Ibrahim & Brannen, 1997). It has also been suggested that women associate volunteering as an expression of caring while men associate volunteering with the accomplishment of specific tasks (Wuthnow, 1996). With regard to age, some studies suggest that seniors are more altruistic (less egoistic) than younger volunteers (Chappell & Prince, 1997; Wymer, 1999). Based on these findings, we expect that workplace fun will be of less importance to older or male volunteers, as compared to younger or female volunteers.

## What's Fun and What's Not

With titles like *Fun and Gains*, *Get Weird!*, *301 More Ways to Have Fun at Work*, *How to Make Work Fun!*, and *Funny Works!*, popular press writers have proposed a wide range of possible activities to make the work place fun (Berger, 2002; Firth, 1995; Greenwich, 2001; Hemsath, 2001; Putzier 2001). Previous research examining the use of fun-related activities in the workplace found that the top three most frequently used activities were casual dress days, employee recognition and rewards, and company-provided food and refreshments (Ford, McLaughlin, & Newstrom, 2003). Similarly, Karl and others (2005) found that workers in all three sectors (public, private, and nonprofit) agreed that food-related activities such as a potluck lunch or dinner, going out for lunch, or having cake and ice cream to celebrate birthdays were the most fun. Those activities considered to be the least fun were those categorized as "wild and wacky" such as lining up chairs and pretending to ride a roller coaster.

Even though, as stated by Bernie DeKoven (Gilbert, 2001), nonprofit organizations suffer from the 'serious syndrome,' we believe that volunteers will be similar to other employees in their ratings of fun activities. However, as is true with most leisure or pastime activities (sports and hobbies), it is expected that there will be wide variation among volunteers in the degree to which certain activities are considered fun. Likewise, given previous research on other employee groups, we expect some of this variation to be due to age and gender differences.

## METHOD

### Sample

Respondents in this study were recruited from a social service agency, a counseling center, two private colleges, a hospital, a public school mentoring program and one public university (students and faculty). Of the 160 surveys distributed, 103 were returned, producing a response rate of 64% percent. Due to missing data, only 99 surveys were useable, thus, the final response rate was 63%. About half of the respondents were female (56%) and 37% were married. Although respondents ranged in age from 18 to 77, the mean age was 37.2 years.

### Survey Instrument

The survey instrument consisted of three sections: (1) fun at work activities, (2) work-related beliefs and attitudes, and (3) job characteristics considered important in a volunteer position. Demographic information was tapped through single item questions, including gender, age, marital status, and type of organization.

**Fun at work activities.** This measure was developed using suggestions made by authors of popular press books on how to make work more fun (e.g., Berger, 2002; Greenwich, 2000; Hemsath, 2001; Hemsath & Yerkes, 1997; Putzier, 2001; Weinstein, 1996; Yerkes, 2001). Respondents were given the following instructions: "Listed below are several suggestions for promoting fun and humor in the workplace. Please use the following rating scale to indicate how 'fun' you think each of the items would be in your work place." The measure consisted of 40 activities, each rated on a 5-point scale (1 = not at all fun, 2 = neither fun nor not fun, 3 = somewhat fun, 4 = fun, 5 = a lot of fun). Examples of such activities are "baby picture contest", "theme days with decorations, food, music, and dress focused around a particular theme (e.g. Hawaiian, disco)" and "play bingo during the lunch hour once a month on Friday afternoons".

**Work-related beliefs and attitudes.** The work-related beliefs and attitudes section consisted of four measures: (1) attitudes toward fun at work, (2) level of fun experienced at work, (3) job satisfaction and (4) turnover intentions. All items in this section were rated on a 5-point scale (1=Strongly Disagree, 5=Strongly Agree).

We used three scales developed by Karl et al., (2005) to measure attitudes toward fun. More specifically, four items measure the perceived appropriateness of workplace fun (e.g., "Work hours are the time to work and non-work hours are the time to have fun."), five items measure the importance or salience of workplace fun (e.g., "Having fun at work is very important to me."), and eight items measure perceived consequences of workplace fun (e.g., "Fun at work usually gets out of hand.").

The *level of fun experienced at work* was measured using 5 items developed by Peluchette and Karl (2005). Sample items include: "This is a fun place to work", "At my workplace, we try to have fun whenever we can",

“Managers encourage employees to have fun at work”, “We laugh a lot at my workplace”, and “Sometimes I feel more like I’m playing than I’m working”.

Job satisfaction was measured using 5 items from Brayfield and Rothe’s (1975) job satisfaction index. When used by Judge, Locke, Durham, and Kluger (1998), a coefficient alpha of .88 was reported for this reduced 5-item measure. Sample items include: “I feel fairly satisfied with my present job,” and “Each day at work seems like it will never end.”

The turnover intentions measure consisted of four items adapted from the Michigan Organizational Assessment Questionnaire (Cammann, Fichman, Jenkins & Klesh, 1979; c.f. Cook, Hepworth, Wall, & Warr, 1981; and Walsh, Ashford, & Hill, 1985). The four items were as follows: “I often think about quitting my volunteer job,” “I will leave this organization in the next year,” “I am starting to ask my friends and contacts about other volunteer possibilities,” and “It is very likely that I will actively look for a new volunteer job in the next year.”

To measure the job characteristics considered important by volunteers, we asked respondents, “What is important to you in a volunteer position?” This question was followed by instructions which stated “Below are 10 job-related items. Please rank order these 10 items in terms of how important they are to you in what you consider to be an “ideal” volunteer position (“1” = most important, 10 = least important).” The 10 items included: (1) good coworkers, (2) opportunity to gain new skills and valuable experience, (3) interesting work, (4) helping others, (5) chance to benefit society your community, and/or the environment, (6) a feeling of accomplishment, (7) a fun workplace, (8) opportunity to socialize and meet new people, (9) a sense of pride in your organization, and (10) flexible hours/job.

### RESULTS

Table 1 shows the means, standard deviations, reliability coefficients, and correlations among age, gender, attitudes toward fun, experienced fun, job satisfaction and turnover intentions. The mean scores indicate that respondents expressed positive attitudes towards workplace fun including its appropriateness, importance, and consequences. Respondents experienced a moderate level of fun in their volunteer workplaces, were generally satisfied with their volunteer positions, and their turnover intentions were low. An examination of the correlations shows that, as predicted, respondents who experienced higher levels of fun in the workplace also had higher job satisfaction and lower turnover intentions. Age and gender were not related to attitudes toward fun or experienced fun. However, the older volunteers in our sample, consistent with our predictions, reported higher satisfaction with their volunteer positions and also had lower turnover intentions.

**Table 1**  
Means, Standard Deviations, Reliabilities, and Correlations Among Age, Gender, Attitudes Toward Fun, Experienced Fun, Job Satisfaction and Turnover Intentions

Variable	Mean	SD	1	2	3a	3b	3c	4	5	6
<b>1. Age</b>	37.2	18.06								
<b>2. Gender</b>	1.57	.50	.19							
<b>3. Attitudes Toward Fun</b>										
a. Appropriateness	3.88	.83	-.01	.06	(.73)					
b. Importance	3.99	.70	-.10	-.08	.38***	(.69)				
c. Consequences	3.92	.57	.00	-.02	.36***	.61***	(.77)			
<b>4. Experienced Fun</b>	3.41	.63	-.02	.04	.05	.10	-.04	(.72)		
<b>5. Job Satisfaction</b>	3.91	.73	.33***	.15	.10	.01	.26*	.23*	(.82)	

**6. Turnover Intentions**      2.09      .99   -0.36\*\*\*   .03   -0.16   .00   -0.15   -0.21\*   -0.68\*\*\*   (.81)

<sup>1</sup>Coefficient alphas are in parentheses.

\* p < .05

\*\* \*p < .001

Table 2 shows the mean scores of our volunteers' importance rankings for 10 characteristics of volunteer jobs, although there is considerable variation in these ratings. *Interesting work* was considered most important, followed by *helping others*, *good coworkers*, *a feeling of accomplishment*, and *a chance to benefit society, your community, and/or the environment*. Those ranked as least important were *a fun workplace*, and *an opportunity to socialize and meet new people*. To examine age differences in these importance rankings, we correlated age with each of the 10 volunteer job characteristics. These results showed that older volunteers, compared to younger volunteers, placed significantly higher importance on *helping others* ( $r = -.30, p = .003$ ; where a lower rank means greater importance), *benefiting society, the community or the environment* ( $r = -.25, p = .014$ ), *a sense of accomplishment* ( $r = -.25, p = .017$ ) and *pride in one's organization* ( $r = -.24, p = .02$ ). Consistent with our expectations, younger volunteers tended to rank *workplace fun* as more important than the other items, although this relationship was only marginally significant ( $r = .18, p = .08$ ). When we used an ANOVA to compare the mean rankings of men and women, we found no significant differences in the characteristics considered important by men and women in a volunteer position which was contrary to our expectations.

**Table 2**  
Mean Rankings for Job Characteristics Considered Important by Volunteers

Job Characteristic	Mean Ranking	SD
1. Interesting work	3.91	2.76
2. Helping others	4.15	2.95
3. Good coworkers	4.28	3.35
4. A feeling of accomplishment	4.48	2.70
5. Chance to benefit society, your community, and/or the environment	4.70	2.88
6. Opportunity to gain new skills and valuable experience	4.81	3.23
7. A sense of pride in your organization	5.01	2.70
8. Flexible hours/job	5.33	3.02
9. A fun workplace	6.02	3.02
10. Opportunity to socialize and meet new people	6.65	3.35

Note: Respondents ranked the most important item as "1" and the least important item as "10."

Table 3 presents a listing of those fun activities rated most positively and most negatively by all respondents. As shown, the highest rated activities include *contests*, *organization-wide outings during work hours*, *food-related events*, *a humor bulletin board*, and *an annual award ceremony*. The lowest rated activities were very similar to those reported by Karl and others (2005) and include activities that respondents may have been considered weird or silly. As expected, perceptions of what volunteers find to be fun and not fun varied widely.

Because the use of multiple univariate tests leads to a greatly inflated overall type I error rate (Stevens, 1986), a MANCOVA was conducted in order to examine age and gender differences in volunteers' ratings of the 40 fun activities. The results of the multivariate test revealed a significant effect for both age [ $F(39, 50) = 2.70, p = .001$ ] and gender [ $F(39, 50) = 1.18, p = .024$ ]. An examination of the univariate tests revealed that older workers rated 7 of the 40 activities as less fun than younger workers: *traveling flower bouquet*, *office Olympics*, *adopting pets for the office*, and all four of the *organization-wide outings* (*theatre*, *baseball game*, *amusement park*, *golf*).

**Table 3**  
Highest and Lowest Rated "Fun" Activities

<b>Highest Rated Activities</b>	<b>Mean</b>	<b>SD</b>
1. "Guess Who?" Contest. Each employee provides one true fact about themselves that no one else knows and everyone tries to guess who belongs to each fact.	3.62	1.06
2. Arrange an organization-wide trip to an amusement park during work hours.	3.61	1.34
3. Arrange an organization-wide baseball game during work hours.	3.57	1.34
4. Everyone goes out to lunch once a month.	3.49	1.13
5. Potluck lunch or dinner	3.49	1.15
6. A Humor Bulletin Board with cartoons, jokes or funny stories.	3.43	1.13
7. High School Yearbook Photo Contest. Prizes can be awarded for guessing correctly or judging who is "least changed", etc.	3.42	1.14
8. Arrange an organization-wide outing to theatre during work hours.	3.39	1.28
9. Celebrate employee's birthdays by bringing in cake and ice cream once a month.	3.37	1.14
10. Annual Award Ceremony with a combination of genuine and wacky awards.	3.31	1.27
<b>Lowest Rated Activities</b>		
1. Form a Fun Committee or Laughter Club to plan activities that help infuse the workplace with fun and laughter.	2.83	1.29
2. Employees are encouraged to contribute their suggestions for fun activities. The employee who provides the best suggestion each year wins a prize.	2.82	1.19
3. Employees form teams and play trivia, board or card games during lunch periods.	2.57	1.30
4. Start meetings by asking everyone to complete an open-ended sentence: "Wouldn't it be fun if . . . " or "The funniest thing I've seen at work is . . ."	2.48	1.16
5. Adopt pets for the office (birds, fish) and give them fun names.	2.46	1.29
6. Play Bingo during the lunch hour once a month on Friday afternoons. The Bingo board may include a company theme.	2.39	1.26
7. Place a 'Humor First-Aid Kit' filled with toys and games where everyone can get to it.	2.36	1.18
8. Employees create an anthem for their team or department which is sung at some major celebration.	2.23	1.24
9. Traveling flower bouquet. Each employee keeps bouquet for 1 hour then passes it on to someone else.	2.21	1.28
10. Everyday at a certain time employees do something wacky like lining up chairs and pretending they are riding a roller coaster.	2.01	1.18

With regard to gender, women rated 5 of the 40 activities as more fun than men including: coworker appreciation certificates, an organizational newsletter, theme days, a wagon filled with gifts for new employees, and parents or grandparents write down their children's response to the question "What do you think I do all day?". Only one of the 40 activities (organization-wide golf outing) was rated as more fun by men than women. Marginally significant differences were found for four additional activities. Women rated a baby picture contest, traveling flower bouquet, and adopting pets for the office as more fun than men. Men rated an organization-wide outing (baseball game) as more fun than women. Thus, as predicted, variations in the ratings of fun activities differed by age and gender.

## DISCUSSION

So, should we give volunteers something to smile about? Our findings suggest that managers of volunteers could expect positive outcomes from creating a fun work environment or implementing a culture of fun. Although

our respondents ranked “a fun workplace” and “an opportunity to socialize and meet new people” lowest in what they considered to be important in a volunteer position, these results are consistent with past research suggesting that many people volunteer for altruistic reasons and that failure to provide a challenging assignment or to properly match the volunteer’s skills and interests with the assignment given are key reasons why people stop volunteering (e.g., Hwang, et al., 2005; Jamison, 2003; Miller, Powell & Seltzer, 1990; Wilson, 2000). Thus, while fun might be viewed positively, ensuring a rewarding volunteer assignment may be of more importance to managers in retaining satisfied volunteers.

With regard to the types of activities which volunteers think are fun or not fun, we were not surprised to find that outings and food-related events have appeal. Outings provide variety and the allure of engaging in a potentially entertaining activity. Volunteers may also perceive outings to be a means by which the organization rewards them for the unpaid work they provide. Food-related events provide both physical (eating good food) and emotional enjoyment (interacting with others in a convivial environment). The high ratings given to the annual award ceremony was also not surprising given that many volunteers report the desire to be recognized for their efforts (Callow, 2004; Jamison, 2003). Some of the lowest rated activities were those in which participants were required to act in playful ways or were expected to laugh at themselves and each other. Behaving in what may be perceived as silly and frivolous activities may be an insult to those who feel they are volunteering for serious and honorable reasons (Morrow-Howell & Mui, 1989). Other activities considered least fun may not have been perceived as silly, but merely mundane or just not fun. As suggested by Callow (2004), volunteers are conscious that they are “dedicating their free time to help out when it could be dedicated to other, more self-indulgent activities.” Perhaps volunteers take into consideration the opportunity costs of some of these activities, or in other words, there are a lot more fun things that they would rather be doing.

Similar to Karl and Harland (2005), we found significant age and gender differences in what was considered fun and not fun by our sample of volunteers. However, it should be noted that most of the significant differences were for activities that were neither in the list of the 10 most fun activities nor the list of 10 least fun activities. The exception was the organization-wide outings items. These findings suggest that managers should choose their fun activities with care in contexts that have considerable age and gender diversity. Additionally, organization-wide outings during working hours would not be practical for many organizations which utilize volunteers and may not even be feasible from a cost standpoint if they were held after work hours.

What does all this mean with regard to marketing volunteer opportunities? It is likely that managers, who promote their volunteer opportunities as opportunities for fun and laughter, may not see any improvement in their recruitment efforts. In fact, task-oriented individuals may be less likely to volunteer in this situation. However, workplace fun, in moderation, may improve retention efforts. By using fun activities that are focused on recognition, rewards, and improving staff and volunteer relations as part of one’s internal marketing effort, an organization should be able to build the commitment and retention of its volunteers.

### **Limitations and Future Research**

It should be noted that this study is not without limitations. For example, our research was exploratory so we targeted volunteers in several different public and nonprofit organizations. However, it is possible that introducing a culture of fun may have a positive effect on retention in one organization but may not be effective in other organizations. Thus, future research should examine the implementation of fun activities in a specific organization. Also, given that our sample size was relatively small, the generalizability of our findings to other volunteers is limited. In addition, we used self-report measures collected all at one time. Ideally, future research should involve longitudinal investigations that examine outcome variables before and after the implementation of fun activities. Qualitative research involving interviews with volunteers would also be valuable in understanding why some activities are perceived as fun and others are not, and under what circumstances such activities might enhance volunteer satisfaction and retention.

Future research should also examine the relationship between workplace fun, job burnout and turnover among volunteers. Burnout, or a state of emotional exhaustion, has been found to be a common phenomenon in helping and caring professions and in customer-service (Jackson, Schwab, & Schuler, 1986). In addition, job satisfaction has been found to be adversely affected by job-related stress and burnout (Beehr & Newman, 1978; Cameron, Horsburgh, & Armstrong-Stassen, 1994; Lee & Ashforth, 1996). There is some research suggesting that a

healthy and playful sense of humor serves as a moderator for the aversive effects of stress on health and well-being (Martin, 1996). Broussine, Davies, and Scott (1999) conducted interviews with social service workers and found evidence that humor is used as a means of coping with distressing and threatening events. Based on these findings, we propose that workplace fun may have positive benefits for volunteers by buffering the impact of work-related stress on job burnout and turnover.

## Conclusion

Because workplace fun has positive implications for volunteer retention, organizations that depend on this type of human resource would clearly benefit from creating a work environment that “gives them something to smile about.” However, given that we found considerable variation in preferences for certain types of fun activities, managers of volunteers would need to exercise caution in how they implement such efforts into the work environment. It is hoped that this exploratory study will provide the impetus for additional research into how workplace fun might help ensure the retention of this valuable human resource.

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## **POTENTIAL APPEALS FOR TARGETING YOUNG ADULT VOLUNTEERS**

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### **ABSTRACT**

*The long-term survival of nonprofit charitable organizations depends on the recruitment and retention of today's young adults. A segmentation strategy proposed for retirees was found to be effective for the young adult market, especially if implemented with consideration of this market's unique interests and characteristics. In addition, young adults were found to be most inclined to volunteer for organizations that were either local and personal or nationally renowned. Organizations benefiting children were also highly regarded. Leadership, achievement concern, teamwork/cooperation and mentoring abilities were also found to be related to volunteerism in young adults.*

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### **INTRODUCTION**

Nonprofit organizations chronically suffer from a shortage of both human and financial resources. In order to perform their duties, nonprofits rely on 20 billion volunteer hours and \$200 billion in private charitable gifts annually (Salamon 2002). Volunteers have been identified as a crucial resource for nonprofits (Wymer 2003). In order to encourage volunteering in an environment full of numerous volunteering opportunities, nonprofits have increased their marketing efforts to recruit and retain volunteers (Faircloth 2005). Competitive pressures have made the application of marketing management tools, such as market segmentation, essential for the continued existence of nonprofits (Beerli, Diaz and Martin 2004).

Young adults have been identified as an under-represented age group in volunteering (Hankinson and Rochester 2005). The image of volunteering may need to be altered to reflect positive and relevant images to accommodate the needs of young adults. A large proportion of young people perceive volunteering as not being socially or personally attractive (Hankinson and Rochester 2005). Many young adults perceive volunteering as being boring and involving older people who will not appreciate their skills. These shortcomings need to be overcome as it has been noted that young people represent an attractive source of volunteers for nonprofit organizations and represent an important focus for nonprofits' marketing efforts (Briggs, Landry, Wood and Arnold 2005).

Research has shown that young volunteers tend not to be loyal to any one organization and are selective about the organization in which they become involved. In addition, young adults expect some type of personal benefit from their volunteering (Rehberg 2005). Young adults tend to prefer volunteer opportunities which involve improving the everyday lives of the less fortunate in their local communities. Many young volunteers state that they want to volunteer where they can see what they do actually make a difference. In short, they want their volunteer experiences to be up close and personal (Hart and Brossard 2002).

