ORGANIZATIONAL RESPONSES TO CONSUMER COMPLAINTS: A RE-EXAMINATION OF THE IMPACT OF ORGANIZATIONAL MESSAGES IN RESPONSE TO SERVICE AND PRODUCT-BASED FAILURES

San Bolkan, Bloomsburg University
John A. Daly, University of Texas at Austin

ABSTRACT

In a recent investigation of consumer complaining, Bolkan and Daly (2007) found that consumer complaints were mitigated by organizational response types (excuses, justifications, and apologies) and their components (believability, appropriateness, consideration, and accepting responsibility). What remained to be explained was if organizations' remediation tactics differed in the minds of consumers of *services* and *products*. The current study sought to determine if consumers of services and products differ in their perceptions of organizational remediation messages. Results showed two major patterns reoccurred throughout. First, assuming responsibility was less important for service-based failures than it was for product-based failures. Second, alleviating negativity was easier to do for service- based failures than it was for product-based failures.

INTRODUCTION

Like people, businesses are not perfect and they make mistakes. In fact, failures are common in business encounters (Babakus, Yavas, Karatepe, and Avci, 2003; Bitner, Booms, and, Tetreault, 1990; Hart, Heskett, and Sasser, 1990) and can lead to negative repercussions for organizations. (Blodgett, Hill, and Tax, 1997; Etzel and Silverman, 1981; Hoffman and Kelley, 2000; Keaveney, 1995; Zemke, 1994). The actions org- anizations take in response to organizational failures are known as organizational recovery efforts (Lewis and Spyrakopoulos, 2001) and are defined as attempts at "returning aggrieved customers to a state of satisfaction with the organization after a service or product has failed to live up to expectations" (Zemke and Bell, 1990, p. 43). Organizational recovery has a significant impact on overall consumer satisfaction following a failure (Boshoff, 1997) and effective complaint handling has been linked to consumer satisfaction, brand loyalty, favorable word of mouth behaviors, and decreased instances of litigation (Gilly and Hansen, 1992).

Explanations

Of the many remediation tactics to choose from, organizations often benefit from the use of explanations for their failures. According to Baer and Hill (1994), customers who receive explanations from organizations following failures are significantly more likely to be satisfied with the response, are more likely to see the initial failure as less negative, and are likely to perceive the company as more credible than customers who do not receive an explanation.

Results from a study on organizational remediation and third party perceptions help frame why explanations may benefit organizations. According to Bradford and Garrett (1995), organizations that fail consumers may be subject to the fundamental attribution error (Jones and Nisbett, 1971). That is, when companies engage in negative actions, consumers are likely to attribute these negative actions to stable dispositions such as irresponsibility and selfishness. However, using the discounting principle (Kelley, 1973), Bradford and Garrett argue that companies can provide explanations for their actions that may help frame themselves in a

positive (or at least not negative) light. Negative events can be reframed if a business's blameworthy behavior can be explained in an acceptable manner that reduces the apparent undesirability of an event, an organization's apparent responsibility for an event, or both (Greenberg, 1990; Schlenker, 1980).

The explanations organizations have at their disposal can vary greatly. However, most studies on organizational responses to business failures typically examine three main types: excuses (messages that attempt to alleviate responsibility for an event), justifications (messages that attempt to alleviate the undesirability of an event), and apologies (messages containing both acknowledgments of blameworthiness for a negative event and attempts to obtain a pardon and mitigate the negative repercussions for the event). Researchers who study the types of explanations usually examine the differences between the explanation types to determine which is the more effective recovery tactic (e.g., Conlon and Murray, 1996; Hill and Baer, 1994). However, some scholars assert that the investigating one type of explanation as it compares to another is misguided as no specific type of explanation should be superior to another based simply on its form (e.g., Hareli, 2005). Instead, these scholars argue, the effectiveness of explanations comes from their content as opposed to their form.

In a recent investigation of consumer complaining and organizational explanations, Bolkan and Daly (2007) found that consumer complaints can be mitigated by *both* organizational response types and their components. Bolkan and Daly showed that, as remediation tactics, each of these types of messages have different effects on consumers. For example, excuses were found to mitigate perceptions of perceived company control over a failure situation, justifications led to decreased negativity, and apologies led to a greater future intent to do business with an organization, less negativity with a failure situation, and more satisfaction with a remedial response (Bolkan and Daly, 2007).

In addition, Bolkan and Daly (2007) found that various components of organizations' explanations helped mitigate the negative consequences of company failures. In line with predictions from previous researchers (Hareli, 2005; Scott and Lyman, 1968; Schlenker, 1980), the authors found that responses to consumers featuring messages perceived to be believable, appropriate, considerate, and accepting of responsibility led to more positive outcomes for organizations than messages that were perceived to be absent of these features.

What remains to be explained in the literature is if (and how) organizations' remediation tactics differ in the minds of consumers of services when compared to consumers of products. The current study sought to determine if (and how) consumers of services and products differ in their perceptions of organizations following complaints and subsequent remediation messages. Specifically, we examined consumer perceptions of organizations after a failure as they related to organizations' message types (excuses, justifications, and apologies) and components (believable, appropriate, considerate, and responsible).

Research Questions

Many investigations of consumer-based organizational explanations examine failures without differentiating between, or manipulating, product and service failures. Researchers often mix results of product and service mistakes together and fail to examine if there are any differences between the two types of organizational failures as they relate to remediation tactics. Although a few scholars have roughly studied this notion (e.g., Gilly and Gelb, 1982 – monetary versus non-monetary losses; Mattila, 2001 –

hairstyling versus restaurant and dry cleaning services), the literature on organizational recovery would benefit from more research in this area. Therefore, the current study examines companies' communication with customers following organizational failures (for both service and product related failures) to understand how organizational explanations work to alleviate consumer dissatisfaction.

In this study, we examined service-based failures as they compared to product-based failures. Four characteristics distinguish the two (Zeithaml, Parasuraman, and Berry, 1985): <u>intangibility</u>, services are perform-ances that cannot be possessed - products can be felt, tasted, and touched; <u>inseparability</u>, the production of services cannot be separated from their consumption - products are first produced, then sold, then consumed; <u>heterogeneity</u>, service quality and consistency are subject to variability because they are delivered by people and human behavior is difficult to control - products can be produced in a relatively consistent manner; and <u>perishability</u>, services cannot be stored for future use - products can be stored for future use.

Research shows that these four characteristics influence marketing techniques (Zeithaml et al., 1985) and television advertisements (Zinkhan, Johnson, and Zinkhan, 1992) such that service-based organizations attempt to sell their deliverables differently than do product-based org-anizations. This research essentially suggests that organizations treat consumers and business operations differently for service- and product-based deliverables; because this is the case it makes sense that the different types of organizations might approach complaint remediation in different ways as well.

In their paper, Zeithaml et al. (1985) discuss a variety of issues that demand consideration when service- and product-based companies market their services. Three of these issues also seem particularly important to keep in mind when responding to failures as well. First, the authors state that it is difficult for companies to put a price on services. Relative to products, the authors argue, tangible materials are less likely to be consumed during the production of services. Therefore, it is harder to associate services with a firm, objective value. The same may be true for service *failures*. Once a service failure occurs, it may be hard for individuals to put a value on the predicament. That is, unless a company wholly fails a consumer, it may be hard for consumers to put a price on value of the inadequate service. For example, if a plumbing company does a poor job in the delivery of their service – the service is done but only with mediocre results – how should a person be reimbursed (Nothing at all? For the total cost? For a part of the cost? If so, how much?)? The value of the failure in this case is difficult to determine in an objective sense and dealing with this issue might pose problems for service-based organizations. This problem becomes even more difficult to handle when the service failure is related to a product offering. For example, when waiters are rude (but the food is good) or when retail employees are unhelpful (but the clothes are fine), the value of the service failure may become even more difficult to measure.

Second, services are often difficult to examine after they have been performed. Some exceptions include services that result in a product that can be scrutinized (e.g., a haircut) or services that are recorded (e.g., a videotaped seminar). Since many services cannot be examined after they have been performed, complaints about service failures may be more difficult to verify than complaints about product failures. Complaints about service failures can become a matter of hearsay and dealing with these issues may pose problems for service-based organ-izations.

Third, and related to the second idea, is the notion that consumers are tied to the

delivery process in a special way for services. Unlike products – which are typically produced, purchased, and consumed – people consuming services are often present and interactive in the production of services. That being said, service failures are liable to be more easily influenced by peoples' perceptions of that process than are products. For example, a product may work like it is supposed to or not, but when a retail employee is having a bad day what is considered rude behavior to one customer might not be considered rude to the next. In addition, due to the personal nature of being a part of the production of the deliverable, people may take service failures more personally than they would product failures. That is, people may not perceive a broken cell-phone as being as much of a personal affront as they would a rude waiter. Organizations dealing with services failures may therefore have these added aspects of interaction to negotiate.

With respect to the ideas mentioned above, the following research questions are offered:

R1: Do messages that are believable, appropriate, considerate, and that accept responsibility affect consumers' perceptions of organizations following failures differently for product- and service-based complaints?

R2: Do excuses, justifications, and apologies affect consumers' perceptions of organizations following failures differently for product- and service-based complaints?

Additionally, several researchers argue that the provision of tangible rewards has the ability to affect organizational recovery efforts. For example, Tax et al. (1998) suggest that one of the most important factors consumers consider when evaluating organizational remediation tactics is the

fairness of the distributive outcomes. They state that distributive outcomes are based on equity relevant to complainants' situations and, after organizations have failed consumers, consumers expect to be compensated for their losses. The authors note that several service quality leaders (companies that are committed to excellent customer service) know this and are concerned about providing appropriate compensation to consumers following a failure episode.

Wirtz and Matilla (2004) also found that providing tangible compensation for a failure can help organizations in their recovery efforts. Their study showed that if an organization's service recovery effort was mediocre, adding compensation to the remediation attempt could make up for minor shortfalls. In addition, Conlon and Murray (1996) suggest that one of the major ways companies can enhance their positive perceptions following a failure is through the provision of tangible compensation. The authors note that companies can use tangible compensation as both an economic and a symbolic investment into their relationships with consumers. Moreover, the authors state that the provision of tangible compensation leads to increased positive affect and increased positive perceptions of organizational responses for consumers.

Because tangible rewards have been demonstrated to affect consumers' perceptions of organizations following a failure episode in previous investigations, the current study also seeks to investigate their impact on organizational remediation as it applies to both service and product-based failures. For these reasons we propose the following research question:

R3: Do tangible rewards affect consumers' perceptions of organizations following failures differently for product- and service-based complaints?

METHODOLOGY AND PROCEDURE

Subjects were recruited to write letters to companies regarding genuine complaints they had with services or products. One hundred and thirty four participants took part in the study and were used in the data analysis. The participants had a mean age of 20 (*Mdn*=19, *SD*=4) and the sample was comprised of 39 males and 95 females.

We asked people who decided to participate to think of a recent experience where they were dissatisfied with an organization's service or product and asked them to write a complaint letter to the organization expressing their dissatisfaction. Subjects were told to include in the letter the brand name of the service or product, when and where they purchased the service or product, and the reason for their dis-satisfaction. Subjects turned in their complaint letters after marking the return address of the envelopes to the residence of the primary investigator.

In addition, we used a questionnaire to gather some initial information from subjects. This information included demographic in-formation (sex and age), information regarding the complaint (monetary value of the service/product and name of the company), and information regarding the nature of the complaint (service or product).

Once organizations sent letters back to individuals, we contacted subjects who came in, read their responses, and filled out a second questionnaire measuring the inde-pendent and dependent variables.

Independent Variables: Components of Explanations

We measured participants' perceptions of believability (*r*=.64) (e.g., How honest is the organization's response?), appropriateness (*α*=.90) (e.g., How much sense does the organizational response make considering your situation?), consideration (*α*=.91) (e.g.,

How understanding is the organization of your problem?), and responsibility (*α*=.81) (e.g., did the organization take ownership of the problem?) present in each response. To do this we asked subjects to fill out a short questionnaire referring to these ideas. The questionnaire asked subjects to respond to items by choosing numbers ranging from 1 (*strongly disagree*) to 7 (*strongly agree*). A confirmatory factor analysis (using AMOS) indicated that the data fit the predicted four-factor solution (X^2=45.56, *df* = 36, *p*=.13; *RMSEA*<.05; *CFI*=.99) with all items loading on their respective factors at an appropriate level of significance (*p*<.01).

Dependent Variables

We also measured five dependent variables including participants': future intent to do business with a company (*α*=.94) (e.g., What is the likelihood that you consider this company as your first choice when buying a similar product?), perceived company credibility (*α*=.90) (e.g., How competent is this company?) satisfaction with the organizational response (*α*=.92) (e.g., Was an adequate explanation offered to you regarding your complaint?), perceived negativity with the failure (*r*=.52) (e.g., How unpleasant was this experience), and perceived company control over the failure (*α*=.72) (e.g., To what extent is the problem beyond the company's control?). To test the goodness of fit for the dependent variables we conducted a confirm-atory factor analysis (using AMOS); the data fit the five-factor model with all items loading on their respective factors (X^2=126.07, *df*=106, p=.09; *RMSEA*<.05; *CFI*=.99) at an appropriate significance level (*p*<.01).

RESULTS

Response Characteristics

Three hundred and seventy-three letters were sent out. One hundred and thirty-

nine (38%) letters came back from their respective organizations within an eight-week period. Letters came back in a range from between 4 and 49 days (M=18.32, Mdn=16, SD=9.52). One hundred and thirty-four subjects came in to read their letters and fill out the measures of the explanation components and dependent variables – five subjects did not. The data used in this study were drawn from a larger project (Bolkan and Daly, 2007); however the results reported in the current article address very different research questions.

Of the 134 letters analyzed, a total of 68 were complaints about service, 63 were complaints about products, two were complaints about both, and one subject did not provide this information (see Table 1). Subjects coded their own complaints as either service related or product related. However, we examined each letter to determine if the categorization was done correctly. There were very few instances where we thought there was a misclassification of the data by participants. In these instances the primary investigator determined the appropriate complaint category. Complaints were classified as service related if they reflected: the delivery of goods (e.g., complaints about waiters bringing food), the performance of a service (e.g., service for a person – transportation, or service on a product – fixing a car), or poor staff attitude (e.g., rude sales representatives). Complaints were categorized as product related when they referred to physical and/or tangible goods (e.g., products in a store or food at a restaurant).

TABLE 1

Types of Organizations Analyzed

Type of Organization	Frequency
High Tech. Manufacturer	25
Service	2
Product	22
Missing Data	1
Dine in Restaurant	21
Service	18
Product	2
Both	1
Vacations/Airlines	15
Service	14
Product	1
Cell Phone	13
Service	4
Product	9
Consumer Goods	13
Service	3
Product	10

Food and Drug Manufacturers   <u>10</u>
Service   1
Product   9

Fast Food   <u>9</u>
Service   6
Product   2
Both   1

Clothing/Accessories   <u>7</u>
Service   2
Product   5

Electronics Stores   <u>4</u>
Service   3
Product   1

Super Stores (e.g., Target/Wal-Mart)   <u>3</u>
Service   2
Product   1

University Offices   <u>3</u>
(all service related)

Cable/Internet   <u>1</u>
(service related)

Public Transportation   <u>2</u>
(all service related)

Coffee   <u>2</u>
(all service related)

Car Dealerships   <u>1</u>
(product related)

Postal Service   <u>2</u>
(all service related)

Other   <u>3</u>
(all service related)

Content Analysis of Explanation Types

In order to determine the impact of the various explanations on consumer satisfaction, two coders (the first author and a research assistant) examined the organ-izational responses for their use of excuses, justifications, and apologies. Excuses were coded as communication that included references to an external locus of control (an event was caused by forces other than the company), a lack of control (no authority,

ability, or capacity to act otherwise), or a lack of stability. Justifications were coded as explanations that included information attempting to diminish the negative consequences of a predicament. Apologies were coded as communication that admitted fault or expressed sympathy (e.g., I am sorry to hear about your negative experience).

Results, calculated with Scott's Pi (Scott, 1955), indicated that the coders had acceptable agreement rates for the different types of explanations (Excuses, .89; Justifications, .79; Apologies, 1.0) (see Table 2 for a descriptive table showing the various types of responses offered for products and services). In addition, we coded organizational responses for the inclusion of tangible rewards.

TABLE 2

Types of Organizational Explanations

	Frequency	
Type of Explanation	Service	Product
Excuse	5	4
Justification	3	3
Apology	31	14
Excuse and Justification	1	2
Excuse and Apology	12	12
Justification and Apology	2	5
Excuse and Justification and Apology	3	0
Nothing	11	23
Total	68	63

Note: One subject did not mark whether they filed a service or product complaint. Two subjects marked both product and service. These subjects were not included in the data analysis. Additionally, "type of explanation" indicates that at least one of these types of explanations was present in a letter.

RQ1: Components of Effective Explanations

The first research question asked if messages that are believable, appropriate, considerate, and that accept responsibility affect consumers' perceptions of organizations following failures differently for service- and product-based complaints. To answer this question we looked for differences in the associations between all of the explanation components (believability, appropriateness, consideration, and responsibility) and all of the dependent variables (future intent to do business with a company, company credibility, satisfaction with a company response, negativity, and perceived company control).

The results of the analysis are reflected in Table 3. The only differences between the associations of explanation components and the dependent variables are as follows: responsibility was significantly associated with future intent to do business with a company for <u>products</u> but not for <u>services</u> and consideration was inversely

TABLE 3

Associations between the Components of Explanations and Dependent Variables

		Service Failures					Product Failures			
		B	A	C	R		B	A	C	R
1.	R	.38	.31	.39	**.18**		.46	.45	.55	**.27**
	p<	.01	.01	.01	**ns**		.01	.01	.01	**.05**
	N	64	64	64	**64**		60	61	61	**60**
2.	R	.35	.28	.54	.24		.38	.39	.61	.31
	p<	.01	.05	.01	.05		.01	.01	.01	.01
	N	67	67	67	67		59	60	60	59
3.	R	.72	.75	.67	.43		.61	.69	.70	.50
	p<	.01	.01	.01	.01		.01	.01	.01	.01
	N	66	66	66	66		60	61	61	60
4.	R	-.14	**-.12**	**-.28**	**-.19**		-.12	**-.40**	**-.17**	**-.26**
	p<	Ns	**ns**	**.01**	**ns**		ns	**.01**	**ns**	**.05**
	N	67	**67**	**67**	**67**		60	**61**	**61**	**60**
5.	R	**-.23**	**-.21**	-.09	-.19		**-.09**	**.04**	.08	.16
	p<	**.05**	**.05**	ns	ns		**ns**	**ns**	ns	ns
	N	**66**	**66**	66	66		**60**	**61**	61	60

Note: Rows represent dependent variables: 1= Future intent to do business with a company; 2= Company credibility; 3= Satisfaction with the organizational response; 4= Negativity; 5= Perceived company control. Columns represent explanation components: B= Believability; A= Appropriateness; R= Responsibility; C= Consideration.

associated with perceived negativity for <u>services</u> but not for <u>products</u>. In addition, appropriateness and assuming responsibility were inversely and significantly associated with perceived levels of negativity for <u>products</u> whereas these relationships were non-significant for <u>services</u>. Finally, be-lievability and appropriateness were sig-nificantly and negatively related to perceived

company control for <u>services</u> but not for <u>products.</u>

RQ 2: Explanation Types

As was mentioned earlier, a total of 134 subjects received letters back from their organizations and subsequently filled out the second portion of the questionnaire. After subjects completed this stage of the study,

letters were content analyzed and coded for the presence of excuses, justifications, and/or apologies. We conducted two analyses with the coded explanation types. In the first analysis we examined the *presence* of the various explanation types to determine their effects on subjects' perceptions of explanation components and the dependent variables. Subjects who received no explanation type were given a score of zero while subjects who received at least one excuse, justification, or apology received a score of one (each type of explanation was analyzed separately). Using this categorization we conducted t-tests to look for significant differences in the means of the explanation components and the dependent variables when grouped by the presence or absence of excuses, justifications, or apologies. In the next analysis, we examined the impact of the *proportion* of explanation types in a response. That is, each

type of explanation (excuse, justification, and apology) was coded as a percentage of the total sum of explanations present in a response.

Presence and Explanation Components

Excuses. For <u>services</u>, t-tests of explanation components grouped by the *presence* of excuses revealed that subjects perceived letters with excuses to indicate that companies assumed less responsibility for their actions when compared to letters without excuses. For <u>products</u>, t-tests revealed that subjects' perceived letters with excuses as less appropriate than letters without excuses. For <u>products</u>, subjects also perceived letters with excuses to indicate that companies assumed less responsibility for their actions when compared to letters without excuses. See Table 4 for results.

TABLE 4

Explanation Components Grouped by the Presence of Excuses

Service Explanation Component	*M1*	*M2*	*SD1*	*SD2*	*t*	*df*	*p*	*d*	*r*
Believable	5.76	5.23	1.49	1.37	1.44	65	*ns*	.37	--
Appropriate	5.51	5.27	1.57	1.39	.63	65	*ns*	.16	--
Considerate	6.27	6.28	1.37	.89	-.05	65	*ns*	.01	--
Responsible	4.84	5.75	1.62	1.30	-2.44	65	<.05	.62	.30
Product Explanation Component	*M1*	*M2*	*SD1*	*SD2*	*t*	*df*	*p*	*d*	*r*
Believable	5.39	5.72	1.09	1.20	-1.01	59	*ns*	.29	--
Appropriate	4.74	5.76	1.59	1.16	-2.45	60	<.01	.73	.34
Considerate	5.69	5.96	1.49	1.32	-.72	60	*ns*	.19	--
Responsible	3.98	5.60	1.85	1.54	-3.51	59	<.01	.95	.43

Note: M1= Mean for letters with excuses; M2= Mean for letters without excuses; SD1= Standard deviation for letters with excuses; SD2= Standard deviation for letters without excuses; d= Cohen's d; r= effect size.

Justifications. The analysis of the components of explanations grouped by the *presence* of justifications revealed no significant differences for services, or products.

Apologies. For services, t-tests of the components of explanations grouped by the *presence* of apologies revealed that, compared to subjects who did not receive apologies, those who did perceived their organizational responses to be more believable and appropriate. For products, t-tests of the components of explanations grouped by the presence of apologies revealed that, compared to subjects who did not receive apologies, those who did perceived their organizational responses to be more believable and considerate. See Table 5 for results.

TABLE 5

Explanation Components Grouped by the Presence of Apologies

Service

Explanation Component	*M1*	*M2*	*SD1*	*SD2*	*t*	*df*	*p*	*d*	*r*
Believable	5.75	4.50	1.13	1.68	3.52	65	<.01	.87	.40
Appropriate	5.72	4.40	1.14	1.71	3.08	65	<.01	.91	.41
Considerate	6.39	6.00	.93	1.31	1.37	65	*ns*	.34	--
Responsible	5.63	5.04	1.37	1.63	1.52	65	*ns*	.39	--

Product

Explanation Component	*M1*	*M2*	*SD1*	*SD2*	*t*	*df*	*p*	*d*	*r*
Believable	6.15	5.08	.85	1.22	3.92	59	<.01	1.02	.45
Appropriate	5.71	5.22	1.24	1.47	1.43	60	*ns*	.36	--
Considerate	6.44	5.32	.86	1.55	3.51	60	<.01	.89	.41
Responsible	5.23	5.01	1.72	1.87	.47	59	*ns*	.12	--

Note: M1= Mean for letters with apologies; M2= Mean for letters without apologies; SD1= Standard deviation for letters with apologies; SD2= Standard deviation for letters without apologies; d= Cohen's d; r= effect size.

Presence and Dependent Variables

Excuses. We also conducted t-tests to examine the difference between providing an excuse and not providing an excuse for the dependent variables. For services, there were no differences between providing an excuse compared to providing no excuse. For products, the only difference between providing an excuse compared to providing no excuse was that subjects receiving them were significantly more likely to perceive the situation as negative. See Table 6.

TABLE 6

Dependent Variables Grouped by the Presence of Excuses (Product)

Dependent Variable	*M1*	*M2*	*SD1*	*SD2*	*t*	*df*	*p*	*d*	*r*
Future Intent	4.15	4.41	1.78	1.84	-.50	60	*ns*	.14	--
Credibility	5.28	5.47	1.36	1.17	-.54	59	*ns*	.15	--
Satisfaction	4.31	4.55	1.67	1.46	-.58	60	*ns*	.15	--
Negativity	4.31	3.43	1.52	1.43	2.15	60	<.05	.60	.29
Company Control	4.99	5.31	.99	1.07	-1.09	60	*ns*	.31	--

Note: M1= Mean for letters with excuses; M2= Mean for letters without excuses; SD1= Standard deviation for letters with excuses; SD2= Standard deviation for letters without excuses; d= Cohen's d; r= effect size.

Justifications. For services, t-tests of the dependent variables grouped by the presence of justifications revealed no significant differences. For products, t-tests revealed that subjects who received justifications perceived their situations to be less negative than subjects who did not receive justifications (see Table 7).

TABLE 7
Dependent Variables Grouped by the Presence of Justifications (Product)

Dependent Variable	*M1*	*M2*	*SD1*	*SD2*	*t*	*df*	*p*	*d*	*r*
Future Intent	4.52	4.30	1.75	1.84	.36	60	*ns*	.12	--
Credibility	5.80	5.33	1.02	1.25	1.11	59	*ns*	.41	--
Satisfaction	4.45	4.49	1.27	1.57	-.07	60	*ns*	.03	--
Negativity	3.05	3.81	.98	1.55	-2.00	60	<.05	.59	.28
Company Control	5.35	5.19	1.16	1.04	.44	60	*ns*	.15	--

Note: M1= Mean for letters with justifications; M2= Mean for letters without justifications; SD1= Standard deviation for letters with justifications; SD2= Standard deviation for letters without justifications; d= Cohen's d; r= effect size.

Apologies. The data indicated that for services, subjects who received apologies were significantly more likely to be satisfied with an organizational response compared to subjects who did not receive apologies. For products, subjects were more likely to intend to do business in the future with organizations that provided apologies than with org-anizations that did not. Moreover, for products subjects were likely to see companies as more credible and were more likely to be satisfied with an organizational response when an apology was offered compared to when one was not. (See Table 8 for details.)

TABLE 8

Dependent Variables Grouped by the Presence of Apologies

Service

Dependent Variable	*M1*	*M2*	*SD1*	*SD2*	*t*	*df*	*p*	*d*	*r*
Future Intent	4.61	4.74	1.71	1.71	-.28	63	*ns*	.08	--
Credibility	5.35	5.59	1.20	1.32	-.74	66	*ns*	.19	--
Satisfaction	5.00	3.97	1.53	1.48	2.49	65	<.01	.68	.32
Negativity	4.01	3.30	1.43	1.98	1.46	66	*ns*	.41	--
Company Control	4.95	5.09	1.21	.97	-.44	65	*ns*	.13	--

Product

Dependent Variable	*M1*	*M2*	*SD1*	*SD2*	*t*	*df*	*p*	*d*	*r*
Future Intent	5.01	3.70	1.57	1.82	3.01	60	<.01	.77	.36
Credibility	5.87	4.97	.92	1.33	3.06	59	<.01	.79	.37
Satisfaction	5.19	3.81	1.28	1.43	4.00	60	<.01	1.02	.45
Negativity	3.78	3.59	1.66	1.34	.50	60	*ns*	.13	--
Company Control	5.26	5.17	1.02	1.09	.32	60	*ns*	.09	--

Note: M1= Mean for letters with apologies; M2= Mean for letters without apologies; SD1= Standard deviation for letters with apologies; SD2= Standard deviation for letters without apologies; d= Cohen's d; r= effect size.

Proportion and Explanation Components

Excuses. For <u>service</u> failures, the proportion of excuses was negatively associated with only one of the components of explanations. Specifically, the larger the percentage of excuses present in an organizational explanation, the more likely a person was to perceive that explanation as significantly less assuming of responsibility ($r(57)=-.36$, $p<.01$). For <u>product</u> failures, the *proportion* of excuses in an explanation was negatively related to all of the components of explanations including believability ($r(40)=-$ .33, $p<.05$), appropriateness ($r(40)=-.53$, $p<.01$), consideration ($r(40)=-.52$, $p<.01$), and responsibility ($r(40)=-.55$, $p<.01$).

Justifications. For organizational responses to complaints about <u>services</u>, the proportion of justifications was not significantly associated with any of the components of explanations. For <u>product</u> failures, the proportion of justifications in a letter was significantly and negatively associated with believability ($r(40)=-.42$, $p<.01$).

Apologies. For <u>services</u>, the proportion of apologies in an explanation was significantly associated with responsibility ($r(57)=.33$, *p*<.01). For <u>products</u>, the proportion of apologies in an explanation was also associated with all of the components of explanations. Apologies were significantly and positively associated with believability ($r(40)=.64$, *p*<.01), appropriateness ($r(40)=.51$, *p*<.01), consideration ($r(40)=.49$, *p*<.01), and responsibility ($r(40)=.41$, *p*<.01).

Proportion and Dependent Variables

Excuses. For <u>services</u>, the proportion of excuses to other types of explanations was not significantly associated with any of the dependent variables. For <u>products</u>, the proportion of excuses to other types of explanations was significantly and negatively associated with all of the dependent variables including subjects' future intent to do business with a company ($r(39)=-.34$, *p*<.05), perceptions of company credibility, ($r(39)=-.43$, *p*<.01), satisfaction with an org-anizational response ($r(39)=-.42$, *p*<.01), and perceived company control ($r(39)=-.32$, *p*=.05). Moreover, the proportion of excuses was significantly and positively associated with negativity ($r(39)=.32$, *p*<.05).

Justifications. For <u>services</u> the proportion of justifications present in an explanation was inversely and significantly

associated with negativity ($r(57)=-.40$, p<.01). The proportion of justifications in a letter was not associated with any of the dependent variables for <u>products</u>.

Apologies. For <u>services</u>, the proportion of apologies present in an explanation was not significantly associated with any of the dependent variables. For <u>products</u>, the proportion of apologies present in a letter was positively and significantly associated with subjects' future intent to do business with a company ($r(39)=.42$, *p*<.01), perceptions of company credibility ($r(39)=.35$, *p*<.05), and satisfaction with an organizational response ($r(39)=.55$, *p*<.01).

RQ3: Tangibles

To examine the impact of the presence of tangible rewards on the components of explanations and the dependent variables we conducted t-tests between subjects who received tangible compensation and subjects who did not for <u>service</u> failures and for <u>product</u> failures. Results from the tests for <u>services</u> indicated that the presence of tangible rewards made a difference in the way subjects perceived company messages for each of the components of explanations. Compared to not getting a tangible reward, getting a tangible reward to compensate for <u>product</u> failures was related only to higher perceptions of believability and approp-riateness (for results see Table 9).

TABLE 9

Explanation Components Grouped by the Presence of Tangible Compensation

Service

Explanation Component	*M1*	*M2*	*SD1*	*SD2*	*t*	*df*	*p*	*d*	*r*
Believable	4.87	5.97	1.53	1.03	-3.47	65	<.01	.84	.39
Appropriate	4.69	6.05	1.59	.81	-4.45	65	<.01	1.08	.47
Considerate	5.91	6.68	1.27	.53	-3.25	65	<.01	.79	.37
Responsible	4.97	6.00	1.42	1.33	-3.06	65	<.01	.75	.35

Product

Explanation Component	*M1*	*M2*	*SD1*	*SD2*	*t*	*df*	*p*	*d*	*r*
Believable	5.38	6.16	1.10	1.17	-2.50	59	<.01	.69	.32
Appropriate	5.18	6.05	1.46	.93	-2.82	60	<.01	.71	.33
Considerate	5.71	6.25	1.37	1.32	-1.48	60	*ns*	.40	--
Responsible	4.90	5.61	1.81	1.67	-1.47	59	*ns*	.41	--

Note: M1= Mean for subjects who received no compensation; M2= Mean for subjects who received some compensation; SD1= Standard deviation for subjects who received no compensation; SD2= Standard deviation for subjects who received some compensation; d= Cohen's d; r= effect size.

The results of the tests for <u>service</u> failures and the dependent variables are provided in Table 10. With the exception of perceived company control, the presence of tangible rewards made a difference in the way subjects perceived organizations following remedial attempts for each of the dependent variables. The results for the t-tests of dependent variables grouped by the presence of tangible compensation for <u>products</u> are also available in Table 10. Compared to not getting a tangible reward, getting a tangible reward to compensate for <u>product</u> related failures was only related to higher future intentions to do business with a company.

TABLE 10

Dependent Variables Grouped by the Presence of Tangible Compensation

Service

Dependent Variable	*M1*	*M2*	*SD1*	*SD2*	*t*	*df*	*p*	*d*	*r*
Future Intent	4.14	5.16	1.71	1.55	-2.52	63	<.01	.63	.30
Credibility	5.17	5.68	1.36	1.05	-1.74	66	<.05	.42	.21
Satisfaction	3.91	5.59	1.47	1.19	-5.11	65	<.01	1.26	.53
Negativity	4.13	3.45	1.79	1.37	1.75	66	<.05	.43	.21
Company Control	5.02	4.95	1.33	.91	.79	65	*ns*	.06	--

Product

Dependent Variable	*M1*	*M2*	*SD1*	*SD2*	*t*	*df*	*p*	*d*	*r*
Future Intent	4.03	4.98	1.77	1.77	-1.96	60	<.05	.54	.26
Credibility	5.23	5.73	1.22	1.21	-1.42	59	*ns*	.41	--
Satisfaction	4.27	4.91	1.46	1.57	-1.57	60	*ns*	.42	--
Negativity	3.87	3.30	1.43	1.59	1.41	60	*ns*	.38	--
Company Control	5.13	5.40	1.04	1.07	-.96	60	*ns*	.26	--

Note: M1= Mean for subjects who received no compensation; M2= Mean for subjects who received some compensation; SD1= Standard deviation for subjects who received no compensation; SD2= Standard deviation for subjects who received some compensation; d= Cohen's d; r= effect size.

DISCUSSION

RQ1: Explanation Components

The data from this study offer some preliminary findings that suggest consumers react differently to organizational remediation tactics regarding service- and product-based failures. First, assuming responsibility for an organizational failure was not significantly related to subjects' future intent to do business with an organization for service failures. However, assuming responsibility for a failure was significantly associated with subjects' future intent to do business with companies experiencing product failures. This finding may be explained by the organizational structure inherent in the complaint response process. In most of the organizational replies concerning service failures, some type of manager or owner typically responded to aggrieved consumers.

In these types of failure situations the person responding to the complaint was usually removed from the initial harmful situation and, if the fault for bad service was placed on the individual delivering the service, may have been considered blameless. On the other hand, the connection between fault for the failure and the organization as an agent may be more easily defined with product failures. Instead of blaming the failure on individuals (e.g., a waiter at a restaurant), consumers facing product failures may blame organizations as a whole. Because the delivery of services is inseparable from their consumption (Zeithaml et al., 1985), consumers may place more importance on organizational responsibility for product-based failures and more importance on personal/individual responsibility for service-based failures. If this is the case, it makes sense that when organizations take responsibility for service-based failures these messages have little impact on consumers' future intent to do business compared to similar messages from product-based organizations.

Second, a person's perceived experience of negativity was only associated with consideration for service failures. On the other hand, negativity was only associated with appropriateness and responsibility for product failures. These findings may be explained by the nature of the organizational offering. Because service organizations are uniquely tied to their method of delivery (Zeithaml et al., 1985), consumers may be more likely to see business with these types of organizations as reflective of interpersonal relationships. If this is the case it makes sense that treating a consumer with consideration would make them feel less negative about the relationship. Product-based organizations on the other hand may foster a more transactional relationship identity and subjects may therefore perceive this relationship as more professional than personal. As such, accepting responsibility and providing an appropriate explanation for the circumstances may be more valuable to a person facing a product failure than how she feels the company is treating her personally.

RQ2: Explanation Types

Excuses. T-tests of the components of explanations grouped by the presence of excuses revealed that responsibility was significantly affected by excuses. Specifically, for service failures and for product failures, the presence of excuses led to lower perceptions of assumed responsibility. For product failures, the presence of excuses also led to lower perceptions of appropriateness.

For service failures, the proportion of excuses was only associated with lower levels of perceived responsibility while for products the proportion of excuses was significantly and negatively associated with all the components of explanations. The presence of excuses also led to increased perceptions of negativity for product-based failures. For products, the proportion of excuses worked to lower subjects' future intent to do business with an organization, perceptions of company credibility, satisfaction with a company response, perceptions of organizational control over a failure, and increase subjects' perceptions of negativity about a failure episode.

Again, the discrepancy between service and product failures can be seen in the results above: excuses had a more negative impact on products than they did on services. One reason for this finding may be based on the nature of who responded to consumers' complaint letters. As was stated earlier, most service- based complaints were answered by somebody other than the person who caused the failure in the first place (e.g., managers at restaurants answered complaint letters about bad waiters). Because these people were removed from the situation, consumers of services might have seen the use of excuses as less damaging than consumers of products. That is, consumers of services might have interpreted excuses as simple attempts to

explain the circumstances compared to consumers of products who might have interpreted excuses as denials of accountability.

Justifications. The presence of justifications did little to influence subjects' perceptions of any of the components of explanations for service-based failures. However, the proportion of justifications worked to lower subjects' perceptions of organizations' believability for products.

On the other hand, for product-based failures the presence of justifications worked as the literature suggested for the dependent variables. That is, results indicated that the presence of justifications led to a decrease in subjects' perceived negativity about a failure. The proportion of justifications worked as the literature suggested as well. Compared to explanations without low percentages of justifications, those with high percentages of justifications were more likely to lead to lower perceptions of negativity for services. These findings suggest that using justifications can be beneficial for organizations that want to reduce the perceived negativity of a failure.

Apologies. For services, the presence of apologies in an explanation was associated with believability and appropriateness. For products, the presence of apologies in an explanation was positively associated with believability, and consideration. The proportion of apologies was positively and significantly associated with believability, appropriateness, consideration, and responsibility for products. For services, the proportion of apologies was positively associated with responsibility.

For services, the presence of apologies led to an increase in subjects' satisfaction with an organizational response. For products, the data indicated that the presence of apologies led to higher intentions to do business with an organization in the future, higher perceptions of company credibility,

and higher levels of satisfaction with an organizational response.

For product-based failures, the proportion of apologies present in a letter was positively and significantly associated with subjects' future intent to do business, perceived company credibility, and satisfaction. Finally, apologies were more likely to be given out by service-based organizations than product-based organizations. In addition, service-based organizations were more likely to give out a higher proportion of excuses than product-based organizations.