Recruiting young adults as volunteers is advantageous on many levels. Those who donate service are transformed into more engaged, enlightened and tolerate members of society (Hart and Brossard 2002). In addition, nonprofit organizations, recognizing the energies of young adults, are trying to lure new generations of volunteers (Zaslow 2004). The health care industry has recognized that today's volunteers may be tomorrow's employee, financial donor or important community links with aligned institutional loyalty and commitment (Andersen 2003). Nonprofits know that younger volunteers are essential to the well-being of the organization, now and in the future. Future leaders of the organization must be nurtured from young volunteers today (Tucker 2003).

In order to recruit young adult volunteers, nonprofits need to appeal to this market segment in a manner which will encourage participation. In addition, the recruitment of individuals with desirable skills and traits would seem appropriate.

There has been considerable research on why people volunteer. Motives and personality characteristics, such as self-esteem (Wymer 2003), have been found to correlate with volunteering preferences. Specifically, career motives and the personality factor of conscientiousness were related to this relevant tendency (Liao-Troth 2005). Sports volunteerism was found to be motivated by five variables, namely: 1. altruistic value, 2. personal development, 3. community concern, 4. ego enhancement, and 5. social adjustment (Wang 2003).

Numerous studies have consistently shown that if a volunteer identifies with a nonprofit they exhibit higher levels of commitment and satisfaction with their involvement (i.e., Andersen 2003; Tidwell 2005). In addition, the trait of altruism has been noted in many studies as an indicator of volunteering inclinations (i.e., Beerli, Diaz and Martin 2004; Faircloth 2005; Mowen and Sujain 2005), including the findings that students who volunteer for altruistic reasons have a higher retention rate than those motivated for other reasons (Andersen 2003).

In general, however, it is agreed that volunteering is motivated by multiple factors and to some degree by self-interest. The success of a volunteer/nonprofit relationship hinges on the mutual satisfaction of both the volunteers' and the organizations' needs (Beerli, Diaz and Martin 2004). Expectations of rewards have been found to motivate a variety of behaviors, including being altruistic and choosing to help those in need (Fisher and Ackerman 1998). In order to successfully segment the volunteer market, and appeal most effectively to attractive segments, a nonprofit must understand the motivations of members of those segments.

### STUDY OBJECTIVES

Recognizing that attracting volunteers is essential to the long term interests of nonprofits and that the act of volunteering should result in an exchange that is beneficial to the client, the nonprofit organization and the volunteer, this study was undertaken to determine the most appropriate strategies to recruit young adults as volunteers. Also, recognizing that certain traits make some volunteers not only more likely to volunteer, but also more productive than others, selected traits were deemed appropriate for consideration.

Since evidence shows that the benefits of volunteering are both psychological and social (Hibbert, Piacentini and Al Dajani 2003), and that volunteering retention rates are influenced by several factors, which include; connectedness (feeling part of a group to which one feels they share goals, values, respect and trust), uniqueness (feeling that one has an unique combination of talents and personality to contribute to the organization), and power (feeling that one can make a difference) (Andersen 2003), different motivational approaches were considered. Callow (2004) identified four promotional appeals, for targeting potential retiree volunteers, to be used in market segmentation. These four distinct appeals focus on different levels of altruistic notions and social interaction notions and address humanitarian and social appeals.

Callow's research, and resulting matrix of four appeals, involved the retiree segment, thus, the research reported here advanced this work into an additional segment; the young adult segment. Specifically, this research addressed the issue of motivational appeals along with personal traits of young adults. Traits associated with high-achievers, such as leadership, achievement concern and mentoring capabilities, were designated and utilized.

Recognizing that recruitment campaigns should highlight motives and benefits of the volunteering experience as worthwhile and satisfying, this study sought to gain insights into young adults' perceptions for potential segmentation purposes. Thus, the research questions to be addressed by this study were the following:

- Can Callow's segmentation strategy be utilized effectively to attract young adult volunteers? What promotional appeals for volunteering experiences will young adults find desirable? What are the fringe benefits to young adults of volunteering that can be used to make marketing communication strategy most effective?
- What is the volunteering-inclination of the young adult market, including likelihood of volunteering and interest in various organizations and constituencies?
- How will high-achievement traits impact young adults' volunteering orientation and desirability of specified appeals?

## METHODOLOGY

In order to answer the research questions, an instrument was designed and distributed among young adults. Subsequently, the data collected was analyzed and the findings interpreted so as to benefit nonprofits' volunteer recruitment efforts.

The variables designated as surrogate measures of traits of high-achievers were operationalized utilizing several seven-point scales ranging from 'strongly disagree' (1) to 'strongly agree' (7). An eight-item scale by Raskin and Terry (1988) was used to measure the degree to which one views oneself as a leader and desires to have influence over others. Certainly, leadership skills are essential for the effective operation of volunteering activities. The desire to help others, and thus, have some influence over the welfare of others would be a trait likely to be held by future volunteers.

Since Chappell and Prince (1997) determined that young adults were more likely to volunteer out of egoism (less altruistic) self-interest, a measure of concern for personal advancement was included. A component on vanity, achievement concern was measured by Netemeyer, Burton and Lichtenstein's (1995) five-item scale.

Deeming positive attitudes towards working in a team and cooperative behavior toward others as desirable traits for volunteers, Oliver and Anderson's (1994) five-item 'acceptance (teamwork/cooperation)' scale was included in the study. Young adults not only need to be recruited to volunteering, but their retention is important for nonprofits' future leadership and operations, therefore, if volunteers believe that they are contributing to a team effort they are more likely to have a sense of accomplishment. Presumably, loyalty and retention will be advanced if this sense of accomplishment is achieved.

Three components of 'mentoring ability and willingness' (rapport ability, support willingness and relational willingness) were considered admirable traits for potential volunteers and were measured by Pullins, Fine and Warren's (1996) fifteen-item scale. Compassionate individuals with the ability and willingness to nurture the abilities of others, can be a tremendous asset to nonprofit operations.

Volunteering-inclination was operationalized by several questions. The instrument included questions concerning likelihood of volunteering, intentions of including volunteering activities on resume, organizations to which they are most likely to volunteer time or money, and constituencies to which they would most likely volunteer aid.

The desirability of Callow's matrix of appeals was operationalized with a four-item, seven-point scale. The components of the original matrix were operationalized in the following manner:

*"How desirable would the following volunteering experiences be for you?"*

**Humanitarian high/Social low:** "Having the opportunity to actively participate in important 'behind-the-scenes' activities within a charitable organization."

**Humanitarian low/Social low:** "Having the opportunity to enhance my personal and professional skills by volunteering at a nonprofit organization."

**Humanitarian high/Social high:** "Having the opportunity to make a difference by becoming an advocate for those aided by the organization."

**Humanitarian low/Social high:** "Having the opportunity to interact with friendly staff and befriend other volunteers."

Callow's categories, and the operationalizations, are also in keeping with others' categorization of volunteering motivations. Beerli, Diaz and Martin (2004) recognize the following motives, which also correspond with those utilized in this study:

1. The good of society, helping others

2. Social skills, such as meeting new friends
3. Personal development skills
4. Employment-related motives

Demographic questions were included for classification and analysis purposes were included. Respondents were asked to indicate their gender, age, class standing, major and approximate grade point average (GPA).

The study instrument was distributed to college students attending a public four-year Midwestern university. College students represented the idea sampling population for this study as the focus is young adults. Nine classes representing different disciplines and different grade levels were included. Students in the selected classes were asked to participate in the study. A sample of 233 college students, with a mean age of 21.7 resulted. The majority of the respondents were seniors (58.8%). In addition, 79% were business majors.

### FINDINGS

In keeping with the research questions, the volunteering intentions and attitudes of respondents were considered. The designated traits were also analyzed. The four appeals identified by Callow were a critical consideration in the analysis.

#### Volunteering Appeals

The promotional appeals that Callow identified for targeting potential retiree volunteers proved to be effective segmenting for the young adult market, as well. The four different appeals, based on high and low humanitarian and social motivations, were all attractive to the students in the study (Table One). The appeals were measured for desirability on two measures. First respondents were asked to indicate how desirable each of the four experiences would be for them on a seven-point scale. Subsequently, respondents were asked to indicate which one situation represented the most desirable volunteering experience. As shown in Table One, the four resulting mean scores were all relatively high and no one scenario was viewed decidedly more desirable than any other. In terms of overall preference, the results were similar to the previous measure involving mean desirability scores. Whereas, the Humanitarian low/Social low experience (“Having the opportunity to enhance my personal and professional skills by volunteering at a nonprofit organization”) garnered the most votes with 69, a nearly equal number (67) of respondents voted for the Humanitarian high/Social high experience (“Having the opportunity to interact with staff and befriend other volunteers”). The other two experiences were also represented at a significant level, indicating the viability of the proposed appeals matrix for segmentation efforts in the young adult volunteer market. Clearly, young adult volunteers are motivated by the need to help others along with the need to benefit themselves in distinct manners.

**Table One**  
*Desirability of Callow's Appeals*

<b>Appeal</b>	<b>mean score</b>	<b>Overall preference</b>
Humanitarian high/Social low	4.85	n=48/20.6%
Humanitarian low/Social low	5.36	n=69/29.6%
Humanitarian high/Social high	5.32	n=67/28.8%
Humanitarian low/Social high	5.23	n=49/21.0%

Support was given to this approach to segmentation by the fact that all four cells were adequately represented. Evidence is sufficient to assert that the young adult market for volunteers can be segmented based on the approach utilized in this study. Specifically, an organization can broaden its recruitment base by incorporating all four appeals in its marketing efforts to young adults. Recruitment communications directed to young adults should highlight and emphasize the following themes:

“You can actively participate in important activities that make a difference”

“You will have the opportunity to better yourself personally and professionally”

“You can make a difference in the lives of others”

“You will make connections with others”

### **Volunteering Inclinations**

As a measure of volunteering inclination the students were asked to indicate the likelihood they would volunteer their time to a charity organization, or cause, after graduation on a seven-point likelihood scale. The resulting mean score was 4.48, indicating a slightly above average likelihood. With targeted appeals, the opportunity to increase volunteerism among young adults exists.

In addition, 85% indicated they intend to list volunteering activities on their resume. Other studies have shown that approximately two-thirds of young Americans state that they have helped others in the last three years (Hart and Brossard 2002). Considering that professionally employed, college educated individuals tend to volunteer in higher numbers than other segments (Wymer 2003), the fact that the majority of the respondents felt the need to list volunteering on their resume is not surprising. Again, motivation for volunteering is often employment-related.

When the respondents were asked to state the one organization they would be most likely to volunteer their time in the future and what one organization they would most likely contribute financially to in the future the responses were varied. Amongst the sample of 233 students, over 60 organizations were listed between the two separate questions with many being unique to one respondent. Many organizations listed were small and local, corroborating research which suggests that young Americans are most interested in having a direct impact on improving the everyday lives of those less fortunate in their local communities (Hart and Brossard 2002).

The organizations receiving multiple responses were generally national organizations receiving considerable publicity (i.e., MDA/Jerry’s Kids, Red Cross, Humane Society, American Cancer Society, Komen Race for the Cure, Big Brother/Big Sister, and Habitat for Humanity). Plus, the study was conducted shortly after Labor Day and when the Komen event was in process in the local community. Other organizations receiving multiple results were more general, such as ‘my church’ and ‘kids’. The only unique organization to the financial contribution selection was United Way. In general, the results seem to indicate that potential young adult volunteers are either dedicated to a personal local charity or inclined to go with a top-of-mind, prominent organization. It is also presumed that the images of the organizations designated were in some way congruent with the respondent’s self-image (Beerli, Diaz, and Martin 2004). Thus, organizations attempting to attract to young adults should make a very direct appeal to their personal consciousness.

Given a list of nine topics, and instructions to rank them in terms of which they would be most likely, to least likely, volunteer aid to respondents indicated which issues were or most interest to them. The results are represented in Table Two. The mode scores for the nine topics reflected a clear trend in responses. Frequencies of individual rankings are also presented. No topic came close to ‘children’ in terms of ‘1’ rankings. Political issues and candidates were clearly topics of little concern, at this time, to the potential young adult volunteers.

**Table Two**  
*Volunteer Preferences*

<b>Group or Issue</b>	<b>Mode</b>	1	2	3	4	5	6	7	8	9
Elderly	4	10	27	38	42	36	26	31	8	9
homeless/abused	3	14	31	42	39	24	30	15	14	14
Children	1	120	44	27	16	11	5	2	1	0
Animals	6	21	31	31	14	28	39	31	14	15
handicapped/ill	5	24	27	25	41	44	32	11	11	10

political issue	8	8	12	10	9	10	14	21	110	29
political candidate	9	7	9	1	8	9	10	21	39	121
disadvantaged	5	11	26	25	35	39	36	36	12	4
environment/ecology	7	15	21	23	21	22	31	54	14	23

Organizations that benefit children should direct marketing efforts, utilizing the four appeals designated earlier, to young adults. It is clear that young adults, if solicited effectively, would be inclined to volunteer time, and donate financially, to organizations involving children. Young adults would also be predisposed to come to the aid of those they consider disadvantaged, such as the homeless and the elderly. Political and conservation issues would face a more difficult challenge recruiting aid from this market.

**Achievement Traits and Volunteering Appeals**

A correlation analysis discovered that the likelihood of volunteering time, after graduation, to a charity organization was positively correlated (sig. level .05, or less) with two of the four traits incorporated in the study. Likelihood of volunteering in the future was positively correlated with Acceptance (teamwork/cooperation) and Mentoring Ability (with all three subcomponents producing significant results). Thus, those currently most likely to volunteer possess higher measures of these traits, both of which are beneficial to nonprofits’ operational activities.

Attempts to actively solicit those with higher levels of Leadership and Achievement Concern traits would have to be made, as those individuals are not currently as inclined to volunteer. The benefits of volunteering, such as the opportunity to advance professional skills and the achievement of personal accomplishments, would need to be emphasized to attract these individuals.

In terms of recruiting young adults with desirable traits, Table Three reflects the relationship between high-achievers’ traits and the four promotional appeals. Two traits produced significantly different results. Achievement Concern (a component of vanity) and Mentoring Ability overall with two subcomponents’ (Support Willingness and Relational Willingness) mean scores were significantly different in the four choice areas. Not surprisingly, those highest in Achievement Concern also selected “Having the opportunity to enhance my personal and professional skills by volunteering at a nonprofit organization”, as most preferred choice since those most concerned about achievement would find a volunteering opportunity that involved personal enhancement most desirable.

**Table Three**  
*ANOVA Results for Appeals and Traits*

<b>Trait</b>
Authority
Achievement Concern
Teamwork/Cooperation
Mentoring Ability
Rapport Building
Support Willingness
Relational Willingness
N
* sig. level of .05, or less

The other significant finding involved mentoring. Those highest in Mentoring Ability tended to find the experience “Having the opportunity to make a difference by becoming an advocate for those aided by the organization” most desirable, especially those highest in Support Willingness and Rational Willingness. An appeal that indicates the opportunity to help others will entice those with mentoring skills, thus supporting the proposed segmentation strategy.

To further investigate the relationship between traits and opportunity choice, respondents were separated into high and low trait groups based on mean scores. Those whose score on the scale was below the mean were

categorized as ‘low’ in the trait, and those whose score was above the mean were categorized as ‘high’ in the trait. The tabulations in Table Four, which represents votes for the most desirable opportunity, indicate that those high in all the measured traits tended to select the Humanitarian low/Social low appeal most often. Those low in most traits tended to select the Humanitarian high/Social high opportunity most often. The four designated promotional appeals serve to attract distinct segments of young adults with different trait levels.

**Table Four**  
*Most Desirable Appeal Choice and High/Low Traits*

Trait	Hum hi/Soc low	Hum low/Soc low	Hum hi/Soc hi	Hum low/Soc hi	total
Authority High	28	40	33	26	127
Authority Low	20	29	34	23	106
Achievement Concern High	24	44	28	24	120
Achievement Concern Low	24	25	39	25	113
Teamwork/Cooperation High	28	42	37	28	135
Teamwork/Cooperation Low	20	27	30	21	98
Mentoring High	35	37	27	28	127
Mentoring Low	13	32	40	21	106
Rapport Bldg High	34	46	34	29	143
Rapport Bldg Low	14	23	33	20	90
Support High	27	39	27	26	119
Support Low	21	30	40	23	114
Relational High	30	34	34	27	125
Relational Low	18	35	33	22	108

### IMPLICATIONS AND CONCLUSIONS

Individuals differ and individual potential volunteers will consider the cost/benefit of volunteer work. When recruiting volunteers a marketing-oriented approach which highlights benefits and downplays or removes perceived obstacles should be implemented. The results of this study provide a framework for segmenting the young adult volunteer market and suggest potential promotional appeals. For instance, those low in social motivation can be attracted by emphasize that they can contribute from behind-the-scenes.

While it has been noted that the same things that motivate the current leaders in the nonprofit sector might not attract today’s young people (Tucker 2003), this study demonstrates that the same inherent themes can be appealing to young adults and retirees, alike. Recognizing that factors influencing involvement in the volunteer sector change over time (Hibbert, Piacentini and Al Dajani 2003), recruitment strategies must constantly evolve to reflect these differences. The most effective marketing-oriented strategy for recruiting young adults would incorporate the two basic and fundamental motivations of helping others and maintaining socially beneficial relationships, with an understanding of today’s bright young professionals’ interests and characteristics.

Recruiting and nurturing young adults as volunteers today is a long process that might not show returns for up to 20 years. Nonprofit recruiters must acknowledge that young adults will quit a task quickly if they are not impressed or engaged. In addition, they prefer to work collaboratively (Zaslow 2004). In short young adult volunteers are not particularly loyal to organizations, are choosy about what they do and expect some personal benefit from their volunteerism (Rehberg 2005). Thus, successful segmentation strategies, should be incorporated

which align the young volunteers' interest with the organization's message. The strategy advanced here should be considered for its universal appeal. To be most effective, the execution of these themes, or appeals, should reflect the distinct interests and characteristics of the young adult market.

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# **NON-PROFIT WEBSITES AS MARKETING INFORMATION SYSTEMS: PRELIMINARY FINDINGS**

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## **ABSTRACT**

*Four non-profit organizations were identified as having websites that collected Marketing data. They were interviewed to identify common internal conditions. All four firms demonstrated executive commitment and reported having stable client-base needs over time, but a formal Marketing plan and defined, measurable website-specific goals seemed less important. Regarding website implementation: these firms attempted to gain early consensus, provided resources for training/database management, and considered scalability issues. Having a parent-organization to defray costs and being in an uncertain funding environment seemed conducive. Recommendations revolved around focusing on identifying barriers to adoption since potential for improvement is even greater than suspected.*

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## **INTRODUCTION**

### **Definitions**

This paper focused on the lessons that might be learned from those not-for-profit (NFP) firms who seem to be demonstrating some sort of Marketing orientation through the use of their third-generation websites as a Marketing Information System (MKIS).

“Third-generation” websites referred to websites that moved beyond online brochures and email-based interactions to those that evolved into actual capturing of metrics. These websites tended to have secure online donations and full integration with other organizational functions (such as accounting), among other features (Carson-Finnerty 2000). Such websites fit the definition of MKIS as outlined in Marketing Information Systems: Creating Competitive Advantage in the Information Age (Marshall 1996) in that they were “a comprehensive and flexible, formal and ongoing system designed to provide an organized flow of relevant information to guide marketing decision making”. For this paper, it was presupposed that the existence of such a website indicated a Marketing orientation in the non-profit firm itself since the decision about which metrics to capture on the website revealed some level of “marketing decision making”.

### **Literature Review and Informal Research**

It has been a truism that the non-profit sector does not demonstrate requisite Marketing expertise, especially when compared to the private sector (Mengerink 1990). This might have led to their lagging behind in implementing Marketing technologies, as, for example, in New Zealand, where sixty-five percent of all non-profits are still yet to have a website (Schwarz 2006).

Government-funded public-service organizations have tended to be less accountable, due to their relatively steady stream of income (Schiffert 1990). This is a characteristic shared with NFP firms. This has conflicted with information technology (IT) reforms, since the Internet has tended to hasten the need for decision-making and shift the internal power of those in the organization to those who are more tech-savvy (Social Marketing Institute 2000). And even when an organization decided to push forward with a new information system, there were natural barriers toward full implementation that seemed to exist: a 1989 survey of all U.S. government information system implementations showed that 29% of them were never finished and another 47% were finished but never used (Cited in Gourvenec 1996).

Because Marketing was often considered a “business” activity, it was held in low-regard by NFP firms, whose motivations were supposed to be more people-oriented and altruistic (Mengerink 1990). Marketing,

consequently, was largely misunderstood and “a source of uncertainty and anxiety...even suspicion” among leaders in NFP organizations (Social Marketing Institute 2000). In fact, such dissonance between the traditional value systems of for-profit and NFP firms (Schiffert 1990) led those efforts to increase efficiency in NFP firms, when they succeeded, to have a negative effect on the organization’s efficacy (Schmid 2002).

### **Promise of This Research Thread**

While many barriers existed for IT in the non-profit sector, two trends emerged from the literature review that indicated this topic’s potential. First, even as IT became more ubiquitous (Bolin 1998, Search Engine Marketing 2004, and Vowels 2005), philanthropy had also been resurgent in the past couple of years (McClure 2004, Hall 2005, and Consolidating Non-Profits 2006). There was a potential for convergence: as demonstrated by how the web was reflexively used toward disaster-relief efforts for the 2004 Asian Tsunami and 2005’s Hurricane Katrina. Second, although the majority of IT functions within NFP firms were done internally (61% for website design, 72% for website maintenance), a much smaller percentage 39% and 36%, respectively (Vowels 2005) was being done by employees. Presumably volunteers are utilized to compensate, which could have indicated an financial inability, rather than unwillingness, on the part of NFP firms to increase their IT presences.

### **Statement of Purpose**

By studying the particulars of four NFP firms whose website implementations demonstrated a Marketing orientation, it was believed that we could develop a list of criteria and research parameters to help identify such firms for larger scale research.

## **METHODS**

### **Research Methodology**

In the twin-cities of Champaign-Urbana, Illinois (population 150,000), several web-developing and web-hosting firms were contacted in an attempt to locate NFP clients of theirs who had recently (or were about to) implement a 3<sup>rd</sup>-generation website. The consensus amongst all of the firms contacted was that very few firms, for-profit or otherwise, wanted to spend the extra thousands of dollars for these capabilities. The price-points quoted by these independent contractors were consistent with my literature review, which indicated that turnkey products developed for this and similar purposes ranged from five hundred to three thousand dollars (McClure 2004).

The four firms that were identified as being proper local research subjects were, listed from largest to smallest: *Planned Parenthood of East-Central Illinois*, *Community Shares of Illinois*, *Prairie Air Incorporated* (dba WEFT 90.1fm), and *Self-Help Center* (an independent program of *Family Services of Illinois*). These organizations ranged from the 3.7 million dollar budget and eighty workers (mostly employees) at Planned Parenthood to the approximately one cumulative worker (between several part-time people, employees and volunteers) and \$39,000 budget at the Self-Help Center. The key characteristic that these four firms shared was that they all used their websites to capture specific metrics.

For the first data collection tool, we developed a checklist of website features and other types of data that could possibly be collected by NFP firms. This was generated from personal expertise checked against the most recent industry trends (Gale Group 2006); those were then put into table form, as shown in the Appendix. We also allowed for the respondents themselves to list new features on the data collection tool. Although already given second-hand information about their website Management and Marketing features, it was believed that this would give us a clearer picture of what they were trying to accomplish.

For a second data collection tool, from our literature review eight characteristics (three strategic and five tactical) were identified that would seem to indicate the presence of an MKIS. The strategic characteristics were: Executive Commitment (Looman 1990 and Marshall 1996), Presence of an Overall Marketing Plan (Gourvenne 1996, Marshall 1996, and Websidestory 2005), and the Stability and Predictability of Client-base’s Needs (Schiffert 1990). The tactical characteristics, with regard to IT implementation in an NFP firm, were: Defined, Measurable Outcomes (Schiffert 1990), Early Organization-wide Consensus Among Those Who Will Use the MKIS (Looman

1990), Training/Pre- and Post-implementation (Looman 1990), Budget Set Aside for Data Management (Looman 1990), and whether or not IT components were Scalable and Integrated (McClure 2004).

From this list was created a 24-question survey as our second data collection tool (See Appendix). Three questions were coded to correspond to each of the characteristics—the idea being that at least two of the three responses should indicate the presence of each characteristic. The questionnaires were presented in person, with the interviewer reading through each question together with the interviewee and recording their response. This allowed for real-time clarification of both the question and the response.

## FINDINGS

### Tabular Results

Here are the subjects' responses-- by organizational characteristic and by data metric. The fractions in Table 1 (as shown on the next page) indicate how many of the three questions were answered in such a way as to indicate the presence of the given characteristic:

Table 1 (Organizational Characteristic)

	<i>PPECI</i>	<i>CS</i>	<i>WEFT</i>	<i>Self-Help</i>
<i>Executive Commitment?</i>	2/3	2/3	1/3	3/3
<i>Marketing Plan?</i>	1/3	1/3	0/2 (1 unknown)	2/3
<i>Stability of Client-base's Needs?</i>	2/3	1/3	1/3	1/3
<i>Defined, Measurable Outcomes?</i>	3/3	3/3	1/1 (2 unknown)	3/3
<i>Org-wide Consensus?</i>	3/3	3/3	2/3	3/3
<i>Training?</i>	3/3	3/3	2/3	3/3
<i>Budget for Data Management?</i>	2/3	3/3	2/3	3/3
<i>IT Scalable and Integrated?</i>	1/3	3/3	2/3	3/3

### Summary of Findings (by Subject Firm)

Planned Parenthood of East-Central Illinois (PPECI), as a local branch, has existed for 65 years. It is part of a national affiliate (the Planned Parenthood Federation of America) of an international association (the International Planned Parenthood Federation). Consequently, they have a high degree of institutional support. We interviewed their local branch's Executive Director. They also have a Public Relations Director, who sat in.

PPECI's local website is in the process of being upgraded by an initiative from their parent organization. The new features of the website include: all manner of measured visitor metrics, Email response tracking, A/V library, reservation/appointment booking engine, and E-giving—with other features in the planning stages. Much of this information from the new website is being collected by the “national office” and provisions are still being made for how to get that information to PPECI locally. In addition, one feature they had had on their original website (online prescription filling) is now deleted from the new website and recovering that functionality is in the works. All of the expected internal characteristics are present except for two: there is a lack of integration between the website and other functions (even IT ones like membership management), due mainly to the confluence of both local and national systems. Also, the presence of an overall Marketing plan is missing although the President/CEO of PPECI has had enough of a personal commitment to Marketing to broker their local interests and data needs with the national office during the website transition.

Community Shares of Illinois has existed for 18 years. It is one of many such organizations to spring up around the country over that time. Only two years ago, many of these organizations realized the need for better branding and synergy and so they formed “Community Shares USA” (CSUSA), a national organization. CSUSA is funded in part by all of the participating local chapters and it is there to provide centralized Marketing assistance. Again, we interviewed their Executive Director.

Community Shares of Illinois was an early adopter (in 2001) of a 3<sup>rd</sup>-generation website, creating theirs in cooperation with Prairienet, a local NFP internet service provider (ISP) and developer that is backed by the University of Illinois. Working closely with that ISP, they evolved their website to include new features as they became needed. Those features include site partitioning and Email-to-a-friend links. Other features are attained by the use of either free web technologies (Yahoo! Groups) or low-cost third-party vendors (Survey Monkey, \$20/month) which provide such features as: e-surveys, client data of all types, Email response tracking, and automated acknowledgements. Their web functions are strongly integrated with their other IT databases. In fact, they developed their own integrated database solution, which they sell to other NFP firms. Of the eight internal organizational characteristics, they also lack an overall Marketing plan as well as not really having any defined, measurable outcomes for their website. Instead, they are just using the data collected to work towards growth goals of adding new employers and member organizations.

Prairie Air Incorporated (better known locally as WEFT 90.1fm), a community radio station consisting of around eighty or so volunteers, is in the process of upgrading its website. They are developing it entirely in-house through an approximately 15-person, all-volunteer effort—which is appropriate since WEFT only one part-time, paid staff-person. We interviewed the (volunteer) leader of the ad hoc website development group, as there is no Executive Director.

WEFT's new website features include: a full wiki (complete with all data collection possibilities inherent to such an application), analysis of in-site search strings, site partitioning, and automated reminders for content update. However, it's apparent from survey responses that none of the website metrics are being collected for any explicit Management or Marketing purpose. When the leader of the ad hoc group doing the website is asked about specific goals, she says that some goals had been expressed in committee about increasing the budget/membership and about possibly webcasting, so great care was taken to choose a scalable solution. But no specific objectives were given for the website itself. Often, when asked about specific website metrics, she gives her own opinion as opposed to a policy-based answer (e.g., “Well, I'd like to see that.”).

As you would expect, responses to the organizational characteristics tool indicated the lack of Marketing vision, with only 11 of the 24 responses indicating “positive” overall. All three strategic characteristics are missing (only 2 positives out of 9 between them). And, while the website offers a great many features that potentially could be used for Marketing, “defined, measurable outcomes” is another characteristic found to be lacking.

During the interview, it became obvious that WEFT was, in fact, *not* using their website as an MKIS. Rather, the ad hoc group that formed to work on the website was doing so to solve whatever problems they, as individuals, believed needed “correcting”. This was reflected during the interview when it was mentioned that the website was going to be used to measure the relative popularity of various radio programs. This runs counter to the policy of WEFT’s own Programming Committee, who explicitly proscribes that consideration as a valid criterion for programming decisions. That policy is in order to promote diversity and to be more consistent with the station’s mission.

Self-Help Center is a program of Family Service of Illinois, but it is funded independently. It is essentially a one-person, part-time, operation, although several people who work at Family Service also help out. We interviewed the Coordinator of Self-Help Center, which is more appropriate than interviewing the parent organization’s Executive Director, since Self-Help Center is funded by outside sources.

Self-Help’s Coordinator also works with Prairienet developers for assistance in evolving the website and for ongoing training. The latest features of the website include: hit counts, site partitioning, E-giving, and automated acknowledgements. During the interview, her personal commitment toward outreach is evident. Every one of the eight characteristics is present except for “defined, measurable outcomes”. Like the other respondents, the website data collection is done to monitor progress towards generic growth goals rather than toward specific objectives.

### **General Discussion**

My research is motivated by a desire to discover how firms in the non-profit sector can be improved. Prior to this project, it had been my experience that non-profit organizations often have an organizational self-perception of scarce resources (money, man-hours, expertise) even while signs of wastefulness and dysfunction are all around. My own observations of such firms indicated a lack of leadership rather than a lack of resources. For example, at the most extreme, I have seen an organization with a six-figure budget and 20-plus employees that did not maintain financial systems or membership rolls: no administrator or Board member there could tell you whether or not the organization had paid taxes that quarter. Nor could they say, for sure, who was or was not an employee.

Yet this research project has led me to believe that non-profit management is more complicated, in every measurable way, than its private-sector counterpart. NFP firms tend to be more complex, more decentralized, and to work towards less rational and less tangible goals (Schiffert 1990) than businesses. To add insult, NFP managers tend to make only about 80% of their for-profit counterparts’ salaries and that is consistent across all of North America (Salaman 2005 and Lazaruk 2006). When you superimpose the lightning-quick pace of change of the IT field and the need for Marketing to move fast because it is a “boundary” function (Marshall 1996) with the relatively stable and slow-moving world of NFP firms (Schiffert 1990), it can add up to a frustrating milieu for the non-profit manager.

Correspondingly, it has been shown that when quasi-public industries are privatized (creating an increased environmental uncertainty), centralization of managerial authority, alignment between the IT function and the overall “business plan”, and usage of IT in general all increase (Kearns 1999). These all trend away from the norm in NFP firms (Schiffert 1990) and may indicate a natural continuum of these characteristics between for-profit and NFP firms.

### **Limitations of Research**

First, the small sample of firms that were interviewed is a limitation. While it is true that even one person--knowledgeable in IT and with a strong understanding of Marketing—can do amazing things, a more representative field of respondents is necessary in future research.

Second, there is also much confusion about what constitutes “Marketing”. Many still use it as strictly a synonym for “advertising”. This was expected. This prompted including and reviewing with each respondent a written definition of an MKIS on the data collection tool itself. But even so, semantic and substantive confusion persisted. One respondent said as an answer to one follow-up: “No, we didn’t do any Marketing--we just collected information... about the donors and used that to make some decisions”.

Finally, it would be ideal to try and capture data from across national borders. Even by just including some Canadian firms, one would control for some of the U.S.-centric aspects of the data.

### **Practical Implications**

An implication for the private sector is that the situation is favorable for a turnkey solution as a business opportunity. Implications for non-profits are that the following seem to be conducive towards NFP firms adopting and utilizing IT to facilitate an MKIS: a strong Marketing orientation from the executive, some sort of institutional help (from a parent organization, or a third-party vendor) to mitigate risks/costs, and a more uncertain funding environment to necessitate action.

### **CONCLUSION**

The following characteristics are indicative of non-for-profit firms that have a Marketing Information System: *Executive commitment* and *relatively stable client-base needs*. Anecdotal evidence as well as the literature review suggests that, in addition, a more *uncertain funding environment* and some sort of *institutional help* is also conducive.

Tactically, all 4 firms attempting to implement 3<sup>rd</sup>-generation websites gained early consensus, provided resources for training/database management, and were sensitive to scalability issues.

Usually, however, the specific metrics from the website were gathered less to measure a defined desired outcome than to gain an overall impression that is superimposed over general goals of "growth". Sometimes this is due to such metrics being decided upon at the level of the parent organization. Also: future research into this must better account for confusion about the concept of "Marketing" and should be less U.S.-centric. Due to the difficult nature of non-profit management for smaller NFP firms, it seems that many barriers exist to proper integration of the Marketing and IT functions.

Seeking out larger firms and transcending geographical boundaries would likely improve the quality of data and overcome the obstacles to research mentioned above. If such firms were found to be more likely to have transcended barriers to implementation, then the process that they have followed in order to do so would be worth noting.

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**Appendix**

Each Question listed below was given to them and read aloud. They were encouraged to answer as briefly as possible, including yes/no where appropriate. But after most questions I asked for follow-up information and noted their explanations to better understand their meaning.

1. Did your org have a Marketing Information System in place before you created your first website?
2. Are there any people in your org whose jobs directly involve Marketing responsibilities?
3. Describe evidence of the commitment to the Marketing function from your Executive Officer.
4. Does your Org have an overall Marketing Plan?
5. Does your Org have any defined outcomes/objectives for it's website as part of an overall Marketing Plan? Any standalone outcomes/objectives for the website?
6. Did you offer specialized training for staff or volunteers pre-implementation?
7. Are the needs of your client-base stable and the services and programs stable over time, or are they different short-term versus long-term?
8. Is database management a specified job responsibility for someone (even a volunteer)?
9. Have all of the people who will use the interactive and/or management features of your website (i.e. those responsible for content management) been given any input into the design of your latest/upcoming website?
10. Have provisions been made for training staff or volunteers post-implementation?
11. Have human resources been set aside for data management?
12. Are the IT components of your website design/maintenance scalable into the near future?
13. Is your website integrated with your membership and/or accounting functions?
14. How are your org's IT and Marketing functions related to each other in your organizational chart?
15. What is the very next action item on your Marketing plan with regards to your website?
16. Has the topic of the new/recently updated website show up in any communiqués to staff or staff meeting agendas in the last six months?
17. About what percentage of your membership (or client-base) has changed in the last year? The last five years?
18. Please give me an example of a specific metric that you hope to capture from the website?
19. Do you pay a parent org or outside vendor to manage your data or do you do it yourself?
20. When people or businesses donate funds to support operations, are they automatically supporting database maintenance?
21. Who manages your website and how did they learn how to do that?
22. How did you overcome technophobia with regards to your staff and volunteers who are tasked with IT functions?
23. How well could you predict what services you will offer in the future?
24. What measurable growth goals do you have for your organization and how does your website directly assist with those?

(Was this/Will this) be maintained and tracked?	Collected Pre-website	Collected on old website	Collected on new/upcoming website
Clients' demographic data			
Clients' locale (for marketing purposes)			
Clients' accounting data			
Clients' survey responses / Or using web: e-voting surveys			
Clients' communiqués			
~~~[to be filled in by respondent]			
~~~[to be filled in by respondent]			
Website Hits/views (Total/Avg.? By page? By Visitor? Click-through rates?)			