Apologies seem to be more beneficial to product-based organizations than they are to service-based organizations. Again, this may be the case because of who responds to complaint letters. Because the people answering complaints about service failures are not typically involved in the original failures, these people may not be connected to the failures in the same way that employees are with product failures. Because people facing service failures may blame individuals, when managers provide an apology they may be perceived as simply apologizing for the behavior of others. This surrogate apology might not make as large an impact on consumers' subsequent perceptions of organizations and their explanations as does an apology for a product failure.

RQ3: Tangibles

Providing some type of tangible compensation was beneficial for organizations facing complaining consumers. However, the provision of tangible compensation was more likely to lead to positive changes in subjects' perceptions of organizations following service failures compared to product failures. This may be the case because levels of satisfaction are usually defined as the amount a person receives compared to that which is expected (Adams, 1965), and – in contrast to product failures – subjects experiencing service failures may not

desire or expect tangible compensation. That is, when a product malfunctions, people may *expect* to be financially or tangibly re-imbursed. Therefore, when subjects *are* reimbursed for product failures they may not perceive the remediation as satisfying com-pared to not expecting reimbursement. After enduring a service failure, subjects may feel differently though. For example, after experiencing bad service at a restaurant sub-jects may not expect to receive a free meal; after all, the quality of the food was good, it was just that the delivery and the wait staff needed improvement. The two dimensions of the restaurant (service and product) may be considered separate in subjects' minds and therefore receiving a coupon for a free meal – after complaining about the service – may lead to higher levels of satisfaction because the compensation was not expected.

CONCLUSIONS

The few differences in the data among services and products for most of the analyses can be codified into two major patterns. These patterns concern the differences between the relative importance of assuming responsibility for service- and product-based failures and the differences in alleviating negativity for service- and product-based failures.

First, accepting responsibility made a larger difference in the outcome variables for product-based organizations than for service-based organizations. Whereas accepting responsibility for failure episodes increased consumers' future intent to do business with organizations and decreased consumers' perceptions of negativity for product-based companies, these results were non-significant for service-based companies. This result suggests that accepting responsibility for a failure may be more important for product-based organizations than it is for service-based organizations. The same pattern of results is clear in the analysis of excuses as well. With service-based organizations, the

presence and proportion of excuses were not related to any of the dependent variables and were only related to lower subject perceptions of responsibility. On the other hand with product-based organizations, the presence and proportion of excuses led to lower perceptions of believability, appropriateness, consider-ation, and responsibility in a letter. Moreover, the presence and proportion of excuses led to lower intentions to do business with an organization in the future, lower perceptions of a company's credibility, lower perceptions of satisfaction with an organization's re-sponse, and more negativity about a failure episode. These findings suggest that the use of excuses and the acceptance of re-sponsibility have a small effect on people's perceptions of organizations and organ-izational explanations following service failures and a large effect following product failures.

Second, when examining the results it became apparent that product-based org-anizations had difficulty diminishing subjects' perceptions about the negativity of the failure event. This result was so strong that receiving a letter did little to alleviate subjects' level of perceived negativity about the situation. That is, subjects who did not receive a letter and subjects who did receive a letter from product-based organizations indicated a similar amount of negativity regarding failure episodes.

The combination of the results pre-sented above makes the case for the differential impact of taking accountability for a failure and the differential impact of showing consideration for a failure for service- and product-based companies. Being accountable was more important for product-based organizations facing a complaint than it was for service-based organizations facing a complaint. On the other hand, being con-siderate was more important for service-based organizations facing a failure than it was for product-based organizations facing a complaint.

So what's going on? Recall that Zeithaml et al. (1985) presented four categories upon which services and products differed (inseparability, intangibility, perishability, and heterogeneity). It is along these same categories that services and products seem to differ in relation to failure episodes as well. To begin, the person who responded to complaint letters may have made a difference in the way consumers interpret responsibility. When complaint letters were sent to service-based companies, the people who perpetrated the failures were not the people who wrote back. More often, some type of manager or other (e.g., customer relations) employee wrote letters back to the respondents. Because this is the case, consumers may see the responses to service-based complaints as less connected to the failure situation than consumers with product-based complaints. Therefore, taking responsibility may be more important to consumers of products than it is to consumers of services. Stated differently, consumers experiencing product failures may see whole organizations at fault whereas consumers experiencing service failures may be more likely to see individuals at fault. This notion stems from the argument that with service failures the person who provided poor service is *inseparable* from the fault. Therefore, assigning responsibility to the organization as a whole may be more difficult for service-based failures than it is for product-based failures. That being said, consumers of services may not put such a heavy emphasis on taking responsibility as do consumers of products; and taking responsibility for the actions of others (as was often the case for service-based failures) may not be as important to consumers' perceptions of negativity as is taking responsibility for one's self (as may be the case for product-based organizations).

Furthermore, because services are *intangible* it may be difficult for consumers to determine to what extent the service failed them. As was mentioned earlier, even if people are dissatisfied with the level of service provided at a restaurant, it may prove difficult to determine just *how much* the failure upset the meal (after all, the food was just fine). If this is true then the presence of tangible compensation may help make up for the failure for service-based organizations because its receipt is not expected. Consumers who experience a product failure on the other hand may expect to be reimbursed and thus the receipt of tangible rewards for product-based failures may do little to diminish a sense of negativity.

Also, with services, once the failure is over it is literally gone. Due to the *perishable* nature of services consumers may be likely to forget about these types of failures sooner than they forget product failures - which, by nature of their physical presence, are always there to serve as a reminder. Therefore, the presence of consideration may create a recency effect with service failures (the last thing people remember is being treated with respect and courtesy) but not with product failures. In addition, service-based failures may be seen as more relational than transactional. That is, failures in services (rude employees) may be seen as more of a personal affront that failures with products. With these two possibilities in mind it makes sense that although consideration may be important for consumers experiencing product failures, the positive effect of showing respect and courtesy may be more important for consumers experiencing service failures.

Finally, with service failures, consumers may be more likely to expect some type of human error in their deliver than they do for products. This notion is based on the idea of *heterogeneity* that states that service quality and consistency are subject to variability since human behavior is difficult to control. On the other hand, durable goods can be produced in a relatively consistent manner and their failure may therefore pose a more serious threat to organizations' relationships with consumers. Because humans are

delivering <u>services</u>, subjects may be more forgiving with this type of failure than they are for <u>product</u> failures. Therefore, the ability to reduce consumers' perceived negativity with failure episodes may be easier for <u>service</u>-based organizations than it is for <u>product</u>-based organizations.

LIMITATIONS AND FUTURE DIRECTIONS

This investigation used a convenience sample of college students for data collection. Still, like the rest of us, the subjects recruited to take part in this study live in a society that requires consumption and undoubtedly these students were familiar with both positive and negative organizational relationships. That being said, there is no reason to believe that subjects' responses in this study should be considered invalid due to a lack of experience or knowledge. Subjects were asked to write to companies regarding real, experienced dissatisfaction and the responses reported in this study therefore reflect the true sentiments of genuinely dissatisfied consumers.

Future research may consider further investigating the differences between service and product-based organizations. The findings presented in this paper are an initial indication that this may be a fruitful avenue of research and scholars may want to continue investigating potential differences between the two types of organizations as they apply to remedial strategies and tactics.

REFERENCES

Adams, J. S. (1965), "Inequity in social exchange," in L. Berkowitz (Ed.), *Advances in experimental social psychology* (pp. 267-299), New York: Academic Press.

Babakus, E., Yavas, U., Karatepe, O. M., and Avci, T. (2003), "The effect of management commitment to service quality on employees' affective performance outcomes," *Journal of the Academy of Marketing Science, 31,* 272-286.

Baer, R., and Hill, D. J. (1994), "Excuse making: A prevalent company response to complaints?,"

Journal of Customer Satisfaction, Dissatisfaction and Complaining Behavior, 7, 143-151.

Bitner, M. J., Booms, B. H., and Tetreault, M. S. (1990), "The service encounter: Diagnosing favorable and unfavorable incidents," *Journal of Marketing, 54,* 71-84.

Blodgett, J. G., Hill, D. J., and Tax, S. S. (1997), "The effects of distributive, procedural, and interactional justice on post-complaint behavior," *Journal of Retailing, 73,* 185-210.

Bolkan, San and John A. Daly, (2007),*"Organizational responses to consumer complaints: An approach to understanding the effectiveness of remedial accounts,"* Paper presented to the National Communication Association: Chicago, IL.

Boshoff, C. (1997), "An experimental study of service recovery options," *International Journal of Service Industry Management, 8,* 110-130.

Bradford, J. L., and Garrett, D. E. (1995), "The effectiveness of corporate communicative responses to accusations of unethical behavior," *The Journal of Business Ethics, 14*, 875-892.

Conlon, D. E., and Murray, N. M. (1996), "Customer perceptions of corporate responses to product complaints: The role of explanations," *Academy of Management Journal, 39,* 1040-1056.

Etzel, M. J., and Silverman, B. I. (1981), "A managerial perspective on directions for retail customer dissatisfaction research," *Journal of Retailing, 57,* 124-136.

Gilly, M. C., and Gelb, B. D. (1982), "Post-purchase consumer processes and the complaining consumer," *Journal of Consumer Research, 9,* 323-328.

Gilly, M. C., and Hansen, R. W. (1992), "Consumer complaint handling as a strategic marketing tool," *The Journal of Product and Brand Management, 1,* 5-16.

Greenberg, J. (1990), "Looking fair vs. being fair: Managing impressions of organizational justice," In B. M. Staw, and L. L. Cummings (Eds.), *Research in organizational behavior* (pp.111-157). Greenwich, CT: JAI Press.

Hareli, S. (2005), "Accounting for one's behavior – what really determines its effectiveness? Its type or its content?," *Journal for the Theory of Social Behavior, 35,* 359-372.

Hart, W. L., Heskett, J. L., and Sasser, W. E. Jr. (1990), "The profitable art of service recovery: How the best companies turn complaining customers into loyal ones," *Harvard Business Review, 68,* 148-156.

Hill, D. J., and Baer, R. (1994), "Customers complain – businesses make excuses: The effects of linkage and valence," *Advances in Consumer Research, 21,* 399-405.

Hoffman, K. D., and Kelley, S. W. (2000), "Perceived justice needs and recovery evaluation: A contingency approach," *European Journal of Marketing, 34,* 418-432.

Jones, E. E., and Nisbett, R. E. (1971), "The actor observer: Divergent perceptions of the cause of behavior," in E. E. Jones, D. E. Kanouse, H. H. Kelley, R. E. Nisbett, S. Valins, and B. Weiner, (Eds.), *Attribution: Perceiving the causes of behavior* (pp. 1-26). Morristown, NJ: General Learning Press.

Keaveney, S. M. (1995), "Customer switching behavior in service industries: An exploratory study," *Journal of Marketing, 59,* 71-82.

Kelley, H. H. (1973), "The process of causal attribution," *American Psychologist, 28,* 107-128.

Mattila, A., S. (2001), "The effectiveness of service recovery in a multi-industry setting," *Journal of Services Marketing, 15,* 583-596.

Schlenker, B. R. (1980), "*Impression management: The self-concept, social identity, and interpersonal relation," Monterey*, CA: Brooks/Cole.

Scott, W. A. (1955), "Reliability of content analysis: The case of nominal scale coding," *The Public Opinion Quarterly, 19,* 321-325.

Scott, M. B., and Lyman, S. M. (1968), "Accounts," *American Sociological Review, 33,* 46-62.

Tax, S. S., Brown, S. W., and Chandrashekaran, M. (1998), "Customer evaluations of service complaint experiences: Implications for relationship marketing," *Journal of Marketing, 62,* 60-76.

Wirtz, J., and Mattila, A. S. (2004), "Consumer responses to compensation, speed of recovery and apology after a service failure," *International Journal of Service Industry Management, 15,* 150-166.

Zeithaml, V., Parasuraman, A., and Berry, L. L. (1985), "Problems and strategies in services marketing," *Journal of Marketing, 49,* 33-46.

Zemke, R. (1994), "Service recovery," *Executive Excellence, 11,* 17-18.

Zemke, R., and Bell, C. (1990), "Service recovery: Doing it right the second time," *Training, 27,* 42-48.

Zinkhan, G. M., Johnson, M., and Zinkhan, F. C. (1992), "Differences between product and services television commercials," *Journal of Services Marketing, 6,* 59-66.

Send correspondence regarding this article to:

San Bolkan
Assistant Professor
Department of Communication Studies
Bloomsburg University of Pennsylvania
1146 McCormick Center
Bloomsburg, PA 17815
(512) 294-8408
sbolkan@bloomu.edu

GETTING GOOD COMPLAINING WITHOUT BAD COMPLAINING

Gavin L. Fox, Texas Tech University

ABSTRACT

This article investigates the similarities and differences between public and private complaining drivers. The purpose of this analysis is to provide organizations with a set of characteristics that drive value-added public complaining behaviors, while simultaneously avoiding detrimental private complaining behaviors. A sample of 235 consumers who experienced actual service failures in a variety of industries is used to assess these differences. The results suggest that age, attitude toward complaining, and perceived consumer effectiveness are all positively related to public complaining behaviors, but not private complaining behaviors. Income is also negatively related to private complaining behaviors, but not public complaining behaviors. Failure severity is positively related to both forms of complaining behavior. Implications for practitioners are discussed.

INTRODUCTION

Consumer complaining behavior is a phenomenon of great interest and practical importance in services. Its advancement is contingent upon the application of different samples, data collection procedures, and analytical methods. The practical importance of addressing service failures is well established in the literature (e.g., Smith, Bolton, and Wagner 1999; Tax, Brown, and Chandrashekaran 1998). For example, service failures and failed responses to customer complaints are costly mistakes for firms to make, as new customers are more costly to acquire than retaining current customers (Hart, Heskett, and Sasser 1990).

In an effort to help organizations learn and improve from service failures, researchers suggest that organizations promote complaining behaviors from consumers (e.g., Fornell and Westbrook 1984). Public complaining behavior (i.e., complaints made directly to an organization or indirectly through a third party) affords an offending firm the opportunity to make amends for a service failure and potentially retain the affected consumer (Gilly and Gelb 1982; Hogarth, English, and Sharma 2001; Mattila and Wirtz 2004). A downside of promoting public complaining behaviors is that potentially detrimental private complaining behaviors (e.g., negative word-of-mouth and relationship termination) often accompany the public complaining behaviors (Singh 1988). It is therefore of potential benefit to emphasize characteristics that prompt public complaining behaviors without also prompting private complaining behaviors.

Despite the development of Day and Landon's (1977) classification of complaint behaviors and subsequent taxonomy by Singh (1988), few researchers attempt to differentiate between the various types of consumer complaint responses to service failures and simply report general complaint intentions. The results cannot necessarily then be segmented into actionable strategies that benefit firms. For example, employing a call center to handle complaints adds little value if the majority of consumer complaints are lodged in person. Similarly, there is little value in heightening failure severity to induce public complaining if it also decreases satisfaction and leads to negative private actions by the consumer, such as negative word-of-mouth (Weun, Beatty, and Jones 2004). This gap needs to be addressed if firms are to benefit from promoting consumer complaining behaviors. The objective of this research is therefore to compare characteristics that drive public complaining

behavior to those that drive private complaining behavior.

BACKGROUND AND LITERATURE REVIEW

Providing superior complaint handling and service recovery have been highlighted in literature as a source of competitive advantage (Richins 1981; Stevens and Gwinner 1998; Tax, Brown and Chandrashekaran 1998). This system requires policies and procedures that make complaining easier for customers. Despite the suggested benefits of such a system, a considerable disconnect exists between theory and practice, as service organizations tend to shy away from complaint management (Fornell and Westbrook 1984). Barnes and Kelloway (1980) suggest that the source of this gap stems from the universally negative connotation that complaints carry.

A more specific explanation is perhaps the inability to separate value-adding complaining (e.g., complaints that help the firm improve service offerings or assist in retaining customers who experience service failures) from value-subtracting complaining (e.g., complaining that reduces the customer base or share-of-wallet). Service organizations are typically reluctant to promote general complaining because complaining is often viewed as a negative outcome (Fornell and Westbrook 1984). However, public complaining (i.e., complaining to the firm) often allows firms to adjust faulty service offerings and make amends in order to retain customers (Ndubisi and Ling 2006; Oh 2006). Private complaining (i.e., complaining to other consumers or ending service with a firm), on the other hand, does not typically offer a firm the chance to repair failures and tends to reduce the customer base (Bearden and Oliver 1985). Firms thereby need to be able to not only to differentiate between public and private complaining behavior, but also to understand what drives each type of

complaining behavior. To address this gap, characteristics expected to generate value-adding complaining (public) are differentiated from characteristics expected to generate value-subtracting complaining (private). Service organizations can then potentially focus on value-adding complaining when building complaint management and failure response systems and limit value-subtracting complaining.

A host of prior literature has provided a strong base of variables from which to compare public and private complaining behavior. Day and Landon (1977) initiated the discussion by classifying complaint actions. Singh (1988) and Blodgett and Granbois (1992) followed with additional classifications and hypothetical models that suggested the importance of variables such as attitude toward complaining, likelihood of success, locus of control. Initially, demographic variables, such as age, gender and income (Kolodinsky and Aleong 1990; Kolodinsky 1992; Otto, Parry, Payne, Huefner, and Hunt 2004), were heavily studied due to their objectivity and because they were relatively easy to determine. Other research began to examine personality and consumerism characteristics, such as assertiveness (Gilly and Gelb 1982), consumer collectivist tendencies (Price, Feick, and Higie 1987), and attitude toward complaining (Richins 1981; Singh and Pandya 1991). Still another stream investigated situational characteristics, such as failure severity (Weun, Beatty, and Jones 2004) and attribution of fault (locus) (Otto, Parry, Payne, Huefner, and Hunt 2004).

Despite the value inherent in testing an isolated set of variables, the majority of prior research does not compare value-added complaining (public) to non-value-added complaining (private). Respondents are typically either placed in contrived situations, as in the case of DeWitt and Brady (2003), asked about general complaining behavior, as in the case of Voorhees and Brady (2005), asked

only about either public or private complaining behaviors, as in the case of Richins (1983), or examined as only complainers or non-complainers, as in the case of Bennett (1997). Kolodinsky and Aleong (1990) provide an assessment of complaining behavior that compares actual complainers to non-complainers across both private and public responses. The variables in the study, however, are limited primarily to demographics and attitude toward complaining. This research extends Kolodinsky and Aleong's work by collectively assessing additional public and private complaint predictors resulting from real service failures.

A host of different variables have been used to examine the nature of complaining behavior. These can be broken down into demographic, psychological, situational, and consumerism categories. Demographic variables constitute objective characteristics of consumers, such as age, gender, and income. Psychological variables are aspects of personality, attitudes, or traits that might increase or decrease a consumer's propensity to complain. Situational variables are aspects derived from a specific service failure event. These often relate to the type and extent of service failure. Consumerism variables refer to beliefs about the market and may indicate goals surrounding complaining rather than underlying personality traits. This research takes a broad focus and examines all of these categories in a combined analysis. **Figure 1** summarizes the conceptual framework and the hypothesized relationships described in the subsequent sections.

Demographic Variables

Demographics are among the oldest and most common predictors used in complaining behavior. The advantage of demographic measures is that they provide an objective means of comparing complainers to non-complainers (Keng, Richmond, and Han 1995). For example, it is relatively easy in most cases to visually or verbally distinguish between males and females. The demographic characteristics investigated in this research are age, gender, and income, as these are some of the most prevalent demographic variables discussed in complaint research.

Age is frequently used to predict complaining behavior, though its impact is often indiscernible (Bolfing 1989; Kolodinsky 1992; Palmer, Beggs, and Keown-McMullan 2000). For instance, Bearden (1983) found that age negatively relates to complaining behaviors in the auto mechanic industry, while Bolfing (1989) found no relationship in the hospitality industry. In a more general context, age has been shown to positively correlate to public complaining behaviors (Kolodinsky 1992; Keng, Richmond, and Han 1995). Older consumers are expected to publicly complain more than younger consumers due to accumulated knowledge and experience in dealing with service failures (Kim, Kim, Im, and Shin 2003; Kolodinsky 1993). Knowledge and experience are shown to bolster self-efficacy (i.e., a belief in one's abilities to accomplish tasks), which in turn facilitates complaint efforts (Keng, Richmond, and Han 1995).

Private complaining is also expected to exhibit a positive relationship to age, but for different reasons. Specifically, older consumers are more likely than younger consumers to stop patronizing (private complaining) firms that fail them (Kolodinsky 1992; Otto, Parry, Payne, Huefner, and Hunt 2004; Ndubisi and Ling 2006). Further, elderly consumers often seek information from interpersonal sources (i.e., word-of-mouth) when deciding what stores to patronize or what products to purchase (Lumpkin and Greenberg 1982). Taken together, these suggest that older consumers are more likely to commit private com-plaining behaviors than younger consumers. The above discussion suggests the following set of hypotheses:

H1a: The probability of public complaining increases with age.

H1b: The probability of private complaining increases with age.

FIGURE 1
Conceptual Framework and Summary of Hypotheses
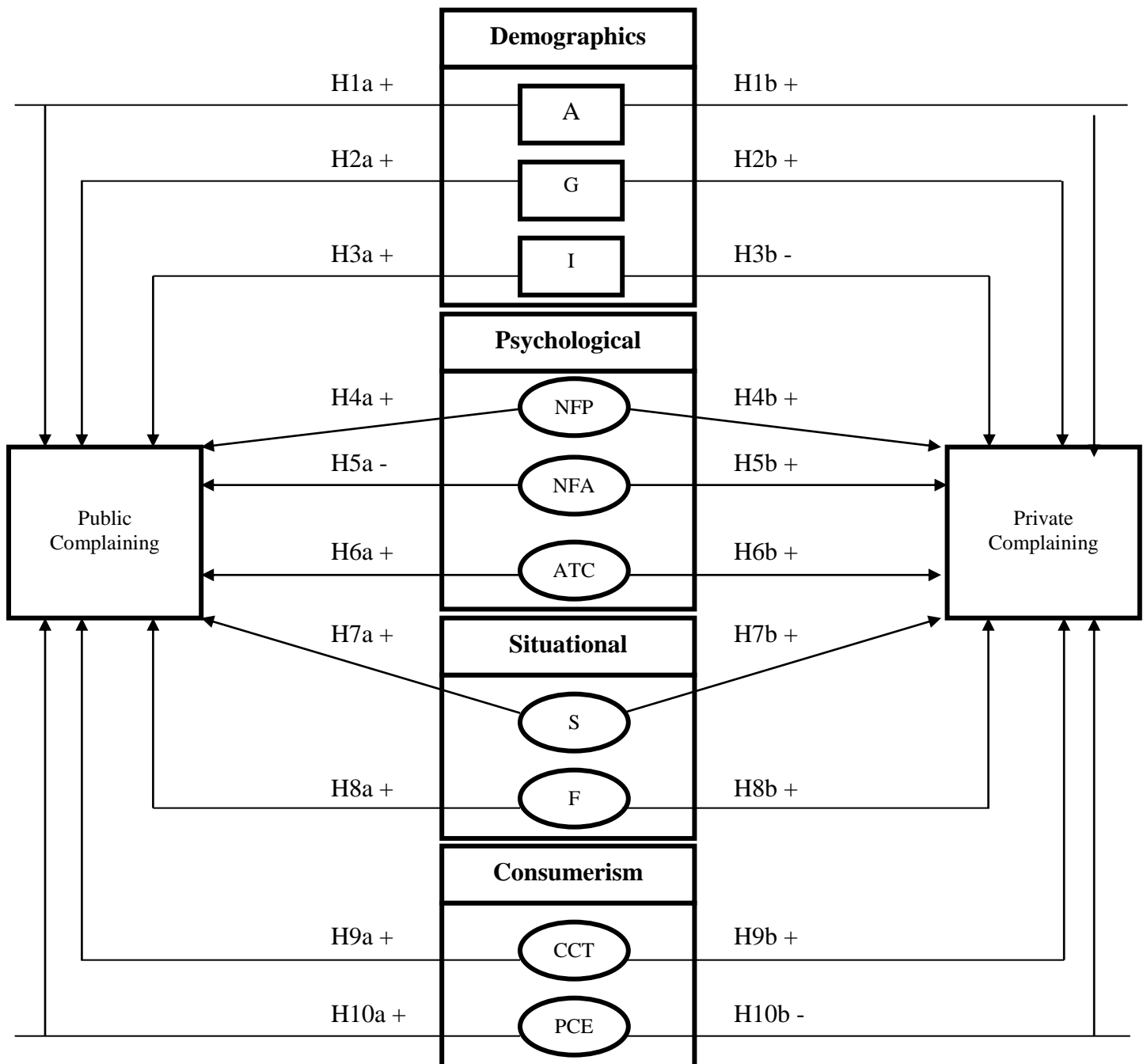
Note: A = Age, G = Gender, I = Income, NFP = Need for Power, NFA = Need for Affiliation, ATC = Attitude toward Complaining, S = Severity, F = Fault, CCT = Consumer Collectivist Tendencies, PCE = Perceived Consumer Effectiveness

CONCEPTUAL FRAMEWORK AND HYPOTHESIS DEVELOPMENT

Though females are shown to communicate complaints in the same manner as males overall (Garrett, Meyers, and West 1997), there is strong evidence to suggest that females voice complaints to firms and friends more frequently than males (e.g., McColl-Kennedy, Daus, and Sparks 2003). The advantage of understanding gender differences is that gender is relatively easy to discern in person and over the phone (public complaining) (McColl-Kennedy, Daus, and Sparks 2003). The stereotypic tendency of females to desire and focus on communicative behaviors more than males (Fischer and Arnold 1994) suggests that females are more likely than males to commit word-of-mouth behaviors (private), whether positive or negative.

Public complaints are also more likely the domain of females than males. This is because females expect greater relational continuity, have higher expectations of recovery, and view failures as less stable than do males (Hess, Ganesan, and Klein 2003). In essence, females are more likely to complain to a service provider than males because they expect more from an organization, believe more strongly that the service failure experience is aberrant, and are not as willing to sever ties with organizations. The above discussion suggests that females are more likely to publicly and privately complain than are males. This leads to the following hypotheses:

H2a: Females are more likely to complain publicly than are males.
H2b: Females are more likely to complain privately than are males.

Income level is another useful predictor of complaining behavior, as it is strongly related to education level (Day and Landon 1977). Those with greater income tend to be more educated and hence savvier about how to complain to organizations (Ngai, Heung, Wong, and Chan 2007). The complaint process is thus less cumbersome and tends to be a more critical element of the service encounter for consumers with higher levels of income. In addition, higher income consumers often believe that they should receive superior treatment in exchange for their financial remuneration (Ngai, Heung, Wong, and Chan 2007). Specifically, higher income consumers tend to pay more for services and hence expect higher service levels, which include response to complaints. This suggests that consumers with greater income will be more likely to commit public complaining behaviors.

Income is also related to social status and normative behaviors. Specifically, work on status and social movements (e.g., labor strikes and boycotting) suggests that lower income consumers are more likely than higher income consumers to stop purchasing or commit negative word-of-mouth (cf. Dixon and Roscigno 2003). Lower income heightens concerns about material losses and tends to drive lower income consumers to communicate with each other in order to mobilize against a failing firm (Dixon and Roscigno 2003). Income level is thus expected to positively relate to public complaining, but negatively relate to private complaining (Bearden 1983; Kolodinsky and Aleong 1990). This suggests the following pair of hypotheses:

H3a: The probability of public complaining increases with income.
H3b: The probability of private complaining decreases with income.

Psychological Variables

Common psychological variables associated with the study of complaining behavior are assertiveness (Fornell and Westbrook 1979), aggressiveness (Day 1980),

and attitude toward complaining (Richins 1981; Singh and Pandya 1991). An additional psychological variable considered here is need for affiliation (McClelland 1961). Bolfing (1989) indicates that research on personality variables is inconclusive. A range of findings among psychological variables suggests that research is still needed to shore up the key psychological antecedents to complaining behavior. Further, psychological variables are suggested to be among the most likely to help distinguish between public and private complaining behaviors (Kolodinsky and Aleong 1990).

A study by Fornell and Westbrook (1979) shows that higher amounts of assertiveness and need for control lead to more complaining, while other studies by Landon (1977) and Bearden (1983) fail to find similar results. An alternative tact is available from McClelland (1961) with the examination of the psychological trait "need for power." Need for power contains the elements of assertiveness, aggression, and control (Mason and Blankenship 1987; Zurbriggen and Sturman 2002). Consumers with a strong need for power enjoy influencing others (McClelland 1961) and a service failure is likely to provide them with the means to satisfy this need.

Publicly, these consumers are likely to attempt to force recompense or cause the service firm to react in a specific way. Need for power should thus increase the probability of complaining publicly. It is through any reaction that this need begins to be satisfied (McClelland 1961). Need for power should be a particularly strong predictor in the case of public complaining behavior, as direct goal achievement (e.g., forcing the firm to do something) produces stronger feelings of satisfaction than indirect achievement (e.g., prompting a friend to boycott the firm) (Mason and Blankenship 1987).

Privately, these consumers may communicate failures to friends in order to influence the purchase decisions of others (Bearden and Oliver 1985; Malafi 1991). In

this sense, consumers derive power from guiding the actions of other consumers rather than forcing a direct response from a service organization. Despite the potentially reduced need fulfillment provided by this less direct form of influence, need for power should also increase the likelihood of private complaining. As a result of the above discussion, the following hypotheses are posed:

> **H4a:** The probability of public complaining increases with need for power.
> **H4b:** The probability of private complaining increases with need for power.

Need for affiliation is another potential differentiator of public and private complaining behaviors. It refers to a consumer's desire to be around others, to communicate with them, and to maintain meaningful bonds with them (McClelland 1961). Consumers with a strong need for affiliation would therefore be more likely to shop in groups and communicate with others about their shopping experiences (Cheung, Anitsal, and Anitsal 2007), thus achieving their desired goal of affiliating with others. This suggests a propensity for these consumers to commit private complaining behaviors, such as negative word-of-mouth. Further, these consumers are likely to boycott firms that wrong them due to a belief that the firm is violating social norms of reciprocity (i.e., money is exchanged for a certain level of service, which the firm fails to provide) or to defend their personal ideals (Otto, Parry, Payne, Huefner, and Hunt 2004).

Consumers with a strong need for affiliation should also be more likely to shy away from direct confrontation or other negative social episodes because these situations detract from the individuals' goals (Schneer and Chanin 1987). These consumers tend to not want to upset the social balance (Barnes and Kelloway 1980). Hence, need for affiliation should decrease public

complaining behavior. The above discussion suggests the following pair of hypotheses:

> **H5a:** The probability of public complaining decreases with need for affiliation.
> **H5b:** The probability of private complaining increases with need for affiliation.

Complaining has a negative social connotation associated with it for some consumers (Barnes and Kelloway 1980). For example, complaining may be considered whining or signal weakness by some consumers. Those with more positive attitudes toward complaining are more likely to see complaining as a positive as opposed to a negative. Singh and Pandya's (1991) findings suggest that a positive attitude toward complaining increases the probability of general complaint behaviors.

Attitude toward complaining is primarily related to public complaining behaviors, as it involves a tendency to seek recompense from an organization (Kim, Kim, Im, and Shin 2003; Richins 1981). Consumers that view complaining in a more positive light or find it more acceptable than others have fewer internal barriers to complaining. Having a more positive attitude toward complaining is therefore expected to increase public complaining behavior. Further, Oh (2006) suggests that consumers who are more likely to seek recompense are also more likely to commit private complaining behaviors, such as negative word-of-mouth and exit. Hence, a positive attitude toward complaining is also likely to increase the chance of private complaining behaviors. The above discussion implies the following two divergent hypotheses:

> **H6a:** The probability of public complaining increases with a more positive attitude toward complaining.

> **H6b:** The probability of private complaining increases with a more positive attitude toward complaining.

Situational Variables

Situational characteristics are also suggested as key drivers of complaining behavior. Service failure severity is among the most commonly cited contributors to complaining from both disconfirmation of expectations (Bolfing 1989) and costs incurred (Landon 1977; Bearden 1983). Service failures can constitute something relatively innocuous like a cold meal at a restaurant, or something relatively devastating, like a caterer that fails to show up at a wedding reception. More severe service failures are expected to constitute greater disconfirmation and incite greater dissatisfaction, thus increasing the likelihood of all types of complaining (Bolfing 1989).

A positive relationship between failure severity and public and private complaining is noted by a number of prior studies (e.g., Richins 1983; Weun, Beatty, and Jones 2004). Severity should therefore provide no differentiation between public and private complaining. If this is the case, then failure severity should not be the focus of driving value-added public complaining behavior, as it will also ignite detrimental private complaining behavior. Though it is unlikely for firms to deliberately choose to increase failure severity in an effort to prompt public complaining, a reduction in service failure severity would almost certainly obscure public complaining behavior despite the helpful reduction in private complaining behaviors. This suggests the following two hypotheses:

> **H7a:** The probability of public complaining increases with service failure severity.
> **H7b:** The probability of private complaining increases with service failure severity.

Service failures may also incite situational attribution. Consumers will likely seek both explanation for service failures and assignment of blame (Curren and Folkes 1987). Attribution traditionally involves locus of control, stability, and controllability (Weiner 1980). Locus of control, also known as fault, is perhaps the most important attribution made by consumers (Folkes 1984; Curren and Folkes 1987) and refers to whether consumers perceive themselves or the service provider to be more responsible for the service failure.

Externalizing fault (i.e., blaming the service provider) is likely to provide consumers with greater conviction and justification for public complaining. Internalizing the service failure is likely to limit both public and private complaining as consumers protect their images and self-esteems (Sirgy 1982). Placing more blame for a service failure on the firm than on the consumer should therefore increase both public and private complaining behaviors (Curren and Folkes 1987). This suggests the following related pair of hypotheses:

> **H8a:** The probability of public complaining increases with greater service provider blame.
> **H8b:** The probability of private complaining increases with greater service provider blame.

Consumerism Variables

Consumerism variables refer to attitudes, perceptions, and behaviors that are directly related to the market. Sparse attention is devoted to the study of these variables in complaining behavior. These variables include consumer collectivist tendencies (Price, Feick, and Higie 1987) and perceived consumer effectiveness (Ellen, Weiner, and Cobb-Walgren 1991).

Consumer collectivism is a tendency to be an activist in the market and to look out for other consumers. In effect, these consumers help police the market. They are often heavily involved in the marketplace and tend to be information seekers (Price, Feick, and Guskey 1995). Activists have been shown to complain more (Bearden 1983). Their watchdog marketplace behaviors include helping companies improve service offerings and communicating service deficiencies to other consumers (Price, Feick, and Guskey 1995). Service failures should catalyze consumer collectivist tendencies, thus increasing the propensity to complain (Jacoby and Jaccard 1981). This suggests that a consumer collectivist tendency positively influences both public and private complaining behaviors. Hence, the following hypotheses are proposed:

> **H9a:** The probability of public complaining increases with consumer collectivist tendency.
> **H9b:** The probability of private complaining increases with consumer collectivist tendency.

Perceived consumer effectiveness, or the perceived likelihood of a successful complaint (Kim, Kim, Im, and Shin 2003), is the extent to which a consumer believes complaining will yield a response from the firm in question (Blodgett and Granbois 1992; Blodgett and Anderson 2000). In essence, it refers to how effective consumers believe they will be at getting a response when registering a complaint. According to Voorhees and Brady (2005), firm respon-siveness is a key factor in prompting consumers to complain. Public complaining should therefore increase for consumers who believe that firms will respond.

The advantage of perceived consumer effectiveness is that it is expected to have little to do with private complaining, as it is related primarily to actions by firms rather than actions by other consumers (Blodgett and Granbois 1992; Blodgett and Anderson 2000). Thus, it has the potential to be a powerful driver of good complaining, while

minimizing bad complaining. Further, the extent to which a firm responds to a public complaint should limit the extent to which consumers need to seek alternative complaint channels, such as those offered by private complaining. Hence, perceived consumer effectiveness is expected to negatively relate to private complaining. This discussion suggests the following two hypotheses:

> **H10a:** The probability of public complaining increases with perceived effectiveness.
> **H10b:** The probability of private complaining decreases with perceived effectiveness.

METHOD

Sample and Procedures

The data for this study came from a sample of 308 US consumers. Students participating in a marketing course at a large southeastern university were given extra credit for recruiting up to four respondents for the study. A random sub-sample of the participants (20%) was contacted to ensure valid participation. All of the sub-sample confirmed participation in the study.

Respondents completed a self-administered online survey that included the relevant scales, personal description of a service failure incident (Bitner, Booms, and Tetreault 1990; Flanagan 1954; Keaveney 1995), action taken as a result of the service failure, and demographic information. An online questionnaire was used to prevent missing data. All questions had to be answered to successfully submit the survey. The median age is 21 with a range from 18 to 69. The sample is split 57% female and 43% male. Median income category for the sample is $25,001-$50,000. The sample is 79% Caucasian, 9% Asian, 9% African-American, and 3% other.

Respondents are excluded from analysis if they do not list a service failure or if they do not correctly answer the acquiescence bias validity check, "Please check the number 2 if you are male and the number 6 if you are female." The response to that question is compared to the gender listed in the demographics section as a test of data quality. The point of this check is to limit error due to yea-saying or nay-saying. As a result, 11 participants are dropped from the study for failing the gender check and 62 are removed for not listing a service failure. This indicated that 20% of respondents are either unwilling or incapable of providing a service failure memory. The final study includes the remaining 235 participants who provide a service failure episode.

A MANOVA is conducted to check for differences between those reporting a failure and those not reporting a failure. The importance of this test is to minimize the potential of an alternate explanation for the findings, such as those listing service failures being more likely to complain (Armstrong and Overton 1977). The results of the MANOVA indicate no significant difference by failure listing among the key non-situation variables (λ = .98, F = .81, p > .59). Situational variables are excluded because they are only provided in conjunction with a specific failure situation listing.

Measurement

Participants were first asked to describe a service failure experience and check off which, if any, channels they utilized to complain in response to the service failure. The service failure question was deliberately vague to allow respondents to recall the most relevant or memorable service failure to them. Respondents next rated the severity and locus (internal, external) of the service failure on a seven-point scale. Ratings were then obtained for consumer collectivist tendencies (Price, Feick, and Higie 1987), perceived consumer effectiveness (Ellen, Weiner, and Cobb-Walgren 1991), attitude toward complaining (Singh and Pandya 1991), need for power

(McClelland 1961), and need for affiliation (McClelland 1961). Finally, participants then provided demographic information on age, gender, income, and ethnicity.

Analysis

The dependent variables for public and private complaining are binary due to the retrospective comparison of action (complaining) to non-action (not complaining). As a result, binary logistic regression is used to analyze the drivers of public and private complaining. The outcome of the binary logistic analysis is a set of log likelihood ratios that describe the extent to which each dependent variable increases the chance of the dependent variable occurring. The basic outcome and interpretation of the independent variables is similar to that of the Bayesian network model analysis provided by Blodgett and Anderson (2000), as Bayesian networks provide conditional probabilities of dependent variable occurrence as a function of each independent variable.