Visitor Metrics: Avg. visit length			
“ : Most downloaded files			
“ : Most requested images			
“ : Top-level domain			
“ : Source country/state/locale			
“ : Top referrers (search-engine)			
“ : Top Browsers			
Analysis of in-site search strings			
Live chat/IM			
A/V library / Webcasting / Net-meeting (perhaps online seminars)			
Site partitioning (registration or guest login data capture)			
E-mail response tracking			
Online catalog / e-gift certs / E-payments			
Member-to-Member business/partner directory			
Reservation/Appointment booking engine			
Manual event logging			
Dynamic event logging			
Blogs, Wikis, or other visitor-driven content			
E-giving			
Automated Acknowledgements			
E-mail to a friend link/form			
Mailing Lists / E-newsletter			
~~~[to be filled in by respondent]			
~~~[to be filled in by respondent]			
~~~[to be filled in by respondent]			
Reports generated on any/all of above			

# **AN ANALYSIS OF WEST VIRGINIA RESIDENTS’ PERCEPTIONS OF LONG TERM CARE INSTITUTIONS: QUALITY, DELIVERY AND FUNDING**

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Phil Rutsohn, Dr.Ph*

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## **ABSTRACT**

*During the baby boom years (1946-1964) 77 million people were born in the United States. This will result in a doubling of the population over 65 during the first 20 years of this century and a quadrupling of Americans over age 85. When one considers that the average cost of an annual nursing home stay is currently \$70,000 with projections reaching \$190,000 by 2030 the potential financial drain on the economy—particularly state Medicaid programs—could be staggering. However, little is known about consumer attitudes, preferences and knowledge of Long Term Care Facilities. The researchers surveyed a sample population in West Virginia to determine their attitudes, knowledge and perceptions of Long Term Care Facilities*

*This report examines different aspects of consumers’ perception of long-term care such as overall assessment of quality of care delivered, preference for particular LTC settings and awareness of issues associated with long-term care funding. Consumers’ perception of long-term care facilities was assessed by means of surveys. Respondent socio-economic characteristics varied (income level, age, education and health status) significantly providing a broad range of opinions/perceptions. The information generated from this project should contribute to developing a baseline of knowledge that to date is lacking in the literature.*

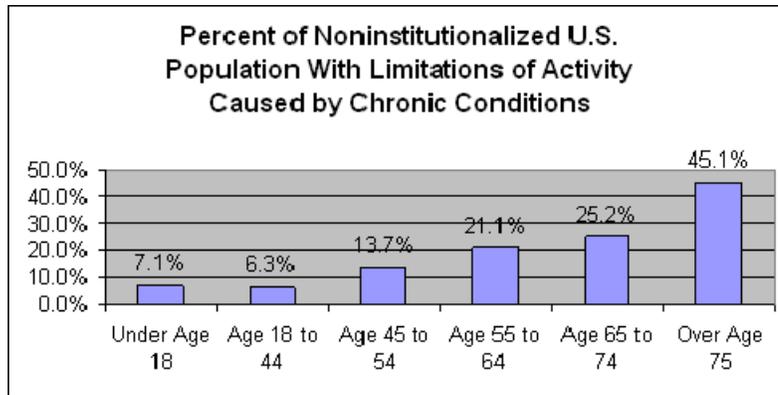
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## **INTRODUCTION**

With the “graying of America” issues associated with long-term care such as quality, reimbursement and availability have become critical policy considerations. Since there will be increased demand for long-term care services, there will be changes in system funding and operations and structure. Government will be forced to modify reimbursement by restricting and reducing the amount of funds reimbursed to providers. Possibly there will be incremental developments in tax credits, and medical saving accounts for long-term care expenses. Long-term care insurance will grow as employers offer it as an optional, employee-paid benefit. More and more services will be purchased out of personal resources, as consumers increasingly understand the options available. Retirement planning will stress development of provisions for long-term care. The expansion of home and community-based services will continue, fueled by demographic needs, consumer demand, technological advances, and economic effectiveness. Long-term care comprises a variety of services that include both medical and non-medical care to people who have a chronic illness or disability. By definition care is needed for an extended period of time ranging from weeks to months to years. (Day, 2006) Chronic medical conditions, chronic severe pain, permanent disabilities, ongoing need for help with activities of daily living, and need for supervision require ongoing long-term care

### Trends and Alternative Delivery Systems

According to Thomas Day, director of the National Care Planning Council at least 60% of all individuals will need long-term care services during their lifetime. (Day, 2006) The chart below reveals that significant proportions of the population under age 65 may need physical or emotional help from others. For the most part these are individuals born with developmental disabilities both physical and/or mental. This may explain the high number of disabled under age 65. Of particular interest is the fact that close to half of the population over age 75 is disabled. Since more and more people are surviving to age 75 and beyond, we can only expect an increased demand for long-term care services in coming years.



Source: 2005 Statistical Abstract of the United States, Health and Nutrition

Long-term care can be provided at home, in a community-based setting such as adult day care, assisted living facilities, hospice facility or in nursing homes. With so many varieties of services, it is hard to develop general quality guidelines. Currently the government focuses on the quality of services in nursing homes. (AHCPR, 2006)

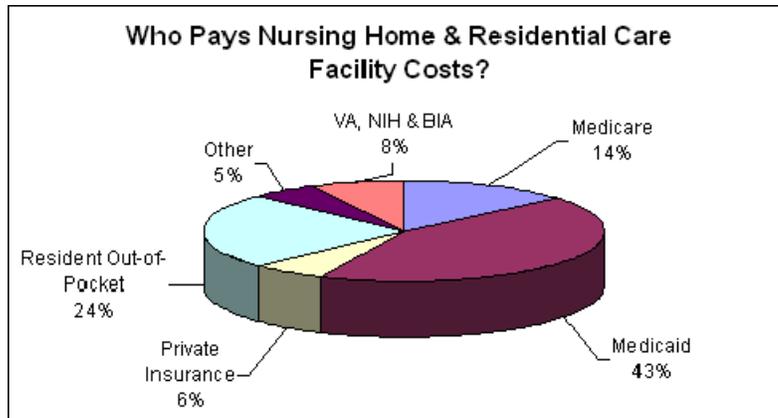
Funding Long-Term Care

Long-term care is different from “traditional” health care services, and it is not typically covered under health insurance policies, HMO plans, Medicare or Medicaid supplemental policies. Health care plans are designed to provide coverage for care provided by a doctor or treatment obtained in a hospital. Some plans may also cover nursing home care or home care, but typically only on a short term or limited basis. Since long-term care is required over a lengthy period, it can be very expensive. In 1995 an average cost of stay in a nursing home was \$41,000 (Wiener, 1997) and it continues to increase. According to the recent statistics, the average daily cost of a private room in a nursing home in the United States is \$70,080 per year, or \$192 per day. (Consumer Affairs, 2004)

Government programs such as Medicare, Medicaid and the Veterans Administration will cover the cost of long-term care under certain conditions. Medicare will cover rehabilitation from a hospital stay or limited care at home if there is a skilled (medical) need. Medicaid will cover both medical and non-medical related long-term care, but in order to qualify for Medicaid a person must have less than \$2,000 in assets and insufficient income to pay the cost of care. In other words, a person must be impoverished. Otherwise Medicaid will not pay. (Medicare/Medicaid official website, 2006)

The Veterans Administration will cover the cost of nursing home care indefinitely if the veteran’s disability is at least 70% service-connected. The VA will also cover other forms of home-based or community-based care if there is a medical need. (Long Term Care Link, 2006)

According to Thomas Day, director of the National Care Planning Council, about 84% of all long-term care is not covered by government programs. This is primarily family-provided home care to help with activities of daily living, or help with maintaining a home, providing meals and support, or care services providing supervision or companionship or providing transportation and shopping services. Care not covered by the government is also provided from family out-of-pocket payments in nursing homes and assisted living facilities. Families are also hiring more and more aide services to help with care at home. (Day, 2006)



Source: 2005 Statistical Abstract of the United States, Health and Nutrition

### **Problem statement**

The purpose of this research study and survey was to evaluate consumers' perception of issues associated with long-term care facilities and services.

### **Research objectives**

- Determine consumers' perception of a long term care facilities
- Determine consumers' perception of issues associated with long-term care facilities such as preference for particular LTC settings, overall assessment of quality and particular facilities, and their efficiency/effectiveness
- Determine consumers' awareness about quality of medical care delivered
- Determine consumers' awareness about issues associated with funding of long-term care facilities
- Determine consumers' perception of quality provided in urban long-term care facilities versus rural long-term care facilities
- Determine if there is a difference in perception of long-term care facilities between men and women.

### **Research methodology and design**

The research is explorative by design. The purpose of the research is to obtain general information about consumers' perception of quality of long-term care facilities and services delivered.

#### Description of a sample size

The required minimum sample size for this study was 150 surveys, and the actual number of surveys completed and returned was 161 surveys. It is a base that helps to meet the research objectives and develop a basic sense of consumers' attitude toward LTC facilities and services.

Determining sample size is a very important issue because samples that are too large may waste time, resources and money, while samples that are too small may lead to inaccurate results.

To calculate the required sample size for the project, the following formula was used:

$$2 \sqrt{\frac{pq}{n}} = .05 \text{ (Hamburg, 1987)}$$

Since the population parameters  $p$  and  $q$  are unknown, values for  $p$  and  $q$  must first be estimated and then value for  $n$  must be found. Estimates must be made in such a way as to ensure that the sample size will be large enough to deliver the desired precision. The most suitable estimate for  $n$  will be by assuming  $p = 0.50$  and  $q = 0.50$ . This follows from the fact that the product  $pq = 0.25$  is larger for  $p = 0.50$  and  $q = 0.50$  than for any other possible values of  $p$  and  $q$  where  $p + q = 1$  (Hamburg, 1987). So,

$$2 \sqrt{\frac{0.5 \times 0.5}{n}} = 0.05$$

$$\left(\frac{\sqrt{.25}}{n}\right)^2 = (.025)^2$$

$$\frac{.25}{n} = .000625$$

$$n = \frac{.25}{.000625} = 400$$

Under this scenario, it would be necessary to survey 400 people in order to achieve a highest degree of accuracy. However, due to time constraints, this survey was terminated when 161 surveys were collected, which exceeded the minimum threshold of 150 surveys for the results to be considered representative.

#### Description of a sampling technique

In order to collect the data, a non-probability sampling method was employed. Specific elements from the population have been selected in a nonrandom manner, which helped to gather the needed information more quickly. Non-probability samples are reasonably representative of the population.

#### Description of survey instrument

The primary data was collected by means of a self-administered questionnaires. Questionnaires mainly included qualitative questions in order to examine respondent attitudes toward issues associated with long-term care facilities and services.

#### Data analysis

Statistical techniques utilized to analyze the collected survey results, included:

- (1) One-way frequency tables indicating the number and percent of respondents who provided a response to each question are provided.
- (2) Cross-tabulations were utilized to study relationships among variables-- for example age and preference for a particular long term care setting.
- (3) The chi-square was the test of goodness of fit between the observed distribution and the expected distribution of a variable. (Carl McDaniel, 2005) The results of chi-square are presented in appendix.

**Results**

During the research the people of different backgrounds were surveyed in order to obtain representative sample. Both women and men were surveyed, though the majority of respondents were women (58%). General population from 18 and older filled in questionnaires. The amount of respondents from different age groups is about the same. 38% of respondents were in 31 – 45 age groups, 26% of respondents were 57 and older, 20% were in 18 - 30 age group and 15% were in 46 - 56 age group. Most of respondents were Caucasian (91%), married (63%) and have at least some college education (15%) and different levels of income. This sample distribution provided opinions of people from various groups.

Consumers’ perception of quality of Long Term Care

One-way frequency table demonstrates results about consumers’ satisfaction with LTC services.

<i>Degree of Satisfaction</i>	<i>No. of People</i>	<i>Percent of People</i>
Satisfied with Service	61	37.9%
Neutral	72	44.7%
Dissatisfied with Service	18	11.1%
No Response Provided	10	6.2%
<b>Total</b>	<b>161</b>	<b>100%</b>

Surveys show that only 37.9 % of consumers are satisfied with long term care facilities and services provided. Consumers’ concerns may be justified. Different government agencies and committees are concerned with quality issues in long-term care facilities. The Agency for Health Care Research and Quality (AHCQR, 1997), points out problems related to poor food sanitation, failure to conduct comprehensive patient assessments and to develop care plans, poor accident prevention efforts, and failure to prevent pressure sores.

The government takes steps to improve quality of long term care. In November 2002, the Centers for Medicare & Medicaid Services (CMS, 2002), an agency of the U.S. Department of Health and Human Services, began a national Nursing Home Quality Initiative (NHQI). It is a broad-based initiative that includes CMS’s continuing regulatory and enforcement systems, new and improved consumer information through both a toll free telephone information service as well as Medicare’s website, community-based nursing home quality improvement programs, and partnerships and collaborative efforts to promote awareness and support. The goals of the initiative are essentially twofold:

1. To provide consumers with an additional source of information about the quality of nursing home care by providing a set of minimum data set based quality measures on Medicare’s Nursing Home Compare web site, and
2. To help providers improve the quality of care for their residents by providing them with complementary clinical resources, quality improvement materials, and assistance from the Quality Improvement Organizations (QIOs) in every state.

Consumers’ perception of issues associated with funding

Most respondents agreed that government does not provide enough funding for the long term care facilities and services and additional funding is required.

<i>Perception of Funding</i>	<i>No. of people</i>	<i>Percent of people</i>
Sufficient Funding	17	10.6%
Insufficient Funding	142	88.1%
No response	2	1.3%
<b>Total</b>	<b>161</b>	<b>100%</b>

<i>Additional funding will be required in future</i>	<i>No. of people</i>	<i>Percent of people</i>
Strongly agree	72	44.7%
Agree	52	32.3%
Neutral	21	13%
Disagree	7	4.3%
Strongly disagree	3	1.9%
No response	6	3.8%
<b>Total</b>	<b>161</b>	<b>100</b>

Literature review shows that the increasing need for long term care services is already creating significant budget concerns for Federal and State Governments, as well as straining family finances. Combined Medicare and Medicaid outlays have been growing dramatically. About 40 percent of long-term care costs are paid by the Federal/State Medicaid program. Although the Medicare program accounts for only a small share of total expenditures, its share has been growing. In recent years Congress has considered prospective payment systems for nursing home and home health agency payments under the Medicare program, as well as proposals to diminish the Federal role in the Medicaid program. Many States are exploring managed care options for the elderly and disabled under Medicaid. Despite rising Government expenditures, out-of-pocket payments continue to be a large source of financing for long-term care. As a result, for many individuals who have chronic care needs, long-term care remains a catastrophic cost. (The Agency for Health Care Policy and Research, 2006)

Consumers' perception/ preference for Long Term Care facilities

Most respondents indicated a preference for in home care (90.7%) and community based services (77%). Only 46% of surveyed would choose nursing homes. Sample crosstabulation table demonstrates preference of different age group for a particular long-term care setting.

	<i>Age</i>				
	<i>Total</i>	<i>18 - 30</i>	<i>31 - 45</i>	<i>46-56</i>	<i>57 or Older</i>
In-Home Care	146	28	55	23	40

	90.7%	17.4%	34.2%	14.3%	24.8%
Community Based Care	124	23	45	23	33
	77%	14.3%	28%	14.3%	20.5%
Nursing Home	74	13	27	13	21
	46%	16.8%	28%	8.1%	13%

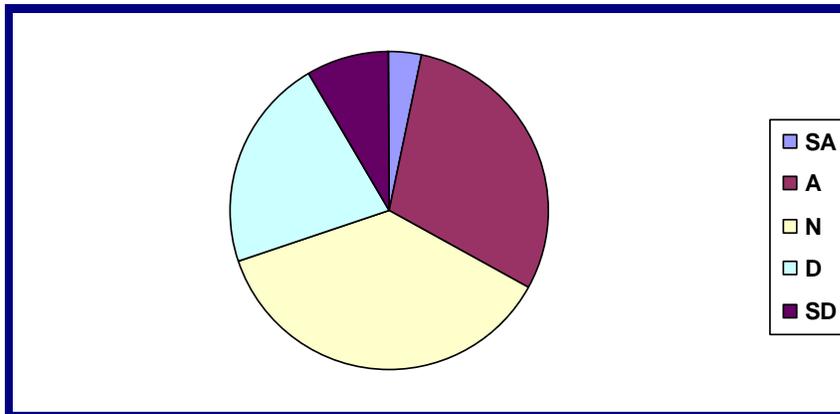
Note: A total of 161 survey respondents provided input by ranking their choice of the preferred type of care in order of preference. The above table reflects numerical averages based on the preferences indicated.

Other studies show that about 95 percent of non-institutionalized elderly persons in need of long-term care rely on family members and friends for help with activities of daily living. About 70 percent of the combined community and institutional population receiving long-term care rely entirely on private resources (Spillman and Kemper, 1992).

Consumers' perception of LTC facilities staffing

Most consumers' don't think long term care facilities have adequate medical staffing.

<i>LTC facilities provide adequate staffing</i>	<i>No. of people</i>	<i>Percent of people</i>
Strongly agree	5	3.1%
Agree	46	28.6%
Neutral	57	35.4%
Disagree	34	21.1%
Strongly disagree	13	8.1%
No response	6	3.7%
<b>Total</b>	<b>161</b>	<b>100</b>



The perception is well-grounded. According to a July 2000 Report by the federal Health Care Financing Administration (HCFA, 2000) more than half the nation's 17,000 homes fail to maintain the minimum staffing levels needed to ensure quality care for their residents. In addition, HCFA says, nearly a third of nursing homes do not meet the minimum RN standard to guarantee proper resident care. (Clyde Weiss, 2001)

Partly, it is explained by the growing shortage of medical professional overall due to the growing medical needs of an aging population.

It is estimated that the nation will have a shortage of between 85,000 and 200,000 doctors in 2020. To meet the growing medical needs of an aging nation, the country needs to train 3,000 to 10,000 more physicians per year. (Cauchon, 2005)

Another reason for the shortage of doctors in long term care facilities can be the work environment. Long hours and low reimbursement rates do not appeal to doctors.

According to the American Federation of State, County and Municipal Employees profiles, nursing is far and away the most understaffed job in the medical field. (AFSCME, 2006) The American Organization of Nurse Executives has calculated the national vacancy rate for nurses as 10.2 percent. (AFSCME, 2006)

Work at a nursing home is a demanding career under any circumstance, and a national staffing shortage is making the job even more difficult. However, some nurses express pride and satisfaction in their jobs they feel despite the comparatively low pay and various hazards that nursing home workers throughout the country face daily. The hazards can include musculoskeletal disorders and repetitive strain injuries caused by lifting patients. (Weiss, 2001)

Consumers' perception of quality provided in urban long-term care facilities versus rural long-term care facilities

Most respondents' (62.7%) believe that urban long term care facilities offer better quality. That is due to the fact that the availability of rural providers varies significantly from one county to another, and many rural communities struggle to provide even basic health care services to their population. (AAMC, 2004) In most areas of

the country doctors are unevenly distributed, with significantly fewer physicians serving rural communities, which make the vast majority of the United States. Because physicians are affluent and in short supply, they tend to locate where they want to live – not, as McDonald’s or a Chinese restaurant might, where the most customers are. (Cauchon, 2005)

<i>Perception of Quality in different areas</i>	<i>No. of people</i>	<i>Percent of people</i>
Better in urban	102	63.1%
Better in rural	51	31.9%
No response	8	5%
<b>Total</b>	<b>161</b>	<b>100%</b>

Perception of Long Term Care by Men/ Women

Also, there is not much of difference in perception of long term care between men and women. The cross-tabulation demonstrates differences in level of satisfaction depending on gender.

	<i>Gender</i>		
	<i>Total</i>	<i>Female</i>	<i>Male</i>
Satisfied with Long Term Care	59	38	21
	39.9%	25.7%	14.2%
Neutral	71	38	33
	48%	25.7%	22.3%
Dissatisfied with Long Term Care	18	12	6
	12.2%	8%	4%
<b>Total</b>	<b>148</b>	<b>88</b>	<b>60</b>
	<b>100%</b>	<b>59.5%</b>	<b>40.5%</b>

Note: Only 148 individuals of the 161 respondents to the survey provided input on this question.

**CONCLUSIONS**

Long-term care is an increasingly important and rapidly changing component of today's health care delivery system.

As of right now long-term care in the United States is overwhelmingly financed by the public sector. It is that way everywhere in the world. Three-quarters of people in nursing homes have their care paid by Medicaid or Medicare; three-quarters of home care expenditures are by public programs. (NAHC, 2000) The high cost of long-term care services and the relatively low incomes of 85-year-old disabled widows guarantee a major role for public financing.

The financial pressures are fueling unprecedented changes in the health care marketplace. Pressures to reduce costs might push sicker and more disabled persons into lower levels of care. As the market and delivery system changes, consumers show concern about the appropriateness, cost, and quality of services delivered in each of long term care settings. These forces Federal and State Governments to look for ways to improve long term care regulation and reimbursement system.

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**AN EXPLORATORY STUDY OF CONSUMERS  
PERCEPTIONS AND OPINIONS PERTAINING TO  
SPORTS INJURIES – OPPORTUNITIES FOR  
PREVENTIVE MEDICINE, REHABILITATIVE  
SERVICES, AND SPORTS RELATED PROTECTIVE  
GEAR MARKETERS**

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**ABSTRACT**

*Millions of consumers in the US play some type of sport or are involved in strenuous physical activities on a regular basis. Many of these consumers also suffer injuries due to these activities. This study was devised to determine consumers' perceptions, opinions, and beliefs associated with the injuries that they or someone that they know sustained. This study can be beneficial to health professionals involved in preventive and rehabilitative medicine, as well as, sports related protective gear marketers.*

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**INTRODUCTION**

In the US, about 30 million children and teens participate in some form of organized sports, and over 3 million injuries occur each year. Millions more of adults are also involved in sports leagues and get exercise by playing sports. Every injury causes some loss of time and reduces or eliminates a person's abilities to function normally. In 2003 more than 9.5 million people visited orthopedic surgeons because of knee problems, some of these visits were due to overuse in exercise or injuries received in sports or exercise activities (AAOS Website). Almost one-third of all injuries incurred in childhood are sports-related injuries. The most common injuries among children and youth are sprains and strains (The Children's Hospital of the King's Daughters).

Sports injuries describe injuries that occur while participating in organized sports, competitions, training sessions, or organized fitness activities. Some of the reasons or causes of injuries among adolescents are improper training or technique, lack of appropriate footwear or safety equipment, and rapid growth during puberty (Kid's Health, Dealing with Sport's Injuries). Adults usually have a better knowledge of the sports that they are involved in, but still sustain injuries because of inappropriate equipment and incorrect technique.

There are two types of sports injuries: acute and chronic. Acute injuries occur suddenly when playing or exercising. Sprained ankles, strained backs, and broken bones are example of acute injuries. Sprains are one of the most common sports injuries, accounting for between almost 28% of all injuries that occur during athletic activities or exercise (Kid's Health, Overweight Athletes). Anterior cruciate ligaments injuries are most common in sports that require quick pivots, jumps and sudden stops and starts - including basketball, volleyball and soccer (Medline Plus Website). Concussions are usually caused by a jolt or hit to the head and can have serious effects (CDC Website). According to the American Academy of Orthopedic Surgeons, there are about 31 million visits to physicians for Back Problems, 19 million visits for Knee Problems, 14 million visits for Shoulder Problems, and 11 million visits to physicians for Foot and Ankle Problems. Not all these were directly sports related, but these statistics show how great of need there is to try to prevent injuries if possible (AAOS, Orthopedic Fast Facts). Chronic injuries are caused by overuse and could happen after you are involved in a sport or exercise for a long duration of time (NIAMS Website). Once a person has been injured, extra caution and awareness is necessary to avoid re-injury. Re-injury occurs when a person returns to the sport or activity before a previous injury has

sufficiently healed (Quinn, 2006). Returning too soon could place stress upon the injury and forces the body to compensate for the weakness, which can cause an injury another body part or aggravate the original injury (Kid's Health, Preventing Sport's Injuries).

Learning ways to prevent injuries are important steps for everyone involved in physical activities whether it is organized competition or simple exercises with friends. Yet less than 42 percent of U.S. high schools have access to a certified athletic trainer (ATC) to teach student athletes how to prevent injuries and to recognize and treat the injuries that do occur (NATA Website). Prevention is actively trying to prepare for sporting events and exercises and includes such steps as: receiving a complete examination from a medical doctor, using proper attire and equipment during the activities, being acclimate to the environment, avoid extreme heat or cold-related stresses, maintain hydration or fluid levels, training correctly, warming-up and stretching, rehabilitating any existing injuries completely before returning to competition or activity (The Cleveland Clinic Health Information Center Website, Preventing Sports Related Injuries).

### **Sports Injury Statistics**

The National Athletic Trainers' Association did research with over 100 schools from 1995 to 1998 to gather information about sports injuries which will be one large source to compare this study's finding against. Some of the data was taken from the NATA website:

#### **Baseball/Softball**

Other important results of the study show female softball players are more likely to be injured while fielding (32.4%) than their male counterparts in baseball (19.4%). Injuries to the player's forearms, wrists or hands account for 25.1 percent of baseball injuries and 24.2 percent of softball injuries. Only 10 percent of the baseball and 9.3 percent of the softball injuries were re-injuries (NATA Website)

#### **Basketball**

Results indicate sprains (44.2% for girls; 44.6% for boys) are the most common injuries and are most frequently incurred in the ankles and feet (36% for girls; 38.3% for boys) (NATA Website). Participants average 14 injuries per 1000 hours of activity (Travisano, 2006). More than 205,400 children ages five to 14 were treated in hospital emergency rooms for basketball-related injuries (LGH Website).

#### **Football**

The hip/thigh/leg continues to be the area of the body most frequently injured (17.3%), followed by the forearm/wrist/hand (15%), knee (14.5%), and ankle/foot (14.2%). General trauma is the most common type of injury (29.3%), with sprains following (27.4%) and then strains (21.7%) (NATA Website). Over 250,000 football players, approximately 15 percent, suffer a concussion each season (MEDEM Website). One study's results were 32% of college football players would have at least one injury per year (Zemper, 1989). Almost 185,700 children ages five to 14 were treated in hospital emergency rooms for football-related injuries (LGH Website).

#### **Soccer**

Study results indicate that kicking is the most common cause of soccer injuries (23.4% for females; 19.3% for males), followed by dribbling (14.3% for females; 16% for males) (NATA Website). About 75,000 children ages five to 14 were treated in hospital emergency rooms for soccer-related injuries (LGH Website).

#### **Age Groups**

All ages are affected by sports injuries. More than 775,000 children ages 14 and under are treated in hospital emergency rooms for sports-related injuries each year (LPCH Website). A recent study found that sports related injuries are the number two reason that individuals from the Baby Boomer generation visit the doctor and sports related injuries rose 33% in the 1990s (Olick, 2006). The more than 1 million sports-related injuries to the baby boomers in 1998 cost approximately over \$18.7 billion (CPSC Website, Baby Boomers). People over the age of 65 had over 53,000 sports-related injuries in 1996, an increase of over 50% from 1990 (CPSC, Sport-related injuries). This exploratory study will try to find information regarding what types of injuries are common among those surveyed, what types of rehabilitation was needed to correct the injury, was there an attitude change toward the sport after the injury, and what was the cost and timeframe of the rehabilitation.

**Problem Statement**

What are people’s perceptions and opinions of sport’s injuries short-term and long-term effects?

**Research Objectives**

The purposes of this exploratory study are to find:

- The nature of injury suffered
- The change in people’s attitude toward the sport after the injury
- The types of people who suffered the injury
- The cost and length of rehabilitation.

These four objectives shaped and dictated the design, implementation, and completion of the research. Due to the time and resources available, not all the research objectives will be met in this study.

**Research Methodology and Design**

In the first stage, research was done to identify an opportunity and a questionnaire was created to be used to gather the data. In the second stage, surveys were distributed and collected through a convenience sample. In the third stage, data was entered into a SPSS program and analyzed. The type of sample was a non-probability, convenience sample in the Charleston, WV as well as people in the Leesburg, FL. A wide range of people over the age of 18 from different age groups, educational levels, and income levels were sampled. A total of 250 surveys were distributed and 176 completed surveys were collected resulting in a 70.4% response rate.

**Results and Discussion**

**Frequency Analysis of Questions**

Table 1: Frequencies and Valid Percents

<b>Demographic Information</b>	<b>n</b>	<b>%</b>
<b>Gender</b>		
Male	62	35.2
Female	114	64.8
Total	176	100.0
<b>Age</b>		
18 - 29	86	48.9
30 - 39	32	18.2
40 - 49	50	28.4
50 - 64	8	4.5
65 - older	0	0
Total	176	100.0
<b>Household Income</b>		
\$0 to \$24,999	40	23.8
\$25,000 to \$49,999	44	26.2
\$50,000 to \$74,999	47	28.0
\$75,000 or more	37	22.0
Total	176	100.0
<b>Race</b>		
Caucasian	164	96.5
African-America	2	1.1

Asian	1	0.6
Hispanic	2	1.1
Other	1	0.6
Total	170	100.0
<b>Education Level</b>		
Some High School	6	3.4
High School/GED	72	40.9
Associate's Degree	17	9.7
Bachelor's Degree	74	42.0
Master's Degree	4	2.3
Doctoral Degree	3	1.7
Total	176	100.0
<b>Activity Level Per Month</b>		
0 to 4 times	57	34.8
5 to 9 times	37	22.6
10 to 14 times	32	19.5
15 or more times	38	23.2

There was a higher percentage of females that participated in the survey probably in part because of two Marshall University classes of nursing students participated in the surveys and the majority of the students were females. Almost 49% of those in the sample were in the age group of 18 to 29. This high percentage is again because of the large number of students who participated in the survey. The income levels are very balanced, but with 50% making \$50,000 or more, this sample is above the US averages probably due to the fact that many surveyed had a higher level education than the average US citizen. More than 96% of the respondents were Caucasian which is consistent with WV distribution of race. Some data was collected in Florida, but it was less than 10% of the total sample. Forty-six percent of the respondents had a Bachelor's Degree or higher which is above average compared to the US and WV. This high percentage is related to the two graduate level classes which participated in the survey. The number of times people exercised or were physically active was pretty evenly distributed. One interesting finding is that almost a quarter, 23.2%, of the respondents was active 15 or more times a month.

Table 2: Valid Percents

<b>Respondent Answers from Section 2</b>	<b>Yes</b>	<b>No</b>
Have you ever participated in an organized sport?	87%	13%
Did you have any major sport related injury from age 12 to 18?	30%	70%
Did you treat the injury yourself?	48%	52%
Did a trainer treat the injury	28%	72%
Did a non-healthcare professional treat the injury?	19%	81%
Did a licensed professional treat the injury?	54%	46%
Did you have Medical or Health Insurance when you got injured?	77%	23%
Would you encourage people to participate in the sport in which you were injured?	89%	11%

Over 87% of respondents had participated in an organized sport with more than 60% getting injured during a sporting event. This emphasizes the importance of prevention and education about sports injuries and their effects.

Almost a third, 30.1%, of the respondents had a major sports related injury during their middle school and high school years. This could be important information for coaches, principals, trainers, and parents of students involved in athletic events. The learning process in sports has risks as individuals learn correct techniques. This table also discusses the ways respondents were treated and if they needed to go to the emergency or have x-rays. Only 76.7% of respondents had Health Insurance which is a small picture of a larger problem our country and politicians are trying to find an answer for. The lack of Insurance did not seem to deter respondents from participating in physical activities.

Table 3: Valid Percents

Questions about Sports and Risk - Respondents Ratings	SA	A	N	D	SD
Physically participating in <b>Bicycling</b> too dangerous.	1%	2%	10%	44%	43%
Physically participating in <b>Basketball</b> is too dangerous.		1%	9%	<b>49%</b>	<b>40%</b>
Physically participating in <b>Football</b> is too dangerous.	<b>2%</b>	<b>13%</b>	22%	38%	24%
Physically participating in <b>Baseball/softball</b> is too dangerous.		4%	15%	43%	38%
Physically participating in <b>Soccer</b> is too dangerous.		2%	20%	41%	37%

Respondents agreed 15% that Football is too dangerous to physically participate in making it viewed as the most risky among the five, and disagree 89% that Basketball is too dangerous making it viewed as the least risky of the five listed. Interesting, among children ages 5-14, bicycling injuries cause the most emergency room visits per year. Football is responsible for thousands of injuries a year for high school and college athletes, but beyond age 22, the number of football injuries decreases dramatically (Zemper, 1989).

Table 4: Valid Percents

Questions about Sports and Risk - Respondents Ratings	SA	A	N	D	SD
People older than 18 without health insurance should avoid participating in the sports listed in the table above.	6%	17%	24%	32%	21%
If I suffered an injury, I would physically participate in that sport again after I recovered.	42%	46%	9%	2%	1%
If I was injured and my rehabilitation took 6 months, I would physically participate in that sport again.	26%	32%	25%	13%	5%
If I was injured and my rehabilitation took 3 months, I would physically participate in that sport again.	28%	40%	18%	10%	3%
If I was injured in a sporting event or practice, I would let my children physically participate in that sport.	35%	49%	14%	1%	1%

Twenty-three percent of respondents feel that people 18 and older should avoid participating in the five sports listed above. Insurance seems to change the attitude of what is too dangerous because even football only had 15.5% agree that it was too dangerous to participate in. It would be interesting to compare answers to these questions to answers of similar questions given to a group of people from a country with a Universal Health Care

System to see if perception of “too dangerous” were statistically different. Almost 9 out of 10 people, who responded, would physically participate in a sport again after they recovered from the injury.

The severity of the injury definitely impacts whether a respondent feels they would participate in a sport again (87.9% versus 57.5%). Again the results show that severity and length of rehabilitation had an impact on future involvement. Three months rehabilitation, 68.8% would participate again versus 6 months of rehabilitation, 57.5% would participate again. It would be interesting to test the time periods of 9 months, 12 months, as well as 1 month to see this trend continued.

This is an interesting result that more than four out of five respondents (83.9%) would let their children physically participate in a sport they were injured in. This would also be interesting to study more in-depth to find if degree of injury would change the attitude of the respondent.

### Chi-Square Analysis of Questions

The purpose was to find how gender, age, income, race, and education levels related to perceptions and opinions of sports injuries short and long-term effects.

#### Gender Analysis

Table 5: P-Value = 0.024: Currently, how many times a month are you physical active in a sport or exercise program?

<b>P-Value = 0.024 Gender and Activity Levels</b>	<b>0-4 Times</b>	<b>5-9 Times</b>	<b>10-14 Times</b>	<b>15 or More Times</b>
Male	22%	21%	22%	35%
Female	41%	24%	18%	17%

The results from Table 5 show a significant difference in how many of the male respondents (34.5%) were physically active 15 times or more a month compared to the female respondents (17.0%). It also showed that almost twice as many female (41.5%) exercised 4 or less times a month compared to males (22.4%). Being more active could be part of the reason why males had more trips to the emergency and more sports injuries.

Table 6: P-Value = 0.003: Did you have any major sport related injury from age 12 to 18?

<b>P-Value = 0.003 Gender &amp; Sports Related Injury</b>	<b>Yes</b>	<b>No</b>
Male	44%	56%
Female	22%	78%

Table 7: P-Value = 0.020: If I were injured and my rehabilitation took 6 months, I would physically participate in that sport again.

<b>P-Value = 0.020 Gender &amp; After 6 Month Rehab Would Participate Again</b>	<b>SA</b>	<b>A</b>	<b>N</b>	<b>D</b>	<b>SD</b>
Male	40%	26%	16%	13%	5%
Female	18%	35%	30%	12%	5%

Table 7 showed that 66.1% of males would participate in a sport even their rehabilitation took 6 months compared with 52.7% of females. This shows a statistically significant difference in opinions between genders.

This is interesting because male respondents had been injured more often and had been more limited because of those injuries than female respondents.

**Age Analysis**

**Table 8: P-Value = 0.010:** People older than 18 without health insurance should avoid participating in the sports listed in the table above.

<b>P-Value = 0.010 Age and Insurance</b>	<b>SA</b>	<b>A</b>	<b>N</b>	<b>D</b>	<b>SD</b>
18 - 29	4%	15%	25%	33%	18%
30 - 39	3%	3%	36%	29%	29%
40 - 49	12%	22%	16%	28%	22%
50 - 64	13%	50%	25%	0%	12%
65 - Older					

The Chi-square testing of “Age” with survey answers did find one statistically significant set of results with Table 39 dealing with whether people 18 or older should avoid participation in Basketball, Football, Baseball/ Softball, or Soccer if they did not have health insurance. Thirty-four percent of the 40-49 age group respondents agreed and an even higher 62.5% of the 50-64 age groups agreed. Those percentage rates were much higher than the 6.4% of the 30-39 age groups and the 18.8% of the 18-29 age groups. The older groups probably have seen more medical bills and more experience with healthcare organizations and doctors, so they realize a sports injury could cost much more than some time off from a favorite exercise or activity. Insurance seems to be a factor in deciding to be active in sports or not.

**CONCLUSIONS**

In order to provide the most effective treatment, it is imperative for preventive and rehabilitative health professionals to find the nature of injury suffered. It was interesting to find that the respondents reported having three times as many acute injuries than chronic injuries. The most injured part of the body was the leg or foot and second most was the arm or hand. The results showed that male respondents were more likely than females to receive a sports injury. Income level, race, education level, nor age had any significant difference in the amount of sports injuries suffered. Almost two-thirds of respondents indicated that they had less than 1 month of rehabilitation. However, the value of sports injury can only be appreciated when you look at the fact that more than 95% of respondents indicated that they also missed some part of their work or school schedule. Fortunately, three out of four respondents who said they had a sports injury also had health insurance at the time of the injury. Direct dollar amounts were not found in this study, but would be interesting in future studies.

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## **BIOMETRICS IN HEALTH CARE: A CONSUMER PERSPECTIVE**

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### **ABSTRACT**

*Biometrics is receiving a lot of attention now for its ability to do what passwords and PINs could not do. This paper was designed to assess if the consumers were fearful of the idea of biometrics as another forced intrusion into their private lives as well as how much knowledge do consumers have about biometrics and the potential benefits of it. The results of this study will provide some insights particularly at the time of determining the appropriate marketing strategies of this technology in the near future.*

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### **INTRODUCTION**

For patients and providers alike, biometrics is fast becoming the present rather than the future of healthcare. Biometrics, by which we mean the use of an individual's physical or behavioral characteristic to authenticate that individual's identity (Stapleton, 2001), is already being adopted by a variety of health care organizations world wide to protect health records, to facilitate easier access to medical information, to defeat such information security threats as "key logging," to develop new measures for combating bio-terrorism, and to defend healthcare consumers against fraud -- among a wide variety of applications.

Imagine if you will that Mary M. Smith needs a copy of her mammography films to take to her primary care physician. When she comes into Hospital X to pick up the films, she simply places her finger on the scanner and her x-rays are brought up on the screen. The films can now be burned to a compact disc for her primary care physician to review and there is no risk that she received Mary B. Smith's mammograms by accident.

Or envision a hospital maternity ward fitted either with fingerprint or iris readers that would allow access only to authorized personnel and registered parents and family members. How many cases of the kidnapping or mistaken identity of newborn infants might be eliminated (Hess, 2005)?

Or even further, conceive of how many inaccurate or fraudulent health insurance claims might be prevented through the use of biometrics at the time of patient registration (Hess, 2005). All of these examples are merely illustrative of the many possibilities.

Despite growing adoption and these numerous possibilities, to date there have been surprisingly few research investigations about biometrics, particularly from the viewpoint of healthcare markets and consumers. This purpose of this paper is to partially correct this omission. More specifically, in this paper we consider three important questions about biometrics in healthcare:

1. How aware of biometrics are healthcare consumers?
2. Are healthcare consumers interested in utilizing biometrics for their medical information?
3. With what kinds of biometrics are healthcare consumers most comfortable?

Following a brief review of some existing literature on this topic, we discuss the methods of and findings from a recent investigation of ours that sought answers to these questions. We then give consideration to the implications of our results for the future adoption of biometrics in healthcare.

**BACKGROUND INFORMATION**

Among the topics considered in the existing literature on biometrics is that of “best practices” or what has been termed the “ideal system.” Jain & Pankanti (2000), for example, have suggested that the ideal biometric system should be universal (each person possesses the characteristic), unique (no two persons should share the characteristic), permanent (the characteristic should neither change nor be alterable), and collectable (the characteristic is readily presentable to a sensor and is easily quantifiable). When developing a “practical biometric system,” these authors go on to note, one must consider issues such as:

- Performance: the system’s accuracy, speed, robustness, resource requirements, and operational or environmental factors that may affect its accuracy and speed;
- Acceptability: the degree to which people are willing to accept for a particular biometric identifier in their daily lives;
- Circumvention: how easy it is to fool the system through fraudulent techniques (Jain & Pankanti, 2000).

In the tables immediately below, two rather widely adopted biometric systems, fingerprint identification and iris scans, are compared according both to the ideals suggested by Jain and Pankanti as well as to the practical issues just discussed.

**Table 1. Comparison of an ideal biometric system (Jain & Pankanti, 2000).**

<b>Biometrics</b>	<b>Universality</b>	<b>Uniqueness</b>	<b>Permanence</b>	<b>Collectability</b>
<i>Fingerprint</i>	Medium	High	High	Medium
<i>Iris</i>	High	High	High	Medium

**Table 2. Comparison a practical biometric system (Jain & Pankanti, 2000).**

<b>Biometrics</b>	<b>Performance</b>	<b>Acceptability</b>	<b>Circumvention</b>
<i>Fingerprint</i>	High	Medium	High
<i>Iris</i>	High	Low	High

Fingerprint verification is the oldest modern biometric. It looks at the arrangement of tiny details in the ridges within a print’s larger features, such as whorls, loops, and arches. Each person’s fingerprints are considered unique and virtually unchallengeable (Auer, 2006). Fingerprint enrollment takes less than two minutes. The patient normally has both index fingers scanned, followed by a digital photo taken to improve visual confirmation. Then a couple of identifiers such as a health insurance card and driver’s license are scanned. Once the initial enrollment is complete, the patient will place her/his finger on the scanner and in a couple of seconds the database is accessed and the medical records are available to a health care provider (Hess, 2005).

Iris scanning in comparison involves quite a different methodology. The iris has random patterns of freckles and ridges. Typically, the human iris has more than 250 “points” of reference as compared to fewer than 60 for other types of biometrics. For this reason, iris scanning is considered the most reliable biometric method. Further, Iris recognition is unaffected by users wearing glasses or color contacts, and even by people who have had laser eye surgery (Auer, 2006).

In addition to ideal qualities, practical issues, and methods, the professional literature on biometrics in healthcare also includes consideration of management implementation challenges. Chandra and Calderon (2005), for example, have identified six biometric challenges one must face when deciding whether or not to implement a biometric system. The first challenge is business or financial issues. Financial feasibility is an issue because the direct costs of implementing a biometric authentication system are immediate, tangible, and measurable. The benefits of such a system are qualitative, long-term, and difficult to estimate monetarily.