Binary measures have several advantages. First, they allow for a direct distinction to be made between actual complainers and non-complainers rather than relying on scenario-driven responses. The importance of this distinction is described by Spangenberg and Sprott (2006) as the disconnection between behavioral intentions (prospective behavior) and actual behaviors (retrospective behavior). Second, they enable both a qualitative and quantitative approach to measuring complaint outcomes. Finally, they alleviate common method bias via methodological separation of dependent and independent variables (Podsakoff, MacKenzie, Lee, and Podsakoff 2003).

RESULTS

A combined CFA is performed on the six personality scales and the results indicate

acceptable measurement properties for all of the items. Items are tested in a single model and are restricted to load only on their respective factors. The model uses fourteen items to measure five latent constructs and is identified with 67 degrees of freedom. In other words, the model is identified because there are more pieces of information available than there are parameters to estimate (Rigdon 1994). The model fit is evaluated using the comparative fit index (CFI), the Tucker Lewis Index (TLI), and the Standardized Root Mean Square Residual SRMR. The results indicate that the comprehensive model fits the data well (X^2/df = 112.8/67 = 1.68, TLI = .99, CFI = .99, and SRMR = .06).

The internal consistency of the scales is assessed through the construct reliability estimates (Fornell and Larcker 1981) reported in Table 1. The reliability estimates range from .70 (Perceived Consumer Effectiveness) to .88 (Consumer Collectivist Tendencies), which exceed Nunnally and Bernstein's (1994) suggested .70 cutoff criterion. Convergent validity is evaluated by an examination of the average variances extracted (AVE) and significance of critical ratios (Fornell and Larcker 1981). All but one of the AVEs is greater than .50 and all critical ratios are significant (Fornell and Larcker 1981). Perceived consumer effectiveness is slightly below the threshold of .50, but is an established scale and as such is retained for use in further analysis. Discriminant validity is tested by means of Fornell and Larcker's (1981) criteria, whereby the AVE for each construct is compared with the shared variance between that construct and each other construct in the model. The results provided in Table 1 indicate discriminant validity has been achieved by all measures. Specifically, all AVEs exceed the shared variance for all constructs.

TABLE 1

Measurement Statistics

Construct	Average Variances Extracted	Parameter Estimates	NFA	ATC	NFP	PCE	CCT
NFA	.59	.62-.86	**.81**	.00	.01	.00	.01
ATC	.60	.68-.86	-.04	**.75**	.07	.03	.13
NFP	.60	.64-.85	.12	.26	**.82**	.01	.02
PCE	.45	.53-.89	-.03	.17	-.09	**.70**	.03
CCT	.71	.77-.88	.11	.36	.13	.16	**.88**

Notes: Intercorrelations are presented in the lower triangle of the matrix. The construct reliability of each scale is depicted in boldface on the diagonal. Shared variances in percentage form are given in the upper triangle of the matrix. NFA = Need for Affiliation, ATC = Attitude Toward Complaining, NFP = Need for Power, PCE = Perceived Consumer Effectiveness, CCT = Consumer Collectivist Tendencies

TABLE 2

Stepwise Logistic Regression Results

Hypothesis	Predictor Variable	Public Complaining [a]			Private Complaining [b]			
		Wald	Sig.	Exp(B)	B	Wald	Sig.	Exp(B)
	Demographic							
H1	Age	6.19	< .02	1.05			*NS*	
H2	Gender		*NS*				*NS*	
H3	Income		*NS*		-.16	3.07	.08	.85
	Psychological							
H4	NFP		*NS*				*NS*	
H5	NFA		*NS*				*NS*	
H6	ATC	4.94	< .03	1.26			*NS*	
	Situational							
H7	Severity	3.60	< .06	1.22	.35	11.76	< .001	1.42
H8	Fault		*NS*				*NS*	
	Consumerism							
H9	CCT		*NS*				*NS*	
H10	PCE	8.49	< .004	1.42			*NS*	

a: Nagelkerke *R*-square = .17, $p < .001$, 68.1% classified correctly
b: Nagelkerke *R*-square = .09, $p < .001$, 70.2% classified correctly
Note: NFP = Need for Power, NFA = Need for Affiliation, ATC = Attitude Toward Complaining, CCT = Consumer Collectivist Tendencies, PCE = Perceived Consumer Effectiveness, *NS* = Non-significant

A stepwise binary logistic regression is run to assess the drivers of actual public and private complaining behaviors. The significant predictors of complaining versus non-complaining for both public and private complaint channels are listed in Table 2. Log-likelihood values are listed in the fourth column of each table with values above 1 indicating positive relationships and values below 1 indicating negative relationships. Public complaining includes interactive and remote channels, such as complaining in person, over the telephone, in writing, and via e-mail. Private complaining includes exit and negative word-of-mouth, as neither involves communicating directly with a company.

Public complaining exhibits a positive relationship with age (LnB = 1.05, $p < .02$), which supports H1a. Older consumers are therefore more likely to complain publicly than younger consumers. There is not a significant impact of age on private complaining, which fails to support H1b. Taken together, the findings for H1a and H1b suggest that age is a useful differentiator of public and private complaining behavior. Older consumers may thus be less likely to need prompting in order to complain. Firms may therefore wish to focus on facilitating the complaint behavior of younger consumers by providing access to the firm through tools such as high technology (e.g., websites and blogs).

Gender is not a significant predictor of either public or private complaining behavior, which fails to support H2a or H2b. This suggests that complaining behavior is not well differentiated on the basis of gender. Income is not a significant predictor of public complaining, which fails to support H3a. Income did, however, exhibit a negative relationship with private complaining behaviors, which supports H3b. This suggests that consumers with more income are less likely to stop buying or commit negative word-of-mouth behaviors than are consumers with lower income levels. These findings suggest that some demographic differences in

clientele will help organizations either derive public complaining behavior or limit private complaining behavior.

Need for power is not significantly related to either public or private complaining behaviors, which fails to support H4a or H4b. Need for affiliation exhibits a similar insignificant result for public and private complaining behaviors, which fails to support H5a or H5b. Together, these results suggest that consumers may not be attempting to use service failure experiences as opportunities to fulfill or limit frustration of psychological needs. It is also possible that the specific items used to measure need for power and need for affiliation in this research are too general to capture the relationship with complaining behavior. For example, affiliation is conceptualized as a general construct of desiring to be around other people. More communicative aspects of affiliation (e.g., desire to talk with other people) may be better indicators of complaining behavior in future research.

In support of H6a, attitude toward complaining increase the probability of public complaining behavior (LnB = 1.26, $p < .03$). In contrast, attitude toward complaining is not a significant predictor of private complaining behavior. This suggests that attitude toward complaining is primarily related to complaints to a firm. As such, firms might seek to compensate for weak attitudes toward complaining by offering rewards/incentives to consumer that complain. In concert, the above findings suggest that useful psychological variables are more likely related to feelings about firms and complaining about service failures, as opposed to addressing higher level psychological needs via complaining.

As expected in H7a and H7b, service failure severity is positively related to both public (LnB = 1.22, $p < .06$) and private (LnB = 1.42, $p < .001$) complaining behaviors. Increasing failure severity is thus likely to enhance public complaining behavior, but at the cost of also creating deleterious private

complaining behaviors. The reverse also applies. Decreasing service failure severity, which is the focus of most organizations due to its limitation of private complaining behaviors, will also generate less attention to valuable public complaining behaviors.

Fault is not a significant predictor of either public or private complaining behaviors in this research. Hence, H8a and H8b are not supported. This suggests that consumers are equally likely to complain publicly, privately, or not at all regardless of where the blame for the service failure is placed. This is an interesting null finding in that service firms are not necessarily able to disarm negative complaining behaviors that result from customer error. Though this null finding is somewhat at odds with prior research, the importance of the finding to this research is the inability to utilize fault to distinguish between public and private behaviors. Taken together, the findings for severity and fault suggest that service firms should focus on less situational variables in order to differentiate between public and private complaint drivers.

Consumer collectivist tendencies are not significantly related to either public or private complaining behaviors. This fails to support H9a or H9b and suggests that consumers in general do not complain to help organizations or other consumers. Perceived consumer effectiveness is positively related to public complaining (LnB = 1.42, $p < .004$) and unrelated to private complaining. This supports H10a, but fails to support H10b. Though private complaining is not simultaneously reduced by perceived consumer effectiveness as expected, the null result points to a valuable differentiator of public and private complaining. The difference in the driver is again an opportunity for service firms to promote public complaining without incurring harm from private complaining behaviors. Assessing the right set of consumerism characteristics can thus add value to complaint handling procedures. For example, firms might include customer feedback as a primary component of promotional materials.

Specifically, when considering service recovery systems, firms are advised to emphasize customer influence and accessibility (Johnston 1995; Tax and Brown 1998).

DISCUSSION

The primary objectives of this research are to compare the drivers of public and private complaining behavior, explore the impacts of two new potential predictors of complaining behavior, and to add to the validity of prior studies by examining actual responses to service failures in a retrospective fashion. Hypotheses are divided into public and private complaining in an effort to assess potential differences in complaint drivers. The results suggest several differences that can be used to create valuable public complaining behaviors without also inciting negative private complaining behaviors.

Public complaining is spurred by the consumer's age, the consumer's attitude toward complaining, the severity of the service failure, and the consumer's belief in the effectiveness of complaining at garnering a response from the firm. Private complaining is also spurred by service failure severity, but is limited by income. These findings suggest that demographic, psychological, situational, and consumerism variables can all provide valuable insights into complaint behavior prediction.

Demographics cannot be controlled directly a by service organization, which calls into question their usefulness as a practical gauge despite their quantitative significance. However, targeting specific demographic groups and understanding the demographic makeup of a service firm's clientele will help that firm understand the likelihood of complaint in the absence of additional operational procedures that aid in complaint management. In essence, service organizations with older, higher income consumers, need fewer supplementary complaint capabilities to promote the same level of

value-added complaining behaviors as organizations with younger, lower income consumers. The findings on age and income warrant additional study, as they agree with some prior findings and disagree with others. Differences in the results may be due to the industries investigated (i.e., open frame of reference versus specific industries) (e.g., Kolodinsky 1993), cultural/nationality differences (e.g., Keng, Richmond, and Han 1995), or even differences across time (e.g., Warland, Herrmann, and Moore 1984).

Attitude toward complaining is a psychological characteristic that drives public complaining behavior. Its usefulness as a complaint driver stems from an organization's ability to positively alter the consumer's attitude toward complaining rather than hoping that all consumers possess positive levels of this characteristic. Prior research has shown that experience is a particularly strong enhancer of attitude toward complaining (Kim, Kim, Im, and Shin 2003). This suggests that organizations can increase a consumer's attitude toward complaining by making sure that the consumer is rewarded for appropriately complaining. At the basic level, this means acknowledging and responding to the service failure in some way. To do this, organizations need to ensure that procedures and technology are in place to provide customers with access to complaint outlets. Additionally, organizations should ensure that recovery attempts result in positive customer experiences.

Severity is unfortunately linked to both public and private complaining behaviors, which limits its value as an effective strategic characteristic. The more egregious the service failure, the more likely is an organization to hear about the service failure. Negative word-of-mouth and boy-cotting is unfortunately also more likely to result from this type of service failure. The finding is useful, however, in that it makes intuitive sense and supports a proactive ideal of service failure prevention/minimization and contin-

uous improvement rather than one of reactive service recovery.

The results also suggest that perceived consumer effectiveness is another variable that can be used to generate public complaining behaviors without incurring private complaining behaviors. The idea that organizations need to find ways to encourage complaining following a service failure and help the consumer feel as though their efforts will not be in vain is not new. This research goes beyond this idea by providing evidence that perceived consumer effectiveness does not significantly spur private complaining behavior along with the public complaining behavior. This suggests that service organizations are free to encourage complaining without fear that it will result in a negative backlash.

This research assesses multiple public and private complaint predictors in a single analysis with real world complaint data. Consistent with prior research, age (Kolodinsky 1992), attitude toward complaining (Richins 1981; Singh and Pandya 1991), failure severity (Richins 1983; Singh and Pandya 1991; Weun, Beatty, and Jones 2004), and perceived effectiveness (Blodgett and Granbois 1992; Blodgett and Anderson 2000) positively impacted complaint behavior. More specifically, these variables predict public complaining behavior in this analysis. Further, failure severity (Richins 1983; Singh and Pandya 1991; Weun, Beatty, and Jones 2004) is also positively related to private complaining behavior, while income (Kolodinsky and Aleong 1990; Stephens and Gwinner 1998) is negatively related to private complaining behavior.

In contrast to prior research, gender (Hess, Ganesan, and Klein 2003; McColl-Kennedy, Daus, and Sparks 2003), and fault (Folkes 1984; Curren and Folkes 1987) are found not to have an impact on either public or private complaining. Further, income (Kolodinsky and Aleong 1990; Ngai, Heung, Wong, and Chan 2007) is unrelated to public complaining, while attitude toward com-

plaining (Bearden and Oliver 1985) and perceived effectiveness (Blodgett and Granbois 1992; Blodgett and Anderson 2000) are unrelated to private complaining. The impact of need for power (McClelland 1961), need for affiliation (McClelland 1961), and consumer collectivist tendencies (Price, Feick, and Guskey 1995) on complaining behavior is assessed for the first time in this analysis. All three constructs fail to predict either public or private complaining behavior.

LIMITATIONS and FUTURE RESEARCH

A limitation of this study is its use of an open frame of reference design. Specifically, industry variance likely generates error variance. The sample size, though large in absolute terms (n = 235), is relatively small within each industry, which potentially adds undesirable error. Further, the type of failure is not controlled in this study. Leaving the failure memory open to the consumer adds another potential source for error. Future studies should perhaps specify several key industries from which to draw service failure memories and possibly home in on one or two key service failure types within the industries.

Several of the variables studied here are valuable in understanding complaining overall, but basic regression methods are somewhat limited in their ability to extract group differences. For example, consumers have different goals in complaining. It is possible that affiliation and consumer collectivist tendencies wash out of the analysis because venting, recompense seek-ing, or aiding others only leads to complaining for some of the consumers in some industries. An ideal future study would involve clusterwise logistic regression. This procedure might allow consumers with different complaint goals (e.g., venting or recompense) to be analyzed with separate prediction functions that, when considered together, generate a much higher overall explanation.

REFERENCES

Armstrong, J. Scott and Terry S. Overton (1977), "Estimating Nonresponse Bias in Mail Surveys," *Journal of Marketing Research*, 14, (August), 396-402.

Barnes, James G. and Karen R. Kelloway (1980), "Consumerists: Complaining Behavior and Attitudes Toward Social and Consumer Issues," in *Advances in Consumer Research*, Vol. 7. Jerry C. Olson (ed.), San Francisco: Association for Consumer Research, 329-334.

Bearden, William O. (1983), "Profiling Consumers Who Register Complaints Against Auto Repair Services," *Journal of Consumer Affairs*, 17, (Winter), 315-335.

Bearden, William O. and Richard L. Oliver (1985), "The Role of Public and Private Complaining in Satisfaction With Problem Resolution," *Journal of Consumer Affairs*, 19, (2), 222-240.

Bennett, Roger (1997), "Anger, catharsis, and purchasing behavior following aggressive customer complaints," *The Journal of Consumer Marketing*, 14, (2), 156-167.

Bitner, Mary, Bernard H. Booms, and Mary Stanfield Tetreault (1990), "The Service Encounter: Diagnosing Favorable and Unfavorable Incidents," *Journal of Marketing*, 54, (January), 71-84.

Blodgett, Jeffrey G. and Ronald D. Anderson (2000), "A Bayesian Network Model of the Consumer Complaint Process," *Journal of Service Research*, 2, (4), 321-338.

Blodgett, Jeffrey G. and Donald H. Granbois (1992), "Toward an Integrated Conceptual Model of Consumer Complaining Behavior," *Journal of Consumer Satisfaction, Dissatisfaction, and Complaining Behavior*, 5, 93-103.

Blodgett, Jeffrey G., Donald H. Granbois, and Rockney G. Walters (1993), "The Effects of Perceived Justice on Complainants' Negative Word of Mouth Behavior and Repatronage Intentions," *Journal of Retailing*, 69, (4), 399-428.

Bolfing, Claire P. (1989), "How do Customers Express Dissatisfaction and What Can Service Marketers do About it?," *The Journal of Services Marketing*, 3, (Spring), 5-23.

Cheung, Mee-Shew, M. Meral Anitsal, Ismet Anitsal (2007), "Revisiting Word-of-Mouth Communications: A Cross-National Exploration," *Journal of Marketing Theory and Practice*, 15, (3), 235-249.

Curren, Mary T. and Valerie S. Folkes (1987), "Attributional Influences on Consumers' Desires to Communicate About Products," *Psychology and Marketing*, 4, (January), 31-45.

Day, Ralph L. and E. Laird Landon (1977), "Towards a Theory of Consumer Complaining Behavior," in *Consumer and Industrial Buying Behavior*, Arch Woodside, Jagdish Sheth, and Peter Bennett (eds.), Amsterdam: North-Holland Publishing Company.

Day, Ralph L. (1980), "Research Perspectives on Consumer Complaining Behavior," in *Theoretical Developments in Marketing*, Charles W. Lamb and Patrick M. Dunne (eds.), Chicago: American Marketing Association, 211-215.

Dixon, Marc and Vincent J. Roscigno (2003), "Status, Networks, and Social Movement Participation: The Case of Striking Workers," *American Journal of Sociology*, 108, (May), 1292-1327.

Ellen, Pam S., Joshua L. Weiner, and Cathy Cobb-Walgren (1991), "The role of perceived consumer effectiveness in motivating environmentally conscious behaviors," *Journal of Public Policy & Marketing*, 10, 102-117.

Fischer, Eileen and Stephen J. Arnold (1994), "Sex, Gender Identity, Gender Role Attitudes, and Consumer Behavior," *Psychology & Marketing*, 11, (2), 163-182.

Flanagan, John C. (1954), "The Critical Incident Technique," *Psychological Bulletin*, 51, (4), 327-358.

Folkes, Valerie S. (1984), "Consumer Reactions to Product Failure: An Attributional Approach," *Journal of Consumer Research*, 10, (March), 398-409.

Fornell, Claus and David F. Larcker (1981), "Evaluating Structural Equation Models with Unobservable Variables and Measurement Error," *Journal of Marketing Research*, 18, (February), 39-50.

Fornell, Claus and Robert A. Westbrook (1979), "An Exploratory Study of Assertiveness, Aggression, and Consumer Complaining Behavior," in *Advances in Consumer Research*, Vol. 6, William L. Wilkie (ed). Ann Arbor, Michigan: Association of Consumer Research, 105-110.

Fornell, Claus and Robert A. Westbrook (1984), "The Vicious Circle of Consumer Complaints," *Journal of Marketing*, 48, (Summer), 68-78.

Garrett, Dennis, E., Renee A. Meyers, and Lee West (1997), "Sex Differences and Consumer Complaint: Do Men and Women Communicate Differently When They Complain to Customer Service Representatives?," *Journal of Consumer Satisfaction, Dissatisfaction, and Complaining Behavior*, 10, 116-130.

Gilly, Mary and Betsy D. Gelb (1982), "Post Purchase Consumer Processes and the Complaining Consumer," *Journal of Consumer Research*, 9, (December), 323-328.

Hart, Christopher W. L., James L. Heskett, and W. Earl Sasser (1990), "The Profitable Art of Service Recovery," *Harvard Business Review*, 68, (July-August), 148-56.

Hess, Ronald L. Jr., Shankar Ganesan, and Noreen M. Klein (2003), "Service Failure and Recovery: The Impact of Relationship Factors on Customer Satisfaction," *Journal of the Academy of Marketing Science*, 31, (2), 127-145.

Hogarth, Jeanne M., Maureen English, and Manisha Sharma (2001), "Consumer complaints to third parties: Determinants of consumer satisfaction with complaint resolution," *Journal of Consumer Satisfaction, Dissatisfaction, and Complaining Behavior*, 14, 74-87.

Jacoby, Jacob and James J. Jaccard (1981), "The Sources, Meaning and Validity of Consumer Complaint Behavior: A Psychological Analysis," *Journal of Retailing*, 57, (Fall), 4-24.

Johnston, Robert (1995), "Service failure and recovery: impact, attributes and process," *Advances in Service Marketing and Management: Research and Practice*, 4, 211-28.

Keaveney, Susan M. (1995), "Customer Switching Behavior in Service Industries: An Exploratory Study," *Journal of Marketing*, 59, (April), 71-82.

Keng, Kau Ah, Daleen Richmond, and Serene Han (1995), "Determinants of consumer complaint behavior: a study of Singapore consumers," *Journal of International Consumer Marketing*, 8, (2), 59-76.

Kim, Chulmin, Sounghie Kim, Subin Im, and Changhoon Shin (2003), "The effect of attitude and perception on consumer complaint intentions, *The Journal of Consumer Marketing*," 20, (4/5), 352-371.

Kolodinsky, Jane and John Aleong (1990), "An Integrated Model of Consumer Complaint Action Applied to Services: A Pilot Study," *Journal of Consumer Satisfaction, Dissatisfaction, and Complaining Behavior*, 3, 61-70.

Kolodinsky, Jane (1992), "A System for Estimating Complaints, Complaint Resolution and Subsequent Purchases of Professional and Personal Services," *Journal of Consumer Satisfaction, Dissatisfaction, and Complaining Behavior*, 5, 36-44.

Kolodinsky, Jane (1993), "Complaints, Redress, and Subsequent Purchases of Medical Services by Dissatisfied Consumers," *Journal of Consumer Policy*, 16, (2), 193-214.

Landon, E. Laird (1977), "A Model of Consumer Complaint Behavior," in *Consumer Satisfaction, Dissatisfaction, and Complaining Behavior*, Ralph L. Day (ed), Bloomington, Indiana: Bureau of Business Research, 31-35.

Lumpkin, James R. and Barnett A. Greenberg (1982), "Apparel-Shopping Patterns of the Elderly," *Journal of Retailing*, 58, (4), 68-89.

Malafi, Teresa (1991), "The Impact of Social Influence on Consumer Complaint Behavior," *Journal of Consumer Satisfaction, Dissatisfaction and Complaining Behavior*, 4, 144-150.

Mason, Avonne and Virginia Blankenship (1987), "Power and Affiliation Motivation, Stress, and Abuse in Intimate Relationships," *Journal of Personality and Social Psychology*, 52, (1), 203-210.

Mattila, Anna S. and Jochen Wirtz (2004), "Consumer complaining to firms: the determinants of channel choice," *The Journal of Services Marketing*, 18, (2/3), 147-155.

McClelland, David C. (1961), *The Achieving Society*. Princeton, NJ: Van Nostrand.

McColl-Kennedy, Janet R., Catherine S. Daus, and Beverly A. Sparks (2003), "The Role of Gender in Reactions to Service Failure and Recovery, "*Journal of Service Research*, 6, (1), 66-82.

Ndubisi, Nelson Oly and Tam Yin Ling (2006), "Complaint behaviour of Malaysian consumers, *Management Research News*," 29, (1/2), 65-76.

Ngai, Eric. W. T., Vincent C. S. Heung, Y. H. Wong, and Fanny K. Y. Chan (2007), "Consumer complaint behavior of Asians and non-Asians about hotel services: An empirical analysis," *European Journal of Marketing*, 41, (11/12), 1375-1391.

Nunnally, Jum C. and Ira H. Bernstein (1994), *Psychometric Theory*, New York, NY: McGraw-Hill.

Oh, Dong-Geun (2006), "Complaining intentions and their relationships to complaining behavior of academic library users in South Korea," *Library Management*, 27, (3), 168-189.

Otto, Sean D., Brian L. Parry, Collin R. Payne, Jonathan C. Huefner, and H. Keith Hunt (2004), "When Consumers Get Upset: Modeling the Cost of Store Avoidance," *Journal of Consumer Satisfaction, Dissatisfaction, and Complaining Behavior*, 17, 42-53.

Palmer, Adrian, Rosalind Beggs, Caroline Keown-McMullan (2000), "Equity and repurchase intention following service failure," *The Journal of Services Marketing*, 14, (6), 513-528.

Podsakoff, Philip M., Scott B. MacKenzie, Jeong-Yeon Lee, and Nathan P. Podsakoff (2003), "Common Method Biases in Behavioral Research: A Critical Review of the Literature and Recommended Remedies," *Journal of Applied Psychology*, 88, (5), 879-903.

Price, Linda L., Lawrence F. Feick, and Robin A. Higie (1987), "Information Sensitive Consumers and Market Information," *The Journal of Consumer Affairs*, 21, (Winter), 328-341.

Price, Linda L., Lawrence F. Feick, and Audrey Guskey (1995), "Everyday Market Helping Behavior," *Journal of Public Policy and Marketing*, 14, (2), 255-266.

Richins, Marsha (1981), "An Investigation of Consumer's Attitude Toward Complaining," *Advances in Consumer Research*, 9, 502-506.

Richins, Marsha (1983), "Negative Word of Mouth by Dissatisfied Consumers: A Pilot Study," *Journal of Marketing*, 47 (Winter), 68-78.

Rigdon, Edward E. (1994), "Calculating Degrees of Freedom for a Structural Equation Model," *Structural Equation Modeling*, 1, (3), 274-278.

Schneer, Joy A. and Michael N. Chanin (1987), "Manifest Needs as personality Predispositions to Conflict-Handling Behavior," *Human Relation,* 40, (September), 575-590.

Singh, Jagdip (1988), "Consumer Complaint Intentions and Behavior: Definitional and Taxonomical Issues," *Journal of Marketing*, 52, (1), 93-107.

Singh, Jagdip and Shefali Pandya (1991), "Exploring the Effects of Consumers' Dissatisfaction Level on Complaint Behaviours," *European Journal of Marketing*, 25, (September), 7-21.

Sirgy, M. Joseph (1982), "Self-Concept in Consumer Behavior: A Critical Review," *Journal of Consumer Research*, 9, (December), 287-300.

Smith, Amy K., Ruth N. Bolton, and Janet Wagner (1999), "A model of customer satisfaction with service encounters involving failure and recovery," *Journal of Marketing Research*, 36, (3), 356-72.

Spangenberg, Eric R. and David E. Sprott (2006), "Self-Monitoring and Susceptibility to the Influence of Self-Prophecy," *Journal of Consumer Research*, 32, (March), 550-556.

Stephens, Nancy and Kevin P. Gwinner (1998), "Why don't some people complain? A cognitive-emotive process model of consumer complaint behavior," *Journal of the Academy of Marketing Science*, 26, (3), 172-189.

Tax, Stephen S. and Stephen W. Brown (1998), "Recovering and learning from service failure," *Sloan Management Review*, 40, (1), 75-88.

Tax, Stephen S., Stephen W. Brown, and Murali Chandrashekaran (1998), "Customer Evaluations of Service Complaint Experiences: Implications for Relationship Marketing," *Journal of Marketing*, 62, (April), 60-76.

Voorhees, Clay M. and Michael K. Brady (2005), "A Service Perspective on the Drivers of Complaint Intentions," *Journal of Service Research*, 8, (November), 192-204.

Warland, Rex H., Robert O. Herrmann, and Dan E. Moore (1984), "Consumer Complaining and Community Involvement: An Exploration of Their Theoretical and Empirical Linkages," *The Journal of Consumer Affairs*, 19, (1), 64-78.

Weiner, Bernard (1980), "A cognitive (attribution)-emotion-action model of motivated behavior: An analysis of judgments of help-giving," *Journal of Personality and Social Psychology*, 39, 186-200.

Weun, Seungoog, Sharon E. Beatty, and Michael A. Jones (2004), "The impact of service failure severity on service recovery evaluations and post-recovery relationships," *The Journal of Services Marketing*, 18, (2), 133-146.

Zurbriggen, Eileen L. and Ted S. Sturman (2002), "Linking Motives and Emotions: A Test of McClelland's Hypotheses," *Personality and Social Psychology Bulletin*, 28, (4), 521-535.

APPENDIX

Scales

Consumer Collectivist Tendencies

1. Consumers need to join together to protect themselves against business.
2. As a group, consumers need to work together in the marketplace.
3. If consumers work together to fight bad business, everyone is better off.

Perceived Consumer Effectiveness

1. It is futile for an individual consumer to do anything about poor service. (R)
2. I personally feel helpless to have much of an impact on the service provided by a company. (R)
3. There's no use in me worrying about the poor service I receive, because I can't do anything about it anyway. (R)

Explicit Need for Power Scale

1. I like to persuade people who have different opinions from mine of doing what I like them to do.
2. I enjoy influencing other people to understand my way of thinking.
3. I often work to gain more control over the events around me.

Explicit Need for Affiliation Scale

1. I think it would be satisfying if I could have very close friendships with quite a few people.
2. I prefer to hang out where there are a lot of other people around.
3. I prefer to be alone most of the time.

Attitude Toward Complaining

1. It bothers me if I do not complain about an unsatisfactory experience.
2. It feels good to get my dissatisfaction and frustration off of my chest by complaining.
3. I like to complain. *

*Removed

Send correspondence regarding this article to:

Gavin Fox, Ph.D.
Assistant Professor of Marketing
Rawls College of Business
Texas Tech University
Lubbock, TX 79409

RECONCILING SATISFACTION, EMOTIONS, ATTITUDES, AND AMBIVALENCE WITHIN CONSUMER MODELS OF JUDGMENT AND DECISION MAKING: A CAUTIONARY TALE

Steven A. Taylor, Illinois State University

ABSTRACT

Marketers typically conceive of satisfaction as having a very close, if not direct, influence on consumers' behaviors. However, it is well established that behavioral intentions are generally the proximal cause of volitional behaviors, and there exists a well established literature concerning how intentions influence behaviors in the judgment and decision making (J/DM) literature. The following study asserts that Marketers have yet to realize a full understanding of how satisfaction and attitudes work together to influence consumer decision making within such models, particularly in the presence of consumer ambivalence. A theoretical model of consumer J/DM is first proposed that purports to reconcile emerging attitudinal models of goal-directed behaviors with satisfaction theory in a manner that helps clarify the unique roles of attitudes and satisfaction as well as accommodates the phenomenon of ambivalence. The proposed model revisits dissonance research based upon emerging arguments related to constraint satisfaction theory (CST) in the identification of a common cognitive process linking satisfaction and attitudes as unique constructs in behavioral intention formation. Second, one interesting theoretical implication of the proposed model is the appearance of support for the possibility that ambivalent emotional responses can occur either simultaneously (see Carrera and Oceja 2007), or sequentially (see Brehm and Miron 2006). Marketing's traditional perspective suggests an assumption of sequential emotions which implies that consumption-related emotions must be either positive or negative. However, a field experiment is reported that fails to replicate Brehm and Miron's (2006) test of this issue specific to satisfaction (as well as a host of other positive and negative emotions). Thus, these findings suggest caution in conclusions related to the existence of simultaneous versus sequential emotions in consumer behavior and supports calls for further research into ambivalence as it relates to attitudes, satisfaction, and emotions within the context of J/DM in consumer research. The managerial and research implications of the study are identified and discussed.

PROLOGUE

Consider the situation wherein a consumer purchases a salad for lunch even though she would prefer a hamburger and french fries. In addition, she normally receives good customer service from the restaurant, but today the service was slow. On the one hand, she feels fulfilled in that she has the willpower to support her dietary objectives, but on the other hand she feels unfulfilled by not choosing to buy the meal she really prefers. Further, she is not sure that one bad service experience is enough to change her overall impression of the restaurant and/or whether or not she will continue to exchange with this particular restaurant. In other words, she is ambivalent as to her satisfaction judgments about her consumption choice and experience as well as her attitude toward the restaurant.

Marketers might typically argue that the problem in this scenario was the poor customer service. Provision of better customer service would have led to an overall conclusion of "satisfaction" and alleviated any significant cognitive dissonance when the consumer later reflects back on this consumption experience. The following study suggests two problems with this inter-pretation. First, there appears to be an assumption of a (relatively) direct influence of consumer perceptions of exchange experiences such as satisfaction on con-sumers' behaviors. Such assumptions are silent as to the linkages between consumer judgments like satisfaction and known important antecedents to behaviors such as attitudes, motivation, and behavioral in-tentions in spite of how much is known about these relationships. Second, a review of how Marketing theoretically treats and measures emotions suggests an additional assumption of sequential emotional experiences. In other words, people are *either* happy/sad, satisfied or dissatisfied. In reality, the consumer in this scenario would probably feel a measure of dissonance independent of how well the marketer provided a service experience. An attempt to replicate a recent study by Brehm and Miron (2006) specific to satisfaction confirms that such assumptions may not be supported by the data.

Clearly, the importance of satisfaction as a construct of central interest to marketers is well established (Oliver 1997). However, in spite of all the attention directed toward this construct in the literature to date, there arguably remains much to learn both theor-etically and operationally. For example, satisfaction judgments are typically related to post-purchase evaluations of marketing exchanges (e.g., including the decision to enter into the exchange, the experiential outcomes of those decisions from a service performance perspective, and/or the tangible product attributes that can be associated with

service offerings). However, satisfaction judgments can also operate pre-decision, largely through the framing of expectations in the disconfirmation of expectations con-ceptualization of satisfaction (Oliver 1997). Thus, satisfaction judgments have the capacity to serve as both pre- and post-purchase considerations in the consumer decision-making process across time. Another question concerns how satisfaction relates to consumer attitudes and emotions? This begs the question of whether satisfaction is a form of attitude, or just another specific emotion.

Yet a third question concerns where motivation fits into satisfaction's role on consumer behaviors. Given the important influence of relationship marketing in marketing theory and practice (Sheth and Parvatiyar 2000), a full understanding of the role of satisfaction within the context of consumer judgments and decisions across multiple consumer experiences continues to be an important research endeavor. This is particularly true in the presence of consumer ambivalence as described above.

However, such an understanding has yet to be fully realized. While it is true that Oliver's (1997) expectancy-disconfirmation paradigm does provide a process explanation for the development of satisfaction judgments per se, much less seems known as to how satisfaction judgments (1) relate to attitudes, (2) can be ambivalent, and (3) operate within the context of more general judgment and decision making (**J/DM**) models. The purpose of the following study is to further marketers' understanding of consumer J/DM by pro-posing a model that accounts for the important role of satisfaction while simul-taneously accommodating attitude, emotion, and ambivalence theories. Creating a mod-el of consumer J/DM that attempts to account for these important constructs raises the interesting question of whether ambivalence is experienced sequentially (as typically viewed in marketing) or can be experienced

simultaneously. The answer to this question has theoretical implications in such J/DM models, particularly related to how attitudes and emotions are best modeled, as well as managerial consequences. A field experiment replicating Brehm and Miron's (2006) study is also reported that tests whether ambivalence vis-à-vis satisfaction (as well as a host of other positive and negative emotions) is experienced sequentially or simultaneously. Finally, the implications for managers and research related to consumer models of J/DM are discussed.

SATISFACTION WITHIN MODELS OF J/DM

Research related to satisfaction across social sciences has arguably evolved largely independent of attitude, emotion, and J/DM theories. One explanation may be that formally defining "satisfaction," even specific to a consumer context, is a challenging endeavor (Oliver 1997). Reasons include that satisfaction can be viewed both in terms of (1) various levels of abstraction (e.g., single events leading up to an outcome, or as a collective impression of these events, or even in terms of the level of satisfaction received from marketing exchanges), and (2) from different viewpoints (e.g., individual, firm, or society). Oliver (1997, p. 13) therefore offers the following definition of "consumer satisfaction" to accommodate such perspectives:

"*Satisfaction is the consumer's fulfillment response. It is a judgment that a product or service feature, or the product or service itself, provided (or is providing) a pleasurable [italics not added] level of consumption-related fulfillment, including levels of under- or over-fulfillment.*"

It is reasonable to assert that Oliver's (1997) definition has provided the dominant constitutive exemplar for satisfaction within

marketing and beyond. This definition makes clear that satisfaction is instrumental in the J/DM process of consumers, and involves both cognitive and affective considerations. In addition, while Oliver (1997) constrains his proposed definition to a consumer context, he argues that the vertical nature of his underlying theoretical model (the allowance for individual episodes of satisfaction to accumulate into summary or long-term states) provides a basis for generalizing his proposed definition to other satisfaction-related domains (e.g., life, employee, or job satisfaction).

It is argued herein that this vertical nature of satisfaction is also consistent with emerging goal-directed, attitudinally-based models of J/DM. Specifically, Oliver (1997, p. 16) differentiates satisfaction from other related concepts, such as quality, attitudes, happiness, good feelings, and moods. Satisfaction, in his view, is best considered a summary (post-purchase) judgment that is based on both attribution-based affective responses[i] and explicit reference to expectations or standards of excellence. Within the context of relationship marketing, attitudes based upon previous episodes of episodic satisfaction judgments form the basis for the consumers' expectations necessary for the process of disconfirmation of expectations. Thus, satisfaction is (1) viewed as more than simple cognitive or affective processes, rather, contains elements of both, (2) relates to but is not the equivalent of consumer attitudes and affect, and (3) operates as both an antecedent to and outcome of consumer decision-making processes across time.

However, a conundrum exists concerning specifically how satisfaction, attitudes, and emotions operate together within the context of consumer J/DM processes.[ii] The absence of such understanding makes difficult explanations of the social psychology associated with satisfaction's influence on

J/DM, as well as fully explaining ambivalence in consumers' judgments and feelings (such as presented in the scenario at the beginning of this article). Critical to such models is the prerequisite ability to effectively capture both cognitive and affective influences within the J/DM process.[iii] Taylor (2007) reviews the literature related to emerging J/DM models attempting to incorporate affect into cognitive (consequentialist) models of J/DM and calls for a focus on a modified form of Perugini and Bagozzi's (2001) attitude-based Model of Goal Directed Behavior (**MGB**). His arguments for focusing on the MGB include that the model (1) focuses on attitude expressions instead of economic preferences (Kahneman et al 2000), (2) considers affective valuation as a core process, (3) focuses on experienced utility in J/DM models as opposed to decision utility, (4) introduces a mechanism for accounting for motivation in attitude models via the introduction of desires and anticipated emotions (AEs), and (5) provides a more effective explanatory model for substantive and systematic inconsistencies in preferences. *Thus, the MGB provides a descriptive model of J/DM that reflects both cognitive and affective considerations (consistent with a social cognition perspective) within an attitudinally-based explanation of goal-directed behavioral intentions that can form the basis for integrating satisfaction's multiple roles in the consumer J/DM processes, as well as potentially account for the possibility of consumer ambivalence.*

Figure 1 summarizes how satisfaction judgments can be reconciled with the MGB. Perugini and Bagozzi's (2001) basic MGB model is described by equations 1 – 3 (please see endnote iv and/or the subsequent paragraph in this section of descriptions of the acronyms):[iv]

$$\text{Desire} = f(\text{Attitude}_{Act}, \text{Positive AEs, Negative AEs, AR, SN, PBC, FPB}) \quad [1]$$

$$\text{Behavioral Intentions} = f(\text{Desire, FPB}) \quad [2]$$

$$\text{Behavior} = f(\text{Behavioral Intentions, FPB, PBC}) \quad [3]$$

Consistent with Oliver's (1997) disconfirmation of expectations (**DE**) conceptualization, postpurchase (i.e., post behavior) evaluation of consumption behaviors leads to a transaction-specific satisfaction judgment. Thus, satisfaction as a transaction-specific, post-behavioral judgment appears easily reconcilable with the MGB conceptualization of J/DM when the model is constrained to a single point in time. However, it is less clear within the DE how transaction-specific satisfaction judgments accumulate to influence subsequent consumer behaviors. The MGB helps explain this process by positing AE's (e.g., anticipated satisfaction) as antecedent influences on motivation as desire. That is, the vertical nature of satisfaction as hypothesized within DE explanation can also be reconciled with the MGB across time by recognizing that transaction-specific satisfaction judgments sum into next period anticipated emotions (**AE**s, including satisfaction). Note that AEs are treated as unique from attitudes (**ATT**$_{Act}$) in the MGB, consistent with Oliver's (1997) perspective. Thus, AE's, together with existing ATT$_{Act}$ of consumption, subjective norms (**SN**), perceived behavioral control (**PBC**), and frequency of past behaviors (**FPB**) independently influence the next period's motivation as desire to engage in the consumption act.