The second challenge identified by Chandra and Calderon consists of operational issues. This challenge often emerges during enrollment, authentication, and storage processes in the biometric authentication system. For example, the security provided by biometrics is a function of controls that are embedded in the enrollment process. Therefore, a poorly enrolled system does not allow for effective security or trustworthiness of biometric authentication.

The third challenge is that of system issues. These issues include the effect of technology on business processes, systems design, and system performance. At present, for example, it is rather unclear what the effects of cyber attacks, downtime, and major disasters will have on a biometric authentication system.

The fourth challenge identified by Chandra and Calderon is that of "people issues." At base, people distrust biometric authentication systems. "Civil libertarians stigmatize biometrics as being intrusive by nature, a potential tool for mass profiling, and an indication of the erosion of individual privacy." Biometrics is unlike conventional identifiers such as passwords or PINs because they are inextricably linked to a specific person and cannot be changed, replaced, or modified. Users will need help to understand the technology and overcome their concerns about privacy. Biometric technology still seems to be too intrusive to many people (Vijayan, 2004).

The fifth challenge is that of legal issues. There is a lag between advances in technology and the law in regards to biometric technology. One major concern is the reliability of data in biometric authentication systems. There is a minute amount of independent verification of the performance of existing biometric systems. Another major concern is that not every individual in an organization will have the prerequisite physiological or behavioral traits for using biometric technology. There have been cases where certain users do not have sufficient details on their fingerprints for accurate measurement and storage by a biometric device. Another situation organizations could find themselves in is when certain users do not have the underlying biometric, for instance fingers or eyes. It would be expected that the Americans with Disabilities Act would require organizations to accommodate those users. Such accommodations could potentially increase the costs of implementing biometric technology.

The sixth and final challenge consists of technical issues. One inevitable challenge is natural aging or unanticipated changes in physiological characteristics, for example, an accident or surgery where an individual may lose a finger, a hand, or an eye. In this case the individual would have to be re-enrolled in the system, which could increase costs (Chandra & Calderon, 2005).

Such management implementation issues notwithstanding, the health care industry is conceivably the business best suited to benefit from biometric technology. It is imperative for health care professionals to protect patient safety as well as patient information and comply with strict state and Federal regulations. Unlike other business industries, mistakes in health care usually lead to malpractice litigation and increased scrutiny by state and Federal regulators (Cohen, 2004). Biometrics, such as fingerprint verification and iris recognition, offers health care professionals as well as health care consumers numerous benefits. Using biometrics to identify patients, a hospital can "facilitate patient admission and speed access to prior medical records; eliminate duplicate medical records; establish a uniform method of identification across all medical service programs; identify unconscious or impaired patients, and detect or deter the misuse of medical services (Schell, 2000)."

Biometrics also offers the health care industry a means to combat fraud (Messmer, 2004). "Catholic Health Systems in Buffalo, New York and the Advanced Ambulatory Surgical Center in Chicago have patients place a finger on a biometric scanner during the front-desk registration process. The fingerprint image is captured electronically and made part of the patient's permanent record in a database that is accessible over an internal LAN. If another individual at a different time attempts to use the same health insurance card, the transaction is stopped (Messmer, 2004)." Biometric fingerprint verification thus has been an effective tool in combating insurance fraud.

Decreased registration time is another frequently mentioned advantage of biometrics for both the health care professional and patient. Ideally, a database would exist that stored a patient's information. For example, when a patient registered for surgery or an ultrasound, his/her insurance information would be on file and even their order for the scheduled procedure would be on file. A biometric registration system could prevent the patient from having to dig in his/her purse or pockets trying to find personal identification, a health insurance card, and orders from the referring doctor. Identifying patients by either their fingerprint or iris could automatically reduce wait times during

registration. Moreover, registration clerks could be able to register more patients in a shorter period and do so with greater accuracy.

Biometrics is also likely to prove helpful before a patient undergoes treatment. A quick scan of the patient's fingerprint or iris would allow doctors and nurses to make certain that they have the correct patient before surgery or other procedures (Messmer, 2004). The same is true with regard to the reduction of medication errors. Medical mistakes are just what they are, mistakes made by health care professionals, and biometrics are potentially an important means of preventing such mistakes.

In addition, the emergency department of most medical facilities is quite a busy place with numerous people coming and going in a given 24-hour time period. "John Doe's" are not uncommon in the emergency department. Having a biometric system readily available to the emergency department staff would assist in identifying many of them. Not only could such John Doe's be identified, their medical histories could be made readily available to the treating doctors and nurses. If the John Doe were a child or minor, then parents could be notified immediately.

Biometrics, of course, is accompanied presently by the push for electronic medical records. Indeed, biometrics will not be efficient or effective without them. Such records will allow health care professionals and facilities to operate more resourcefully and successfully than the traditional paper chart method.

Dr. Dwayne Baharozian (2005) has established ten reasons why electronic medical records are better. Reason 1: Patient records are always accessible from anywhere within the office. This eliminates the cumbersome task of finding the chart for doctors and other health care professionals. It also frees up office space because that space is no longer needed to store charts. Reason 2: Electronic chart notes will always be legible. This eliminates a variety of problems stemming from reading illegible hand-written notes. Detrimental medical mistakes can now be avoided. Reason 3: The seamless integration with electronic refracting systems allows for instantaneous downloading of highly accurate, reproducible refraction. Electronic refracting systems provide quick, standardized, and straightforward approach to mundane yet important task of determining a patient's eyeglass prescription. Reason 4: Many electronic medical record programs can generate referral letters from the exam data, which then can be custom edited in the exam room. These letters can then be mailed, faxed, or e-mailed to the doctor to whom the patient is being referred. This enables prompt and effective communication between doctors. These letters also help reduce transcription cost. Reason 5: Many electronic medical record programs integrate with various testing equipment. For example, a patient is admitted to the hospital and had a chest x-ray taken while he/she was in the emergency room. With this integrated system, the admitting doctor can view the chest x-ray on the floor without having to go to the radiology department. Such a system will provide instant, convenient access to these types of important ancillary studies, which will lead to superior care and better patient outcomes. Reason 6: Electronic medical records allow for expeditious review of vital patient data. With the click of a mouse, the entire patient's medical history can be evaluated by the doctor, including labs and x-rays. Reason 7: Medication prescriptions can be quickly transmitted to the patient's pharmacy. This eliminates the need for a paper prescription. The pharmacy can fill the prescription when it is received allowing the patient to simply pick up medication without waiting for the prescription to be filled. Furthermore, some electronic medical record programs will determine if there is any contra-indication in prescribing a specific medication. Reason 8: Electronic medical records have built in features to ensure accurate and complete coding compliance. The software is able to determine the billing code to reflect the appropriate patient exam performed. Reason 9: Once a facility has completely implemented an electronic medical record system, patient visits can be performed at a slightly faster pace than with paper. Reason 10: The majority of patients who have been evaluated by a doctor using electronic medical records feel they are receiving an exceptionally high level of care.

On the other hand, there is also a distrust of electronic medical records as is the case with biometrics. One advocacy group that is opposed to health information technology legislation is the Christian Coalition to the American Civil Liberties Union. They claim that such technology could reduce patient privacy rights. They also feel that patients should be the sole owner of their healthcare information. The Coalition is urging lawmakers to back legislation to give patients the right of consent and the ability to opt out of having their records in any national or regional electronic health system. They also want Congress to give patients the rights to segregate their most sensitive medical records, require audit trails of all disclosures, deny employers access to medical records and require patients be notified of any suspected or actual privacy breach (DoBias, 2006).

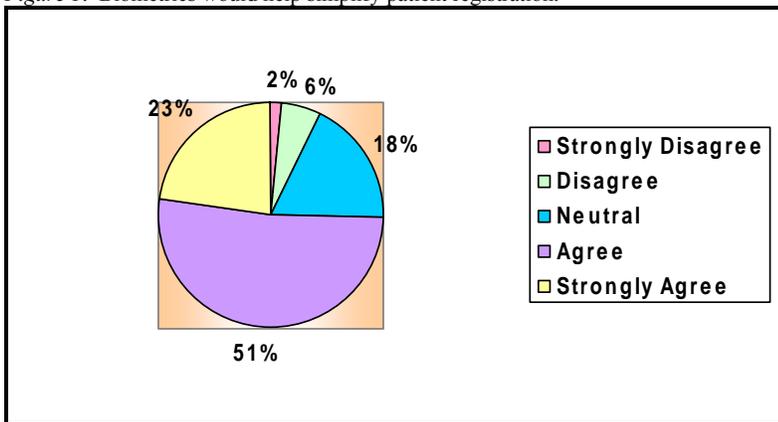
Despite these privacy concerns and despite the apparent promise of biometrics as seen by experts in the field, there remains remarkably little information about the feelings and likely reactions of the ultimate healthcare decision maker – the consumer – to biometrics. Are consumers fearful of the idea of biometrics as another forced intrusion into their private lives or do they see immediate personal benefits to themselves? How much knowledge do consumers have about biometrics and the potential benefits of it? Do consumers see potential uses of biometrics for themselves? What types of consumers are more likely to have positive feelings about biometrics? We turn now to our own research, which was intended to provide partial answers to these important questions.

### STUDY DESIGN AND METHODS

Data were gathered by means of a standardized survey instrument from adult (over age 18) subjects selected by convenience sampling techniques. The survey instrument itself received prior approval from the Marshall University IRB. Completed interviews were obtained from a total of 176 subjects, including men and women, persons ranging in age from 18 to over age 56, and individuals from varying racial and educational backgrounds. Once collected, the data were analyzed by means of SPSS utilizing standard statistical models appropriate to the level of measurement and to the number of variables in the problem under consideration.

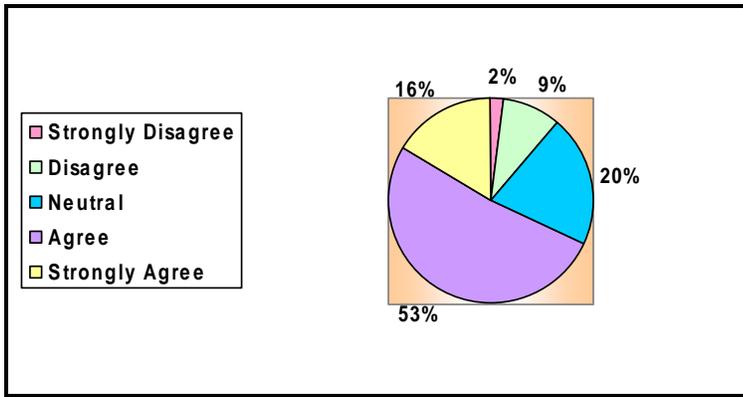
### RESULTS

Figure 1. Biometrics would help simplify patient registration.



The first set of survey responses we analyzed were derived from questions that asked respondents their views about how biometrics would be helpful in the healthcare settings they utilize. For example, one such question ask research subjects to agree strongly, agree, disagree, strongly disagree or express being neutral about the statement that “Biometrics would help simplify patient registration.” The results to this question are shown in Figure 1 below.

Figure 2. Biometrics would help prevent against health care insurance fraud.



Other similar survey questions asked subjects their views about biometrics protecting against insurance fraud; about increasing the security of confidential patient information; and about reducing costly medical mistakes made by health care providers. The responses to these questions are shown below in Figures 2, 3, and 4, respectively.

As is evident from these several figures, the healthcare consumers we interviewed were quite sanguine and quite positive about biometrics. Indeed, a sizeable majority expressed support (agreement or strong agreement) for the ideas that biometrics would help to simplify patient registration (Figure 1), would help to prevent health insurance fraud (Figure 2), would increase the security of confidential patient information (Figure 3), and would reduce costly medical mistakes by providers (Figure 4).

Figure 3. Biometrics would help increase the security of confidential patient information.

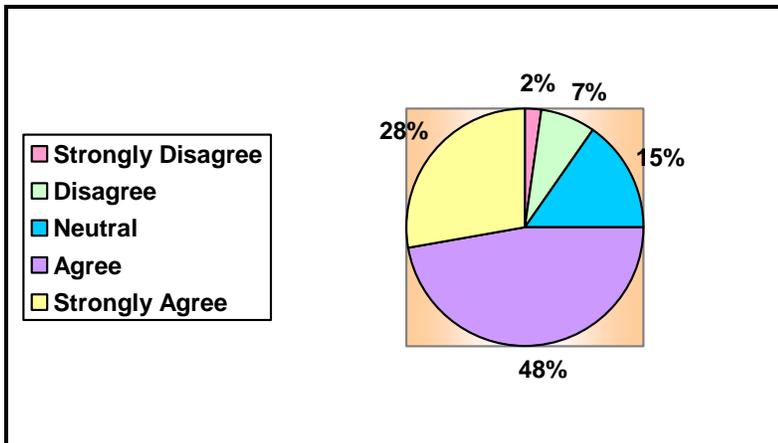
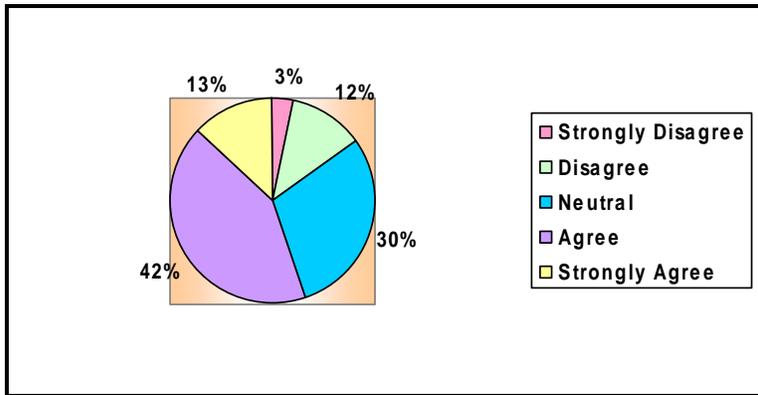


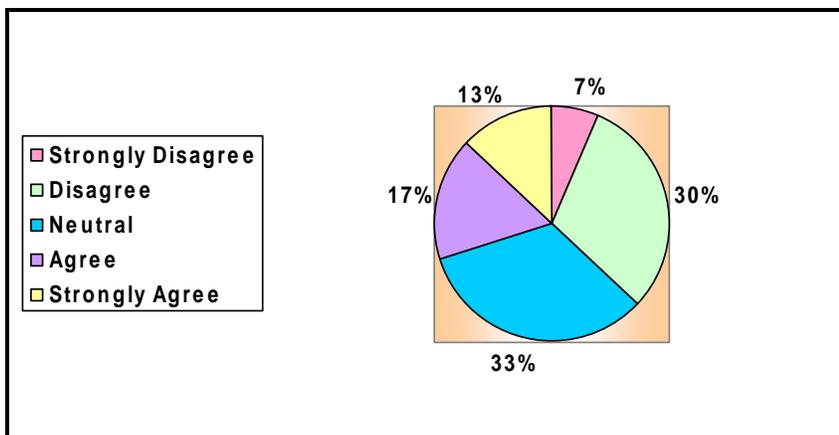
Figure 4. Biometrics would help reduce costly medical mistakes made by health care providers.



After considering the helpfulness of biometrics, we next turned our analytical attention to the potentially sensitive issue of the invasion of patient privacy. To get at this matter, we asked our survey subjects to agree (again, strongly, or just agree) or disagree (strongly, simply disagree, etc.) with the statement, “Biometrics would be an invasion of privacy, i.e. health insurance companies would have access to my medical history.” The results of this query are shown below in Figure 5.

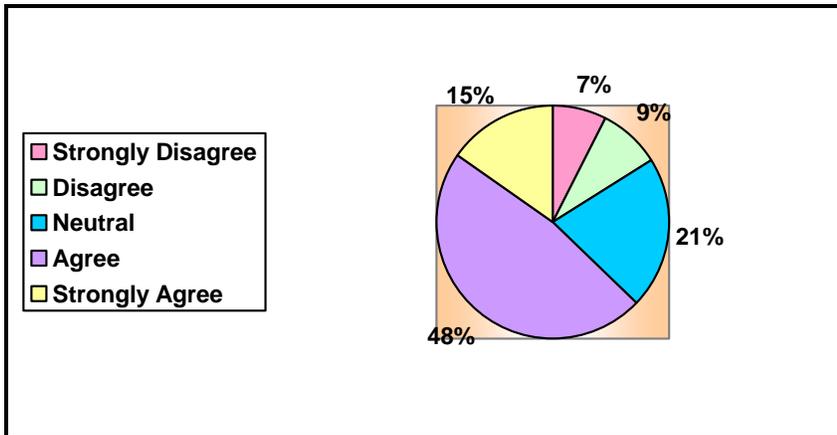
As is evident from this figure, the single modal response was a mixed one, that is, one of neutrality. After that, more subjects disagreed in some form (strongly or otherwise) with the statement than agreed (in some form). Nonetheless, the results show a rather substantial concern with the personal privacy problem potential of biometrics.

Figure 5. Biometrics would be an invasion of privacy, i.e. health insurance companies would have access to my medical history.



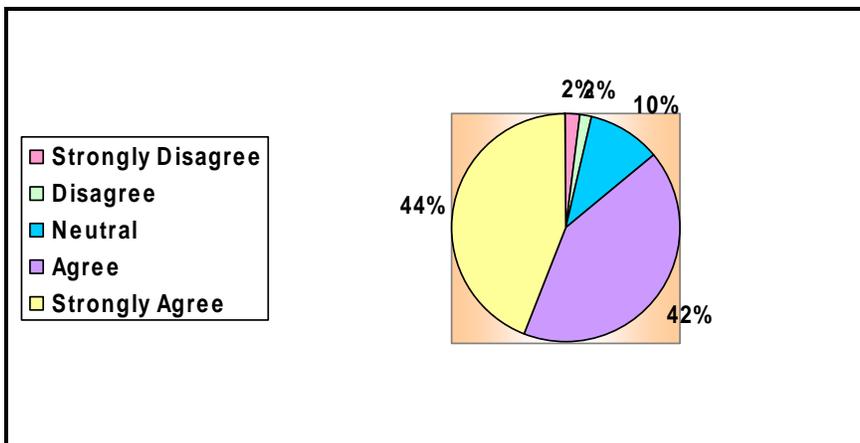
To explore further these feelings, we asked two additional questions of our respondents. The first was, “I would feel safe having my medical information stored in a database that was accessed with my fingerprint.” The second was, “I would like to see limits on the amount of information available, i.e. bank account information.” Responses to these questions are shown below in Figures 6 and 7.

Figure 6. I would feel safe having my medical information stored in a database that was accessed with my fingerprint.



The findings reported in Figures 6 and 7 provide an interesting, if somewhat unclear, additional picture. Specifically, our subjects reported in rather sizeable percentages that they felt safe in having their medical information stored in a database that could be accessed via their own fingerprint. They also reported in substantial numbers that they would like to see limits on information availability. Our subjects seem to see fingerprint identification as a means of information protection. Yet, they also favor limiting information availability. Are these findings indicative of a concern for further protecting personal (especially financial) information as well as of a belief that fingerprint identification affords such protection? Or are these essentially reflective of a broader concern for “identity theft,” and for better information security?

Figure 7. I would like to see limits on the amount of information available, i.e. bank account information



### CONCLUSIONS AND DISCUSSION

To summarize briefly, the results of our survey of consumers revealed considerable support and optimism regarding the use of biometrics in healthcare. Indeed, the consumers we interviewed indicated that they believe that the use of biometrics would simplify patient registration, help protect against insurance fraud, increase the security of confidential patient information, and reduce costly medical mistakes by healthcare providers. Not surprisingly we believe, our data also revealed some rather considerable concern for invasion of privacy on the part of consumers as

well as an interest in placing limits on information availability. Yet, biometrics, especially in the form of fingerprint identification, also seems to the consumers we studied to be an important information safeguard.

As suggested (above) in our literature review, biometrics seemingly has much to commend it in healthcare. This is true from the viewpoint of cost reduction, enhanced information security, increased quality of care, improved accessibility, and even greater geographic equity of delivery.

Yet, biometrics will never realize its full potential without overcoming what seems to us its greatest hurdle: gaining the trust of individual healthcare consumers. In order for biometrics to overcome this "trust hurdle," the general public will need to be more educated on what biometrics is and what it can do for them. Indeed, healthcare consumers will need to more fully understand both the advantages and the disadvantages of implementing biometrics. If our data are only even approximately correct in this regard, however, consumers are beginning to see its advantages. What principally remains appears to be an association of biometrics in the minds of many with a considerable fear of personal privacy invasion.

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# **CONSUMER PREFERENCES FOR INFORMATION IN ADVERTISING: AN EXPLORATORY CONJOINT STUDY**

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## **ABSTRACT**

*Using conjoint analysis, this study examined people's response to ads with different amounts of information. After examining recruitment advertisements, a high-involvement context, respondents indicated higher interest to pursue an advertised position when there was more information listed in the ads.*

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## **INTRODUCTION**

A topic with important practical implications for advertising pertains to the amount of information ads should include. The issue is especially relevant as marketers want to break through the clutter of numerous competing messages and have their ad noticed. Intuitively, it makes sense that consumers may perceive ads with higher amounts of information as less exciting and, therefore, may be more likely to skip them. For example, Jones and Mullan (2006) found that, at least for older consumers, providing large quantities of information may increase cognitive demands without producing additional benefits.

We use an exploratory conjoint study to examine the issue within a different context, recruitment advertising. In this case, the "consumer" is a job applicant. We specifically look at different types of information included in recruitment ads and respondents' preference for more or less information in each case.

## **BACKGROUND**

Research on advertising effectiveness has primarily focused on consumer response to ads for goods or services (e.g., Franke, Huhmann and Mothersbaugh 2004; Jones and Mullan 2006; Salvador and Sicilia 2004). Within this context, Franke et al. (2004) examined specifically the relationship between advertisers' provision of information in print ads and consumers' readership of such information. The authors found that there is a different type of relationship between advertising information provision and readership depending on the type of advertised product: positive relationship for search products (products for which "consumers can gather sufficient information during search to make an informed buying decision," p. 22), negative relationship for convenience products (which are "frequently purchased . . . , inexpensive, widely available, purchased with little effort, and consumed in a short time," p. 22), and non-significant relationship for shopping products (products that are "purchased infrequently" and, thus, "consumers have less information from personal experience to draw on," p. 22). Interestingly, their study showed that ads for search products on average had less information than ads for shopping products leading the authors to conclude that, when promoting search products, advertisers may be providing less information to consumers than what consumers would like.

Such findings are consistent with the premise that involvement positively influences consumers' preference for information (Petty, Cacioppo, and Schumann 1983). The Elaboration Likelihood Model (ELM; Petty and Cacioppo 1981) suggests that highly motivated consumers would be more likely to elaborate on a message and, consequently, be more likely to seek for "central cues," like information and facts. Conversely, less motivated consumers are less likely to elaborate on a message and prefer "peripheral cues," which are less information-oriented. In an advertising context, this implies that different features of an advertisement may be more or less effective depending on a person's involvement with the issue in the ad. In a high-involvement situation, people will be more likely to seek central cues like extensive information and arguments (Petty et al. 1983).

It is logical to assume that recruitment advertising falls under the category of high rather than low involvement, given that individuals looking through those ads are looking for employment. Research on recruitment ads has examined their effect on “post-hire” variables like turnover and retention (Decker and Cornelius 1979), job performance (Breaugh and Mann 1984), or work attitudes (Breaugh 1981) as well as, to a lesser extent, “pre-hire” variables like job or organization attractiveness, expectancies of offer, or job pursuit (Gatewood, Gowan, and Lautenschlager 1993; Rynes and Miller 1983).

In their study, Gatewood et al. (1993) concluded that the amount of information contained in recruitment advertisements was positively correlated with the applicants’ intent to pursue the advertised position. Similarly, Rynes and Miller (1983) found that the amount of positive information in the ad increased the applicants’ perceived attractiveness of an organization and their interest in pursuing a position. Mathews and Redman (2001) offer an interesting perspective regarding amount of information in recruitment advertising by suggesting that part of the reason why there is a problem with poor sales staff in the United Kingdom is because recruitment advertisements lack information of fundamental importance to potential high-quality applicants.

### **HYPOTHESES**

Our study is an initial exploration on people’s preference for amount of information within the context of recruitment advertising. Previous research in recruitment advertising found more information in such ads influences positively an applicant’s interest to pursue further contact with an organization (Gatewood et al. 1993). Similarly, advertising studies suggest that in high-involvement situations, like looking for a job in this case, consumers prefer ads with more information (Franke et al. 2004; Petty et al. 1983). Given this body of work we expect that:

H1: Participants will prefer advertised positions offered through ads with more information than positions offered through ads with less information.

Along these lines, we expect more information with each of the specific factors included in our recruitment ads to be preferable compared to less information. Specifically:

H1a: Participants will prefer advertised positions offered through ads where information about compensation is mentioned than positions offered through ads where information about compensation is not mentioned.

H1b: Participants will prefer advertised positions offered through ads with more information about the hiring organization than positions offered through ads with minimal or no information about the hiring organization.

H1c: Participants will prefer advertised positions offered through ads with more information about the applicants’ necessary skills than positions offered through ads with minimal or no information about the applicants’ necessary skills.