In summary, it appears that DE as the dominant exemplar of satisfaction theory can be reconciled with the MGB into a singular explanation of consumer J/DM within the

context of relationship marketing consistent with emerging attitude theory in a manner that includes affective considerations.[v] The

next section discusses how the concept of *ambivalence* can also be reconciled with the model proposed.

FIGURE 1
Reconciling Satisfaction with Attitude-Based J/DM Models
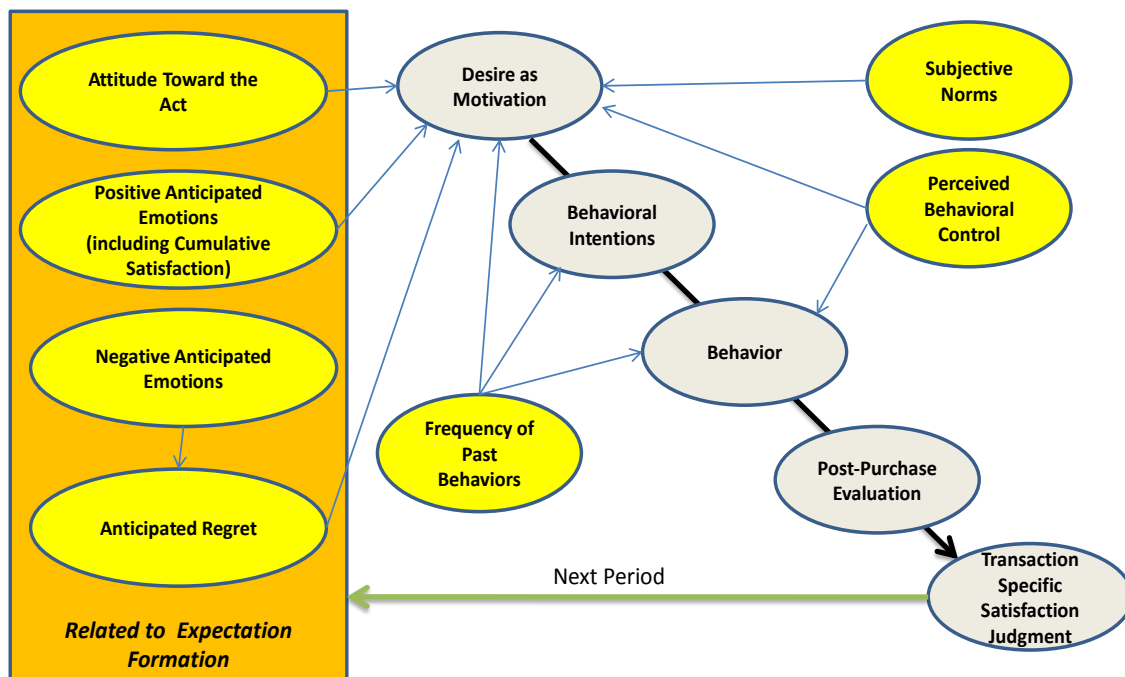
UNDERSTANDING CONSUMER AMBIVALENCE IN J/DM MODELS

Models of consumer J/DM should be capable of accounting for both decisive (i.e., non-ambivalent) and ambivalent consumer judgments and/or attitudes. That is, a better understanding of ambivalence in consumer decision making should strengthen our understanding of the relationships between emotions, attitudes, and satisfaction within the context of consumer J/DM. The preceding section presents the argument that the model

presented as Figure 1 helps explain both transaction specific and cumulative forms of decisive judgments/feelings, in a manner consistent with the known vertical nature of satisfaction. However, the link between the proposed model and ambivalent consumption judgments/feelings (as exemplified in the scenario at the beginning of this manuscript) is less obvious. Ambivalence has become a construct of central importance to attitude research across disciplines (Ajzen 2001; Priester, Petty & Park 2007). [vi] Otnes et al (1997) and Williams and Aaker (2002)

specifically call for the consumer-behavior-specific study of ambivalence.[vii] Following Otnes et al (1997, p. 82), *consumer ambivalence* (**CA**) is defined as: [viii]… the simultaneous or sequential experience of multiple emotional states, as a result of the interaction between internal factors and external objects, people, institutions, and/or cultural phenomena in market-oriented contexts that can have direct and/or indirect ramifications on exchange-based attitudes and behaviors.[ix]

The Impact of CA on Consumer Models of J/DM. Consistent with the model presented herein as Figure 1, the definition of CA identified above suggests the need to account for both attitudes and emotional states in explanations of consumer behaviors. Thus, CA should also be accounted for by J/DM models such as the MGB.[x] However, it is not surprising that the notion of CA also adds a layer of complexity to efforts to conceptualize how conflicting attitudes, and emotions (like satisfaction), operate within consumer models of J/DM. In terms of consumer attitudes, Sparks et al (2004) argue that different decision-making contexts will be associated with different decision-making strategies, not all of which will approximate the careful, analytic, compensatory structure implied by traditional attitude models such as the Theory of Planned Behavior (TPB), a predecessor to the MGB as an attitudinal explanation of behavior. The incorporation of emotive motivational forms in the MGB overcomes this criticism by allowing for the potential to capture some non-cognitive decision-making processes vis-a-vis attitudinal models. This perspective also appears consistent with Voss et al's (2003) arguments concerning unique utilitarian and hedonic forms of consumer attitudes. Thus, the ability to model conflicting emotional responses within the context of attitudinal explanations of

consumer J/DM appears both important and possible.

CA similarly has implications for satisfaction theory. Ambivalence is related to satisfaction through dissonance theory. Oliver (1997) argues that dissonance theory is a critical underpinning to the concept of satisfaction because all four stages of the consumer decision-making process involve uncertainty, not just postpurchase/preuse. For example, anticipated regret (**AR**) in the early phases of consumption leads to a general feeling of apprehension on the part of the consumer. This general feeling of apprehension represents dissonance. Oliver (1997, p. 247) describes dissonance vis-à-vis satisfaction as "…inconsistency-induced psychological discomfort" because it begins as simple apprehension and escalates over the decision cycle to later purchase phases. In addition, since it involves apprehension over events to come, it allows for the incorporation of anticipated constructs (e.g., AEs) into satisfaction-based J/DM models (consistent with the MGB). Oliver (1997) argues that the weight of the evidence in the literature suggests that a common human response is to try to psychologically reduce (anticipated) dissonance. Dissonance should invoke AR, which can influence satisfaction judgments (through expectations).[xi] Regretfully, consumer-based dissonance research has waned since the mid-1970s, even though Oliver (1997) asserts that the extant consumer behavior literature supports the conclusion that the central principles of dissonance theory remain valid.

The Recent Re-emergence of Cognitive Consistency Theory. Fortunately, the arguments presented herein are reinforced by the recent renewed interest in cognitive consistency theory within the social sciences. Dissonance theory is a form of cognitive consistency theory. There is emerging a renewed interest in cognitive consistency

theories (which generally fell out of favor in the 1960s) based on advances in constraint satisfaction theory (Simon et al 2004). Simon et al (2004) provide evidence supporting the view that when decisions are made from multiple pieces of evidence that structural dynamics represent an appropriate model for human cognition, as captured by consistency theories, and subsequently made flesh in parallel constraint satisfaction processing. Specifically, their evidence suggests that such reasoning processes are *bidirectional* in that decisions follow from evidence, and evaluations of evidence shift toward co-herence with the emerging decision. Simon et al (2004) conclude that (1) their evidence is inconsistent with information integration theory (IIT) and Bayes' theorem[xii], (2) constraint satisfaction models provide the necessary processing mechanism to overcome problems previously associated with cognitive consistency theories, and (3) that cognitive consistency theories should play a greater role in the understanding of human reasoning and decision making.

Monroe and Read (2008) build upon this argument by specifically linking con-straint satisfaction models to the attitude construct by proposing the Attitudes as Constraints Satisfaction (**ACS**) Model[xiii] as a general connectionist model of attitude structure and attitude change. Monroe and Read (2008) point out that there still exists no general model of attitudes, and take the position that attitudes are best represented as networks of associated cognitions, with both positive and negative links among them, and that processing proceeds by the parallel spread of activation along those links. They provide a series of simulations and conclude that the expectancy-value model of attitudes (arguably marketing's predominant view of attitudes) is not supported by their results. Rather, this local connectionist perspective supports parallel constraint satisfaction as a more sophisticated revisitation of consistency

theory.[xiv]   Importantly, the ACS appears consistent with the proposed model in Figure 1 as it (1) links satisfaction and attitudes together through cognitive consistency theory, and (2) offers an explanatory process that helps account for the vertical nature of both satisfaction and attitudes. Activation is a temporary state of the network, while weights are stored in a more long-term fashion. Further, the ACS provides a potential explanation for how ambivalent attitudes and emotions can coexist. In summary, the ACS model appears consistent with the research model presented herein as Figure 1. Viewing attitudes as networks of associated (positive and negative) cognitions appears to allow for the existence of CA (i.e., competing positive and/negative emotions). Specifically how these positive and negative emotions compete within the context of CA is the focus of the next subsection.

Marketing and the Issue of Simultaneous versus Sequential Emotions.   Specifically *how* ambivalent emotions and/or attitudes coexist also appears to be an important issue. Readers will note that the cited definition of CA above, as well as the bidirectional nature of ACS model, allows for either simultaneous (i.e., concurrent positive and negative affect) or sequential (i.e., non-concurrent positive and negative affect) emotional states underlying CA. Williams and Aaker (2002) note that psychologists have emphatically debated the degree to which conflicting emotions can be simultaneously experienced, and specifically call for greater research into the simultaneous experience of emotions in consumption experiences. Carrera and Oceja (2007) assert that the concurrence of two opposite emotions is one of the most controversial areas of emotion research. One perspective is exemplified by Brehm and Miron (2006) who present evidence that positive and negative emotions are sequential in that they do not occur at the same time (i.e.,

are not simultaneous). This position contrasts that of Carrera and Oceja (2007) who present evidence for simultaneous mixed emotional experiences (also see Sparks et al 2004).

The reason that this matters to marketers is because it is demonstrated below that much of the theory of consumer emotions seems to assume that ambivalent emotions are sequential in nature, which implies important practical consequences.[xv] Specifically, if conflicting emotions are truly sequential, then consumers must essentially conclude either holistic positive or negative judgments related to consumer experiences (i.e., judgments are either/or positive or negative). On the other hand, if conflicting emotions can be simultaneous in nature, some form of cognitive weighting/averaging in the formation of overall consumer judgments appears possible. Thus, if marketers' assume that customers are *either* satisfied or dissatisfied with an exchange experience, they may misinterpret the likelihood of future loyalty and behaviors such as word-of-mouth (**WOM**). In fact, this argument may help explain the phenomenon identified by Reichheld (2003) arguing that WOM is a better predictor of top-line growth than satisfaction measures.[xvi]

The argument for Marketing's general assumption of sequential forms of CA begins with Bagozzi et al's (1999) finding that little consistency exists in the marketing literature constitutively defining attitudes versus affect versus emotions. Bagozzi et al (1999) assert that distinguishing attitudes from emotions both constituitively and operationally has proven challenging. Therefore, the current research suggests adoption of the following definitions of terms: (1) *Affect* -- an umbrella terms for a set of more specific mental processes including emotions, moods and (possibly) attitudes (Bagozzi et al 1999); (2) *Emotion* – a mental state of readiness that arises from cognitive appraisals of events or thoughts (Bagozzi et al 1999); and (3)

Attitude – a psychological tendency that is expressed by evaluating a particular entity with some degree of favor or disfavor (Eagly and Chaiken 1993). The evidence next suggests that the cognitive appraisal perspective has exerted a strong influence on marketing theory (e.g., Richins 1997, Oliver 1997, Russell 1997).[xvii] For example, Bagozzi et al (1999) argue for a cognitive appraisal perspective on emotions wherein they arise as the result of individual's unique psychological interpretation of events and circumstances (i.e., different people can have different emotional reactions to marketing stimuli). These authors further assert that goal relevance and goal congruence are particularly influential appraisals germane to marketing contexts (consistent with the perspective adopted herein). Consequently, the self-regulation of goals is believed to be the main function of emotions. Therefore, emotions occur in response to changes in plans or goal-relevant events. Attitudes, in this view, differ from emotions in the following ways (Bagozzi et al 1999):

1. Attitudes also arise from changes in events, but differ in that they may also occur in response to mundane objects;
2. Attitudes possess the capacity to be stored and retrieved during long periods of time; and
3. The connection between emotions and volition is stronger and more direct than for attitudes.

Ruth et al (2002) similarly advocates a cognitive appraisal perspective, and further asserts that (1) pleasantness (or valence) is a primary means of differentiating emotions, and (2) that mixed emotions situations are prevalent in marketing. Richins (1997) also argues that relevant emotions in the consumption experience may differ from those in other contexts. She focuses on consumption-related emotions which are

those directly experienced emotions that result from the consumption of products, and identifies 16 specific emotional descriptors. She further explicitly identifies the dimensions of affective space as representing (1) positive versus negative affect, and (2) receptivity or activation.[xviii] In short, marketing has largely operated under the view that positive and negative emotions are inversely related, with a tendency to operationalize affective attitude components using bipolar measures, and emotion-specific operationalizations using unipolar measures. Thus, how we measure consumption-related emotions in Marketing reflects underlying theoretical assumptions. Schimmack (2005) provides evidence supporting Bagozzi et al's (1999) call for using unipolar measures of emotions.[xix]

Brehm and Miron (2006) present evidence suggesting that positive affect may be independent of negative affect, but produces no evidence concerning whether or not the two affects occur simultaneously or sequentially.[xx] They offer a novel perspective built upon the assumption that emotions act like motivational states.[xxi] Their theory is predicated upon the assumption that distinctly different emotions, like distinctly different motivational states, cannot co-exist. In particular, the human system minimizes its use of resources by engaging only one motivation or emotion at a time, and then only to the extent that minimally necessary. Both a motive's and emotion's intensity is proportional to the obstacles to the motive/emotion's function. Consequently, a method is identified that purports to allow an assessment of whether consumption-related emotions like satisfaction are sequential (as assumed) or simultaneous in nature in the presence of CA.

In summary, there exist two productive research traditions concerning the relationships between positive and negative emotions, both supported by empirical analyses (Reich et al 2003). Table 1 summarizes a literature review supporting this perspective. The first tradition posits that positive and negative emotions are independent or uncorrelated bi-dimensional constructs and considers emotions as existing in a psychological space defined by two bipolar and orthogonal dimensions: valence and activation, therefore oppositely poled emotions can be felt only sequentially (e.g., the circumplex model). Readers will note from Table 1 that much of marketing's perspective appears to correspond to this perspective. The second tradition presumes that positive and negative emotions are inversely related, the unidimensional affect approach. The alternative perspective views the affective systems as within a psychological space formed by two separate dimensions: positivity and negativity (e.g., the evaluative space model) wherein two opposing emotions may be experienced sequentially or simultaneously. Thus, for example, if two separate emotions can be simultaneously experienced, then evidence is apparent that the traditional view of emotions in marketing provides an incomplete theoretical explanation of emotions for marketers. The next subsection discusses Brehm and Miron's (2006) field experiment to assess whether ambivalence is sequential or simultaneous in nature. A clear understanding of this issue is important to help guide the continued theoretical evolution of consumer models of J/DM such as is presented herein as Figure 1, as well as specific managerial tactics to influence consumer judgments in the presence of CA.

Table 1: Different Models of Affect

	Circumplex Model	Watson and Tellegen (1985) Model	Evaluative Space Model (ESM)
Focus	Experience of affect.	Experience of affect.	The underlying processes that give rise to the experience of affect.
Conceptualization of Affect	Posits that emotions fall into a circular order around a perimeter of the space defined by two dimensions: (1) bipolar valence dimension, and (2) orthogonal dimension labeled activation. The focus is on moderately activated emotions such as happiness and sadness.	Same as Circumplex Model except that the axes are rotated 45 degrees and termed Positive and Negative Activation. The focus is on highly activated emotions such as excitement and distress.	The affective system occurs within a bivariate space rather than a bipolar continuum. Thus the experience of valence represents the integration of positivity (approach) and negativity (avoidance) as two separable and partially distinct components of the affective system
Relationship Between Emotions	Tradition 1: Posits that positive and negative emotions are independent or uncorrelated bidimensional. Emotions occur in pairs of bipolar opposites that are mutually exclusive, implying a L-shaped function supporting observed weak correlations.	Tradition 1: Posits that positive and negative emotions are independent or uncorrelated bidimensional. Independent effects of positive and negative activation can be attributable to the operation of a single bipolar valence mechanism.	Tradition 2: Presumes that positive and negative emotions are inversely related, the unidimensional affect approach. Positivity and negativity may be characterized by reciprocal activation, as well as uncoupled activation, coactivation, or coinhibition.
Suggested Measurement Scales	Bipolar adjectives for affective attitude. Unipolar scales for specific emotions.	Bipolar adjectives for affective attitude. Unipolar scales for specific emotions.	Bipolar adjectives for affective attitude. Unipolar scales for specific emotions.
View of Simultaneous Versus Sequential Emotions	Supports the existence of sequential emotions, but not simultaneous emotions.	Supports the existence of sequential emotions, but not simultaneous emotions.	Posits that coactivation of emotions can occur but that the affective processes typically gravitate toward bipolarity over time.
Literature support for View of Coactivation Potential	Green et al (1993) Russell (1980) Richins (1997) Oliver (1997)	Russell and Feldman Barrett (1999) Williams and Aaker (2002) Laros and Steenkamp (2005) Brehm and Miron (2006)	Cacioppo et al (1997) Priester and Petty (1996, 2001) Larsen et al (2001) Priester et al (2007)

Brehm and Miron's (2006) Experiment.

Figure 2 presents Brehm and Miron's (2006) theoretical argument for why two emotions cannot exist simultaneously. Reasons for feeling a distinctively different emotion (i.e., a deterrent) than what one is currently feeling constitute an obstacle. Consistent with a need to conserve resources, a low-importance deterrent relative to the emotion-instigating event will allow the intensity of emotion to drop to a low level. As the relative importance of the deterrent increases, the intensity of the instigated emotion must decrease. Thus, low to moderate deterrents cannot instigate a second emotion while the affective system is busy with the event that instigated the first emotion. However, when the importance of the deterrent surpasses that of the instigated emotion, the instigated emotion will be replaced by the deterrent. Evidence that two emotions can exist simultaneously is present when there is no change in the magnitude of the instigated emotion, but a corresponding change in the affect associated with the increasing deterrent.[xxii]

Brehm and Miron (2006) considered the specific emotions of anger, sadness, happiness, and positive affect. However, not surprisingly, there has also been a long and lively debate in the literature about which specific emotions to measure. How many emotions are there? Reeve (2005) argues that the answer to this question depends on whether one favors a biological or cognitive orientation. The biological perspective generally asserts that (1) a small number of basic emotions exist (e.g., five to ten), (2) which are universal to all human beings, and (3) are products of biology and evolution. Alternatively, the cognitive perspective asserts that humans can experience an almost unlimited number of emotions because emotions arise from perceptions of situations which can be interpreted in a multitude of

ways. Further, emotions represent a blend of cognitive appraisals, socialization history, and cultural expectations. Efforts to reconcile these alternative perspectives have focused on whether some emotions are more basic than others. Reeve (2005) argues that a middle-ground approach has emerged that argues for a set of basic[xxiii] emotions that represent a family of related emotions. For example, anger represents a family of emotions that include hostility, rage, fury, outrage, annoyance, resentment, envy, and frustration. The weight of the evidence to date appears to support an argument for the following six basic emotions: fear, anger, disgust, sadness, joy, and interest.[xxiv]

FIGURE 2
Hypothesized Relationships
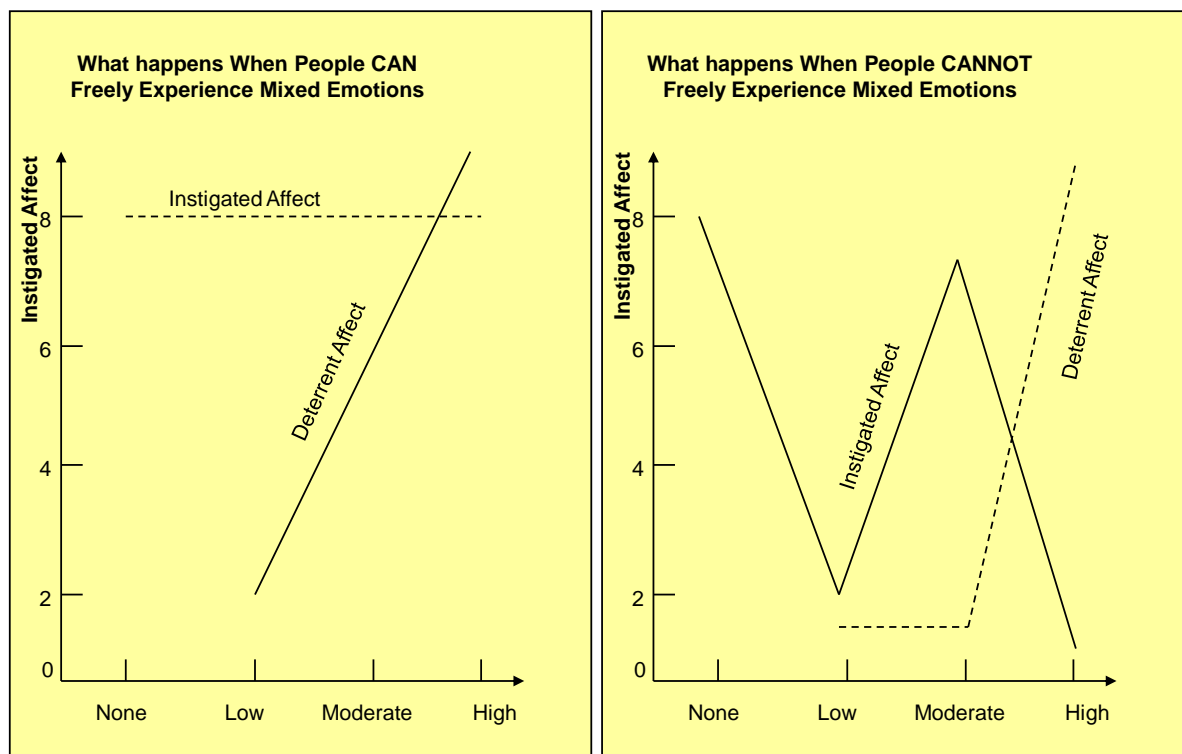
Adapted from Brehm and Miron (2006)

The current research considers not only the emotions identified by Brehm and Miron (2006), but a series of additional positive and negative emotions germane to marketing practice generally, and the MGB attitude conceptualization specifically (including satisfaction). This strategy is employed because there are growing calls for consideration of emotion specificity (DeSteno et al, 200, 2004 a,b; Mandel and Dhami, 2005; Rucker and Petty 2004), and thus the need for "emotion specific" research. This position is consistent with Abraham and Sheeran's (2003) conclusion that emotions appear to differ in their cognitive foundations. Consequently, anticipating different affective states may differentially affect intention formation and intention-behavior relationships. For example, studying other negative emotions such as disappointment or

anger in models predicting behaviors does not ensure generalizability in terms of how regret operates in such models.

Summary. The presence of CA complicates a theoretical consideration of the model of J/DM proposed in this article. The renewed interest in cognitive consistency theory based on recent advances in constraint satisfaction theory now provide a process explanation for how dissonance vis-à-vis attitude and satisfaction theories can lead to ambivalence. Given that satisfaction responses and their influence on J/DM are based on multiple pieces of information, judgments, and inferences, the ACS appears to provide a mental process explanation consistent with the model proposed in Figure 1 for the kinds of ambivalent attitudes and satisfaction judgments identified in the scenario at the beginning of this article. However, constraint satisfaction theory also seems to imply the potential for simultaneous forms of CA, which seem at odds with marketing's traditional perspective of sequential forms of CA. Brehm and Miron's (2006) study appears to support the latter perspective. Thus, the following study empirically replicates Brehm and Miron's (2006) experiment specific to consumer satisfaction (as well as a number of additional positive and negative emotions) to assess their arguments vis-à-vis the model proposed herein.

METHODS

Zaltman (1997) notes that most research methods are biased toward reason, in spite of the growing recognition of the importance of emotions to managerial and consumer decision making. Priester and Petty (1996) present evidence that across studies, typical measurement techniques calculated from an individual's positive and negative reactions are able to account for only a moderate amount (p of .36 - .52) of the

variance in reported subjective experiences of ambivalence. Schimmack (2005) further demonstrates that respondents typically need more time to indicate (1) the presence (versus the absence) of an emotion on unipolar response formats, (2) the presence of reported subjective experiences of ambivalence, and (3) the lack of both item-order and item-spacing confounds in the measurement of ambivalence. He interprets these results as support for the validity of reported mixed feelings and a two-dimensional representation of pleasure and displeasure. Allen et al (2005) provide evidence that (1) emotive information can provide incremental explained variance to cognitions, and (2) retrospective reports about emotional experiences can be useful predictors of attitudes.

Schimmack (2005) recommends assessing pleasure and displeasure using a bipolar scale (e.g., Russell, Weiss, and Mendelsohn 1989). However, he further recommends the use of seven-item scales for specific emotions with specific response options to reinforce the distinction between the lowest response option (indicating the absence of an affect) with other options (indicating the presence of an affect). Therefore, the measures used in the current research first involved a seven-point bipolar scale measuring general affect (Extremely Negative/Extremely Positive). Alternatively, specific positive and negative emotions that were assessed using unipolar scales consistent with the preceding arguments, including excited, happy, glad, satisfied, proud self-assurance, and pleasure; and angry, frustrated, guilty, ashamed, sad, disappointed, worried, uncomfortable, fearful, regretful, and displeasure.[xxv]

The current research required two separate data collection activities in order to replicate Brehm and Miron's (2006) experiment. Students were invited to participate from two-large section Introduction to Marketing classes at a medium-sized

institution in the Midwest of the United States. Participation was voluntary, with students signing up for the study receiving extra course credit. 165 chose to participate in the study, who were randomly assigned to each of the eight unique experimental conditions (4 levels of deterrent x 2 affective deterrents, see Table 2). All cells had 20-22 respondents. Table 2 presents the positive and negative manipulations that were induced as

well as the associated deterrents. Data were collected during regularly scheduled class time and in separate locations at the same time to avoid word-of-mouth cross contamination as potential demand artifacts. Formal letters on departmental letterhead were used to support the deceptive scenarios, with IRB approval received prior to undertaking the data collection.

TABLE 2

The Research Design

Condition 1: Instigate A Negative Emotion; Followed by a Positive Deterrent

1. Have the Departmental Chairman show up to administer the experiment. The Departmental Chairman then informs students that the extra credit promised by the course professor is against University rules, and that students would not be receiving the promised extra course credit. He promises to take this up with the professor personally.

2. Measure pre-deterrent positive and negative emotions using self-report scales.

3. Offer $ as a positive deterrent. Students are then informed that there is a little known University insurance policy related to study participation. Students are thereby randomly compensated at levels of $0, $1, $3, $5 by simultaneously opening a sealed envelope with the student's name and a ficticious explanatory letter from the university.

4. Measure post-deterrent positive and negative emotions using self-report scales.

Condition 2: Instigate Positive Emotion; Followed by a Negative Deterrent

1. Give each student an unexpected $2 bill at beginning of the study.

2. Measure pre-deterrent positive and negative emotions using self-report scales.

3. Offer a retrospective tuition increase as the negative deterrent. Hand students a fictitious official letter from the University informing them that their tuition has been increased retroactive for the semester due to budget difficulties at the state level. The formula is complicated, with students simply informed that their own personal tuition increase was related to their gender, race, and county reflecting their permanent home address. Deterrent levels were increases of 0%, 1%, 5%, and 10%. The well-known state budget "crisis" at the time helped make the scenario believable.

4. Measure post-deterrent positive and negative emotions using self-report scales.

RESULTS

Manipulation checks identified that the majority of students found the scenarios believable and vivid, and that perceived deterrent levels were meaningfully different across groups. Again, the purpose of empirical analyses was to attempt to replicate Brehm and Miron's (2006) findings that ambivalence involves sequential emotion patterns. Thus, we are primarily concerned

with the pattern of results in Figures 3 and 4 relative to the expectations presented in Figure 1 between the two potential patterns of responses. This interpretation is supplemented by evidence that observed differences are also statistically interpretable in terms of obtained mean scores across a set of unique instigated emotions, relative to mean score changes in the presence of a deterrent. Table 3 presents statistics associated with the instigated mean scores and their differences. First, it is expected, but not required, that there be no mean score differences across the subgroups for the instigated emotions prior to encountering the deterrent. Such was the case for all of the positive instigated emotions in this study. However, it is apparent that some of the mean scores of instigated negative emotions varied across groups. A careful examination of the Medium group, while randomly selected, none-the-less seemed to experience more negative emotion when instigated than the other groups suggesting some random error. Second, all of the positive

emotions met the assumption of homogeneity of variance. However, several of the negative emotions failed to meet this criterion. Since our concern is to minimize Type 1 error rates, we adopt Keppel and Wickens' (2004) recommendation to half the α associated with the ANOVA tests. The associated Welch Test scores are also reported as they reflect less influence in the presence of heterogeneity of variance than standard ANOVA scores. It is also interesting to note that all of the mean scores of all the instigated positive emotions were reduced in the presence a negative deterrent, and most negative instigated emotions were reduced in the presence of a positive deterrent. The exceptions included the negative moral emotions (shame guilt, regret) and fear (which seems less germane to the research scenario). The conclusion is that care appears warranted relative to analysis assumptions when interpreting results associated with emotional responses, particularly negative emotions.

Table 3: Instigated Emotions ANOVA Results

Emotion	Pre-Deterrent Level Mean Score for Instigated Emotion (0 → 6 Scales)				Levene Sig.	ANOVA Between-Group Sig.	Welch Robust Test of Equality of Means	Average Paired Differences Pre- and Post-Deterrent	Paired Differences Sig. Pre- and Post-Deterrent
	Absent	Low	Medium	High					
Group 1 (Instigating Negative Emotions)									
Angry	3.05	2.85	3.68	2.45	.218	.219	.280	1.38	.000
Frustrated	4.00	3.60	3.50	2.68	.001	.111	.160	1.38	.000
Guilty	0.30	0.15	1.32	0.23	.000	.012	.150	0.11	.387
Ashamed	0.35	0.15	1.36	0.23	.000	.008	.110	0.24	.119
Sad	1.80	1.00	2.54	1.55	.014	.089	.125	0.79	.000
Disappointed	4.35	3.25	3.95	3.36	.253	.242	.196	1.73	.000
Worried	1.10	0.75	2.64	1.05	.003	.001	.009	0.81	.000
Uncomfortable	0.80	1.20	2.23	0.77	.054	.021	.047	0.56	.003
Fearful	0.30	0.25	1.59	0.14	.000	.001	.029	0.28	.087
Regretful	1.40	0.50	1.82	1.27	.039	.157	.117	0.37	.107
Displeasure	3.20	2.40	3.82	2.00	.827	.021	.027	1.01	.001
Group 2 (Instigating Positive Emotions)									
Excited	2.65	3.30	3.45	3.29	.473	.336	.330	2.30	.000
Happy	3.45	3.55	4.10	3.67	.080	.446	.285	2.67	.000
Glad	3.10	3.90	4.15	3.81	.117	.123	.104	2.65	.000
Satisfied	3.90	3.75	4.25	4.14	.461	.718	.677	3.07	.000
Proud	2.50	2.60	3.05	2.33	.292	.516	.535	1.54	.000
Self-Assured	2.95	3.05	3.60	2.71	.487	.320	.246	1.85	.000
Pleasure	3.55	3.30	3.85	3.62	.102	.701	.611	2.56	.000

Figure 3 graphically presents plots of the instigated versus deterrent positive emotional responses. There are a number of interesting insights apparent from a consideration of Figure 3. First, the bipolar Overall Positive Feeling measure recommended by Schimmack (2005) appears much more sensitive in this research context than the other emotion-specific measures. For example, in Panel A it is apparent that the reported Overall Positive Feeling was substantially greater than any of the other assessed (specific) positive emotions (noted as rectangle 1). Further, the negative deterrent substantially diminished reported overall positive feelings (i.e., is very sensitive to the deterrent effect). Rectangle 2 demonstrates that virtually all the specific positive emotions were reported as consistently felt *pre-deterrent* across a relatively narrow range of

the scale (2 to 4 points of a seven-point scale). Rectangle 3 illustrates that the initial deterrent condition ("0" in both cases) were similar to the pre-deterrent mean scores. However, rectangle 4 demonstrates that in the case of all positive emotions, the introduction of a negative deterrent (i.e., *post-deterrent*) led to a decrease in reported positive emotional responses consistent with Panel B of Figure 2. This pattern appears replicated in Panel B of Figure 3 which reverses the role of positive affect from instigated to deterrent emotional influence. Thus, the conclusion for all specific positive emotions investigated herein is that the pattern of responses obtained herein best fits the model associated with an ability to experience simultaneous emotions, and not the pattern associated with only sequential emotions as reported by Brehm and Miron (2006).
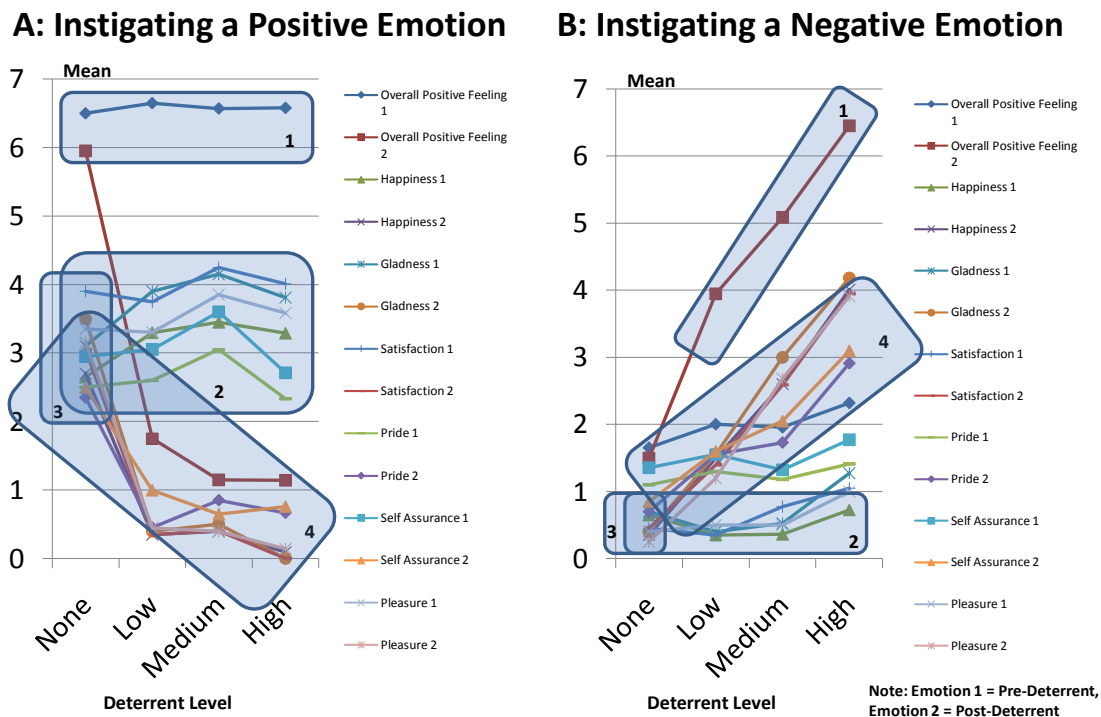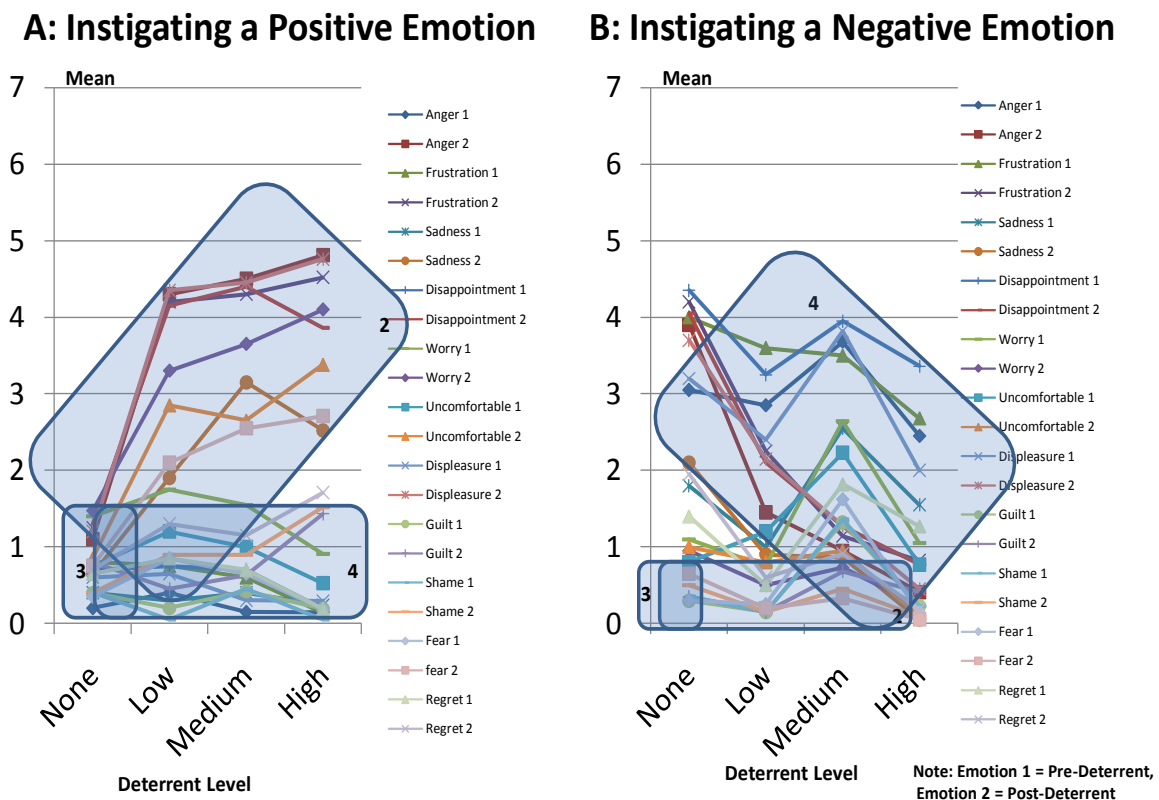
FIGURE 3
Assessing Positive Emotions

Figure 4 identifies the same pattern of results for the assessed negative emotions. Readers will note the previously discussed minor increase in mean scores across all assessed negative emotions in the Medium-level deterrent category, but the overall pattern of responses again supports the conclusion that the pattern of responses best fits the model associated with an absence of simultaneous emotions, and again not the pattern of presence of simultaneous emotions are reported by Brehm and Miron (2006). In summary, the results of the study presented herein appear inconsistent with those reported by Brehm and Miron (2006) for both the emotions they assessed, as well as the additional emotions considered herein.

FIGURE 4
Assessing Negative Emotions

A: Instigating a Positive Emotion

B: Instigating a Negative Emotion

Note: Emotion 1 = Pre-Deterrent, Emotion 2 = Post-Deterrent

DISCUSSION

It has remained unclear to date the affective foundations of satisfaction versus attitudes and how these foundations influence models of consumer J/DM. The current research attempts to address this gap in the literature by proposing a model of consumer J/DM that (1) accounts for the importance and vertical nature of satisfaction in such

processes, (2) can help explain ambivalent attitudes and satisfaction judgments, and (3) explores the issue of whether emotions can exist simultaneously or can only occur sequentially. The answer to this third question is important in that the model proposed herein appears to imply that emotions could exist simultaneously, a situation inconsistent with Brehm and Miron's (2006) argument and Marketing's traditional perspective. Thus, the results reported herein signal a cautionary note in assuming sequential emotions in marketing models in the presence of CA. The current study was neither able to replicate nor extend the results of Brehm and Miron (2006) to other emotions, rather, appear more consistent with the Evaluative Space perspective identified in Table 1 as exemplified by the GTM conceptualization as well as emerging cognitive consistency theory based upon constraint satisfaction theory. Thus, it appears to still remain an open question as to the theoretical foundations of affect vis-à-vis satisfaction, attitudes, and CA. In particular, the results reported herein may call into question Marketing's traditional view of CA. Marketing researchers are encouraged to continue the quest to develop more effective explanatory models of the affective response in consumers. The model presented as Figure 1 and the theoretical arguments presented herein provide an initial step in that direction.

Managerially, the study reported herein identifies at least two contributions that merit discussion. First, an arguable limitation to existing models of consumer satisfaction has been the lack of coherence with other explanations of the formation of behavioral intentions (e.g., attitude models, folk theory of psychology, J/DM). The model presented as Figure 1 provides managers a roadmap of how to better understand how attitudes and emotions operate vis-à-vis satisfaction judgments in the formation of motivation and intentions to engage in acts of consumptions.

Thus, the study provides a framework for a more complete managerial understanding of how satisfaction operates in competitive consumer environments. Second, the issue of simultaneity of emotions has direct managerial importance. Traditional marketing thinking is to "satisfy" customers (at all costs) in marketing exchanges. The assumption of sequential emotions suggests that doing so is "good enough" in that negative emotions are essentially replaced by positive emotions in acts like effective service recovery. However, if emotions can in fact be simultaneous, then consumers may leave marketing exchanges with a "ratio of satisfaction" that is closer to 50/50 positive versus negative than typically assumed by marketers. It is possible, if not probable, that closer ratios of positive/negative emotions (in terms of numerator/denominator) will yield smaller influences on dependent variables such as desire as motivation in Figure 1. This is an issue for future research to consider.

There also exist a number of additional research implications apparent from the results reported herein. First, there appears to remain much to learn as to how emotions operate in affective and attitudinal space. Reich et al (2003) identify literature demonstrating the close connections between brain activity, neuro-hormones, and emotional reactivity, and suggest that the question of whether or not emotions are simultaneous or sequential may need not be an "either/or" conclusion. They report an integrative view which they refer to as the Dynamic Model of Affect (DMA), which claims to specify the conditions under which both bivariate and bipolar models are valid. Such a position would appear consistent with the perspectives advocated herein. Marketers should consider further tests of competing explanations of how affect operates within marketing contexts. Second, Rudolph and Popp (2007) present evidence that ambivalence tends to be greater among individuals who are well-

informed about issues and possess a higher need for cognition. In addition ambivalence tends to be lower among those individuals motivated by directional goals. Thus, in a political context, their results suggest that people who engage in effortful information processing tend to be more ambivalent, independent of value conflicts. Further, the relationships between emotional ambivalence and goal ambivalence and motivation all seem worthy of additional consideration by marketers (Fong and Tiedens 2002). Third, Williams & Aaker (2002) present evidence that persuasion appeals that highlight conflicting emotions lead to less favorable attitudes with individuals with a lower propensity to accept duality. This suggests the need for greater inquiry related to the boundary conditions of emotional dissonance, and further distinction between cognitive versus emotional dissonance. Fourth, Carrera and Oceja (2007) identify a new measurement technique that the term the Analogical Emotional Scale (AES) that marketers may consider assessing against more traditional scales of ambivalence. Fifth, Ersner-Hershfield et al (2008) call for the consideration of poignancy, defined as an emotional experience associated with meaningful endings. Such inquiries might prove particularly insightful vis-à-vis the rapidly expanding elderly population in the US. Finally, future research should address the task of overall model testing of the theoretical perspective presented herein as Figure 1.

It is important that these results be viewed in context. First, while the study successfully provides emotional deterrents capable of producing the results reported by Brehm and Miron (2006) given the relevance of the scenarios to the respondent pool, it remains unclear whether or not a different respondent pool might produce different results. Priester et al (2007) speculate that that some individuals may be more prone to experience/express ambivalence than others. Larsen et al (2001) note that psychobiological and behavioral evidence demonstrates that the co-activation of positive and negative affect can be subjectively experienced and supported. It is possible that this cohort is more prone to such subject experiences. In addition, Bagozzi , Wong, and Yi (1999) present evidence that culture can influence the correlation between positive and negative emotions, suggesting that co-activation (or not) is a function of culture. Thus, the sample of student respondents assessed herein has to be considered in this light as the respondent pools utilized in the studies reported by Brehm and Miron (2006) are unclear. Second, it is unclear as to the potential role of moderators in the finding reported herein including duality acceptance (Williams and Aaker 2002), anticipated conflicting reactions (Priester et al 2007), subjective product category knowledge (Ruth 2001), or involvement (Taylor 2007). For example, it is possible that Lau-Gesk's (2005) arguments for accounting for different positive and negative affect at different times throughout the consumption experience could provide a different finding. In addition, Taylor (2007) provides evidence that the MGB attitude model provides different path estimates depending on the level of respondent involvement. Therefore, although the manipulation checks demonstrate that meaningful differences were perceived across the deterrent categories in both scenarios, differing levels of involvement may moderate the observed results.

EPILOGUE

This study began with a consumer scenario that identified ambivalent consumer judgments and feelings. A model is proposed of consumer J/DM that purports to reconcile satisfaction theory with emerging attitudinally-based, goal directed models of

J/DM (see Figure 1) in explaining such ambivalence. In the end, the results of the present study signal a cautionary note concerning the theoretical foundations of CA in marketing models of J/DM. The results further underscore recent calls for a greater emphasis on replication of results in social science research (Tsang and Kwan, 1999, Boyer, 2003). This implication is also consistent with Norenzayan and Heine's (2005) compelling argument that gen-eralization of results of psychological studies beyond one's sample is inherently risky due to an absence of psychological universals.

REFERENCES

Abraham, C. & Sheeran, P. (2003), "Implications of goal theories for the theory of reasoned action and planned behaviour," *Current Psychology: Developmental, Learning, Personality, Social*," 22 (3), 264-280.

Ajzen. I. (2001), "The nature and operation of attitudes. *Annual Review of Psychology*," 52, 27-58.

Allen, T. A., Machleit, K. A., Kleine, S. S., & Notani, A. S. (2005), "A place for emotions in attitude models," *Journal of Business Research*, 58, 494-499.

Babin, B. J. & Mitch Griffin (1998), "The nature of satisfaction: An updated examination and analysis," *Journal of Business Research*, 41, 127-136.

Bagozzi, R. P., Gopinath, M., & and Nyer, P. U. (1999), "The role of emotions in marketing," Journal *of the Academy of Marketing Science*, 27 (2), 184-206.

Bagozzi, R. P., Wong, N., & Yi, Y. (1999), "The role of culture and gender in the relationship between positive and negative affect," *Cognition & Emotion*, 13 (6), 641-672.

Bagozzi, R. P., Zeynep Gurhan-Canli, and Joseph R. Priester (2002), *The Social Psychology of Consumer Behaviour*. Buckingham: Open University Press.

Baron, Jonathan (2004), "Normative Models of Judgment and Decision Making," *Blackwell Handbook of Judgment & Decision Making*, Derek J. Koehler and Nigel Harvey (Eds.). Oxford, UK: Blackwell Publishing, pp. 19-36.

Boyer, M.A. (2003), "The international studies profession symposium on replication in international studies research," *International Studies Perspectives*, 4, 72-107.

Brehm, J. W. & Miron, A. M. (2006), "Can the simultaneous experience of opposing emotions really occur?," *Motivation and Emotion*, 30 (1), 13-30.

Carrera, P. & Oceja, L. (2007), "Drawing mixed emotions: Sequential or simultaneous experiences?," *Cognition & Emotion*, 21 (2), 422-441.

Conner, M., Sparks, P., Povey, R., James, R., Shepherd, R., & Armitage, C.J. (2002), "Moderator effects of attitudinal ambivalence on attitude-behavior relationships," *European Journal of Social Psychology*, 32, 705-718.

Cooke, R. & Sheeran, P. (2004), "Moderation of cognition-intention and cognition-behavior relations: A meta-analysis of properties from the theory of planned behavior," *British Journal of Social Psychology*, 43, 159-186.

Costarelli, S. & Palmonari, A. (2003), "Ingroup ambivalence and experienced affect: The moderating role of social identification," *European Journal of Social Psychology*, 33, 813-821.

Costarelli, S. & Colloca, P. 2007, "The moderation of ambivalence on attitude-intention relations as mediated by attitude importance," European *Journal of Social Psychology*, 37, 923-933.

DeSterno, D., Petty, R.E., Wegener, D. T. & Rucker, D. D. (2000), "Beyond valence in the perception of likelihood: The role of emotion specificity," Journal *of Personality and Social Psychology*, 78 (3), 397-416.

DeSteno, D., Petty, R.E., Rucker, D. D., & Wegner, D. T. (2004a), "Beyond valence in the perception of likelihood: The role of emotion specificity," *Journal of Personality and Social Psychology*, 78 (3), 397-416.

DeSteno, D., Petty, R.E., Rucker, D. D., Wegner, D. T., & Braverman, J. (2004b), "Discrete emotions and persuasion: The role of emotion-induced expectancies," *Journal of Personality and Social Psychology*, 86 (1), 43-56.

Eagly, A. H. & Chaiken, S. (1993), "*The psychology of attitudes*," Fort Worth: Harcourt, Brace, Jovanovich College Publishers.

Ersner-Hershfield, H., Mikles, J. A., Sullivan, S. J. & Carstensen, L. L. (2008), "Poignancy: Mixed emotional experiences in the face of meaningful endings," *Journal of Personality and Social Psychology*, 94 (1), 158-167.

Fong, C. T. (2006), "The effects of emotional ambivalence on creativity," *Academy of Management Journal*, 49 (5), 1016-1030.

Fong, C. T. & Tiedens, L. Z. (2002), "Dueling experiences and dual ambivalences: Emotional and motivational ambivalence of women in high status positions," *Motivation and Emotion*, 26 (1), 105-121.

Frith, Chris D. and Tania Singer (2008), "The Role of Social Cognition in Decision Making," *Philosophical Transactions of the Royal Society B*, 363, 3875-3886.

Green, Donald Philip, Susan Lee Goldman, & Peter Salovey (1993), "Measurement Error Masks Bipolarity in Affect Ratings," *Journal of Personality and Social Psychology*, 64 (6), 1029-1041.

Harrist, S. (2006), "A phenomenological investigation of the experience of ambivalence," *Journal of Phenomenological Psychology*, 37 (1), 86-114.

Hodson, G., Maio, G. R. & Esses, V. M. (2001), "The role of attitudinal ambivalence in susceptibility to consensus information," *Basic and Applied Social Psychology*, 23 (3), 197-205.

Kachadourian, L. K., Fincham, F & Davila, J. (2005), "Attitudinal ambivalence, rumination, and forgiveness of partner transgressions in marriage," *Personality and Social Psychology Bulletin*, 31 (3), 334-342.

Kahneman, D., Ritov, I. & Schade, D. (2000), "Economic preference or attitude expressions: An analysis of dollar responses to public issues," In D. Kahneman and A. Tversky (Eds), *Choices, values, and frames* (pp. 642-671). Cambridge: Cambridge University Press.

Keppel, G. & Wickens, T. D. (2004), *Design & Analysis: A Researcher's Handbook, 4th Edition*. Upper Saddle River, NJ: Pearson/Prentice Hall.

Laros, F. J. M. & Steenkamp, J. E. M. (2005), "Emotions in consumer behavior: A hierarchical approach," *Journal of Business Research*, 58, 1437-1445.

Larson, J. T., McGraw, A. P., & Caioppo, J. T. (2001), "Can people feel happy and sad at the same time?," *Journal of Personality and Social Psychology*, 81 (4), 684-696.

Lau-Gesk, L. (2005), "Understanding consumer evaluations of mixed affective experiences," *Journal of Consumer Research*, 32, 23-28.

Loewenstein, G., Elke, F., Weber, Hsee, C. K. & Welch, N. (2001), "Risk as feelings," *Psychological Bulletin*, 127 (2), 267-286.

Mandel, D. R. & Dhami, M. K. (2005), "'What I did' versus 'what I might have done': Effects of factual versus counterfactual thinking on blame, guilt, and shame in prisoners," *Journal of Experimental Social Psychology*, 41, 627-635.

Monroe, Brian M. and Stephen J. Read (2008), "A General Connectionist Model of Attitude Structure and Change: The ACS (Attitudes as Constraint Satisfaction) Model," *Psychological Review*, Jul2008, Vol. 115 Issue 3, p733-759.

Mucchi-Faina, A. Costrarelli, S. & Romoli, C. (2002), "The effects of intergroup context of evaluation on ambivalence toward the ingroup and the outgroup," *European Journal of Social Psychology*, 32, 247-259.

Norenzayan, A. & Heine, S. J. (2005), "Psychological universals: What are they and how can we know?," *Psychological Bulletin*, 131 (5), 763-784.

Oliver, R. L. (1997), *Satisfaction: A Behavioral Perspective on the Consumer*. New York: The McGraw-Hill Companies, Inc.

Olsen, S. O., Wilcox, J. & Olsson, U. (2005), "Consequences of ambivalence on satisfaction and loyalty," *Psychology & Marketing*, 22 (3), 247-269.

Otnes, C., Lowrey, T. M. & Shrum, L. J. (1997), "Toward an understanding of consumer ambivalence," *Journal of Consumer Research*, 24, 80-93.

Perugini, M. & Bagozzi, R. P. (2001), "The role of desires and anticipated emotions in goal-directed behaviours: broadening and deepening the theory of planned behaviours," *British Journal of Social Psychology*, 40, 79-98.

Priester, J.R. & Petty, R. E. (1996), "The gradual threshold model of ambivalence: Relating the positive and negative bases of attitudes to subjective ambivalence," *Journal of Personality and Social Psychology*, 71, 431-449.

Priester, J.R. & Petty, R. E. (2001), "Extending the bases of subjective attitudinal ambivalence: Interpersonal and intrapersonal antecedents of evaluative tension," *Journal of Personality and Social Psychology*, 80 (1), 19-34.

Priester, J.R., Perry, R. E. & Park, K. (2007), "Whence univalent ambivalence? From the anticipation of conflicting reactions," *Journal of Consumer Research*, 34, 11-21.

Reich, J. W., Zautra, A. J., & Davis, M. (2003), "Dimensions of affect relationships: Models and their integrative implications," *Review of General Psychology*, 7 91), 66-83.

Reeve, J. M. (2005), *Understanding Motivation and Emotion, 4th Edition*. Hoboken, NJ: John Wiley & Sons, Inc.

Reichheld, Frederick F. (2003), "The One Number You Need to Grow," *Harvard Business Review*, 81 (12), 46-54.

Richins, M. L. (1997), "Measuring emotions in the consumption experience," *Journal of Consumer Research*, 24 (September 1997), 127-146.

Rucker, D. D. & Petty, R. E. (2004), "Emotion specificity and consumer behavior: Anger, sadness, and preference for activity," *Motivation and Cognition*, 28 (1, March 2004), 3-21.

Rudolph. T. J. & Popp, E. (2007), "An information processing theory of ambivalence," *Political Psychology*, 28 (5), 563-585.

Russell, J. A. (1980), "How Shall an Emotion Be Called?," *Circumplex Models of Personality and Emotion,* R. Plutchick and H. R. Conte (Eds.). Washington, DC: American Psychological Association, 205-220.

Russell, J. A. & J. M. Carroll (1999), "On the bipolarity of positive and negative affect," *Psychological Bulletin*, 125-3-30.

Russell, J. A., Weiss, A., & Mendelsohn, G. A. (1989), "Affect grid: A single-item scale of pleasure and arousal," *Journal of Personality and Social Psychology*, 57, 493-502.

Ruth, J. A. (2001), "Promoting a brand's emotional benefits: The influence of emotion categorization processes on consumer evaluations," *Journal of Consumer Psychology*, 11 (2), 99-113.

Ruth, J. A., Brunel, F. F., & Otnes, C. C. (2002), "Linking thoughts to feelings: Investigating cognitive appraisals and consumption emotions in a mixed-emotion context," *Journal of the Academy of Marketing Science*, 30 (1), 44-58.

Schimmack, U. (2005), "Response latencies of pleasure and displeasure ratings: Further evidence for mixed feelings," *Cognition & Emotion*, 19 (5), 671-691.

Sheth, Jagdish N. and Atul Parvatiyar (2000), *Handbook of Relationship Marketing*. Thousand Oaks: Sage Publications, Inc.

Simon, Dan, Chadwick J. Snow, and Stephen J. Read (2004), "The Redux of Cognitive Consistency Theories: Evidence Judgments by Constraint Satisfaction," *Journal of Personality and Social Psychology*, 86 (6), 814-837.

Sparks, P., Harris, P. R. & Lockwood, N. (2004), "Predictors, and predictive effects of ambivalence," *British Journal of Social Psychology*, 43, 371-383.

Taylor, S. A. (2007), "Broadening and deepening attitude-based models of goal-directed behaviors," *British Journal of Social Psychology*, 46, 739-768.

Tsang, E. W. K. & Kwan, K. (1999), "Replication and theory development in organizational Science: A critical realist perspective," *Academy of Management Review*, 24 (4), 759-780.

Van Harreveld, F., van der Plight, J., de Vries, N. K., Wenneker, C. & Verhue, D. (2004), "Ambivalence and information integration in attitudinal judgment," *British Journal of Social Psychology*, 43, 431-447.

Voss, Kevin E. Eric R. Spangenberg, and Bianca Grohmann (2003), "Measuring the Hedonic and Utilitarian Dimensions of Consumer Attitude," *Journal of Marketing Research*, Vol. XL (August 2003), 310-320.

Watson, D. & Auke Tellegen (1999), "Issue in the dimensional structure of affect – Effects of descriptors, measurement error, and response formats: Comment on Russell and Carroll (1999)," *Psychological Bulletin*, 125 (5), 601-610.

Williams, P. & Aaker, J. L. (2002), "Can mixed emotions peacefully coexist?," *Journal of Consumer Research*, 28. 636-649.

Zaltman, G. (1997), "Rethinking market research: Putting people back in," *Journal of Marketing Research*, 424-437.

Zemborain, M. R. & Johar, G. V. (2007), "Attitudinal ambivalence and openness to persuasion: A framework for interpersonal influence," *Journal of Consumer Research*, 33, 506-514.

Send correspondence regarding this article to:

Steven A. Taylor, Ph.D.
Professor of Marketing
Dept. of Marketing
Campus Box 5590
Illinois State University
Normal, IL 61790-5590
Phone: (309) 438-8772
Fax: (309) 438-5510
E-Mail: staylor@ilstu.edu

ENDNOTES

[i] Oliver (1997, p. 27) argues that affective responses in consumer behavior are generally taken to subsume only emotion. In this view, a primary affect is a fairly nonspecific positive or negative feeling state most typically represented by labels such as happiness/sadness or pleasure/displeasure.

[ii] Following Taylor (2007), the subsequent discussion is (1) restricted to explanations of volitional, goal-directed behaviors and (2) assumes an instrumental notion of rationality wherein mental processes are rational to the extent that they help people achieve goals. This position is also consistent with Baron's (2004) assertion that the study of J/DM has traditionally concerned the comparison of judgments to standards that allow determinations of "better" or "worse" judgments. The major standards come from probability theory (e.g.,, Bayes Theory), utility theory, and statistics. These mathematical theories (i.e., models) are normative in nature because they are norms. Baron (2004) argues that normative models must be understood in terms of their role in looking for biases, understanding these biases in terms of descriptive models, and developing prescriptive models. He further suggests that the criterion used to differentiate normative models involves the ability of the model to help humans to achieve goals, to bring about outcomes that are good according to the values we possess. That is, the best option is the one that does the most "good," which Baron (2005, p. 23) defines as "…the extent to which we achieve our goals."

[iii] Consistent with footnote 2, the focus of the current study is on social cognition in decision making. Frith and Singer (2008) define social cognition as explaining the mechanisms of social behavior by using concepts and methods shared with related fields such as cognitive psychology and cognitive science. They further assert that an important feature of decision-making in social settings concerns the interaction between reason and emotion.

[iv] **AEs** refer to Anticipated Emotions, **SN** refers to Subjective Norms, **PBC** refers to Perceived Behavioral Control, and **FPB** refers to Frequency of Past Behaviors. In addition, Taylor (2007) recently presents evidence that Anticipated Regret (**AR**) acts as a mediator of the relationship between Negative Anticipated Emotions and Desires, thus leading to a modified version of the MGB.

[v] This approach may also be consistent with Bagozzi et al's (2002) additional argument that it remains unclear whether satisfaction is phenomenologically distinct from other positive emotions, as it represents neither a basic emotion nor is identified as a central emotion in leading theories of emotion. They further speculate that the centrality of satisfaction in consumer research may be due to the fact that it was among the first emotions studied, not that it holds particular theoretical sway as a unique entity from other emotions. In fact, these authors go so far as to raise the question whether a single, summary emotional response such as satisfaction is even feasible or desirable. Babin and Griffin (1998) also characterize satisfaction and dissatisfaction as independent post-purchase emotions resulting from cognitive appraisals that represent only two of many potential emotional outcomes from consumption.

[vi] Ajzen (2001) surveyed the attitude literature from 1996-1999 and argues that the presence of ambivalent attitudes is an important (marketing) consideration because ambivalent attitudes have been shown to affect judgments and behaviors in profound ways. For example, (non)ambivalent attitudes appear to be more predictive of and/or may act as a moderator of subsequent intentions and behaviors (also see Conner et al 2002; Cooke & Sheeran 2004; Costrarelli and Colloca 2007; Sparks et al 2004), are more resistant to persuasive communications (see Zemborain and Johar 2007 for an alternative perspective), and represent a dominant theme in theorizing about racial, ethnic, and gender-related prejudice. Ambivalent attitudes have also been linked to group-related attitudes (Costrarelli & Palmonari 2003; Mucci-Faina et al 2002), forgiveness (Kachadourian et al 2005), creativity (Fong 2006), and susceptibility to consensus information (Hodson et al 2001). Olsen et al (2005) also provide evidence that ambivalent consumers are less satisfied, and therefore less loyal, than others.

[vii] However, ambivalence has presented a challenge in that emotions have generally proven difficult to incorporate into marketing models of behavior. Part of the problem has been the focus in social sciences until recently on cognitively-based, consequentialist models of judgment and decision making (see Loewenstein et al 2001, Taylor 2007). Allen et al (2005) specifically call for addressing this challenge by incorporating emotive information into attitude models, such as is suggested herein.

---

viii The current research investigates psychological ambivalence, which represents a state of internal, conflicting emotions toward an object or person (Otnes et al 1997), or act. The author recognizes William and Aaker's (2002) assertion that attitudinal ambivalence, like cognitive dissonance, is considered to be a disharmonious and uncomfortable state for most as inconsistent with consistency and clear action tendencies. However, the current inquiry assumes situations absent mental illness, and generally views the *acknowledgement and resolution* of mixed feelings as signs of maturity and positive mental health.

ix Otnes et al (1997) conducts a qualitative inquiry into CA based on the critical incidents methodology, and reports important linkages between ambivalence and (1) expectations, (2) information overload, (3) role conflicts (consistent with sociological ambivalence perspectives), and (4) custom and values conflicts (consistent with cultural ambivalence). Readers will also note that this definition is slightly modified from that originally proposed by Otnes et al (1997) in order to account for the subsequent growth of the service marketing and loyalty literatures. Readers are also encouraged to consider Harrist's (2006) recent phenomenological investigation of ambivalence.

x For example, the presence of CA affects cognitive processing and attitudinal responses (Van Herreveld et al 2004), how consumers react to experiences wherein both positive and negative affect become activated within the same consumption experience (Lau-Gesk 2005), and whether attitude ambivalence should be viewed as either an exogenous, mediator, or moderating variable (Olsen et al 2005). Ajzen (2001) states that attitude ambivalence can be the result of either (1) simultaneously accessing conflicting cognitive beliefs, or (2) a conflict between cognition and affect. Ajzen (2001) further suggests that Priester & Petty's (1996) gradual threshold model (**GTM**) empirically provides the best theoretical explanation of attitude ambivalence. However, Ajzen (2001) concedes that the GTM empirically appears to account for only a moderate amount of the variance in subjective ambivalent experiences. Priester, Petty & Park (2007) assert that the GTM makes three specific predictions related to ambivalence: (1) ambivalence is a negative function of the extent of dominant reactions[x]; (2) ambivalence increases in a negatively accelerating manner as the number of conflicting reactions increases; and (3) as the number of conflicting reactions increases, the influence of dominant reactions on ambivalence decreases to some point wherein the number of dominant reactions no longer has any influence on experienced ambivalence. They further identify a mystery associated with the observation that people can experience ambivalence even in the presence of thoughts and feelings that are quite one-sided. These authors report a new construct, the anticipation of conflicting reactions, to explain why univalent attitudes are sometimes associated with ambivalence.

xi Taylor's (2007) evidence that anticipated regret (**AR**) mediates the relationship between negative AEs and Desire within the MGB may also prove to be consistent with this argument.

xii Simon et al (2004, pp. 815-816) describe IIT as a broad theory of cognition that concentrates on combining psychological stimuli into unitary responses via three sequential operators: valuation, integration, and response. Thus, at its core, IIT is the tenet that human cognition obeys simple algebraic rules, in that judgments of complex phenomena are mathematical products (often weighted averages) of the respective psychological valuations. They continue by asserting that cognitive algebra relies on two central assumptions: (1) *meaning invariance* – contends that each piece of evidence is evaluated on its own terms and is not affected by other pieces of evidence (unless there is a preexisting interdependency relationship); and (2) *value-integration interdependence* – posits complete separation between the processes of evaluation and integration (i.e., the evaluation of a piece of evidence is assessed independently from how it is combined to form the ultimate conclusion). Simon and his colleagues conclude that together, these assumptions capture the property of **unidirectionality** wherein inferences flow from the individual pieces of evidence toward computed judgments, but the evaluation of the evidence is in no way affected by the emerging conclusion. Thus, the arguments of Simon et al (2004) are also inconsistent with Bayes theorem, which involves algebraic exercises of sequential multiplication of the probabilistic values of the event's constitutive elements. In other words, Bayes' theory also relies on the same principles of meaning invariance and evaluation-integration independence.

xiii Note that the ACS is an explanatory model of attitudes, not consumer satisfaction.

[xiv] In particular, the ACS begins with the premise that all relevant cognitions are organized in a network involving varying associations with other cognitions, including persuasive ones. This allows activation to spread throughout the connections and change the activation of an evaluation (the attitude) as well as that of any other unit in the network. Activation timing is also relevant in that implicit and explicit attitudes manifest themselves at earlier and later points of the processing. Constraint satisfaction will follow from this activation spreading. In general, activations in the network and the weights stored in the network are each critical to understanding the behavior of the network and the corresponding attitude.

[xv] Issues related to dimensionality/polarity of emotions underlie much of the controversy associated with affective measurement, and therefore the question of whether or not emotions or attitudes occur simultaneously and/or sequentially. Carrera and Oceja (2007) point out that affect and emotion are typically measured using verbal labels followed by numerical scales which allow respondents to translate feelings into numbers. Bagozzi et al (1999) suggest that such is the case of marketing, which has tended to take an empirical approach to the measurement of emotions through self-reports (using either unipolar or bipolar items on questionnaires). However, such measurement techniques fail to distinguish whether or not two emotions coincide at some point in time (i.e., are simultaneous), or (rapidly) occur independently across time (i.e., are sequential).Green et al (1993) point out the methodological problems inherent in trying to determine whether mood/emotions are (1) unidimensional and dependent, or (2) bipolar and independent. These authors conclude that measurement error leads to the erroneous conclusion that mood is not bipolar. Importantly, they cast doubt on the use of raw data when assessing any emotions. They ultimately call for the use of multi-method approaches to the measurement of mood. Russell and Carroll (1999) revisit this issue and assert that questions exist concerning whether positive and negative emotions are (1) polar opposites with human feelings reflecting the swing of a pendulum, or (2) independent of one another. The controversy lies in a consistent observation of a weak negative correlation between oppositely valenced emotions, and is central to the psychology of affect. Russell and Carroll (1999) provide a comprehensive evaluation of the efficacy of bipolar scales for the measurement of positive and negative affect. Like Green et al (1993), they conclude that there is little to no evidence supporting psychometric challenges to bipolarity. In addition, they assert that bipolarity is also a reasonable theoretical assumption, thereby concluding that bipolar response formats are justified. However, Watson and Tellegen (1999) alternatively argue that while error can be expected to distort the value of manifest correlations, the overall effect will not change the nature of the affective structure itself. Consequently, the use of raw, uncorrected correlational data can still play a useful role in affect research, including investigations of affective structure. These authors further argue for the continued use of unipolar measures of affect and polychloric correlations, which correspond to how specific emotions are operationalized in the current research.

[xvi] Importantly, readers will note that arguments such as presented by Reichheld (2003) similarly ignore the social psychological explanation of how WOM behaviors form and as such arguably suffer from the same criticisms of satisfaction theory as discussed herein.

[xvii] This , in spite of Bagozzi et al's (1999) admission that appraisal theories have not provided a complete explanation of the role of arousal vis-à-vis emotions.

[xviii] Laros and Steenkamp (2005), relying heavily on Richins (1997), revisit this issue and argue for a hierarchical approach for modeling emotions in consumer research. They argue that consumer emotions can be considered at different levels of abstractness. Specifically, general positive and negative emotions are the superordinate and most abstract level at which emotions can be defined. The subordinate level consists of specific consumer emotions. They therefore propose a slightly modified set of items that arguably reconcile diverse perspectives concerning emotions, but similarly rely on the underlying dimensions of (1) positive versus negative affect, and (2) valence (or activation).

[xix] These arguments are based upon two fundamentally different meanings of bipolarity in this context (Russell and Carroll 1999). First, bipolarity can be defined as a reciprocal relationship between pleasure and displeasure (e.g., consistent with Ruth et al's 2002 perspective). However, Schimmick (2005) dismisses this perspective because it implies the hard to defend position that increases in pleasure imply decreases in displeasure and vice-versa. The second notion of bipolarity suggests that pleasure and displeasure are mutually exclusive feelings. That is, a person cannot feel pleasure and displeasure at the same time. Schimmick (2005) tests his hypothesis using response latencies before and after a mood induction to examine the validity of reports of mixed feelings, demonstrating the

validity of self-reports of mixed feelings. His results also present evidence that (1) the majority of respondents seem to understand unipolar measures as consistent with their construction, and (2) self-report affective ratings are not influenced by item order or item spacing considerations.

[xx] They do recognize Larsen et al's (2004) claim to demonstrate simultaneous experiences of pleasure and displeasure based on the evaluative space model. However, they question the efficacy of the results because the model appears to lack a unifying theory explaining why organisms are equipped to deal with such dual processing. They speculate that ambivalence may be more adaptive in the short-run but have little to no value in the long run. This appears a question for future research.

[xxi] Interestingly, this theoretical linkage between motivational and emotional states appears consistent with the attitudinal approach for J/DM advocated herein. Specifically, the MGB incorporates anticipated emotions (AE's) into attitudinal models, which capture goal relatedness and self-regulation in response to feedback. AE's are contingent upon goal achievement/failure. Appraisals and reasons to act are transformed into desires which represent motivational states as the proximal determinant of behavioral intentions.

[xxii] The author adopts Brehm and Miron's (2006) assumptions that (1) affect is a conscious experience that participants can easily report on a questionnaire, and (2) respondents can provide meaningful information about the intensity of their experience on a scale.

[xxiii] Reeve (2005) presents the following criteria for a "basic" emotion:

  a. They are innate rather than acquired or learned through experience or socialization.
  b. They arise from the same circumstances for all people.
  c. They are expressed uniquely and distinctively.
  d. They evoke a distinctive and highly predictable physiological patterned response.

[xxiv] Reeve (2005) argues that interest is the most prevalent emotion in day-to-day functioning. In addition, motive involvement and satisfaction represent the themes that unite the positive emotions of interest and joy.

[xxv] This measurement approach appears consistent with the development of the MGB. Bagozzi et al (1999) assert that most appraisal theorists construe emotions as mental states or processes, thus self-reports are typically used to measure the cognitive activities comprising the emotional content of these states or processes. Specific emotional responses can be anticipated by varying (experimentally induced) specific appraisal conditions. Consequently, Bagozzi et al (1999) recommend several methodological considerations when measuring emotions in marketing research: (1) use unipolar scales and not bipolar scales, (2) include at least 5-7 scale steps for each item, and (3) use at least 3+ items for each emotional subcategory.

MEASURING CONSUMER SATISFACTION AND DISSATISFACTION INTENSITIES TO IDENTIFY SATISFIERS AND DISSATISFIERS

Clement S.F. Chow, University of Macao
Lida L. Zhang, University of Macao

ABSTRACT

Identifying satisfiers and dissatisfiers (i.e., satisfying and dissatisfying product attributes) has long been a major research focus among scholars in various disciplines, including management, marketing and engineering. It is observed that CIT (critical incident technique) is frequently used in such research but it has some limitations. So the objective of this study is to suggest a companion research method, termed as ICT (intensity comparison technique), to complement the use of CIT in identifying satisfiers and dissatisfiers. In the demonstration and empirical validation of ICT, we find that this method is convenient to use and yields results that complement those of CIT. It is expected that this study can trigger future research through which the ICT can be further developed.

INTRODUCTION

The concept that dissatisfaction is not the direct opposite of satisfaction was first proposed by Herzberg, Mausner and Snyderman (1959) in the mid-twentieth century. In their two-factor theory, Herzberg et al. (1959) classified job attributes as either hygiene factors, which are content-related, such as working conditions, pay and job security, or motivation factors, which are context-related, such as achievement, the work itself and responsibility. They argued that poor performance in hygiene factors causes job dissatisfaction; however, good performance in them does not cause satisfaction but rather no dissatisfaction. Likewise, good performance in motivation factors causes job satisfaction; however, poor performance in them does not cause dissatisfaction but rather no satisfaction. This theory was mostly applied in management and psychology research until the 1970s when Swan and Combs (1976) adapted it to marketing, classifying product performance into instrumental performance and expressive performance, which were counterparts of Herzberg's hygiene factor and motivation factor respectively. In a key study, Cadotte and Turgeon (1988) used consumer complaints and compliments to analyze what they coined "satisfiers" and "dissatisfiers" – the terms first appeared in major marketing literature equivalent to motivation factors and hygiene factors of job attributes. Since then, continuous effort has been put into the identification of satisfiers and dissatisfiers in satisfaction/dissatisfaction studies (e.g., Bitner, Boom and Tetreault 1990; Johnston 1995; Meuter, Ostrom, Roundtree and Bitner 2000; Yang and Fang 2004; Sweeney and Lapp 2004; Auh 2005; Goetzinger, Park and Widdows 2006).

As the above mentioned studies indicate, the identification of satisfiers and dissatisfiers has long been of interest to marketing researchers. Critical incident technique, CIT, developed by Flanagan (1954), was used by Herzberg et al. (1959) for his pioneering two-factor theory study. Since then, it has been frequently used by management and marketing researchers and practitioners in commercial sectors to identify satisfiers and dissatisfiers. CIT can be nicely applied in many service studies, but when is used for identifying satisfiers and dissatisfiers, it has some limitations. The two major limitations are its low statistical validity and the possibility of flawed conclusion, which will be explained later. Given the presence

of satisfiers and dissatisfiers and the need to identify them, the objective of this study is to introduce a new method that may serve as a companion research method to complement the use of CIT (in identifying satisfiers and dissatisfiers). The concept of this new method is very simple. It measures the intensity of consumer satisfaction when a product attribute has a positive valence (e.g., many color choices) and the intensity of customer dissatisfaction when the same attribute has a negative valence (e.g., few color choices). Then the two measurements of intensity are compared to determine whether an attribute is a satisfier (satisfaction intensity > dissatisfaction intensity), dissatisfier (satisfaction intensity < dissatisfaction intensity), or hybrid (satisfaction intensity = dissatisfaction intensity). The method is a comparison of intensities and thus, it is termed intensity comparison technique, ICT.