Also, our study examines potential applicants’ preference for a mode of response to recruitment ads in terms of mail or phone. Previous research suggests that information consumers derive from advertisements is a combination of both explicit information given in the ad and inferences made by the consumer (Gardial et al. 1993). We propose that entry-level job applicants are likely to make inferences regarding a job based on the mode of response offered in the ad; they are likely to infer that jobs in ads asking applicants to respond by mail are better and more serious than ones in ads asking for a phone response. We, therefore, expect that:

H2: Participants will prefer advertised positions offered through ads that require a response by mail than positions offered through ads that require a response by phone.

### **METHOD**

Our study uses conjoint analysis, a multivariate technique that appraises the utility/value of attributes for respondents. This method is often used for estimating consumers’ preferences regarding different products and brands.

Conjoint analysis is based on the premise that consumers evaluate the value or utility of a product or service by combining separate amounts of utility provided by each attribute. It assumes that any set of objects or

concepts is evaluated as a bundle of attributes (Hair, Anderson, Tatham, and Black 1995). The most important advantage of conjoint is that it realistically portrays available choices to consumers in terms of trade-offs among multi-attribute options. On the other hand, it has been criticized for not being able to capture the essence of decision-making in the marketplace by not asking respondents to choose only one of the available options as would be the case for a real consumer product. However, in the context of recruitment advertising and decision-making of job applicants, deciding on only one option at such an early stage is very improbable and unrealistic. Thus, conjoint offers a realistic representation of the actual process that job applicants undergo as they seek employment: examine all options in their area of interest and, based on the information they have and the inferences they make, allocate time and energy in pursuing them.

To decide on what type of information to include in the ads for our study, we reviewed classified ads for entry-level positions in three major newspapers: The Los Angeles Times, The Oregonian, and the San Jose Mercury News. Based on this review, we identified types of information applicable to and likely to appear in classified recruitment ads: mode of response, compensation, description of the hiring organization, and description of the applicant's necessary skills.

We specifically used the full-profile presentation, which is the most popular presentation method in conjoint as it provides a more realistic description of options (Hair et al. 1995). Using a conjoint design computer program, a fractional factorial design of all possible combinations for the aforementioned types of information was produced, generating different combinations. We then prepared fictitious recruitment ads for these combinations.

The independent variables in the ads were operationalized as follows:

**Mode of response:** This variable included the following options: phone response or mail response. Advertisements included either an invitation to call a phone number or included an invitation to send a resume and a cover letter.

**Compensation:** This variable included the following options: stated or not stated. When compensation was stated, ads included a phrase mentioning that salary and benefits were "good" or "competitive." This generic description was used to eliminate any potential biases that a specific dollar amount could have caused. When compensation was not stated, there was no mention in the ads of salary or benefits.

**Description of hiring organization:** This variable included the following three options: detailed, minimal, or none. Ads with detailed descriptions contained three favorable adjectives or phrases describing the organization, like "exciting," "friendly," and "supportive" work environments. Ads with minimal descriptions contained only one favorable adjective or phrase describing the organization and ads with no description did not use any favorable adjectives or phrases describing the hiring organization.

**Description of necessary applicant skills:** This variable also included the options of detailed, minimal, and none. Ads with detailed descriptions contained three skills or qualities from potential applicants among options like "leadership ability," "responsible," "highly motivated," and "good communication skills." Ads with minimal description again only included one of these words and ads with no description did not mention anything regarding applicant skills.

For a dependent variable, we used likelihood of pursuing the advertised position. Participants were asked to review each of the ads and then indicate how likely they would be to pursue each of the advertised positions based on the ad.

The sample included sixty upper-class undergraduate business students at a medium-sized public university. Participants were volunteers and did not receive money or extra course credit for their participation. The sample included 63% males. Although use of samples with undergraduate students has been criticized in terms of their ability to represent the general population (e.g., Wells 1993), in this case, they were an appropriate sample as they were representative of the population of interest. Usually the majority of business entry-level positions target recent college graduates, especially business majors.

Each participant received a packet of 16 different recruitment ads which were produced on individual slips of paper and designed to look like classified ads. Participants were told that a) the ads were for real entry level business positions, b) area codes, cities, states, and zip codes were removed to eliminate biases due to geographic preferences, and c) they should assume the ads are for positions within their specific area of interest (e.g., accounting, finance, marketing, etc.).

Each ad included a question regarding the participant's likelihood to pursue the advertised position. Following completion of the task, all participants were debriefed.

### FINDINGS

The conjoint analysis provided the following aggregated part-worth estimates for each factor, summarized in Table 1.

For all factors where amount of information was manipulated (compensation, description of hiring organization, and description of necessary applicant skills), participants preferred the positions where more information was available suggesting that availability of more information in the ad made the advertised position more desirable. These findings confirmed our hypotheses that within the context of recruitment advertising, a high-involvement context for the readers of the ads, readers prefer more information to less information.

Table 1  
Average coefficients (part-worth estimates)

Factor	Coefficient
<b>Mode of response</b>	
▪ Responding by mail	6.54
▪ Responding by phone	-6.54
<b>Compensation</b>	
▪ Salary/benefits stated	3.84
▪ Salary/benefits not stated	-3.84
<b>Description of hiring organization</b>	
▪ Detailed	6.22
▪ Minimal	-1.65
▪ None	-4.57
<b>Description of necessary applicant skills</b>	
▪ Detailed	11.70
▪ Minimal	-0.64
▪ None	-11.06

According to Hair et al. (1995), the factor with the greatest contribution to overall preference is the one with the highest range of part-worths. In our case, this factor was description of necessary applicant skills; it makes sense that more information on this issue is important to potential applicants as it, essentially, helps them decide whether or not they are a good match for the advertised position.

Our findings also provided support for our second hypothesis that participants would prefer advertised positions offered through ads that require a response by mail than positions offered through ads that require a response by phone.

## DISCUSSION

Our findings, consistent with previous research, confirmed that within certain advertising contexts, like recruitment advertising, more information is better than less information. From a conceptual standpoint, these findings are consistent with the premise that when readers of ads have high involvement they prefer more information in the ads. Along these lines, marketers should keep consumer involvement in mind when designing marketing communications material and include more or less information accordingly. Simple factors that may predict consumer involvement include the medium where the ad appears and the nature of the product. For example, a consumer driving on the freeway is unlikely to have high involvement to process advertising messages meaning that billboards along the freeway with a lot of verbal information are not a smart strategy. On the other hand, one can assume that specialized publications (e.g., a parenting magazine) are likely to be read by consumers with high interest in that topic area and, thus, ads about pertinent products can include more information as they are likely to be read by a more involved audience.

Our findings also have practical value in regard to recruitment advertising specifically. Every week thousands of jobs are advertised in newspapers across the country. Some of these ads provide considerable detail regarding the hiring organization, compensations, and desired applicant skill sets, while others contain nothing more than a job title and a phone number. Our study confirms previous research suggesting that, at least for entry-level managerial positions, practitioners can increase interest from applicants, simply by including more of information in the ads.

Our study provides insight into the issue of amount of information in advertising through use of conjoint analysis, a useful tool for marketing research. Using conjoint can help with creation of realistic stimuli; it is also beneficial in keeping the number of stimuli manageable for research participants. For example, in our study, participants evaluated 16 ads, whereas previous studies on recruitment had participants review 60 descriptions of organizations (Zedeck 1977) and 120 job descriptions (Rynes, Schwab, and Heneman 1983)!

An interesting component to our study was using recruitment ads, a relatively unique context compared to more traditional consumer ads. Future studies can examine people's preference for information in advertising in multiple contexts (e.g., recruitment ads along product ads) to examine the effect of context and involvement more directly.

Future research should also examine whether a point can be reached when there is too much information. In other words, is the relationship between amount of information and consumer preference a linear one (as research so far seems to suggest) or a curvilinear one?

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## **A GOAL PROGRAMMING APPROACH TO THE MEDIA MIX PROBLEM FOR A COLLEGE OF BUSINESS**

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### **ABSTRACT**

*This paper addresses the problem of allocating scarce resources in a business school among various advertising outlets while attempting to achieve multiple objectives. It utilizes a form of Goal Programming that can be implemented using any Linear Programming computer package. A numerical example, employing representative, but not actual, data is presented. The authors suggest that a similar analysis leads to a more disciplined and supportable program of advertising for the school.*

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### **INTRODUCTION**

A number of studies have addressed the use of quantitative techniques in determining the optimum marketing mix. Charnes, Cooper, Learner, & Philips (1985) pointed to the usefulness of Management Science tools in Marketing studies. Papers by Cheong and Leckenby (2006) and Zhu and Norwell (2003) both employed data envelopment analysis (DEA) to study the efficiency of various marketing strategies. Elliott (2005) also investigated the marketing mix problem, using presentations by Verison Communications, Procter & Gamble Co., and Wachovia Bank, among others.

Several studies promote web-based advertising as a portion of the media mix. Examples include Philips (2006) who discusses the financial services media mix; Yarborough (2006), who promotes web marketing, in addition to the traditional media categories of broadcast, print, and outdoor; and an unnamed author (2006) from Podium Advertising Technologies, who analyzes the right media mix in the interactive age.

The Goal Programming approach employed in this study to determine the optimal marketing mix can be found in the text by Pinney, *et. al.* (2005) The model was run on the QuantMethods software (QMS), but any Linear Programming package should achieve the same results.

### **PROBLEM DESCRIPTION**

Most schools of business have limited resources dedicated to advertising the programs offered by the school. Some state universities have restrictions on spending for advertising, and limit such spending to printing schedules of classes in local newspapers. In these cases the school must use donated funds for any advertising to attract new students. Even more well-endowed private universities find that advertising expenditures must compete with operating expenses, faculty travel, and scholarships and assistantships for funding.

The present study examines the problem of allocating a fixed budget for advertising among five competing types of media outlets: newspaper ads (N), magazine ads (M), local radio spots (R), television ads (T), and materials for recruiting fairs (F). The recruiting fair materials include brochures, CDs, and posters used to decorate exhibit booths at the fairs, in addition to the exhibitor's fees charged by the promoters.

Two objectives are identified. The first is a general visibility of the university and the school of business among the general public (how many people will see the ad?), and the second is more specifically related to recruiting new students (how many responses can we expect to receive?).

For the purposes of this study, the total budget available for advertising is assumed to be fixed. The model will allow us to determine the optimal mix of media (how many radio pitches, TV spots, newspaper ads, etc?) and the dollar amounts that should be apportioned to the various classes of advertising expenditures.

### DATA

The input data for the example are presented in Table 1, which shows the cost of one unit for each of the competing outlets and the number of people who will see the information, as well as estimates of the number who will respond to the ad by contacting the university.

MEDIA TYPE	COST PER UNIT	TOTAL AUDIENCE (A)	EXPECTED RESPONSES (E)
NEWSPAPER (N)	\$700	10 (K)	100
MAGAZINE (M)	\$3,500	100 (K)	200
RADIO (R)	\$50	40 (K)	20
TELEVISION (T)	\$200	40 (K)	25
RECRUITING FAIR (F)	\$1,250	1 (K)	50

The newspaper ads (N) are measured in cost and responses for a ¼ page ad in a local newspaper. The Magazine ads (M) are for a ¼ page in a national magazine or a full page ad in a regional tabloid. The radio spots (R) are for a 30 second ad on a local station that appeals to college-aged citizens. TV ads (T) are 30 second commercials on local news shows. Recruiting Fairs (F) are measured in units of 1,000 color tri-fold brochures plus the exhibitor fee. The total ad budget is \$20,000, and there are maximum and minimum restrictions for each of the different options. The number of respondents is 100 times as desirable as the number (in thousands) of casual contacts.

### MODEL

The linear goal programming model that represents the problem is as follows:

$$\begin{aligned}
 & \text{MAX } A + 100E \\
 & \text{ST: } 700N + 3500M + 50R + 200T + 1250F \leq 20000 \quad (\text{COST}) \\
 & 10N + 100M + 40R + 40T + 1F - 1A \geq 0 \quad (\text{AUDIENCE}) \\
 & 100N + 200M + 20R + 25T + 50F - 1E \geq 0 \quad (\text{EXPECTED RESPONSE}) \\
 & 1N \geq 5 \quad (\text{MIN NEWSPAPERS}) \\
 & 1M \geq 2 \quad (\text{MIN MAGAZINES}) \\
 & 1R \geq 20 \quad (\text{MIN RADIO}) \\
 & 1T \geq 2 \quad (\text{MIN TV}) \\
 & 1F \geq 2 \quad (\text{MIN RECRUITING FAIRS}) \\
 & 1N \leq 10 \quad (\text{MAX NEWSPAPERS}) \\
 & 1M \leq 4 \quad (\text{MAX MAGAZINES}) \\
 & 1R \leq 50 \quad (\text{MAX RADIO}) \\
 & 1T \leq 5 \quad (\text{MAX TV}) \\
 & 1F \leq 5 \quad (\text{MAX RECRUITING FAIRS}) \\
 & (A, E, N, M, R, T, F \geq 0) \quad (\text{standard nonnegativity requirement})
 \end{aligned}$$

### RESULTS

The solution to the example problem is as follows:

**N** = 10 newspaper ads at a cost of \$7,000

**M** = 2 magazine ads at a cost of \$7,000

**R** = 50 radio ads at a cost of \$2,500  
**T** = 5 TV spots at a cost of \$1,000  
**F** = 2 recruiting fairs at a cost of \$2,500  
**COST** = \$20,000 (spent the entire advertising budget)  
**A** = 2.5 million general contacts with the public  
**E** = 2,600 expected contacts with the university.

The model enables us to vary the budget, adjust the costs for any of the media outlets, and modify the estimates for the number of citizens reached by the program and the number of respondents to the program who will contact the university. We may also adjust the weights assigned to the respondents (**E**) vs. the number of casual contacts (**A**), which is currently at 10 to 1, and the upper and lower limits on the various media types. An iterative process, where initial values are used to obtain a first solution, and then the coefficients and constraints are modified to “shape” the solution into one that is feasible in terms of local politics and preferences, is the most effective use of the model.

Using the analytical model generally provides insight into the effectiveness of the various competing media that are not apparent by simply examining the alternatives individually. The interaction between budget levels and effectiveness can demonstrate the high cost of some alternatives, and require that the overall strategy be reexamined for inconsistencies.

### CONCLUSIONS

The media mix model presented here is a very flexible analytical framework that permits determination of a mix of quantities and dollar allocations to the various media available to promote a school of business to the public, both to advertise the university and the business school to the general public and to recruit students into the programs offered by the business school. It enables the college to allocate the available funds for advertising in a way which promises optimum return on the budgeted funds. The model runs on any Linear Programming computer package, and is powerful, simple to construct, and effective.

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## **CASE STUDY NETBEANS: THE EMERGENCE OF COMPETITION**

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### **INTRODUCTION**

The NetBeans.org project is an Open Source project sponsored by Sun Microsystems that provides two software products, freely downloadable over the Internet and intended for professional software application developers as well as novices and students. The two products are the NetBeans Integrated Development Environment (NetBeans IDE) and the NetBeans Platform. They are written in the Java (<http://www.java.com>) programming language, thus the applications work on all the different operating systems (e.g., Windows, Linux, Mac OSX, Solaris) without the need to change anything on your computer. With the increased popularity of Linux as an alternative to Microsoft Windows and the increasing use of mobile devices, Java is taking center stage as a type of “glue” that allows multiple technologies and devices to communicate and work together. The NetBeans.org project is helping to drive adoption of Java by consumers, businesses and governments alike, and is the basis for commercial software development tools, not only for Sun Microsystems but for other industry leaders (Nokia, Compaq/HP; see <http://www.netbeans.org/community/partners/html>) as well.

NetBeans is facing serious challenges from a new entrant into Open Source<sup>1</sup> the market that was not anticipated. The NetBeans.org project entered the market as a unique entity, the sole occupant in the free, Open Source Java IDE space. But a certain amount of internal neglect from Sun Microsystems executives as well as inattentiveness toward the market, businesses partners and individual software developers have contributed to the situation in which NetBeans.org currently finds itself. Other factors include shifting management, changing visions and an evolving corporate strategy.

### **Background**

NetBeans began as a student project in Prague, Czech Republic, in 1996. A company was soon formed around this project and with the assistance of an entrepreneur named Roman Stanek, the project was developed into a commercial business. After rave reviews, the award-winning NetBeans Developer (later to become the NetBeans IDE) was acquired by Sun Microsystems in October 1999. Throughout the acquisition of NetBeans there was the intention to make NetBeans an Open Source project. In June 2000, the www.netbeans.org project began and was made freely available through the Sun Public License (SPL).

At about the same time, there was another acquisition by Sun: Forte Tools. There was a certain amount of tension between the NetBeans and Forte groups which did not allow for smooth cooperation in the beginning. Over time, cooperation improved as various individuals moved into new careers and positions. A community governance board<sup>2</sup> was set up to resolve disagreements that could not be settled within the community and sometimes escalated.

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<sup>1</sup>A simple explanation provided by the Open Source Initiative (OSI). The basic idea behind open source is very simple: “When programmers can read, redistribute, and modify the source code for a piece of software, the software evolves. People improve it, people adapt it, and people fix bugs. And this can happen at a speed that, if one is used to the slow pace of conventional software development, seems astonishing.” Open-source software must comply with the following criteria: free distribution, source code, derived works, integrity of the author’s source code, no discrimination against fields of endeavor, distribution of license, license must not be specific to a product, license must not restrict other software, license must be technology-neutral. You can find more information on the open source definition at <http://www.opensource.org>.

It is mainly a symbolic body made up of two community-elected members and one Sun-appointed member. Decisions on the project's overall direction are led by Sun Microsystems with community members' input. Actions are carried out by product team members (NetBeans P-Team), who implement and monitor the plan. A step above the NetBeans P-Team is the Product Approval Committee or PAC, which may refuse or request changes. A level above the PAC is the Vice President of Sun Microsystems.

The Vice President of Sun Developer Tools, Rich Green, put NetBeans back on the radar in 2002–2003 by affirming commitment and allocating funding to accomplish some lofty goals. An internal streamlining of operations, procedures and reporting structure soon followed. This laid the groundwork for Steve Wilson, former Engineering Director for NetBeans technology at Sun Microsystems, to use his strengths and put together a strong product release (NetBeans 3.6, followed by NetBeans 4.0) and regain media attention. Between Green and Wilson, they had reinvigorated the NetBeans name internally, gaining support from Jonathan Schwartz, the Chief Operating Officer, while also attracting approval from James Gosling, the inventor of Java. The size of the NetBeans team has grown although it is difficult to say precisely how many employees there are because of the fluidity of projects and project teams. NetBeans software is free, so direct profits cannot be measured, although there are some metrics that can be used to measure its success.

### **Products and markets**

Originally, the US market accounted for the majority of the NetBeans target market but with outsourcing and emerging markets this began to shift. A few demographics that are known: software development is male dominated, university educated, and dispersed worldwide; many developers can use English as a medium (as most coding is in English) or know how to use an online translator and many are themselves influential but can be influenced by other peers' development choices.