METHODOLOGY REVIEW

How Does CIT Work in Identifying Satisfiers and Dissatisfiers?

The way CIT works to identify satisfiers and dissatisfiers is straightforward. In their pioneering study, Herzberg et al. (1959, appendix I) asked the respondents "Think of a time when you felt exceptionally good or exceptionally bad about your job, either your present job or other job you have had". For such a question, the answers became "incidents" of satisfying or dissatisfying occasions in ones' job. Then, the incidents were grouped into different job factors. In each job factor, satisfying and dissatisfying incidents were tallied. If a factor was related to more satisfying incidents than dissatisfying incidents, then the factor was a motivation factor, whereas if it was related to more dissatisfying incidents than satisfying incidents, then it was a hygiene factor. Adapting this concept to consumer satisfaction context, Swan and Comb (1976, p.28) asked respondents "Think about a

specific item of clothing that has been especially satisfactory and an item that has been especially dissatisfactory," while Bitner et al. (1990, p.74) asked respondents "Think of a time when, as a customer, you had a particularly satisfying (dissatisfying) interaction with an employee of an airline, hotel, or restaurant." The data in both studies were analyzed following the method of Herzberg et al. (1959). In sum, CIT can be used to identify satisfiers and dissatisfiers among job factors, product attributes or service attributes. This method compares the number of occurrences of satisfying incidents with that of dissatisfying incidents of a particular product attribute, whereas ICT, which is discussed later, compares the intensities of consumer satisfaction and dissatisfaction that are associated with a particular product attribute.

Studies Adopting CIT to Identify Satisfiers and Dissatisfiers

Since Herzberg et al. (1959) first used CIT to identify motivation and hygiene factors, satisfiers/dissatisfiers studies in a wide variety of disciplines have adopted this technique. CIT has been used to: identify instrumental/expressive product attributes in a consumer research (Swan and Combs 1976; Maddox 1981); distinguish satisfactory and dissatisfactory service encounters in airlines, hotels and restaurants from the customer's point of view (Bitner et al. 1990) and contact employee's point of view (Bitner et al. 1994); investigate satisfiers and dissatisfiers in the banking industry (Johnson 1995); explore job motivators in technical organizations (Utley, Westbrook and Turner 1997); identify satisfiers and dissatisfiers in service encounters across six service industries (Wels-Lips, van der Ven and Pieters 1998); identify job motivators and dissatisfiers in the telecommunications industry (Knight and Westbrook 1999); distinguish value-enhancing elements and minimum requirements within B2B customers (Backhaus and Bauer 2000); explore satisfying incidents

and dissatisfying incidents in consumer self-service technology (Meuter et al. 2000); explore sources that create satisfaction and dissatisfaction in the context of B2B self-service technology (Pujari 2004); explore critical factors in Web site service quality perceptions to determine whether the factors contributed to the perception of high- or low-quality service or both (Sweeney and Lapp 2004); classify service attributes as soft or hard (Auh 2005); and provide evidence of bivalent satisfiers, monovalent satisfiers and monovalent dissatisfiers in online business transactions (Goetzinger, Park and Widdows 2006).

Studies Adopting Derivatives of CIT to Identify Satisfiers and Dissatisfiers

Content analysis of customer complaints and compliments is another way to determine customer satisfaction/dissatisfaction, where complaints are regarded as dissatisfying incidents and compliments as satisfying incidents (see, e.g., Cadotte and Turgeon 1988; Friman and Edvardsson 2003; Yang, Peterson and Cai 2003). Yang and Fang (2004) conducted content analysis of complaints and compliments obtained from consumer reviews of online brokerage experiences (netnography). Oshagbemi (1997) asked respondents to list five job factors that contributed most to their satisfaction and dissatisfaction, respectively. Johns and Howard (1998) asked respondents in foodservice industry about the "things", rather than "incidents", they found most and least satisfactory in their meal experience. We conclude from these studies that CIT can be applied even if incidents are replaced by elements such as complaints and compliments, and other factors related to satisfaction/dissatisfaction.

Studies Adopting other Methods to Identify Satisfiers and Dissatisfiers

Studies that use a method other than CIT or one of its derivatives to identify

satisfiers and dissatisfiers are few. Brandt (1988) suggested an innovative technique to identify value-enhancing service elements but did not conduct an empirical test to assess its feasibility. Mersha and Adlakha (1992) first ranked the positive service attributes, and then ranked the reversed service attributes according to the attribute importance to the respondents. Then they compiled two ranking lists and compared the rankings of these two lists to judge whether an attribute is more related to good service quality or poor service quality. Zhang and Dran (2000, p.1259) provided respondents with "a short lecture on the basic concepts of hygiene and motivator [sic] factors in the work place" and then relied on their judgments to classify hygiene and motivation factors. Matzler and Sauerwein (2002) used multiple regression analysis to explore which attributes have a significant impact on customer satisfaction, while Cui, Lewis and Dong (2004) conduct content analysis of the data from depth interviews and relied on the coder's personal judgment to determine positive, negative, or dual perceptions of service quality according to the answers of respondents.

It appears that the above methods have rarely been used in other studies which makes CIT, although introduced more than half a century ago (Flanagan 1954), the most widely used method for identifying satisfiers and dissatisfiers until now.

Limitations of CIT in Identifying Satisfiers and Dissatisfiers

There are more advantages than disadvantages when CIT is used in general applications (Gremler 2004). However, when CIT is used in identifying satisfiers and dissatisfiers, there are some limitations, which are summarized as follows:

1. *Accuracy of data collection:* Respondents are asked to recall something that may have happened long before, and their perceptions may have been modified or reinterpreted because of some later

events (Johnston, 1995). It can be controlled by asking respondents for recent incidents but the tradeoff is that a much bigger sample size is needed.

2. *Extremeness of the data collected:* Johnston (1995) asserted that only extreme views are collected in CIT, that is, incidents close to or within the zone of tolerance are not obtained. Therefore, less critical product attributes cannot be identified as satisfiers or dissatisfiers. It can be controlled by tuning down the criticality of the key question. For instance, the key sentence "Think of a time when you felt exceptionally good or exceptionally bad about …….." can be changed into "Think of a time when you felt good or bad about ……." However, by so doing, the incidents may not be critical enough as to draw solid conclusions.

3. *Objectivity of data analysis:* The data collected have to undergo content analysis, which has been questioned for its reliability and validity as there can be ambiguity of word meanings, category labels, and the coding rules in the analysis process (Weber, 1985). Maddox (1981, p.102) also expressed similar concern that the interpretation process is highly subjective. Objectivity can be enhanced when pre-existing theory is used for classification. However, this is not always possible when CIT is used in an exploratory fashion when little is known about a phenomenon, like the identification of satisfiers and dissatisfiers.

4. *Possibility of flawed conclusions in data analysis:* Matzler and Sauerwein (2002) noted that when a customer mentions negative incidents related to a particular attribute, it is unclear if it is because he/she does not remember positive incidents related to the same attribute (because a positive incident

related to this attribute is perceived as normal and not critical – in this case, the attribute is accurately regarded as a dissatisfier) or because positive incidents related to this attribute have never occurred (in this case, there is no conclusion but the attribute will still be wrongly regarded as a dissatisfier); and vice versa if the customer mentions positive incidents.

5. *Lacking of statistical validity:* To determine whether an attribute is a satisfier or dissatisfier by using CIT, one has to compare the number of positive incidents with that of negative ones, so there is a problem in setting the cut-off point, that is, how many more satisfying (dissatisfying) incidents than dissatisfying (satisfying) incidents are related to an attribute before we can say an attribute is a satisfier (dissatisfier)? This suggests that when an attribute is classified as a satisfier or dissatisfier, the probability of the type one error is unknown. Therefore, the finding that an attribute is a satisfier or dissatisfier is not statistically conclusive.

These limitations suggest the need for a new method to complement the use of CIT such that more data on whether a product attribute is a satisfier or dissatisfier can be obtained.

THE COMPANION METHOD: INTENSITY COMPARISON TECHNIQUE (ICT)

How Does ICT Work in Identifying Satisfiers and Dissatisfiers?

People tend to overlook the most obvious solution to a problem. If we need to know whether a product attribute is a satisfier or dissatisfier, then the most obvious and straightforward way is to ask the respondents how satisfied they are if the attribute has a positive valence (e.g., attractive appearance) and how dissatisfied they are if the same

attribute has a negative valence (e.g., unattractive appearance). By so doing, the satisfaction intensity can be compared with the dissatisfaction intensity. If satisfaction intensity is greater than dissatisfaction intensity, then the attribute is a satisfiers, and vice versa. If there is no significant difference between the two intensity levels, then the attribute is a hybrid (i.e., both a satisfier and dissatisfier). How, then, can this concept be operationalized? We can simply ask a

question in two opposite directions; that is, ask the respondent to rate his/her satisfaction level when an attribute takes a positive direction, and his/her dissatisfaction level when the same attribute takes a negative direction. For instance, if we want to know whether the product attribute "engine power" in a consumer vehicle is a satisfier or dissatisfier, then we can ask a sample of respondents the following pair of questions:

How satisfied would you be if you found the engine of your car is powerful?
(Circle one number.)

					Extremely
Indifferent					Satisfied
0	+1	+2	+3	+4	+5

How dissatisfied would you be if you found the engine of your car is not powerful?
(Circle one number)

Extremely					
Dissatisfied					Indifferent
-5	-4	-3	-2	-1	0

Should we wish to gain specific details of this product attribute, further questions can be asked, such as:

> *How (dis)satisfied would you be if you found the acceleration of your car is (not) good?*

> *How (dis)satisfied would you be if you found the speed of your car is (not) good?*

The responses to these satisfaction and dissatisfaction questions are then compared by paired-sample t-tests. If the mean difference between the consumer satisfaction and dissatisfaction levels is significant, then we can compare their intensities and judge whether a product attribute is a satisfier or dissatisfier. If the difference is insignificant, then we can say it is a hybrid.

One may argue that the responses will be biased when respondents can see the questions in pairs (positive and negative). This is a legitimate concern that is addressed by taking one of the following approaches:

Approach 1: If there are many attributes in a questionnaire, then the counterpart questions of one attribute can be listed far apart from each other.

Approach 2: We can develop two versions of a questionnaire, where the first version includes some questions in a positive direction for some attributes and other questions in a negative direction for other attributes, and the second version includes the counterparts of the questions of the first version (i.e., another side of the pairs). Then the respondents are asked to respond to both versions of the questionnaires at dif-

ferent times, with a sufficient time lag, such as three hours or a number of days.

Approach 3: First, we have to develop two versions of a questionnaire using the same method as that discussed in approach 2. Second, we randomly assign the sample into two groups to achieve homogeneity between groups (as a lab experiment usually does). Finally, one group answers one version of the questionnaires and the other group answers the other version.

The first approach is the basic and most cost-effective approach. The second and third approaches are more vigorous but the former takes more time to complete and the latter requires a doubled sample size.

Demonstration of the Identification of Satisfiers and Dissatisfiers by ICT

To demonstrate that ICT works even in a basic setup, we used it with a small sample of 40 university students comprising approximately two-thirds female with a mean age of 20 and mean family size of 4.2. This sample size is big enough for a t-test. We used the first approach to operationalize the questionnaire. This small sample was randomly selected from a larger convenience sample of 302 students who had been participating in another study with monetary remuneration. Attributes of accommodation, or living place, which had previously been explored by a focus group of student participants from the same university were used to test the method. We chose accommodation for testing simply because it is most familiar to students. The scale we used for satisfaction intensity went from 0 (indifferent) to +5 (extremely satisfied) and that for dissatisfaction intensity went from -5 (extremely dissatisfied) to 0 (indifferent). In data analysis, we compared the satisfaction and dissatisfaction intensities by their mean absolute values through t-test. The results are tabulated on the left side of Table 1.

TABLE 1

Cross Comparison of ICT and CIT Results

ICT Attributes	Satis. Mean	Dissatis. Mean	*t*-value	Sig.	ICT* Results	CIT Comparable Attributes	No. of positive incidents	No. of Neg. in-cidents	CIT* Results	They match each other?
1. The building is new/old	3.18	1.21	6.25	0.00	**S**	Complaint/Compliment of incidents due to the building's aging problems	2	9	**D**	**No**
2. The structure of the build- ing is safe/ dangerous	3.66	4.29	2.81	0.01	**D**	The structure of the building is safe/dangerous	2	1	**U**	**-**
3. The lifts function properly/ improperly	3.27	3.14	0.45	0.65	**H**	The lifts function properly/ improperly	4	12	**D**	**No**

4. Close to/Away from shopping center	3.47	2.53	3.71	0.00	S	Close to/Away from shopping center	20	1	S	Yes
5. Decoration materials and furniture are hazardous /not hazardous to health	2.94	3.52	2.76	0.01	D	Decoration materials and furniture are hazardous/not hazardous to health	2	2	U	-
6. The unit is big/small	3.92	1.31	10.59	0.00	S	The unit is big/small	20	6	S	Yes
7. The security guard's service is good/bad	2.58	2.47	0.43	0.67	H	The security guard's service is good/bad	16	15	H	Yes
8. The electricity and water supply are steady/not steady	3.56	4.21	2.97	0.01	D	The electricity and Water supply are steady/not steady	2	8	D	Yes
9. There is rumor/no rumor of ghost appearance	2.21	2.38	0.09	0.93	H	No such incident	0	0	U	-
10. The pipes of the kitchen are often/ seldom clogged	3.29	4.18	3.55	0.00	D	Absence/Presence of water leakage problem**	3	19	D	Yes
11. Waiting time of the lifts is short/long	3.00	2.23	2.29	0.03	S	Waiting time of the lifts is short/long	4	4	U	-
12. Close to/Away from the bus stops and my university	3.22	2.46	2.96	0.01	S	Close to/Away from the bus stops and my university	22	9	S	Yes

13. High/ Low quality of neighborhood	2.82	1.66	4.45	0.00	S	Complaints/Compliments to neighbors	37	64	D	No
14. Quiet/ Noisy environment	3.45	3.26	0.81	0.43	H	Complaints/Compliments to acoustic environmental factors	31	70	D	No
15. There is no/is security measures like close-circuit TV installed in the building	2.94	1.80	3.51	0.00	S	There is no/is security measures like close-circuit TV installed in the building	4	1	U	-
16. The floor layout makes it easy/difficult to arrange the furniture	2.92	2.03	4.23	0.00	S	The layout and interior design is good/bad	21	7	S	Yes
17. The street outside has sufficient/ insufficient lighting	2.92	3.32	1.64	0.11	H	The street outside has sufficient/insufficient lighting	2	9	D	No
18. The pipes of the toilet are often/ seldom clogged	3.41	4.11	3.27	0.00	D	Absence/Presence of water leakage problem**	3	19	D	Yes
19. The direction the unit faces is good/bad	2.95	2.26	2.90	0.01	S	Good/bad scenery or direction faced provides good/bad scenery	23	1	S	Yes
20. Leisure facilities are available/ unavailable	2.29	1.20	4.73	0.00	S	Leisure facilities are available/unavailable	21	1	S	Yes
21. Sufficient /insufficient sunlight goes inside the unit	3.31	2.72	2.40	0.02	S	Sufficient/insufficient sunlight goes inside the unit	12	2	S	Yes

22. Environmental hygiene is good/bad	3.81	3.35	2.14	0.04	**S**	Complaints/Compliments to environmental hygiene	52	71	**H**	**No**
23. Air is fresh/not fresh	3.87	3.54	1.80	0.08	**H**	Air quality is good/bad	18	17	**H**	**Yes**
24. Can/Can't see graveyards from the window.	2.47	2.26	0.68	0.50	**H**	No such incident	0	0	**U**	**-**
25. Public safety is good/bad	4.16	3.73	1.99	0.55	**H**	Complaints/Compliments to public safety	17	18	**H**	**Yes**
26. (Not explored in the focus group for ICT)	-	-	-	-	-	Complaints / Compliments to the property management's allowance of pets rearing	1	9	**D**	**-**
27. (Not explored in the focus group for ICT)	-	-	-	-	-	Sufficient/Insufficient of ventilation of building	8	2	**S**	**-**

Remarks: *: S = Satisfier; D = Dissatisfier; H = Hybrid; U = Unconcluded due to insufficient (i.e., < 10) incidents.
**: This attribute has been used twice as comparable attribute, one for attribute 10 and one for attribute 18.
Other attributes explored by CIT only but with insufficient incidents are ignored and not shown.

Validation process

To validate the ICT results, we replicated the study using CIT following for the most part the critical steps and procedures suggested by Gremler (2004) (e.g., definition of a critical incident was unambiguously communicated to respondents and the interviewers were trained).

The validation process was conducted after a sufficient time lag (i.e., months). Phone interviews of the students were conducted by two research assistants. The respondents were asked about their experience with their living places. We adapted the question asked by Herzberg et al. (1959) but we sought two positive and two negative incidents from each respondent. So we asked the following question:

Think of two times in the past when you felt especially good and two times especially bad about your living place. It may have been in your current living place or any other. Can you think of such high and low points in your feelings about your living place? Please tell me about it.

The respondents were given sufficient time to think about the question. They could choose to answer the question then or in a follow-up call. We contacted 242 students (virtually all of them were not respondents of

the ICT questionnaire), and 169 interviews were successfully conducted. Altogether, 743 incidents were collected (some respondents provided more then 2 + 2 incidents). The incidents were than content analyzed and classified into different attributes. In the classification process, a conclusion was reached only when both of the research assistants agreed on what attribute an incident belonged to (i.e., absolute agreement). Incidents on which they disagreed (very few) were discarded.

Cross Comparison of Results

As discussed previously, one limitation of CIT is its lack of statistical validity. It is difficult to set statistically valid cut-off points to determine whether an attribute is a satisfier, dissatisfier or hybrid. Nevertheless, for the sake of cross comparison, however arbitrarily, we still need to set such points. Hence, the following rules were adopted:

- *Attributes with fewer than 10 incidents are regarded as unconcluded attributes (U) because of the insufficient number of incidents.*

- *When there are a sufficient number of incidents, attributes with at least 50% more positive than negative incidents are regarded as satisfiers (S)*

- *When there are a sufficient number of incidents, attributes with at least 50% more negative than positive incidents are regarded as dissatisfiers (D)*

- *When there are a sufficient number of incidents, the attributes that do not fall into the above "S" or "D" categories are regarded as hybrids (H)*

Following the above rules, we classified each of the attributes identified by CIT as a satisfier, dissatisfier or hybrid. The

results are shown on the right side of Table 1. If we compare them with those on the left side, then we can see that some attributes of ICT do not have equivalent attributes in CIT that have sufficient incidents (i.e., at least 10) for analysis, thus, they are conclusive in ICT but not CIT. Six attributes (2, 5, 9, 11, 15 and 24) fall into this category. In contrast, two attributes (26, 27) are conclusive in CIT but have not been explored in ICT. Of the nineteen attributes that are conclusive in both ICT and CIT, thirteen (4, 6, 7, 8, 10, 12, 16, 18, 19, 20, 21, 23 and 25) have the same identification as satisfier, dissatisfier or hybrid in both methods (consistent results), whereas the remaining six (1, 3, 13, 14, 17 and 22) have different identifications (discrepancies).

FINDINGS

It is difficult to determine the precision of ICT simply by comparing its results with those of CIT because in the case of a discrepancy, it is unclear whether it is due to the inaccuracy of one or the other method. Nevertheless, it is worth taking a closer look at those unmatched attributes and seeking for clues as to whether ICT or CIT is responsible for the discrepancies. In attribute 3, the CIT result is believed to be more accurate than the ICT result because the respondents in the latter case might not be able to figure out how dissatisfying the situation will be when lifts do not function properly without experiencing such an incident. A careful examination of the other five unmatched attributes (1, 13, 14, 17 and 22) reveals something very interesting – they are all more dissatisfying in CIT than in ICT (i.e., attribute 1: satisfier in ICT/dissatisfier in CIT; attribute 13: satisfier in ICT/dissatisfier in CIT; attribute 14: hybrid in ICT/dissatisfier in CIT; attribute 17: hybrid in ICT/dissatisfier in CIT; attribute 22: satisfier in ICT/hybrid in CIT).

Regarding the discrepancies in these five attributes, we believe that they are caused

not by chance but by the limitation of CIT that Matzler and Sauerwein (2002) suggested (see the fourth limitation, "possibility of flawed conclusions", mentioned above). That is, when a respondent mentioned a negative incident (e.g., going along a dark street) related to a particular attribute (i.e., attribute 17: street illumination), there are two possibilities. The first possibility is that the respondent did not remember the occurrence of a positive incident (e.g., going along a bright streets) related to the same attribute because the positive incident is perceived by this respondent as normal and not critical and so is *not remembered* (then this attribute is truly a dissatisfier for this respondent). The second possibility is that the a positive incident related to this attribute has seldom or never occurred to this respondent (i.e., the streets nearby are always dark) and thus he/she has not been able to experience any positive incident of this attribute, even though he/she in fact perceives it to be critical. If many respondents are in such a situation, then CIT treats this attribute as more dissatisfying than it really is. We believe that this is a probable cause of the discrepancies between the ICT and CIT results for attributes 1, 13, 14, 17 and 22, because the respondents in our study are students from a lower income group whose living arrangements are not good. If our belief is true, this explained most of the unmatched results (i.e., 5 out of the 6 attributes). But of course, there is still a possibility that positive incidents had occurred but were not remembered and so one or more of these five attributes truly were dissatisfiers.

We have obtained four major findings from our validation process: 1) there are attributes that are conclusive in ICT but not CIT and vice versa; 2) when both CIT and ICT are conclusive, most of the results of these two methods are consistent; 3) the problem of the lack of statistical validity of CIT is severe (e.g., we have to set cut-off points arbitrarily; otherwise, we cannot arrive at any conclusion); and 4) the problem raised by Matzler and Sauerwein (2002) can happen

in a particular context – for instance, identifying satisfiers and dissatisfiers of accommodation when the living conditions of the respondents are generally not good. In such cases, more dissatisfiers than those in reality will be identified. The third and fourth points above strengthen our belief that to identify satisfiers and dissatisfiers, qualitative CIT may best be complemented by a quantitative method, and ICT may serve as such a method.

DISCUSSION AND MANAGERIAL IMPLICATIONS

We introduced a new method for identifying satisfiers, dissatisfiers and hybrids that, despite its obviousness, has never been proposed before: intensity comparison technique (ICT). The beauty of the technique lies in its simplicity, low cost (e.g., small sample size and ease of data collection), and the ability to overcome the limitations of CIT. The technique involves comparing the intensity levels of satisfaction and dissatisfaction that even a freshman can understand. It does not suffer from any of the abovementioned limitations of CIT. First, because the respondents need not memorize anything, memory problems do not affect the data accuracy. Second, ICT can collect information on any attribute, not just extreme attributes as Johnston (1995) mentioned. Third, content analysis is not needed; thus, the analysis process is objective and unambiguous. Fourth, the possibility of flawed conclusions raised by Matzler and Sauerwein (2002) does not exist because the results have nothing to do with the number of occurrences of incidents. Fifth, the method has high statistical validity – once we decide on the degree of type one error that we can tolerate, we can determine the nature of an attribute (i.e., satisfier, dissatisfier or hybrid) simply by the statistical output of a t-test.

Although ICT does not suffer from the limitations of CIT, it has others. First, it has to be used in conjunction with an exploratory research such as focus group to explore

beforehand all of the important attributes. Second, when we ask two sides of one question, we have to make sure that the degree of emphasis of the positive and negative statements is the same, although we can overcome this limitation by having a linguistic expert assisting in the questionnaire design process. Third, the level of information richness is lower in ICT than in CIT. However, if identifying satisfiers and dissatisfiers is the sole objective, then the ICT results are sufficient to accomplish the task.

Why do managers need to distinguish dissatisfiers from satisfiers? Brand switching is more likely to occur in dissatisfaction cases than no-satisfaction cases. As the cost of acquiring new customers exceeds the cost of retaining old customers, the prevention of customer dissatisfaction should come before the creation of customer satisfaction. This implies that in resource allocation, managers need to give higher priority to product attributes that could cause dissatisfaction to prevent consumer dissatisfaction. If a manager wants to position a product at a higher end of the satisfaction-dissatisfaction spectrum, then he/she has to take care of some or more of the satisfying product attributes. Therefore, depending on the positioning strategy adopted, different product attributes should be given different priority. Managers can identify satisfiers and dissatisfiers with a higher degree of certainty if they complement their use of CIT with ICT. After the identification of satisfiers and dissatisfiers, managers should consider using conjoint analysis to examine the tradeoffs the consumers make across different product attributes.

CONCLUSION

In the identification of satisfiers and dissatisfiers, the qualitative method CIT has served us well for more than half a century. For even better results, the quantitative method ICT is a timely companion method that complements the use of CIT. Although ICT does not suffer from the limitations of CIT, it has others. It is still in its introductory stage, so future research is encouraged to further its development. Given future modification and fine-tuning, ICT may evolve to be the standard companion method to complement CIT in identifying satisfiers, dissatisfiers and hybrids.

LIMITATIONS AND DIRECTIONS FOR FUTURE RESEARCH

The major limitation of this study lies in its lack of a compelling and definite way to test the precision of ICT. In the study, the precision of ICT was tested by a validation process where the results generated by ICT were compared with those generated by CIT. We found discrepancies between the results from these two methods, but we are able only to speculate on the reasons for such discrepancies. Given the differences in the methodology of ICT and CIT, discrepancies are not surprising and are to be expected. Therefore, future studies can explore in what way these two methods are related to different antecedents and different consequences, which may provide a direction for the modification of ICT. Different attributes are of different importance to a respondent, so a possible fine-tuning of ICT can be done through the attaching of weight to the answer of each key question according to the importance of the attribute to the respondents. The weight can be obtained by asking the respondents one or more of the meta-attitudinal strength questions developed by Bassili (1996). Finally, future studies can also explore other limitations, if any, of ICT, such that the applicability of this new method in different context can be further assessed.

REFERENCES

Auh, Seigyoung (2005), "The effects of soft and hard service attributes on loyalty: the mediating role of trust", *Journal of Service Marketing*, 19(2), 81-91.

Backhaus, Klaus and Matthias Bauer (2000), "The Impact of Critical Incidents on Customer Satisfaction in Business-to-Business relationships", *Journal of Business-to-Business Marketing*, 8(1), 25-54.

Bassili, John N (1996), "Meta-Judgmental Versus Operative Indexes of Psychological Attributes: The Case of Measures of Attitude Strength", *Journal of Personality and Social Psychology*, 71(4), 637-653.

Bitner, Mary J., Bernard H. Booms and Mary S. Tetreault (1990), "The Service Encounter: Diagnosing Favorable and Unfavorable Incidents", *Journal of Marketing*, 54(January), 71-84.

Bitner, Mary J., Bernard H. Booms and Lois A. Mohr (1994), "Critical Service Encounters: The Employee's Viewpoint", *Journal of Marketing*, 58(October), 95-106.

Brandt, D. Randall (1988), "How Service Marketers Can Identify Value-Enhancing Service Elements", *Journal of Service Marketing*, 2(3), 35-41.

Cadotte, Ernest R. and Normand Turgeon (1988), "Dissatisfiers and Satisfiers: Suggestions from Consumer Complaints and Compliments", *Journal of Consumer Satisfaction, Dissatisfaction and Complaining Behavior*, 1, 74-79.

Cui, Charles C., Barbara R. Lewis and Xiaofang Dong (2004), "Employee and Customer Perception of Service Quality: Match or Mismatch? A Study of Chinese Retail Banking", *Journal of Asia Pacific Marketing*, 3(1), 24-42.

Flanagan, John C. (1954), "The Critical Incident Technique", *Psychological Bulletin*, 51(July), 327-357.

Friman, Margareta and Bo Edvardsson (2003), "A content analysis of complaints and compliments", *Managing Service Quality*, 13(1), 20-26.

Goetzinger, Lynn., Jung K. Park, and Richard Widdows (2006), "E-customers' third party complaining and complimenting behavior", *International Journal of Service Industry Management*, 17(2), 193-206.

Gremler, Dwayne. D. (2004), "The critical incident technique in service research", *Journal of Service Research*, 7(1), 65-89.

Herzberg, Frederick, Bernard Mausner and Barbara B. Snyderman (1959), *The Motivation to Work*, John Wiley & Sons, New York.

Johns, Nick and Antony Howard (1998), "Customer expectations versus perceptions of service performance in the foodservice industry", *International Journal of Service Industry Management*, 9(3), 248-265.

Johnston, Robert (1995), "The determinants of service quality: satisfiers and dissatisfiers", *International Journal of Service Industry Management*, 6(5), 53-71.

Knight, Pamela J. and Jerry Westbrook (1999), "Comparing Employees in Traditional Job Structures vs. Telecommuting Jobs Using Herzberg's Hygienes & Motivators", *Engineering Management Journal*, 11(March), 15-20.

Maddox, Neil (1981), "Two-factor Theory and Consumer Satisfaction: Replication and Extension", *Journal of Consumer Research*, 8(June), 97-102.

Matzler, Kurt and Elmar Sauerwein (2002), "The factor structure of customer satisfaction", *International Journal of Service Industry Management*, 13(4), 314-332.

Mersha, Tigineh and Veena Adlakha (1992), "Attributes of Service Quality: The Consumers' Perspective", *International Journal of Service Industry Management*, 3(3), 34-45.

Meuter, Matthew L., Amy L. Ostrom, Robert I. Roundtree and Mary J. Bitner (2000), "Self-Service Technologies: Understanding Customer Satisfaction with Technology-Based Service Encounters", *Journal of Marketing*, 64(July), 50-64.

Oshagbemi, Titus (1997), "Job satisfaction and dissatisfaction in higher education", *Education and Training*, 39(9), 354-359.

Pujari, Devashish (2004), "Self-serve with a smile? Self-service technology (SST) encounters among Canadian business-to-business", *International Journal of Service Industry Management*, 15(2), 200-219.

Swan, John E. and Linda J. Combs (1976), "Product Performance and Consumer Satisfaction: A New Concept", *Journal of Marketing*, 40(April), 25-33.

Sweeney, Jillian C. and Wade Lapp (2004), "Critical service quality encounters on the Web: an exploratory study", *Journal of Service Marketing*, 18(4), 276-289.

Utley, Dawn R., Jerry Westbrook and Susan Turner (1997), "The Relationship Between Herzberg's Two-Factor Theory and Quality Improvement Implementation", *Engineering Management Journal*, 9(September), 5-13.

Weber, Robert Philip (1985), *Basic Content Analysis*, Sage University Paper Series on Quantitative Applications in the Social Sciences, 07-049. Beverly Hills and London: Sage Publications, Inc.

Wels-Lips, Inge, Marleen van der Ven, Rik Pieters (1998), "Critical services dimensions: an empirical investigation across six industries", *International Journal of Service Industry Management,* 9(3), 286-309.

Yang, Zhilin and Xiang Fang (2004), "Online service quality dimensions and their relationships with satisfaction", *International Journal of Service Industry Management,* 15(3), 302-326.

Yang, Zhilin, Robin T. Peterson and Shaohan Cai (2003), "Services quality dimensions of Internet retailing: an exploratory analysis", *Journal of Service Marketing*, 17(7), 685-700.

Zhang, Ping and Gisela M. von Dran (2000), "Satisfiers and Dissatisfiers: A Two-Factor Model for Website Design and Evaluation", *Journal of the American Society for Information Science*, 51(December), 1253-1268.

_____

Send Correspondence Regarding this Article to:

Dr. Clement S.F. Chow
Assistant Professor of Marketing
Faculty of Business Administration
University of Macao
Avenida Padre Tomás Pereira, Taipa
Macao SAR, China
Email: sfchow@umac.mo
Phone: (853) 83974705
Mobile Phone: (853) 66254839 or (852) 94678655
Fax: (853) 838320

A REVIEW OF THE ROLE OF SATISFACTION, QUALITY, AND VALUE ON FIRM PERFORMANCE

Thomas L. Powers, University of Alabama at Birmingham
Dawn Bendall Valentine, Georgia Southwestern State University

ABSTRACT

Satisfaction, quality, and value as seen by the consumer ultimately results in market performance and financial outcomes for the firm. There has been a substantial body of research in this area and a review and synthesis of the literature is appropriate to conduct at this time. This overall process represents a series of complex relationships that is important to both to researchers and to managers. There are numerous linkages and relationships between the antecedents and consequences of satisfaction, quality, and value that cannot be easily viewed in research that addresses only a portion of this broad area. The article presents a literature review and conceptual model that seeks to comprehensively review the relationships between the many elements of this important area. The model presented can contribute to both the con-ceptual understanding and management of these marketing processes.

INTRODUCTION

This article presents a review of the literature that outlines the linkages between the antecedents and con-sequences of satisfaction, quality, value, and the results that they have on market performance and financial outcomes. A framework that describes this process is developed that is referred to as the service, quality, value, and performance (SQV-P) model. Much of the research in the areas of satisfaction, quality, and value has viewed each of these constructs independently rather than in terms of their complex interrelationships, antecedents, and outcomes. It has been suggested in the literature that an examination of these variables be made in combination (Mc-Dougall and Levesque 2000; Parasuraman 1997). There has also emerged in the literature a call to link marketing activities to firm performance outcomes, including such measures of sales, market share, return on investment, and firm value (Luo and Homburg 2007; Moorman and Rust 1999; O'Sullivan and Abela 2007; Phillips, Chang, and Buzzell 1983; Zeithaml 2000).

While the literature stream in the area is extensive, it has not been synthesized into a cohesive framework that ties together its many disparate elements. This article contributes to the literature by reviewing and synthesizing the literature and presenting it in a sum-mary fashion. Research syntheses make invaluable contributions to the literature by examining the relevant theories, resolving conflicts in the literature, and by identifying central issues for future research (Halvorsen 1994). Given the substantial level of research that has been conducted in the area, a review and synthesis of the literature can provide reference tool for researchers interested in this topic area. The review of the literature provides an overall picture of what has been done to date, and combines this into a model format so the reader can see the theoretical and empirical linkages. This synthesis can also be valuable to practitioners as the review captures the processes that managers encounter in the management of customer satisfaction. The reader can gain two primary insights from this review. First, the reader is given an overview of the recent literature in the field. Second, based on the synthesis, a structure is provided to the extant literature

and future research directions are developed based on this framework.

REVIEW AND MODEL DEVELOPMENT

In order to structure the review and synthesis of the literature this review follows the SVQ-P Model as seen in Figure 1. The model is presented in two phases. The first phase represents the elements that occur at the *consumer* level. The second phase of the model represents the outcomes that occur at the *firm* level. Linkages that may not occur in the majority of situations are indicated by a dotted, rather than a solid, line. The first phase is centered on the development of satisfaction, quality, and value assess-ments by the consumer. The second phase is centered on the performance outcomes of the firm that ultimately lead to the creation of firm value.

There are three types of models that are used to model the management of services, these are customer behavior models that explain how customers react to service, service quality impact models that address the business consequences of service quality, and normative service models that prescribe how organizations should organize and manage their service (Rust and Metters 1996). Each of these model types are different in approach and are important to consider when reviewing the literature in a satisfaction related effort. Much of the satisfaction literature examines the reaction of consumers to their purchase experience (i.e., dis-confirmation), and an increasing emphasis has been placed on the business outcomes that occur. It also is important to note that an ultimate goal of the research in the area is based on improving the management of the satisfaction-performance process. In the present article each of these aspects are reflected in the model presented. In the SQV-P framework, Phase 1 represents a customer behavior model that ends with behavioral intention outcomes. Phase 2 of the framework represents a quality impact model

that ends with direct measures of firm performance. Implicitly, the model also contains a normative element in that the structure of the model leads to how organizations should manage this process. Although there are areas in the model that require future research, it should be noted that propositions were not used as the article represents a literature review and the model that is developed is for the purpose of organizing the review of the literature similar to the approach used by Keller (1993).

Standards, Outcomes, and Convergence

The disconfirmation process is one of the earliest contributions to the satisfaction literature (Bearden and Teel 1983; Oliver 1980, 1981, 1989, 1993; Oliver and Bearden 1985; Swan and Trawick 1981). A consumer's expect-ations are confirmed when a product performs as expected, negatively disconfirmed when the product performs more poorly than expected, and positively disconfirmed when the product performs better that expected (Churchill and Surprenant 1982). Disconfirmed expect-ations cause the customer to approach a state of dissatisfaction, while the confirmation of expectations leads to satisfaction (Hennig-Thurau 2001). Expectations and perform-ance combine to form an objective disconfirmation level, which provides the basis for a subjective interpretation of the expectation-performance difference; and subjective disconfirmation is directly linked to satisfaction (Oliver 1997, p. 121). To be judged positively, a product or service must perform well on most dimensions, whereas to be judged negatively, poor performance on one or just a few dimensions is sufficient (Ofir and Simonson 2001).

In order for the consumer to evaluate an outcome, an initial standard must be developed that is used to measure the actual product or service outcome. By using terms such as desires and expectations the field of possible influencers is limited, even if just by

name only. Different types of standards may yield different levels against which perceived experience is compared (Woodruff, Clemons, Schumann, Gardial, and Burns 1991). The literature is increasingly reporting research based on additional standards in the disconfirm-ation process. As an example, Spreng, MacKenzie, and Olshavsky (1996) incorporated additional standards to the disconfirmation process by adding desires as a standard in addition to expectations. Their work also includes attribute satisfaction and information satisfaction as outcomes of desires and expectations congruency. Several other standards have been proposed in the literature. These standards include expectations, equity, experience-based norms, desires/values, ideal, and promises (Woodruff et al. 1991). The model presented in this article incorporates multiple standards to the disconfirmation process including desires, expectations, equity, information, values, norms, ideals, promises, goals, and beliefs.

Attributes can be seen as the individual components of standards that influence consumer perceptions. Attrib-utes differ from standards in that standards define a given category of expectations or performance. Attributes are the individual components of that category. Categories remain constant across consumers and specific product evaluations, although not every category might be used in a given situation. Attributes by contrast can vary by con-sumer and situation. Each standard may have one or more attributes associated with it. We define a standard-related attribute as a component of a particular standard that is used to develop the initial level of perception. The standard-related attribute may apply to only one standard or it could apply to more than one. For example, low price might appear as an attribute for desires but does not exist as an attribute for expectation as the customer realistically does not expect the price to be low although they might wish it to be the case. Customer service is an example of a standard-related attribute that could be a

component of desires and expectations (Bloemer, Kasper, and Lemmink 1990). Standard-related attrib-utes are formed from both intrinsic and extrinsic product attributes, including texture, quality, price, performance, service, and brand name (Sinha and DeSarbo 1998). Each of the standards and the attributes associated with them compared to the corresponding perform-ance outcomes may influence satisfaction and quality differently (Iacobucci, Ostrom, and Grayson 1995).

Attributes can also be delineated into categories or classifications, such as in the context of process versus outcome (Lai and Widdows 1993). These represent two distinct categories of attributes. Attributes related to service process are more important than attributes related to service outcome in the evaluation of service quality (Lai and Widdows 1993). Consumers' attribute utilities may differ depending on whether the service is evaluated in terms of satisfaction, value, or likelihood of purchase (Ostrom and Iacobucci 1995). Various attributes may not hold the same importance for all customers. An attribute's importance changes as the customer's relationship with a product or service matures (Mittal and Katrichis 2000). It has also been determined that attributes vary in importance based on the customer's length of association with the provider (Mittal and Katrichis 2000). Customers who have previous satisfying experiences with an organization tend to heavily weigh prior cumulative satisfaction, so a failure situation will not impact them as much as it will impact a new customer with no prior experience with the organization (Bolton 1998).

The disconfirmation process may have different impact on satisfaction, quality, and value. Satisfaction requires disconfirmation while quality does not require an actual purchase experience (Oliver 1997, p. 177). A product or service that is perceived as being very high in quality by consumers may be based on reputation alone rather than the consumer's direct experience. Although it is

not a necessary precondition, quality may also go through the disconfirmation process (Oliver 1993). The wide accept-ance of the disconfirmation paradigm has been extended to business practice in several ways. It is quite common to see questions on consumer surveys that are related to expectation level and assessments of performance based on those expectation levels. Another example is the concept of "delight" which has been extensively promoted in the business com-munity and represents a high level of positive disconfirmation.

Sacrifice

Most models of customer satisfaction neglect an explicit consideration for the sacrifices involved when purchasing a product (Spreng et al. 1993). This relationship has also been related to customer satisfaction overall as the result of a customer's perception of the value received. Value equals perceived service quality relative to price (Hallowell 1996). Customers may perceive value different at the time of purchase than they do during or after use (Woodruff 1994). Perceived values of different alternatives are evaluated relative to a multi-attribute reference point and disconfirmation has been found to be a major predictor of perceived value (Bolton and Drew 1991; Sinha and DeSarbo 1998; Tversky and Kahneman 1991). There is no evidence that the determination of value results from the disconfirmation process. Value differs from both satisfaction and quality in that value is an assessment of what the consumer receives relative to the costs and other monetary aspects that the consumer sacrifices. Value may take quality into account, along with monetary sacrifice, and directly impact customer satisfaction (McDougall and Levesque 2000).

Sacrifice is an important determinant in the definition of value. Value encompasses the concept of quality as it refers to the quality received at a particular price or outlay

(Buzzell and Gale 1987; Grewal, Monroe and Krishnan 1998). Perceived value is a multi-dimensional construct derived from perceptions of price, quality, quantity, benefits, and sacrifice (Sinha and DeSarbo 1998). It has been viewed in terms of a trade-off between price and quality (Bolton and Drew 1991). Sacrifice is defined as what is given up or sacrificed to acquire a product or service (Cronin, Brady and Hult 2000). Price is a significant component of sacrifice, and is an aspect of the product purchase that influences consumers' cognitive pro-cessing and can have multiple effects by impacting perceived value, attitude, willingness to buy, and behavior (Gotlieb and Dubinsky 1991). Price perceptions are shown to affect customer behavior rather than the actual price per se. Price perceptions have a stronger influence on perceived value than perceived quality, and a significant direct effect on customer satisfaction and behavioral intentions (Varki and Colgate 2001).

Satisfaction, Quality, and Value

Satisfaction, quality and value are distinct constructs (Iacobucci et al. 1995; Ostrom and Iacobucci 1995) however; they share certain similarities that make it difficult to distinguish one from the other (McDougall and Levesque 2000). These similarities and differences make the interplay between satisfaction, quality and value of great interest to researchers, and makes the correct use of the constructs important for managers that are attempt-ing to maximize firm performance. In the development of satisfaction and quality judgments, attributes are subjectively evaluated by the consumer based on the combination of standards they observe when assessing product per-formance (Spreng et al. 1996). Likewise, the perceived values of different alternatives are evaluated relative to a multiattribute reference point. The ref-erence point includes intrinsic and extrinsic product attributes and heavily weighs the

trade-off between perceived benefits and sacrifice (Sinha and DeSarbo 1998). While judgments of satisfaction, quality, and value may take similar attributes into consideration, the attributes vary in importance depending on which variable is being evaluated (Iacobucci et al. 1995; Ostrom and Iacobucci 1995). Sat-isfaction, quality, and value may also vary based on the nature of the disconfirmation process. In some cases the discon-firmation process is necessary for the outcome to occur, in other cases or for other outcomes it is not necessary (Erevelles and Leavitt 1992).

Satisfaction is defined as the consumer's response to the evaluation of the perceived discrepancy between some comparison standards and the perceived performance of the product (Yi 1990). It is an extended process surrounding the acts of purchase, use, and repurchase (Wilton and Nicosia 1986) and it involves a consumer's psychological reaction, con-sisting of activities and reactions through time. Satisfaction is primarily an affective reaction to a service encounter (Brady and Robertson 2001). Satisfaction has been modeled as an intervening framework that is based on the notion that a party to an exchange derives some meaning from the output to input ratio that cannot exactly be construed as sat-isfaction, but rather as a variable that affects satisfaction judgments (Erevelles and Leavitt 1992; Oliver and Swan 1989).

Quality is defined as the buyer's estimate of a product's cumulative ex-cellence (Zeithaml 1988). The terms quality and satisfaction are used interchangeably in both industry and academia (Iacobucci et al. 1995). Iacobucci, Ostrom, and Grayson (1995) report that the disconfirmation notion is a plausible antecedent for both quality and satisfaction and that purchase intentions are a consequence of both. Consumers form expectations of quality. As a result, perceived quality is compared to quality expectations, resulting in disconfirmations of quality, which

combine with other attribute disconfirmations to influence satisfaction judgments (Oliver 1997, p. 185). Service quality is primarily a cognitively oriented construct where three or more factors are evaluated resulting in an overall service quality perception, whereas satisfaction is primarily an affective reaction to a service encounter (Brady and Robertson 2001).

Value is defined as the "consumer's overall assessment of the utility of a product based on perceptions of what is received and what is given" (Zeithaml 1988). Woodruff (1997) proposed a more comprehensive definition, describing value as a cus-tomer's perceived preference for and evaluation of those product attributes, attribute per-formances, and consequences arising from use that facilitate (or block) achieving the customer's goals and purposes in purchase situations (Par-asuraman 1997). Sinha and DeSarbo (1998) suggest perceived value is a trade-off of higher order abstractions such as perceived benefits and sacrifice, which are formed from both intrinsic and extrinsic product attributes, including texture, quality, price, performance, service, and brand name. Value has been defined as a trade-off of quality and price, however, several researchers have noted that perceived value is an obscure and complex construct in which concepts such as price, quality, benefit, and sacrifice are all embedded (Bolton and Drew 1991; Holbrook 1994; Sinha and DeSarbo 1998). In an extensive review of the literature, Sanchez-Fernandez and Iniesta-Bonillo (2006) conclude that although the popular conceptualization of value has been based on the bidirectional tradeoff between quality and price, value is a richer concept with a multidimensional structure more complex than the quality-price relationship alone.

The relationship between satisfaction, quality, and value is complex and interdependent. Satisfaction emphasizes the emotional reaction to a service encounter and service quality emphasizes a more cognitive

based evaluation (Brady and Robertson 2001). Customer satisfaction is experiential and contains an affective component, so it is best judged after a purchase, whereas value is more closely tied to specific concepts of costs and pricing relative to quality (Ostrom and Iacobucci 1995; Oliver 1993). Satisfaction is highly associated with value and is based on the amalgamation of service quality attributes with such attributes as price (Athanassopoulos 2000). Value has also been shown to be an antecedent to satisfaction and loyalty (Spiteri and Dion 2004). These relationships are also subject to other factors that are related to desires as part of standards. The shortcomings of a product may be offset by perceived reductions in sacrifices, i.e. a lower (sale) price may lead to satisfaction even though product is not quite what consumer wanted (Spreng et al. 1993). From the consumer's perspective, value may be seen as more important than quality, because value is quality that the consumer can afford (Sinha and DeSarbo 1998). Woodruff (1997) indicates that satisfaction research asks customers to evaluate products on attributes thought to influence their pur-chase decisions, thereby missing important aspects of customer value if limited just to attributes selections (Holbrook 1994).

Perceived value is dependent on a number of dimensions, including product attributes (Sinha and DeSarbo 1998). Price perceptions also have an influence on customer value perceptions, satisfaction, and behavioral intentions (Varki and Colgate 2001). Value is a function of perceived quality (Grewal et al. 1998), and both quality and value are significant predictors of satisfaction (Cronin et al. 2000). Quality and value impact customer loyalty entirely through their relationship with customer satisfaction, and satisfaction, in turn, predicts future behavioral intentions (McDougall and Levesque 2000). Value is a consequence of the consumer's comparison of the outcome with the sacrifice made (Cronin et al. 2000). This results in an assessment of value that is

at the same point in the model as satisfaction and quality and also has an impact on behavioral intentions. In some cases, outcomes directly impact satisfaction, quality, and value without the test of convergence being necessary. In the model, linkages that may not occur in the majority of situations are indicted by a dotted, rather than a solid, line. Due to the assimilation effect, standards may impact satisfaction, quality and value directly without an outcome/convergence process being necessary. Due to an expectation effect, standards may impact quality directly and bypass the convergence process. Similarly, expect-ations can have a reverse impact on the influence of standards. Consumers may adapt expectations following observations of quality in product purchase scenarios (Kopalle and Lehmann 1995).

Regret and Service Recovery

Following the disconfirmation pro-cess, the consumer develops perceptions of satisfaction, quality, and value. These perceptions may be further influenced through regret and service recovery. Regret and service recovery both change the way the consumer may see the initial standards that were developed, and in the case of service recovery, the performance outcome may be modified as well. By retroactively modifying standards and/or performance outcomes, the disconfirmation process is modified. The levels of satisfaction, quality, and value are reestablished and contribute to an overall or cumulative level of these elements. Post purchase evaluation is a long-standing topic in the marketing literature (Cummings and Venkatesan 1976). The term regret has been increasingly used in the satisfaction literature to capture this process (Lemon, White, and Winer 2002; Tsiros and Mittal 2000; Tsiros 1998). Regret encompasses the interaction of satisfaction, quality, and post purchase dissonance (Lemon et al. 2002; Tsiros and Mittal 2000; Tsiros 1998). Regret is an

evaluation of outcomes in which customers compare what they have received with what they would have received had they made a different choice that would have led to a better outcome (Tsiros and Mittal 2000).

During regret, the consumer may modify the standard and may introduce new standards that may include ideal levels of the standard, or other products that were not considered in the original decision process (Oliver 1997, p. 88). The outcome of a purchase in hindsight is influenced by the reconstructed expectations of the actual outcome of the product or service (Oliver 1997, p. 217). Regret and disconfirmation can operate jointly. Regret influences future repurchase intentions (Tsiros and Mittal 2000). Regret is a comparison against other outcomes while disconfirmation is a comparison against expectations (Oliver 1997, p. 225). In the SQV-P framework, regret and service recovery are depicted as possible outcomes. Possible outcomes are indicated with a dotted line as opposed to a solid line for the processes that are more likely to occur in the majority of consumer evaluation scenarios. Regret and service recovery both may modify the impact of initial satisfaction, quality, and value on their cumulative levels.

Service recovery is a series of events in which a service failure triggers a procedure that generates economic (intent to buy) and social (intent to recommend) interaction between the customer and organization (Smith, Bolton, and Wagner 1999). During service recovery a company engages in activities to address a customer complaint regarding a perceived service failure (Gronroos 1995). Service failure is one determinant that drives customer-switching behavior (Roos 1999) and successful recovery can mean the difference between customer retention and defection (McCollough, Berry, and Yadav 2000). In the service recovery process there are two types of disconfirmation: initial disconfirmation and recovery disconfirmation. Initial service

performance is the primary predictor of initial disconfirmation, whereas recovery performance is the primary predictor of recovery disconfirmation. Given a service failure, initial disconfirmation has a greater impact on satisfaction than recovery disconfirmation, which suggests that satisfaction is primarily driven by the initial service failure from recovery performance acting to mitigate the damage to satisfaction caused by the failure (McCollough et al. 2000).

Customer satisfaction has been found to be lower after service failure and recovery (even given high-recovery performance) than in the case of error-free service (Markham, 2001; McCollough et al. 2000). Service recovery is a key ingredient to customer loyalty (Mattila 2001; Tax and Brown 2000). In our model, service recovery impacts both the outcome of the service encounter as well as the standards that may be modified as part of the recovery effort such as perceived equity and justice. The result of the recovery process then leads to a redefined level of satisfaction, quality, and value. In the case of a repeat purchase scenario, these perceptions contribute to a cumulative level of satisfaction, quality, and value.

Cumulative Effects on Satisfaction, Quality, and Value

Satisfaction may not be based on a single event, but can be the result of a series of purchase encounters (Homburg, Koschate, and Hoyer 2006). Customer satisfaction has a strong carryover effect (Anderson, Fornell and Lehmann 1994) and the process of satisfaction is iterative and builds up a cumulative effect of satisfaction over time (Mittal, Kumar, and Tsiros 1999). Cumulative levels of satisfaction are developed with additional satisfaction or dissatisfaction inputs adding to the base level of original satisfaction (Bolton 1998). Revised expectations are amended based on performance, and may be more influential in satisfaction judgments than original

expectations (Oliver 1997, p. 88). It has been reported that for repeat customers the base level of satisfaction when high moderates any negative impact of more recent satisfying or dissatisfying ex-periences (Bolton 1998). Customer usage of products and/or services goes through a dynamic process whereby customers' prior usage levels, satisfaction eval-uations, and subsequent service usage are linked (Bolton and Lemon 1999). It follows that the same process may occur for quality and value perceptions.

The customer's subjective expected value for a service may also depend on his/her current cumulative satisfaction with the service (Luce 1992; Simonson 1990). At this stage of the SQV-P framework, regret can result in a retrospective examination of standards, and can cause the consumer to walk through the purchase process once more. This time, however, the standards may be modified to include ideal or alternative outcomes that were not originally part of the standards set. Service recovery may be initiated from outcomes where intention not to repurchase or negative word-of-mouth is identified and rectified by the firm. Service recovery can cause a consumer to modify his or her initial standards as well as to cause a modification to the outcome received. The disconfirmation process is repeated, however, this time in a recovery mode.

The result of this portion of the SQV-P framework is a cumulative level of satisfaction, quality, and value. The model represents a single scenario of a consumer's evaluation of a product or service. However, it must be kept in mind that consumers in a repeat purchase scenario go through this process over and over again (Bolton and Lemon 1999). The cumulative level of satisfaction, quality and value are based on the previous level of these factors as modified by the customer's latest experience. The overall process of satisfaction that we model is recursive. Outcomes of satisfaction, quality, and value that form the basis for behavioral intentions also become inputs for

desires and expectation levels in future purchase encounters by that consumer (John 1992). Satisfaction, quality, and value combine to form an overall customer loyalty that includes cognitive, affective, and behavioral dimensions.

Loyalty

The cumulative levels of satisfaction, quality, and value influence the consumer's loyalty to the product or service (Cronin et al. 2000; Mattila 2000; McDougal and Levesque 2000). Loyalty also may have other antecedents such as emotional commitment and repeat purchase behavior (Salegna and Goodwin 2005; Salegna and Goodwin 2008). Loyalty, in turn, influences behavioral intentions including purchase behavior (Solvang 2007). The behavioral intentions serve as a bridge into the second and firm level phase of the SQV-P framework. Several mediating variables are reported to modify the relationship between loyalty and behavioral intentions (Homburg and Giering 2001). Loyalty is viewed as the strength of the relationship between a customer's relative attitude and repeat patronage (Dick and Basu 1994). More clearly defined, customer loyalty is "a deeply held commitment to rebuy or repatronize a preferred product or service consistently in the future, despite situational influences and marketing efforts having the potential to cause switching behavior" (Oliver 1997, p. 392).

Satisfaction and quality are both influenced by attribute performance (Danaher 1997), and analysis of the attributes varies depending on whether service is being evaluated on value, satisfaction, or intentions (Ostrom and Iacobucci 1995). Satisfaction is a function of attribute performance and overall satisfaction. The effect of satisfaction on behavioral intentions over time is mediated and not direct (Mittal et al. 1999). In competitive markets, loyalty varies significantly between satisfied and completely satisfied customers (Jones and Sasser 1995).

Repurchase intent increases with satisfaction levels for individuals who have been customers for longer periods of time (Rust and Williams 1994), and the strength of the relationship between customer satisfaction and loyalty is strongly influenced by personal characteristics of the customer (Homberg and Giering 2001). Quality and value are equally important and influential on a firm's long-term ability to retain customers (Jones and Sasser 1995; McDougal and Levesque 2000). Value is increasingly noted as being an important influence on willingness to buy and behavioral intentions (Grewal et al. 1998; McDougall and Levesque 2000).

The construct of brand loyalty is multi-dimensional and it includes belief, affect, and intention relative to the product under consideration (Jacoby and Chestnutt 1978). The importance of long-term relationships and customer retention is a common topic in the marketing literature (Grant and Schlesinger 1995; Payne and Rickard 1997; Reichheld 1996). Consumer loyalty is valuable for the firm, as it is generally less expensive to maintain existing customers than to attract a new customer (Reichheld and Sasser 1990). Developing and maintaining strong relationships with consumers is a major issue for organizations wishing to create a sustainable competitive advantage (Day and Wensley 1988; Parasuraman 1997; Woodruff 1997), particularly in service industries (Berry 1999; Bharadwaj, Varadarajan, and Fahey 1993).

Assimilation

It should be noted that the disconfirmation process may not always take place. In some cases, the consumer does not weigh the actual outcome against a standard; rather the standard sets the perception of the product and the actual outcome is modified or ignored entirely (Erevelles and Leavitt 1992; Monga and Houston 2006). This direct link between expectations and satisfaction represents the assimilation effect (Yi 1990).

In the case of a product with an excellent reputation, the consumer may expect it to be such an outstanding product that they tend to ignore performance outcomes and the resulting disconfirmation that would indicate otherwise. This is also evidence of the notion that the entire satisfaction process itself may be contingent on the people and the situation involved (Homburg and Giering 2001; Mittal and Kamakura 2001).

With an assimilation effect, the consumer may have committed to believing that a certain performance level will occur. Expectations may also impact satisfaction directly as an assimilation agent without assessing performance (Oliver 1997, p. 91). Under certain conditions, it may not be necessary to include disconfirmation as an intervening variable affecting satisfaction (Churchill and Surprenant 1982; Erevelles and Leavitt 1992). In this situation, the consumer may not wish to test performance for fear that their expectations may be inaccurate (Oliver 1997, p. 89). For example, Mercedes Benz has experienced quality problems, but due to assimilation effects, many customers still prefer the brand (Kiley 2002).

Performance outcomes without any comparison to initial standards and a resulting convergence process may also directly result in perceptions of satisfaction (Szymanski and Henard 2001). Expectations and product performance have been found to play distinctly different roles in satisfaction formation (Erevelles and Leavitt 1992). Some argue that disconfirmation is not necessary under certain conditions, and as with the purchase of durable goods, consumers' satisfaction judgments are determined solely by the performance of the product and are totally independent of their initial expectations (Churchill and Suprenant 1982; Erevelles and Leavitt 1992). Equity may also affect satisfaction directly (Oliver and Swan 1989) and represents fairness, rightness, or deservingness judgment that

consumers make in reference to what others receive.

Economic and Social Behavioral Intentions

Behavioral intentions are the final outcome of the first phase of the SQV-P process and represent consumer actions that influence firm performance as well as to influence other individual consumers (Brady and Robertson 2001; Cronin et al. 2000; Zeithaml, Bitner, and Parasuraman 1996). Loyalty results in two types of behavioral intentions: economic and social (Smith et al. 1999). Economic behavioral intentions impact the firm in three ways; volume, cost, and price impacts. Social behavioral intentions result in word-of-mouth, referrals and complaints.

Economic behavioral outcomes are customer behaviors that impact the financial aspects of the firm such as repeat purchase behavior, (Anderson and Mittal 2000), willingness to pay more, and switching behavior (Zeithaml, Berry, and Parasuraman 1996). Although the literature has not addressed the joint effect of satisfaction, quality, and value on economic behavioral intentions, the research that has linked satisfaction to economic behavioral intentions suggest that quality and value may be influencers as well. A positive relationship has been reported between customer satisfaction and repeat purchasing (Szymanski and Henard 2001). Repurchase intentions of satisfied customers are significantly higher than the intentions of dissatisfied customers (Halstead and Page 1992). Increasing overall satisfaction leads to greater repurchase intentions (Anderson 1994; Anderson and Mittal 2000; Ralston 1996; Zeithaml et al. 1996), as well as actual repurchase behavior (Anderson and Mittal 2000; Bolton 1998). Satisfaction is stronger for customers who have more experience with the organization (Bolton 1998), and past satisfaction of current customers provides a strong indication that

current and future satisfaction will be high (Anderson et al. 1994).

Social behavioral intentions are customer behaviors that impact other existing and potential customers of the firm. These include actions such as direct complaint behaviors (Johnston 1998; Nyer 1999; Tax, Brown, and Chandrashekaran 1998) as well as overall word-of-mouth communication (Anderson 1998; Szymanski and Henard 2001; Wright, Perkins, Alston, Heitzig, Meyer-Smith, and Palmer 1996). Information disseminated through word-of-mouth by existing customers may be used as an input for expectations of future customers (Anderson et al. 1994). It may also result in dissatisfaction and switching behavior for existing customers (East, Lomax, and Narain 2001), as well to influence the overall public perception of the firm (Woodruff 1993; Zeithaml, Berry, Parasuraman 1996). Consumers may give more weight to negative compared to positive information and place a higher value on non-marketing sources (Lutz 1975). It has been reported that brands in high commitment and low choice market sectors are sensitive to negative word-of-mouth while low commitment and high choice products are more sensitive to positive word-of-mouth (Samson 2006).

The importance of word-of-mouth communication as influencing other con-sumers may also vary based on task difficulty (Duhan, Johnson, Wilcox, and Harrell 1997), making word-of-mouth extremely important in the overall reputation and consumer response when complex purchase situations are encountered. Although more indirectly related than economic outcomes, social outcomes have an important impact on firm performance and require more thorough understanding. Word-of-mouth can have a greater impact on opinions by consumers than the mass communication effort of the firm (Yi 1990). The process of consumers using performance out-comes to shape expectations of others through word-of-mouth increasingly has a much greater impact with the use of the

internet. The present and future impact of this process cannot be underestimated and is a major issue that needs to be addressed by researchers.

PHASE TWO: FIRM LEVEL OUTCOMES

In the second phase of the SQV-P framework, individual behaviors become aggregate influencers of firm per-formance. Economic behavioral inten-tions of individual consumers first result in volume and price impacts on the firm. Volume and price changes impact margins and investments, that in turn influence firm performance and value. Social behavioral intentions also play a part in this process although they have a more in-direct effect (Woodruff 1993) through in-dividual consumer word-of-mouth activities.

Volume and Price Changes

Positive behavioral intentions result in increased sales volume and/or price levels (Anderson and Mittal 2000; Zeithaml 2000). When reflected as higher price levels, greater margins are in turn created (Buzzell and Gale 1987). The volume and price outcomes of the consumer's willingness to buy more and/or pay more affect the firm in numerous ways. By changing the firm's margin, it impacts the firm's volume and cost of goods sold. This in combination with changing the firm's product and process investment level changes the firm's return on investment. These re-lationships apply to current as well as future customers. Future revenues from current customers stem from the linkage between customer satisfaction and profitability (Anderson and Sullivan 1993; Jacobs, Johnston, and Kotchetova 2001). Retained customers are revenue-producing assets for a firm; however, the revenue from retained customers comes at a cost. Since profit may be negative in the first period due to the cost of acquiring a customer, customers may only

become profitable to serve over the long-term (Anderson and Mittal 2000).

Behavioral intentions that reflect high quality result in higher customer loyalty, greater willingness to recommend, and in turn, increased market share (Bolton and Drew 1991; Boulding, Kalra, Staelin and Zeithaml 1993; Buzzell and Gale 1987; Danaher 1997; Danaher and Rust 1996; Rust, Zahorik, and Keiningham 1995; Woodside, Frey, and Daly 1989). In the short run, quality yields profits via premium prices. In the long run, superior quality leads to market expansion and gains in market share. Data from the PIMS (Profit Impact of Market Strategies) Study suggest that quality contributes to both growth and profitability through its impact on perceived value. When compared to businesses with inferior quality, those with superior quality enjoy higher return on sales, higher return on investment, stronger customer loyalty, more repeat purchases, less vulnerability to price wars, lower marketing costs, and greater ability to command higher relative price without affecting market share (Buzzell and Gale 1987).

Increased volume and price levels enhance the ability of the firm to increase product, process, and capacity investments. It must be kept in mind that this investment made by the firm to create strategies that will enhance satisfaction, quality, and value is an ongoing process. In order to enhance its overall competitive position, a firm must continue to invest in marketing strategies (Cook 1983; Cook 1985; Day and Wensley 1988). A commitment to reinvestment will enable the firm to discover and implement superior skills, superior resources (Day and Wensley 1988), and additional value for its customers (Narver and Slater 1990).

Firm Performance Outcomes

The extension of marketing to consider the overall performance of the firm has received a great level of attention in the

literature (Anderson 1979, 1981, 1982), Bharadwaj, Varadarajan, and Fahey (1993), Cook (1983, 1985), Day (1992, 1994), Day and Wensley (1988), Howard (1983), Sheth and Frazier (1983), and Varadarajan (1992). Reflecting this perspective, the SQV-P framework contains performance measures that account for profitability, market share, and return on investment. Firm performance outcomes are a direct result of volume and price impacts, as well as word-of-mouth, referrals and complaints by customers that effect the attitudes of other customers as well the public perception of the firm. Firms that emphasize higher levels of customer service report significantly higher profit margins, earnings growth, return on sales, investment, and assets (Wright and Pearce 1995). Quality also reduces failures and operating costs for the firm (Oliver 1997, p 404). Increased customer satisfaction is expected to lead to greater customer retention. Improved customer retention leads to greater profitability (Anderson and Mittal 2000). Firms with higher customer satisfaction and retention can expect higher profits (Anderson et al. 1994; Anderson and Mittal 2000).

Several approaches have been used to try to assess the impact of quality on firm performance. These include customer lifetime value, (Rust, Zeithaml, and Lemon 2001) customer pyramid (Zeithaml, Rust, and Lemon 2001), customer equity (Lemon, Rust, and Zeithaml 2001), and return on quality (Rust et al. 1995). The focus of the work in this area has been on profitability associated with customer retention due to improvements in customer satisfaction (Anderson and Mittal 2000; Anderson et al. 1994; Rust et al. 1995). Customer retention has been described as a net present value proposition (Anderson and Mittal 2000; Jacobs et al. 2001). Customers can have "future value" in the form of likely margins to be earned and thus they take the form of valuable assets to the firm (Jacobs et al. 2001).

The relationship between quality and the financial return to a firm has been mathematically modeled as a chain of effects (Rust et al. 1995). Increased perceived quality and customer satisfaction leads to higher levels of customer retention and positive word-of-mouth. In turn, revenues and market share go up, driven by higher customer retention and new customers attracted by positive word-of-mouth. The increased revenues combined with decreased costs lead to greater profitability (Rust et al. 1995).

The literature also suggests that satisfaction is related to firm performance and market share (Rust and Zahorik 1993) and is based on higher repeat usage in future (Bolton and Lemon 1999). Satisfaction leads to greater repurchase intentions, actual purchase behavior and, ultimately, firm profitability (Anderson and Mittal 2000). Satisfaction is stronger for customers who have more experience with the organization (Bolton 1998), and past satisfaction of current customers provides a strong indication that current and future satisfaction will be high, strongly affecting ROI (Anderson et al. 1994).

The notion that increased levels of customer satisfaction, quality, and value improve firm performance runs throughout the discussion of SQV-P. Despite the fact that increased customer satisfaction can lead to increased market share for a firm, it has been suggested that a negative effect of market share gains on perceived quality may exist (Hellofs and Jacobson 1999). There are two streams of thought concerning how increased market share impacts consumers' perceptions of quality. The *positive effects* view is that higher market share can be interpreted by future consumers as a signal of higher quality, and the *negative effects* view suggests that customers perceive quality to decrease as market share increases, possibly because consumer expectations increase (Hellofs and Jacobson 1999). Yet perceived quality still has a positive impact on customer satisfaction and, in turn, firm profitability (Anderson et al. 1994). In the SVQ-P framework these effects are seen through the

impact of firm performance outcomes on consumers' initial standards.

Firm Value

Value creation is regarded by both finance academics and practitioners as the ultimate measure of success (Copeland, Keller, and Murrin 1994; Jensen and Meckling 1976). Although the formal inclusion of shareholder value is relatively new to the marketing dialogue, the basic notion of measuring marketing success in terms of financial performance has been long accepted in the literature. In early marketing thought, the influence of economic concepts is prevalent throughout the literature, as marketing evolved out of an economic framework (Bartels 1976). To secure its competitive advantage, marketing and other functional strategies must be developed and implemented that are value adding or at least value preserving (Slater 1996). The resulting sustainable increase in shareholder value leads to easier capital acquisition that is used to fund more new value adding opportunities that sustain competitive advantage.

Customer satisfaction increases cash flow growth and also reduces its variability (Gruca and Rego 2005). The resulting increased profitability impacts return on investment, which, in turn, impacts the value of the firm. These changes are based both on performance level changes and on the level of investment that is required to achieve the modified levels of satisfaction, quality, and value. Evidence has been reported that indicates that higher levels and positive changes of customer satisfaction are related to higher firm value (Aksoy, Cooil, Groening, Keiningham, and Yalcin 2008), but it is important to note that this is represents a longer-term effect (Fornell, Mithas, Morgeson, and Krishnan 2006). In addition, this relationship has been found to have a significant variation across industries and firms (Anderson, Fornell, and Mazvancheryl (2004). The opposite effect has likewise been

reported that increased complaints are associated with reduced future stock returns (Luo 2007). The value of the firm is also related to word-of-mouth stemming from positive customer experiences. Word-of-mouth not only impacts the perceptions of other consumers but at the same time it impacts the overall reputation of the firm for the public at large as well as for the investment community.

DISCUSSION AND DIRECTIONS FOR FUTURE RESEARCH

There are numerous issues that require clarification in the context of measuring the impact of satisfaction, quality, and value on firm performance. As an example, many aspects related to the standards that drive the disconfirmation process require clarification. A comprehensive understanding of the total dimensions and interaction between the various types of standards is needed. It would also be desirable to understand how standard-related attributes interplay between the various standards. For example, are specific attributes common to more than one standard, or are they mutually exclusive? Future research is also needed to clarify the role of price as a standard-related attribute in the disconfirmation process as well as its role as a key determinant of sacrifice in the value assessment process. There are also numerous cognitive processes that may occur at the standard level that remain to be identified and examined.

At a more fundamental level, satisfaction, quality, and value have conceptual differences and can benefit from theoretical and empirical research to understand their interrelationships. The relationship between various levels of satisfaction, quality, and value and firm performance can likewise be identified in order to determine optimum levels of attributes that will maximize firm performance. Work exists that provides insight into these relationships. The relationship between satisfaction and be-

havioral intentions is reported to be nonlinear (Anderson and Mittal 2000; Mittal and Kamakura 2001). The satisfaction-intention link exhibits de-creasing returns, whereas the satisfaction-behavior link exhibits increasing returns. Repurchase behavior is less sensitive to changes in satisfaction ratings for some customer groups than others (Mittal and Kamakura 2001).

Although the research in the area has led firms to carefully monitor customer satisfaction, satisfaction by itself may not correlate with organizational performance. Customers may indicate that they are satisfied but purchase goods and services elsewhere (Jones and Sasser 1995). Another limitation with man-agerial perspectives on satisfaction is that it is time sensitive. Organizations may find a strong relationship between customer satisfaction scores and per-formance, but over time that relationship weakens caused by changes in customers desires (Woodruff 1997). Customer satisfaction programs do not always deliver anticipated results. As a result, it has been argued that customer satisfaction should be eliminated as a measure for optimizing customer retention and profitability (Anderson and Mittal 2000; Grisaffe 2007).

The issue of the dimensionality of the elements in the SQV-P model and differences between market segments is also an important issue that requires additional work. One such effort indicates that satisfaction is comprised of sat-isfaction level and satisfaction strength (Chandrashekaran, Rotte, Tax, and Grewal 2007). Research has also determined that the short term post-consumption processing is different for dissatisfied versus satisfied customers, and that dissatisfied consumers may be more expectation driven (Mackoy, Spreng, and Harrell 1996). The framework presented in this article requires investigations as a contingency based phenomenon both for different consumers and for different purchase situations. What constitutes value appears to be highly personal, idiosyncratic, and may vary widely from one customer to another

(Halstead, Jones and Cox 2007; Holbrook 1994; McDougall and Levesque 2000; Zeithaml 1988).

The model that is presented is designed to organize and structure the literature review, rather than to compete with other models that have been suggested in the literature. In addition, as the purpose of the article was to review the literature, additional empirical re-search was not part of this effort. There are several notable models in the literature that focus on specific elements of this broad area. These include models dealing with value based on an integrative framework (Sanchez-Fernandez and Iniesta-Bonillo 2006), and loyalty from a judgment and decision making and general social psychology perspective (Taylor, Hunter, and Longfellow 2006). A limitation of this research that has to be mentioned is that given the breadth of the literature in the area there exists work that was undoubtedly overlooked or could not be included in the space provided. At the same time there are other related overall perspectives that are related to the review that were not discussed. Notable among these are those such as Hunt's (2000) general theory of competition, Deshpande's (1999) market orientation model, and the several theories of the firm reviewed by Anderson (1982).

SUMMARY AND CONCLUSIONS

The goal of this article has been to assist researchers and managers who are interested in understanding the overall process of satisfaction, quality, value, and per-formance by providing a framework that contains these elements and the relationships between them.

This article contributes to the literature by presenting a review of how these marketing variables relate to each other and ultimately result in performance outcomes and the value of the firm. The primary purpose of a research synthesis is to integrate research findings across a number of different

studies (Rundall 1996). The literature review and synthesis reported in this article has endeavored to follow this process. The research that examines satisfaction, quality, and value is extensive; therefore a review and synthesis such as that presented here can only attempt to cover the most relevant and significant components of the area as part of depicting the total process involved. Nonetheless, the review of an overall framework and perspective can hopefully provide understanding and guide additional research in the field.

REFERENCES

Aksoy, Lerzan, Bruce Cooil, Christopher Groening, and Timothy Keiningham (2008), "The Long-Term Stock Market Valuation of Customer Satisfaction," *Journal of Marketing*, 72(4), 105-122.

Anderson, Eugene W. (1998), "Customer Satisfaction and Word of Mouth," *Journal of Service Research*, 1(1), 5-7.

Anderson, Eugene W., Claes Fornell and Donald R. Lehmann (1994), "Customer Satisfaction, Market Share, and Profitability: Findings from Sweden," *Journal of Marketing*, 58(3), 53-66.

Anderson, Eugene W., Claes Fornell and Sanai K. Mazvancheryl (2004), "Customer Satisfaction and Shareholder Value," *Journal of Marketing*, 68(4), 172-185.

Anderson, Eugene W. and Vikas Mittal (2000), "Strengthening the Satisfaction-Profit Chain," *Journal of Services Research*, 3(2), 107-120.

Anderson, Eugene W. and Mary Sullivan (1993), "The Antecedents and Consequences of Customer Satisfaction for Firms," *Marketing Science*, 12(Spring), 125-143.

Anderson, Paul F. (1979), "The Marketing Management/Finance Interface," *1979 Educators' Conference Proceedings, Series #44*, Neil Beckwith, ed., Chicago: American Marketing Association, 325-329.

Anderson, Paul F. (1981), "Marketing Investment Analysis," in *Research in Marketing*, 4, Jagdish N. Sheth, ed., Greenwich, CT: JAI Press, 1-37.

Anderson, Paul F. (1982), "Marketing Strategic Planning and the Theory of the Firm," *Journal of Marketing*, 46 (Spring), 15-26.

Bearden, William O. and Jesse E. Teel (1983), "Selected Determinants of Consumer Satisfaction and Complaint Reports," *Journal of Marketing Research*, 20(1), 21-28.

Berry, Leonard (1995), "Relationship Marketing of Services--Growing Interest, Emerging Perspectives," *Journal of the Academy of Marketing Science*, 23(4), 236-245.

Bloemer, Josee M., J.D.P. Kasper and J.G.A.M. Lemmink (1990), "The Relationship Between Overall Dealer Satisfaction, Satisfaction with the Attributes of Dealer Service, Intended Dealer Loyalty and Intended Brand Loyalty: A Dutch Automobile Case," *Journal of Consumer Satisfaction, Dissatisfaction, and Complaining Behavior*, 3, 42-47.

Bolton, Ruth N. (1998), "A dynamic model of the duration of the customer's relationship with a continuous service provider: The role of satisfaction," *Marketing Science*, 17(1): 45-65.

Bolton, Ruth N. and James H. Drew (1991), "A Multistage Model of Customers' Assessments of Service Quality and Value," *Journal of Consumer Research*, 17, 375-384.

Bolton, Ruth N. and Katherine N. Lemon (1999), "A Dynamic Model of Customers' Usage of Services: Usage as an Antecedent and Consequence of Satisfaction," *Journal of Marketing Research*, 36(2), 171-186.

Boulding, William, Ajay Kalra, Richard Staelin and Valarie Zeithaml (1993), "A Dynamic Process Model of Service Quality: From Expectations to Behavioral Intentions," Journal *of Marketing Research*, 30(February) 7-27.

Brady, Michael K. and Christopher J. Robertson (2001), "Searching for a Consensus on the Antecedent Role of Service Quality and Satisfaction," *Journal of Business Research*, 51(1), 53-60.

Buzzell, Robert D. and Bradley T. Gale (1987), *The PIMS Principles*. New York: The Free Press.

Chandrashekaran, Murali, Kristin Rotte, Stephen S.Tax, and Rajdeep Grewal (2007), "Satisfaction, Strength, and Customer Loyalty," *Journal of Marketing Research*, 44(1), 34.

Churchill, Gilbert and Carol F. Surprenant (1982), "An Investigation into the Determinants of Customer Satisfaction," *Journal of Marketing Research*, 19(4), 491-504.

Cook, Victor J. (1983), "Marketing Strategy and Differential Advantage," *Journal of Marketing*, 47 (Spring), 68-75.

Cook, Victor J. (1985), "Understanding Marketing Strategy and Differential Advantage," *Journal of Marketing*, 49 (Spring), 137-142.