The NetBeans products are available to software developers worldwide and there are downloads from over 130 different countries each month. Currently the NetBeans IDE has been translated into 20 major language. Each market varies tremendously and the company is finding it difficult, at least with existing resources, to adjust messaging for each region. For example, China is concerned with security and generally prefers free products that are localized. On the other hand, Japanese developers tend to be more willing to pay for commercial software that provides technical support and they create products with international markets in mind.

The NetBeans IDE is used to develop cross-platform desktop, mobile and Web applications based on industry standards utilizing the latest technologies for Java software developers. With more than 3.8 million downloads to date, the NetBeans IDE plays a major role in the adoption of Java language, Sun Microsystems commercial offerings, and the creation of an ecosystem of complimentary software. The NetBeans IDE is a free product with no restrictions on how it can be used, see <http://www.netbeans.org/products/ide/index.html> for more information.

NetBeans Platform is an application runtime—a “generic, large desktop application”—that can save literally years of developer time when building a desktop application. The Platform provides the services common to almost all large desktop applications—window menu settings management and storage, file access and more. Developers get the freedom to concentrate on their business logic—writing modules (extensions) that implement the functionality to make that application unique. By writing modules to implement what you need, you can bundle them together with the NetBeans Platform and produce a branded, cross-platform application.

The IDE market remains filled with commercial and viable open source offerings. The open-source side of the business is revolutionizing business models and driving down cost in an industry still reluctant to spend in a slow economy. Open-source innovation is helping the industry to continue to move forward. Open source is also becoming more important as a measure of security, as many worms, Trojan horses and viruses spread across the Internet targeting Microsoft products. Governments such as China, the United States and Germany are exploring and implementing open-source solutions as a means to protect information from outside users who may wish to exploit vulnerabilities.

### **NetBeans.org in 2004**

The NetBeans IDE had shown explosive growth over the previous two years, especially with its last three releases, the NetBeans IDE 3.4, 3.5 and 3.6. Downloads increased steadily from 182,000 in 2001, to 442,000 (2002), 2,025,000 (2003) and 1,220,000 as of July 2004. Those figures refer only to final release versions and do not include numbers from development builds (an early version of software still in the works) or alpha and beta releases (essentially finished software in late testing stages), which are popular with Open Source developers who thus get the chance to take a look at the latest release before it hits the mainstream. This is also their opportunity to fix things or ask the Sun-sponsored NetBeans team to address an issue.

A revamped messaging system included: two major Web site redesigns based upon extensive studies, an outgoing RSS news feed, streamlined news, and the introduction of a monthly newsletter re-launched as the NetBeans Edge. The Edge newsletter has seen the number of e-mail subscribers soar from 800 in 2002 to over 94,000 in 2004. The remarkable success of NetBeans.org is attributed to the balanced strategy of push and pull to get the content to the target audiences.

### **Competition**

NetBeans.org was facing its stiffest competition in years with the emergence of Eclipse, an IBM-backed Open Source initiative that was competing directly with NetBeans.org. According to Evans Development Corporation's "North American Developer Survey" (2004) Eclipse had approximately 82% of free and open source IDEs, followed by NetBeans at 18%. Of all Java IDEs on the market in North America Eclipse enjoyed a 17.3% share vs. NetBeans's 4% share.

Eclipse has gone from being sponsored solely by IBM to becoming a consortium of industry leaders with some decision-making power over the project's direction while contributing vital resources such as direct funding and staffing. Eclipse's approach has apparently spawned a large number of add-in products that are available on the market to complement Eclipse's own. This differs from the NetBeans.org/Sun Microsystems model where Sun is the main contributor followed by various other businesses/contributors whose direct stake is that NetBeans is contained within their products. Examples of these types of contributors are Nokia, Washington State University and Make Technologies. They are under no obligation to provide resources to aid the NetBeans.org project.

The momentum of Eclipse has spilled over from media raves into the mindset of individual developers and IT management decision-makers who are choosing to provide extensions to Eclipse's products and not NetBeans. This could be the attraction of the "new kid" or it could be the beginning of a difficult current against which NetBeans will have to swim, perhaps even to simply maintain what market share it has.

However, this rival has its own weaknesses. For example, Eclipse relies on something called Stand Widget Toolkit (SWT), a descendant of Java, as its core technology. This is not 100% Java and is, therefore, contrary to industry-agreed-upon standards. NetBeans complies with these standards—which is the reason Nokia has chosen the NetBeans Platform as a basis for its Nokia NetAct front-end technology.

### **Internal Analysis**

The NetBeans.org project, according to its project manager, has some significant strengths moving forward into its next release, NetBeans 4.0, which has just reached beta quality. The number of downloads continues to increase, which has been interpreted as a positive sign. A new technique introduced in NetBeans 4.0 will allow the NetBeans team to track the actual usage of the software and not just register the number of successful downloads. This will aid in identifying actual usage patterns and the length of the product's life cycle for each downloaded version.

Over the last two years there has been a sustained effort to create a vibrant Web site to allow users to network with other developers, to find support through various mailing lists, and to stay informed through news items, newsletters and the implementation of outbound RSS feeds. The online community space engenders a feeling of expert exchange and reduces the isolation of programmers, who can also interact with the corporation there. Research conducted by NetBeans staff on the usage of blogs (individual Web diaries) in the corporate environment for public consumption has proven the effectiveness of providing personal views on various topics in relation to a corporate parent (in this case Sun Microsystems) by its employees and interaction with consumers linked to the Internet, with the potential to be read by millions of viewers. Other features that encourages user participation on <http://www.netbeans.org> are the introduction of Web forums and the usage of "wikis" (hypertext reference databases

that allow everyday users to create and edit any page in a Web site). Both encourage democratic use of the Web and promote content composition by nontechnical users.

A sustained effort has also been underway for the past year to allow individual software developers to become NetBeans evangelists, helping to foster community growth in various countries worldwide. At this time there are individual developers or groups who are not Sun employees, contributing to the NetBeans.org project on their personal time by translating Web site content, contributing to newsletters, moderating mailing lists, and localizing the NetBeans IDE into different languages.

Over the past year a NetBeans community marketing team (30 non-Sun employees and 2 Sun employees) has been formed to help promote NetBeans regionally and internationally. There has been strong growth in mailing-list subscribers, who now number approximately 100,000.

In all, the NetBeans.org project has seen an improving product image. In the NetBeans IDE 3.6 release, the tagline was added *Designed for Speed* and appears to have started to change the user perception, inherited from previous versions, that the product was slow.

The NetBeans IDE product will also see significant changes in the next version, 4.0, thanks to some positive management changes. The NetBeans project, under the leadership of Steve Wilson, former Engineering Director for NetBeans Technology at Sun Microsystems, reached out to engage software developers. Through actively involving developers from popular Internet sites such as JavaLobby, it has helped to change the perception that nobody is listening to the individual developer. There has been a notable increase in feedback on prerelease versions and planning, which was not seen before. Another effort to engage developers was made through the NetCAT program on the NetBeans.org Web site. Developers were chosen for their wide range of past experience, skill sets and their location in diverse regions of the globe to participate in a customer acceptance program. Selected external developers (NetBeans community members) had the opportunity to test the product and identify bug fixes before the actual release to the general public. This proved to be extremely successful and will continue for the NetBeans IDE 4.0 release.

But there are many weaknesses that are affecting growth in market and mind share. The Eclipse project has had the opportunity to learn from the NetBeans.org project's mistakes and have capitalized on those errors. At its origins, NetBeans was the first and only choice in the Java integrated development environment market. Times have changed. No longer is it possible to attract and retain vital business partners who are either building their products on top of the NetBeans Platform or writing extensions to the NetBeans IDE. Partner neglect has led to the governance structure of the Eclipse Consortium where partners have a voice (at a cost) and is demonstrated by the sheer volume of extensions to Eclipse. This is a major problem that needs to be corrected immediately in order to retain a vital ecosystem surrounding NetBeans and Sun Microsystems commercial versions.

Another weakness that is tied to neglect is the academic, or ".edu," efforts. A large number of universities around the world are teaching Java and software development and not enough is being done to promote the use of NetBeans in that market. Eclipse, by contrast, has research and scholarship funding programs to attract the academic world through actual course work. The NetBeans IDE also enjoys some of this market but lacks the proper internal support programs and documentations to make this effort a success. Lack of proper documentations, tutorials and how-to guides make the learning curve for new users unnecessarily difficult as well as stunting potential growth not only in the .edu market but also in attracting businesses.

The community members to some degree are also responsible for the low level of chatter on the Internet and general excitement. In other open-source communities, the members are more vocal on Internet forums, through blogs and in coordinated efforts external to the NetBeans.org Web site. A good example of users with strong voices can be seen at <http://www.openoffice.org>, a site that began as an anti-Microsoft Office forum. The users and developers have an extensive network that has penetrated the media and governments internationally.

Several opportunities exist in the IDE market. There has been talk for some time (including high-level talks between Sun Microsystems and IBM) of incorporating both projects into a single entity. This could be seen as a positive move in the aspect of fighting Microsoft .NET and promoting Java, but could also have the negative effect

of limiting choice and the potential benefits that come from competition. The unequal weight of the two contenders in the market has to be carefully considered by Sun's management.

There is opportunity for closer partner relations and more community involvement in writing extensions, localizing, providing documentation and holding local events. By leveraging existing networks of software developers worldwide who are building stronger ties, such as Java user groups (JUGs) and Linux user groups (LUGs), it is possible cross-pollinate these groups with NetBeans, seeding further rapid growth.

Governments, like businesses worldwide, are looking to standardize software, avoid vendor lock-in, cut cost and stress interoperability. Open source has now been proven as a viable business option, especially in the wake of high-profile attacks on Microsoft products that breached its security. Governments want to be sure that products have no "backdoors" that can be exploited. Open source projects such as NetBeans allow individuals to cooperate across borders and time zones, using the latest technologies to enhance security. All that is required is an Internet connection and sufficient computing power.

We are on the verge of an unprecedented level of international cooperation, but lobbying governments to understand the benefits is essential. Integration of multiple technologies and systems can be seen within the expanding EU, the United States, China—even in our financial, communications and supply services.

The barrier to entry in the software development market is high but with new technologies it is becoming lower. Many large corporations are now involved in or exploring open-source options and have the capability to enter the market themselves. Eclipse's continual gain of market and mind share is a high threat for NetBeans. A continual decline in extensions built to further NetBeans' capability can be seen as detrimental to long-term viability. Industry innovation is constant in this market space. There is a move toward more visual software, so that having coding knowledge will not be essential. One such product is Sun Java Studio Creator which uses the NetBeans Platform as its basis, but doubtless Eclipse is a player in that market, as well.

NetBeans has to consider ways to reduce costs and generate income. With a better global outlook, IT spending may increase, allowing for the purchase of commercial software that provides real product support. In most open-source products, support takes place through mailing lists at no cost; however, it may be possible in the future to draw revenues from such services. It is also necessary to note and plan for the increasing reliance on outsourcing and try to attract these markets and be number one or number two as the new economies begin to emerge.

The societal changes from international workforces and cooperation have been accelerated not only by the advances in technology such as the Internet but also the shift of workforces to lower-cost regions. With these changes are language barriers, differences in working habits and hours, and personal world views that can vary from country to country and city to city. The "goodness" of open source (societal cooperation and fighting mega corporations) has seen a slow but definite shift to the creation of an alternative and being part of something greater.

Evolving industry standards and technological innovations are inevitable. As computing power increases and new software arises it is necessarily to be flexible in a world that does not move as rapidly as software development. Corporate acquisitions and alliances and the increasing focus on mobile and Web applications will continue to play a vital and sometimes unpredictable role in the direction of the software development business.

#### **Management dilemma**

In the Java IDE market, the key drivers for adoption are market perception, product features, ease of use, a rich ecosystem for developing and deploying product extensions, as well as revenue opportunities for partners.

There has always been a desire to be more open with the members of the NetBeans community. However, the world of software development is complex enough without the introduction of corporate standards, management philosophies and vision, giving a voice to people who are interested in a product through open source and the coordination of activities in between, including communications.

The situation now dictates that the changes that have been taking place steadily over time be communicated to the public, academia and business partners alike. Technology, communications and cooperation have hit light speed and the need to be much more agile is apparent. NetBeans.org is a structure that can perform swift decision-making, and the outlets for communicating these plans have begun to open, if it is allowed to go forward.

The NetBeans.org project is faced with many challenges: but has been gearing up for battle. Management's high-level goals, derived from a recent brainstorming session include:

- Gain or at least maintain the current level of market share. The market conditions have appeared to stabilize and may not offer a chance to regain footing and reposition. This includes countering the Eclipse project momentum, utilizing internal & external groups and gaining traction in emerging and mature markets.
- Grow Eco-System -
  - Increase the number of companies who are building on top of the NetBeans Platform. It is known that there are many businesses currently using the NetBeans Platform for their new applications. Why not find and promote these success stories, as well as actively seeking new businesses that are using the NetBeans Platform technology?
  - Increase the number of "plug-ins" or complementary products on the market that are able to work with the latest version of the NetBeans IDE and Sun's other commercial offerings.
- Improve Product Perception/Mind share & Messaging—Better media and developer communications are required to build loyalty, trust and knowledge about the NetBeans.org project and products. It is essential to be heard in a crowded market place and to have vital allies in your corner. Volunteers from various countries who are willing and able to take a leadership role in the promotion of NetBeans are seen as a key to future success. Developing more coherent and better working relationships with key media partners will help the NetBeans cause. In short, a revamped messaging and communications strategy is required.
- Utilize Academic Setting—The academic market is a chance to capture a large number of developers in a single effort. They will learn on NetBeans and hopefully will continue to use NetBeans for future endeavors. The research and projects section of universities can also help to create a buzz around NetBeans, increase the number of plug-ins on the market and help to create further documentation and courseware.
- Documentation—A difficult learning curve for NetBeans.org products is an obstacle to capturing new users. A sustained effort to produce high-quality documentation, introduce them to the market and update regularly for future releases will play a large role in capturing new markets and users.

NetBeans.org has often faced the marketing challenge of turning nothing into something. To tackle those goals they will need to focus on a redefined and emerging strategy. The NetBeans management team drew up a list of issues that they believed had to be addressed and resolved before they could define the new strategy. It included:

- a. NetBeans partner strategy at this time is passive. There has been a past solicitation to help develop a new partner program but with little or no success. The relationship at this time consists of a listing of their company and product on NetBeans.org with the ability to post company news if it concerns the NetBeans group as a whole. There is no formal agreement to further each others' businesses opportunities and cross-promote products. There is no synchronization of planning schedules, and event co-participation is low. An increase of the market of Java IDE users could potentially benefit both sides.
- b. In a .edu strategy it could be hoped that capturing new developers at early stages of development will help to build long-term loyal users. Research possibilities are also available and could contribute to NetBeans/Sun Microsystems's image of being socially responsible and on the cutting edge of technology. A small group of employees are currently dedicated to working with universities and this stream needs to be tapped. We need to identify further benefits of this strategy.
- c. A governmental strategy can be seen of growing importance to open source, corporations and public institutions. Concerns about security and the ever-present interest in reducing costs make government an open door for NetBeans. But how to get across the threshold?
- d. Lack of documentation is clearly an obstacle to the adoption of any software. But resources for documentations are limited as they provide the necessary materials for commercial products and are generally not dedicated solely to an open source project. The NetBeans.org members are generally more interested in writing code than creating documents. Perhaps a strong academic and business engagement program can help to create courseware and proper guiding materials.

- e. Low developer chatter across the Internet for NetBeans plays hugely in the favor of Eclipse. The members of Eclipse are more vocal on Internet forums, creation of blogs and product development Web sites. The high level of Eclipse activity makes it appear that it far outweighs NetBeans but this is not necessarily the case. Measuring developer software usage, especially of free software, has proven to be very difficult. Few reliable numbers are available and they are very often region specific. An incentive to contribute and making it as easy as possible might help. What else?
- f. Knowing your customer is an understood necessity in commercial products. In the field of open source, however, this can be difficult. It is possible to get an idea of their location, computer hardware and configuration, what they are downloading and mailing list traffic information but much more is desired. It is possible to communicate through the mailing list or a special feedback alias but few users opt to share vital information. Through the NetCAT customer acceptance survey we have collected information concerning an immediate software release but we still lack a general understanding of our developers including: motivations, usage patterns, and particular interest in the project.
- g. Differentiation/Positioning/Messaging. NetBeans was the first Open Source Java IDE on the market. In many situations, first to market is the first to mind, known as first-mover advantage. The perceived newness of the NetBeans IDE when it first became available was high. But Eclipse has come along and made several highly publicized contributions through scholarship funding for research and more. The NetBeans.org project has not traditionally had close ties with media contacts. In most instances the Public Relations firm (C.H.E.N. PR located in Boston, Massachusetts, U.S.A.) has been exclusively used for press releases and arranging limited interviews. This has stymied the rapport-building that is critical to the project's success. When IBM and Eclipse entered the arena, the media was ready for a competition and played it to the hilt. At the same time, Sun Microsystems's financial outlook had been tarnished since the dot-com bubble burst, when much of its revenues ceased seemingly overnight. There were questions concerning its long-term viability in the business as restructuring began and continued to takes place. This has contributed to a certain reluctance to attach oneself to NetBeans. A recent NetBeans brand study was completed and raised as many questions as it answered. Overall the brand enjoys high notoriety but there is also an understood need to reinvigorate the brand which is still perceived by many as being slow and without highly valued features.

Before the next management team meeting, everyone is expected to come up with solutions and approaches to strategy formulation. But on how many fronts can one group fight?

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