Copeland, Tom, Tim Keller and Jack Murrin (1994), *Valuation: Measuring and Managing the Value of Companies*, John Wiley and Sons.

Cronin, J. Joseph, Jr., Michael K. Brady and Thomas M. Hult (2000), "Assessing the Effects of Quality, Value, and Customer Satisfaction on Consumer Behavioral Intentions in Service Environments," *Journal of Retailing*, 76(2), 193-218.

Cummings, William H. and M. Venkatesan (1976), "Cognitive Dissonance and Consumer Behavior – A Review of the Evidence," *Journal of Marketing Research*, 13(3), 303.

Day, George S. (1992), "Marketing's Contribution to the Strategy Dialogue," Journal of the *Academy of Marketing Science*, 20 (Fall), 323-329.

Day, George S. (1994), "Managerial Representations of Competitive Advantage," *Journal of Marketing*, 58(2), 31.

Day, George S. and Robin Wensley (1988), "Assessing Advantage: A Framework for Diagnosing Competitive Superiority," *Journal of Marketing*, 1988, 52 (April), 1-20.

Dick, Alan S. and Kunal Basu (1994), "Customer Loyalty: Toward an Integrated Conceptual Framework," *Journal of the Academy of Marketing Science*, 22(2), 99-113.

Duhan, Dale F., Scott D. Johnson, James B. Wilcox, and Gilbert D. Harrell (1997), "Influences on Consumer Use of Word-of-Mouth Recommendation Sources," *Academy of Marketing Science*, 25(4), 283-295.

East, Robert, Wendy Lomax, and Radhika Narain (2001), "Customer Tenure, Recommendation and Switching," *Journal of Consumer Satisfaction, Dissatisfaction and Complaining Behavior,* 14, 46.

Erevelles, Sunil and Clark Leavitt (1992), "A Comparison of Current Models of Consumer Satisfaction/Dissatisfaction," *Journal of Consumer Satisfaction, Dissatisfaction and Complaining Behavior*, 5, 104-114.

Fornell, Claes, Sunil Mithas, Forrest V. Morgeson III, and M.S. Krishnan (2006), "Customer Satisfaction and Stock Prices: High Returns, Low Risk" *Journal of Marketing*, 70(1), 3-14.

Grewal, Dhruv, Kent B. Monroe and R. Krishnan (1998), "The Effects of Price-Comparison Advertising on Buyers' Perceptions of Acquisition Value, Transaction Value, and Behavioral Intentions," *Journal of Marketing*, 62(2), 46-59.

Grisaffe, Douglas B. (2007), "Questions About the Ultimate Question: Conceptual Considerations in Evaluating Reicheld's Net Promoter Score (NPS)," *Journal of Consumer Satisfaction, Dissatisfaction and Complaining Behavior,* 20, 36.

Gronroos, Christian (1995), "Relationship Marketing: The Strategy Continuum," *Journal of the Academy of Marketing Science*, 23(4), 252-254.

Gruca, Thomas S. and Lopo L. Rego (2005), "Customer Satisfaction, Cash Flow, and Shareholder Value" *Journal of Marketing*, 69(3), 115-130.

Hallowell, Roger (1996), "The Relationships of Customer Satisfaction, Customer Loyalty, and Profitability: An Empirical Study," *International Journal of Service Management*, 7(4): 27-42.

Halstead, Diane, Michael A. Jones, and April N. Cox (2007), "Satisfaction Theory and The Disadvantaged Consumer," *Journal of Consumer Satisfaction, Dissatisfaction and Complaining Behavior*, 20, 15.

Halstead, Diane and Thomas J. Page Jr. (1992), "The Effects of Satisfaction and Complaining Behavior on Consumer Repurchase Intentions," *Journal of Consumer Satisfaction, Dissatisfaction and Complaining Behavior*, 5, 1-11.

Halvorsen, K. (1994), "The reporting format," in *The Handbook of Research Synthesis*, edited by H. M. Cooper and L. V. Hedges. New York: Russell Sage.

Hennig-Thurau, Thorsten (2001), "A Relationship Marketing Perspective of Complaint Satisfaction in Service Settings: Some Empirical Findings," in Enhancing Knowledge Development in Marketing, American Marketing Association Summer Educator's Conference *Proceedings*, August, 206-213.

Holbrook, Morris B. (1994), "The Nature of Customer Value: An Axiology of Services in the Consumption Experience," In Roland Rust and Richard L. Oliver (Eds.) *Service Quality: New Directions in Theory and Practice* (pp.21-71). Newbury Park, CA: Sage.

Homburg, Christian and Annette Giering (2001), "Personal Characteristics as Moderators of the Relationship Between Customer Satisfaction and Loyalty – An Empirical Analysis," *Psychology and Marketing*, 18(1), 43-66.

Homburg, Christian, Nicole Koschate, and Wayne D. Hoyer (2006), "The Role of Cognition and Affect in the Formation of Customer Satisfaction: A Dynamic Perspective," *Journal of Marketing,* 70(3), 21.

Howard, John A. (1983), "Marketing Theory of the Firm," *Journal of Marketing*, 47 (Fall), 90-100.

Iacobucci, Dawn, Amy Ostrom and Kent Grayson (1995), "Distinguishing Service Quality and Customer Satisfaction: The Voice of the Consumer," *Journal of Consumer Marketing,* 277-303.

Jacobs, Fred A., Wesley Johnston and Natalia Kotchetova (2001), "Customer Profitability: Prospective vs. retrospective approaches in a Business-to-Business setting," *Industrial Marketing Management*, May, 30(4), 353-363.

Jacoby, Jacob and Robert W Chestnutt (1978), *Brand Loyalty: Measurement and Management*, Wiley, New York.

Jensen, Michael C. and William H. Meckling (1976), "Theory of the Firm: Managerial Behavior, Agency Costs and Ownership Structure," *Journal of Financial Economics*, 3 (October), 305-60.

John, Joby (1992), "Patient Satisfaction: The Impact of Past Experience," *Journal of Health Care Marketing*, 12(3), 56-65.

Johnston, Robert (1998), "The Effect of Intensity of Dissatisfaction of Complaining Behavior," *Journal of Consumer Satisfaction, Dissatisfaction and Complaining Behavior*, 11, 69-77.

Kiley, David (2002), "Mercedes Racks Up Problems in Quality Survey," *USA Today*, March 18.

Keller, Kevin Lane (1993), Conceptualizing, Measuring, and Managing Customer-based Brand Equity, *Journal of Marketing*, Vol. 57 (January), 1-22.

Kopalle, Praveen K. and Donald R. Lehmann (1995), "The Effects of Advertised and Observed Quality on Expectations about New Product Quality," *Journal of Marketing Research*, 32(3), 280-291.

Lai, Mengkuan and Richard Widdows (1993), "Determinants of Consumers' Satisfaction with Service: A Preliminary Study," *Journal of Consumer Satisfaction, Dissatisfaction, and Complaining Behavior*, 6, 166-175.

Lemon, Katherine, Roland T. Rust and Valarie Zeithaml (2001), "What Drives Customer Equity," *Marketing Management*, 10(1), 20-25.

Lemon, Katherine, Tiffany Barnett White and Russell S. Winer (2002), "Dynamic Customer Relationship Management: Incorporating Future Considerations Into the Service Retention Decision," *Journal of Marketing*, 66(1), 1-14.

Luce, Mary F. (1992), "Buying More Than We Can Use: Factors Influencing Forecasts of Consumption Quantity," in *Advances in Consumer Research*, 19, John F. Sherry Jr., and Brian Sternthal, eds., Provo, UT: Association for Consumer Research, 584-588.

Luo, Xueming (2007), "Customer Negative Voice and Firm-Idiosyncratic Stock Returns," *Journal of Marketing*, 71(3), 75-88.

Luo, Xueming and Christian Homburg (2007), "Neglected Outcomes of Customer Satisfaction," *Journal of Marketing*, 71(2), 133.

Lutz, Richard J. (1975), "Changing Brand Attitudes Through Modification of Cognitive Structure," *Journal of Consumer Research*, 1 (March), 49-59.

Mackoy, Robert D., Richard A. Spreng and Gilbert D. Harrell (1996), "An Investigation of the Relationship Between Level of Satisfaction and Processing

Intensity," *Journal of Consumer Satisfaction, Dissatisfaction and Complaining Behavior*, 9, 75-80.

Mattila, Anna S. (2001), "The Impact of Relationship Type on Customer Loyalty in a Context of Service Failures," *Journal of Services Research*, 4(2), 91-101.

Markham, James G. (2001), "Service Recovery's Influence on Consumer Satisfaction, Positive Word-of-Mouth, and Purchase Intentions," *Journal of Business Research*, 54(1): 11-24.

McCollough, Michael A., Leonard L. Berry and Manjit S. Yadav (2000), "An Empirical Investigation of Customer Satisfaction After Service Failure and Recovery," *Journal of Services Research*, 3(2), 121-137.

McDougall, Gordon H.C. and Terrence Levesque (2000), "Customer Satisfaction With Services: Putting Perceived Value into the Equation," *The Journal of Services Marketing,* 14(5), 392-410.

Mittal, Vikas and Wagner A. Kamakura (2001), "Satisfaction, Repurchase Intent, and Repurchase Behavior: Investigating the Moderating Effect of Customer Characteristics," *Journal of Marketing Research*, 38(1), 131-142.

Mittal, Vikas and Jerome M. Katrichis (2000), "Distinctions Between New and Loyal Customers," *Marketing Research*, 12(1), 26-32.

Mittal, Vikas, Pankaj Kumar and Michael Tsiros (1999), "Attribute-Level Performance Satisfaction, and Behavioral Intentions Over Time: A Consumption-System Approach," *Journal of Marketing*, 63(2), 88-101.

Moorman, Christine and Roland T. Rust (1999), "The Role of Marketing," *Journal of Marketing*, 63, 180-197.

Monga, Ashwani and Michael J. Houston (2006), "Fading Optimism in Products: Temporal Changes in Expectations About Performance," *Journal of Marketing*, 43(4), 26.

Narver, John C. and Stanley F. Slater (1990), "The Effect of a Market Orientation on Business Profitability," *Journal of Marketing*, 54(4), 20-35.

Nyer, Prashanth U. (1999), "Cathartic Complaining as a Means of Reducing Consumer Dissatisfaction," *Journal of Consumer Satisfaction, Dissatisfaction and Complaining Behavior*, 12, 15-25.

Ofir, Chezy and Itamar Simonson (2001), "In Search of Negative Customer Feedback: The Effect of Expecting to Evaluate on Satisfaction Evaluations," *Journal of Marketing Research*, 38(2), 170-182.

Oliver, Richard L. (1980), "A Cognitive Model of Antecedents and Consequences of Satisfaction Decisions," *Journal of Marketing Research*, 17(4), 460-469.

Oliver, Richard L. (1989), "Processing of the Satisfaction Response in Consumption: A Suggested Framework and Research Propositions," *Journal of Consumer Satisfaction, Dissatisfaction, and Complaining Behavior*, 2, 1-16.

Oliver, Richard L. (1993), "A Conceptual Model of Service Quality and Services Satisfaction: Compatible Goals, Different Concepts," in *Advances in Services Marketing and Management*, 2, Teresa A Swartz, David Bowen, and Stephen Brown, eds. Greenwich, CT: JAI Press, 65-85.

Oliver, Richard L. (1997), *Satisfaction: A Behavioral Perspective on the Consumer*. New York: Mc-Graw Hill.

Oliver, Richard L. and William Bearden (1985), "Disconfirmation Processes and Consumer Evaluations in Product Usage," *Journal of Business Research*, 13(6), 235-246.

Oliver, Richard L. and John E. Swan (1989), "Customer Perceptions of Interpersonal Equity and Satisfaction in Transactions: A Field Survey Approach," *Journal of Marketing*, 53 (April), 21-35.

Ostrom, Amy and Dawn Iacobucci (1995), "Consumer Trade-Offs and the Evaluation of Services," *Journal of Marketing*, 59(1), 17-28.

O'Sullivan, Don, and Andrew V. Abela (2007), "Marketing Performance Measurement Ability and Firm Performance," *Journal of Marketing*, 71(2), 79.

Parasuraman, A. (1997), "Reflections on Gaining Competitive Advantage Through Customer Value," *Journal of the Academy of Marketing Science*, 25(2), 154-161.

Phillips, Lynn W., Dae R. Chang and Robert D. Buzzell (1983), "Product Quality, Cost Position and Business Performance: A Test of Some Key Hypotheses," *Journal of Marketing*, 47 (Spring), 26-43.

Ralston, Roy (1996), "Model Maps Out Sure Path to Growth in Marketplace," *Marketing News*, 30(11), 12.

Roos, Inger (1999), "Switching Processes in Customer Relationships," *Journal of Services Research*, 1 (August), 68-85.

Rust, Roland T. and Richard Metters (1996), "Mathematical Models of Service," *European Journal of Operational Research*, 91(June), 427-439.

Rust, Roland T. and David C. Williams (1994), "How Length of Patronage Affects the Impact of Customer Satisfaction on Repurchase Intentions," *Journal of Consumer Satisfaction, Dissatisfaction and Complaining Behavior*, 7, 107-113.

Rust, Roland T. and Anthony J. Zahorik (1993), "Customer Satisfaction, Customer Retention, and Market Share," *Journal of Retailing*, 69 (Summer), 193-215.

Rust, Roland T., Anthony J. Zahorik and Timothy Keiningham (1995), "Return on Quality (ROQ): Making Service Quality Financially Accountable," *Journal of Marketing*, 59(April), 58-70.

Rust, Roland T., Valarie Z. Zeithaml and Katherine N. Lemon, *Driving Consumer Equity*, The Free Press, NY, 2000.

Salegna, Gary J. and Stephen A. Goodwin (2005), "Consumer Loyalty to Service Providers: An Integrated Conceptual Model," *Journal of Consumer Satisfaction, Dissatisfaction and Complaining Behavior,* 18, 51-67.

Salegna, Gary J. and Stephen A. Goodwin (2008), "Service Provider Loyalty: A Framework and Managerial Implications for B2C Organizations," *Journal of Global Business Management*, 4 (2), 228-237.

Samson, Alain (2006), "Understanding the Buzz That Matters: Negative vs. Positive Word of Mouth," *International Journal of Market Research*, 48(6), 647.

Sanchez-Fernandez, Raquel, and M. Angeles Iniesta-Bonillo (2006), "Consumer Perception of Value: Literature Review and a New Conceptual Framework," *Journal of Consumer Satisfaction, Dissatisfaction and Complaining Behavior,* 19, 40-55.

Slater, Stanley S. (1996), "The Challenge of Sustaining a Competitive Advantage," *Industrial Marketing Management,* 25(1), 79-87.

Sheth, Jagdish N. and Gary L. Frazier (1983), "A Margin-Return Model for Strategic Market Planning," *Journal of Marketing*, 47 (Spring), 100-109.

Simonson, Itamar (1990), "The Effect of Purchase Quantity and Timing on Variety Seeking Behavior," *Journal of Marketing Research*, 27 (May), 150-162.

Sinha, Indrajit and Wayne S. DeSarbo (1998), "An Integrated Approach Toward the Spatial Modeling of Perceived Customer Value," *Journal of Marketing*, 35(2), 236-249.

Smith, Amy K., Ruth N. Bolton and Janet Wagner (1999), "A Model of Customer Satisfaction with Service Encounters Involving Failure and Recovery, *Journal of Marketing Research*, 36(3), 356-372.

Solvang, Bernt Krohn (2007), "Satisfaction, Loyalty and Repurchase: A Study of Norwegian Customers of Furniture and Grocery Stores," *Journal of Consumer Satisfaction, Dissatisfaction and Complaining Behavior,* 20, 110-122.

Spreng, Richard A., Andrea L. Dixon and Richard W. Olshavsky (1993), "The Impact of Perceived Value on Consumer Satisfaction," *Journal of Consumer Satisfaction, Dissatisfaction and Complaining Behavior*, 6, 50-55.

Spreng, Richard A., Scott B. MacKenzie and Richard W. Olshavsky (1996), "A Reexamination of the Determinants of Consumer Satisfaction," *Journal of Marketing*, 60(3), 15-32.

Spreng, Richard A. and Robert D. Mackoy (1996), "An Empirical Examination of a Model of Perceived Service Quality and Satisfaction," *Journal of Retailing*, 72(2), 201-214.

Spreng, Richard A. and Richard W. Olshavsky (1992), "A Desires-As-Standard Model of Consumer Satisfaction: Implications for Measuring Satisfaction," *Journal of Consumer Satisfaction, Dissatisfaction and Complaining Behavior*, 5, 45-54.

Spiteri, Joseph M., and Paul A. Dion (2004), "Customer Value, Overall Satisfaction, End-User Loyalty, and Market Performance in Detail Intensive Industries," *Industrial Marketing Management,* 33, 675-687.

Swan, John E. and Frederick Trawick (1981), "Disconfirmation of Expectations and Satisfaction with a Retail Service," *Journal of Retailing*, 57(3), 49-67.

Szymanski, David M. and David H. Henard (2001), "Customer Satisfaction: A Meta-Analysis of the Empirical Evidence," *Journal of the Academy of Marketing Science*, 29(1), 16-35.

Tax, Stephen S. and Stephen W. Brown (2000), "Service Recovery: Research Insights and Practices," in *Handbook of Services Marketing and Management*, T. Swartz and D. Iacobucci, eds. Thousand Oaks, CA: Sage, 271-286.

Tax, Stephen S., Stephen W. Brown and Murali Chandrashekaran (1998), "Customer Evaluations of Service Complaint Experiences: Implications for Relationship Marketing," *Journal of Marketing*, 62(April), 60-76.

Tsiros, Michael (1998), "Effect of Regret on Post-Choice Valuation: The Case of More than Two Alternatives," *Organizational Behavior and Human Decision Processes*, 76(October), 48-69.

Tsiros, Michael and Vikas Mittal (2000), "Regret: A Model of its Antecedents and Consequences in Consumer Decision Making," *Journal of Consumer Research*, 26(4), 401-417.

Varadarajan, V. Rajan (1992), "Marketing's Contribution to Strategy: The View from a Different Looking Glass," *Journal of the Academy of Marketing Science*, 20(4), 335-343.

Varki, Sajeev and Mark Colgate (2001), "The Role of Price Perceptions in an Integrated Model of Behavioral Intentions," *Journal of Services Research*, 3(3), 232-240.

Wilton, Peter C. and Franco M. Nicosia (1986), "Emerging Paradigms for the Study of Consumer Satisfaction," *European Research*, 14(1), 4-11.

Woodruff, Robert B. (1993), "Developing and Applying Consumer Satisfaction Knowledge: Implications for Future Research," *Journal of Consumer Satisfaction, Dissatisfaction and Complaining Behavior* 6, 1-11.

Woodruff, Robert B. (1997), "Customer Value: The Next Source for Competitive Advantage," *Journal of the Academy of Marketing Science*, 25(2), 139-153.

Woodruff, Robert B., D. Scott Clemons, David W. Schumann, Sarah F. Gardial, and Mary Jane Burns (1991), "The Standards Issue in CS/D Research" A Historical Perspective," *Journal of Consumer Satisfaction, Dissatisfaction and Complaining Behavior*, 4, 103-109.

Wright, N.D., and J.W. Pearce (1995), "The Marketing Concept and Customer Satisfaction: An Empirical Examination of Customer Service, Financial Performance, and Integrated Effort," *Journal of Consumer Satisfaction, Dissatisfaction and Complaining Behavior*, 8, 135-142.

Wright, Robert E., Debra Perkins, Sean Alston, Shon Heitzig, Jennifer Meyer-Smith, John C. Palmer (1996), "Effects of Dissatisfying Experiences on Repatronage Intentions and Negative Word-of-Mouth Behavior of University Students," *Journal of Consumer Satisfaction, Dissatisfaction and Complaining Behavior*, 9, 221-228.

Yi, Youjae (1990), "A Critical Review of Consumer Satisfaction," In V.A. Zeithaml (Ed.), *Review of Marketing*. Chicago: American Marketing Association

Zeithaml, Valarie (1988), "Customer Perceptions of Price, Quality, and Value: A Means-Ends Model and Synthesis of Evidence," *Journal of Marketing*, 52 (July), 2-22.

Zeithaml, Valarie (2000), "Service Quality, Profitability, and the Economic Worth of Customers: What We Know and What We Need to Learn," *Journal of the Academy of Marketing Science*, 28(1), 67-85.

Zeithaml, Valarie, Roland T. Rust, and Kay Lemon (2001), "Make Customer Profitability the Basis for Service," Working Article, University of North Carolina at Chapel Hill.

Zeithaml, Valarie A., Leonard Berry, A. Parasuraman (1996), "The Behavioral Consequences of Service Quality, *Journal of Marketing*, 60, 31-46.

Send correspondence about this manuscript to:

Thomas L. Powers, Ph.D.
Professor of Marketing
University of Alabama at Birmingham
Birmingham, Alabama 35294
(205) 934-5664
tpowers@uab.edu

TABLE 1

KEY ELEMENTS OF THE SQV-P FRAMEWORK

Model Construct	Definition(s)	Cited Source(s)
Standards	Standards define a given category of expectations or performance that includes desires, expectations, equity, information, values, norms, ideals, promises, goals, & beliefs, & are used to measure the actual product/ service outcome.	Woodruff, Clemons, Schumann, Gardial, and Burns 1991; Spreng, Dixon, and Olshavsky 1993; Spreng and Mackoy 1996; Spreng and Olshavsky 1992; Spreng, MacKenzie, and Olshavsky 1996; Bloemer, Kasper, and Lemmink 1990; Sinha and DeSarbo 1998; Iacobucci, Ostrom, and Grayson 1995
Product/Service Performance Outcomes	Performance outcomes are a result of the consumer's evaluation of some comparison standards and the perceived performance of the product.	Ofir and Simonson 2001; Woodruff, Clemons, Schumann, Gardial, and Burns 1991; Iacobucci, Ostrom, and Grayson 1995
Convergence	A consumer's expectations are confirmed when a product performs as expected, negatively disconfirmed when the product performs more poorly than expected, & positively disconfirmed when product performs better that expected.	Bearden and Teel 1983; Oliver 1980, 1981, 1989, 1993; Oliver and Bearden 1985; Swan and Trawick 1981; Churchill and Surprenant 1982; Hennig-Thurau 2001; Oliver 1997; Ofir and Simonson 2001
Sacrifice	Sacrifice refers to what is given up or sacrificed to acquire a product or service.	Cronin, Brady and Hult 2000; Spreng, Dixon, and Olshavsky 1993; McDougall and Levesque 2000; Buzzell and Gale 1987; Grewal, Monroe and Krishnan 1998; Sinha and DeSarbo 1998
Satisfaction	Satisfaction is the consumer's response to the evaluation of the perceived discrepancy between some comparison standards and the perceived performance of the product.	Yi 1990; Wilton and Nicosia 1986; Brady and Roberton 2001; Erevelles and Leavitt 1992; Oliver and Swan 1989; Ostrom and Iacobucci 1995; Oliver 1993; Woodruff 1997; Hennig-Thurau 2001; Iacobucci, Ostrom, and Grayson 1995 ; McDougall and Levesque 2000; Spreng, MacKenzie, and Olshavsky 1996; Spreng, Dixon, and Olshavsky 1993
Quality	Quality is the buyer's estimate of a product's cumulative excellence.	Zeithaml 1988; Iacobucci, Ostrom, and Grayson 1995; Kopalle and Lehmann 1995; McDougall and Levesque 2000; Brady and Robertson 2001).
Value	Value is the consumer's overall assessment of the utility of a product based on perceptions of what is received and what is given.	Zeithaml 1988; Woodruff 1997; Grewal, Monroe and Krishnan 1998; Parasuraman 1997; Sinha and DeSarbo 1998; Athanassopoulos 2000; Spiteri and Dion 2004; Cronin, Brady and Hult 2000; Fernandez and Iniesta-Bonillo 2006; McDougal and Levesque 2000; Bolton and Drew 1991; Holbrook 1994
Regret	Regret is an evaluation of outcomes in which customers compare what they have received with what they would have received had they made a different choice that would have led to a better result.	Tsiros and Mittal 2000; Tsiros 1998; Lemon, White, and Winer 2002; Oliver 1997
Service Recovery	A series of events in which a service failure triggers a procedure that generates economic (intent to buy) and social (intent to recommend) interaction between the customer and organization.	Smith, Bolton, and Wagner 1999; Gronroos 1995; Roos 1999; McCollough, Berry, and Yadav 2000; Mattila 2001; Tax and Brown 2000; Maxham 2001

| Cumulative Effects	Developed with additional satisfaction or dissatisfaction inputs adding to the base level of original satisfaction as a result of a series of purchase encounters.	Homburg, Koschate, and Hoyer 2006; Anderson, Fornell and Lehmann 1994; Mittal, Kumar, and Tsiros 1999; Bolton 1998; Oliver 1997; Bolton and Lemon 1999; Luce 1992; Simonson 1990
Loyalty	Loyalty is a deeply held commitment to rebuy or repatronize a preferred product or service consistently in the future.	Salegna and Goodwin 2005; Solvang 2007; Dick and Basu 1994; Jacoby and Chestnutt 1978; McDougall and Levesque 2000; Homburg and Giering 2001; Jones and Sasser 1995; Reichheld and Sasser 1990
Assimilation Effect	Assimilation effect is a direct link between expectations and satisfaction in which the consumer does not weigh the actual outcome against a standard; rather the standard sets the perception of the product and the actual outcome is modified or ignored entirely.	Erevelles and Leavitt 1992; Monga and Houston 2006; Yi 1990; Churchill and Surprenant 1982; Oliver 1997
Economic and Social Behavioral Intentions	Economic behavioral outcomes are customer behaviors that impact the financial aspects of the firm such as repeat purchase behavior, willingness to pay more, and switching behavior - Social behavioral intentions are customer behaviors that impact other existing and potential customers of the firm such as complaint behaviors as well as overall word-of-mouth communication.	Brady and Robertson 2001; Cronin, Brady and Hult 2000; Smith, Bolton, and Wagner 1999; Zeithaml, Bitner, and Parasuraman 1996; Anderson and Mittal 2000; Szymanski and Henard 2001; Anderson 1994; Ralston 1996; Bolton 1998; Johnston 1998; Nyer 1999; Tax, Brown, and Chandrashekaran 1998; Anderson 1998; Wright, Perkins, Alston, Heitzig, Meyer-Smith, and Palmer 1996; Samson 2006; Woodruff 1993
Volume and Price Changes	Increased sales volume and/or price levels result from positive behavioral intentions.	Anderson and Mittal 2000; Zeithaml 2000; Buzzell and Gale 1987; Bolton and Drew 1991; Boulding, Kalra, Staelin and Zeithaml 1993; Danaher 1997; Danaher and Rust 1996; Rust, Zahorik, and Keiningham 1995; Woodside, Frey, and Daly 1989
Firm Performance Outcomes	Firm performance outcomes are a direct result of volume and price impacts, as well as word-of-mouth, referrals and complaints by customers that effect the attitudes of other customers as well the public perception of the firm.	Anderson and Sullivan 1993; Jacobs, Johnston, and Kotchetova 2001; Anderson 1979, 1981, 1982, Bharadwaj, Varadarajan, and Fahey 1993; Cook 1983, 1985; Day 1992, 1994; Day and Wensley 1988; Howard 1983; Sheth and Frazier 1983; Varadarajan 1992; Wright and Pearce 1995; Anderson and Mittal 2000; Rust, Zeithaml, and Lemon 2001; Zeithaml, Rust, and Lemon 2001; Lemon, Rust, and Zeithaml 2001; Rust et al. 1995; Jacobs et al. 2001; Hellofs and Jacobson 1999
Firm Value	Value creation is considered the ultimate measure of a firm's success and is tied to increased customer satisfaction.	Copeland, Keller, and Murrin 1994; Jensen and Meckling 1976; Gruca and Rego 2005; Aksoy, Cooil, Groening, Keiningham, and Yalcin 2008; Fornell, Mithas, Morgeson, and Krishnan 2006; Anderson, Fornell, and Mazvancheryl 2004; Luo 2007
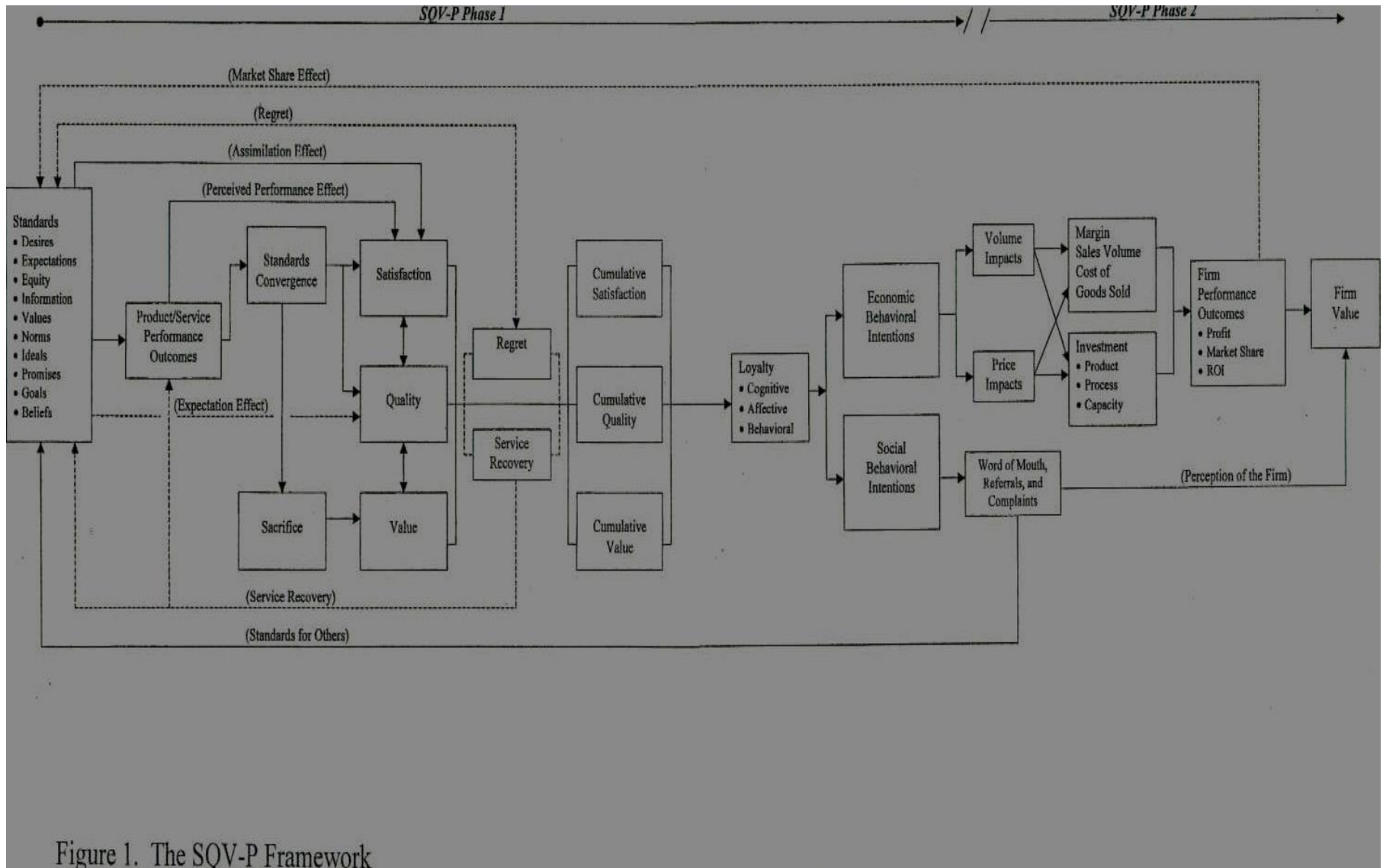
Figure 1. The SQV-P Framework

PERCEIVED VERSUS ACTUAL COMPLEXITY FOR WEBSITES: THEIR RELATIONSHIP TO CONSUMER SATISFACTION

Anjala Krishen, University of Nevada Las Vegas
Kunal Kamra, Freddie Mac

ABSTRACT

This article aims to further the understanding of how visual and decision-making complexities in websites impact the subjective experiences individuals have as they traverse them. More specifically, we attempt to understand subtle yet important differences in how consumers perceive complexity of a website and how that perception then impacts their satisfaction and liking of that website across two different types of products, hedonic and utilitarian. The most important contribution of this article is the idea that complexity per se is not simply a perceptual phenomenon but is also governed by situational and contextual factors. In essence, the subjective outcomes of satisfaction and liking that individuals experience as a result of variations in degrees of complexity of websites, though difficult to predict, can be managed with careful target marketing.

INTRODUCTION

E-commerce has been the object of research and empirical study since its conception, not only due to its widespread sales impact, but also because of the plethora of data that can be gathered "behind the scenes" on unknown consumers. Even though websites are often a source of advertisement, there is an adaptive aspect to the internet that extends beyond a static image or a non-user specific commercial, i.e. "interactivity and the ability to provide information on demand." (Peterson et al. 1997) In the context of e-commerce, if this interaction is viewed as dynamic and bidirectional, a website can be paralleled to a salesperson. This would mean that websites, in order to create attitude change, attempt to convey a persuasive message to consumers. Although this is also true of other forms of advertisement, persuasion theory focuses more on "living" relationships as opposed to static images. In essence, much like any visual stimulus, a website must deliver the optimum level of excitement and yet not create so much confusion for the perceiver that it leads to disinterest or frustration. Instead, a website must be persuasive and impactful enough to make its visitor want to return and interact again. As part of this excitement/confusion dilemma, website designers are constantly confronted with the question of how much information to convey on their sites without creating confusion for their visitors. One measure of the amount of information presented per unit of space on a website is actual versus perceived website complexity, which is the subject of the present research.

This article aims to further understand and clarify how visual and decision-making complexity in websites impacts the subjective experiences individuals have as they traverse them. Of particular interest is the delineation between actual and perceived complexity, as those have not been well studied to date. In fact, ample research classifies complexity per se as an individual perceptual phenomenon, making it a very difficult and evasive construct to define and measure. The main research question for this article is if and how consumer perceived website complexity, satisfaction and liking, (or alternatively, website effectiveness) is a function of two key factors: actual website complexity, and website context (i.e. hedonic versus utilitarian product websites).

The rest of the article is organized as follows. The next section summarizes the relevant literatures on: (1) visual complexity

theory; (2) the relationship between complexity and satisfaction; and (3) the basic problem of information overload. The following section develops the conceptual framework and research hypotheses for the main study which was conducted. Next is a section on the pretest to determine actual variety of the websites, followed by the main study methodology, results, and discussion. Finally, the conclusions, implications, limitations, and future research are discussed.

LITERATURE REVIEW

Visual Complexity Theory and the Importance of Context

Whereas consumer perceptions may not always be completely predictable (i.e. perceptual and "actual" complexity may not always match), research has shown that context can play a large role in further clarifying why they may not. Namely, in terms of service performance, expectation-disconfirmation theory shows that under certain circumstances, consumers expect to be faced with certain settings and their perception of what they get faced with in reality is compared with those expectations (which are based on their prior experiences) (Oliver 1980). Thus, website complexity perceptions should also be largely influenced by the context, brand, or product which is represented in the website itself. To that end, whether a product is hedonic (i.e. a "want") or utilitarian (i.e. a "should"), in nature, should have an influence on how a consumer perceives the complexity of its accompanying website. As will be explained later in this article, the delineation of a website as hedonic versus utilitarian (see Table 3) will be used as a mechanism to test the importance of context in complexity perceptions.

Visual complexity has impact in several fields such as computer science, human factors, psychology, and marketing, and thus is the subject of many streams of research that have been conducted for many years. Trying to understand the concept of perception itself began with empiricists, psychophysicists and psychometricians (Murray 1908; Stevens 1975) and then progressed to gestalt psychologists (Koffka 1935). The gestalt psychologists recognized the concept of the situational conditions surrounding the perception of a stimulus and the motivations of *simplicity* and *homogeneity* as guiding principles behind human perceptions of ambiguous objects (Hochberg 1957). Donderi (2006) summarizes the literature on visual complexity by drawing together many ideas including those of gestalt psychologists, information theorists (such as algorithmic information theory), and neurophysiologists who study the central nervous system. He concludes that a measure of visual complexity has yet to be successfully defined but that such a measure would require understanding of the interplay between the data or stimulus itself and the task given to an individual, as both would combine to impact individual perceptions. Recognizing the clear distinction between perceived and actual complexity, the present research attempts to further empirically understand the extent to which individuals are calibrated in their perceptions. Of further importance is the fact that website complexity is even more precarious an idea than the simplest form of visual complexity which Donderi (2006) discusses in stimulus-based psychological research where individuals are presented with pictures. Websites not only contain an initial image followed by many more, but further complicate matters by requiring people to traverse their often complex pathways in order to accomplish some sort of goal.

As explained earlier, any perceptual measure of visual complexity must account not only for the stimulus itself but also for the task required of the individual. In line with this, Fischer, Schulz-Hardt, and Frey (2008) explain that the need for consistency, i.e. the preference for consistent information, which is a basic individual motivation, actually increases in intensity as the amount of

complexity in the decision-making task increases. Fischer and colleagues further suggest that as complexity in the decision increases, the need for closure increases (Kruglanski and Webster 1996), triggering individuals to want to reduce their decisional complexity by reaching a choice (or "freezing") as quickly as they can. Thus it is important for website designers to realize that by increasing the actual complexity of their websites, they might inadvertently lead individuals to make hastier decisions.

Martin, Sherrard, and Wentzel (2005) relate the individual differences variables of sensation seeking and need for cognition to website complexity perceptions in individuals. The important idea in their research for the present article is that again, actual and perceptual complexity are not, by any means, synonymous for all individuals at all times. Whereas researchers can use tools, such as Webtango (Ivory, Sinha, and Hearst 2001) to measure the actual complexity of a website, such tools will not take into account individual motivations, salience of the website, or even the personality factors of the perceiver. Thus a simple standalone measure of actual complexity will fail to recognize the key situational factors which impact perceptual complexity.

In an advertising context, Geissler, Zinkhan and Watson (2006) empirically examine how the complexity of a website impacts consumer attitudes, purchase intentions and attention to that website. They present three levels of complexity and find support for the inverted U relationship between complexity and pleasure, i.e. the idea that there is an optimal complexity level beyond which pleasure decreases for the perceiver (Berlyne 1960).

Complexity and Satisfaction

There is little doubt that websites that provide users a satisfying experience can act as differentiators in a crowded marketplace and can provide online retailers with a

sustainable competitive advantage (Kotha et al. 2004). Therefore understanding how the information cues presented at a website affect user experience is critical for the success of online companies.

Research in the field suggests that several elements of PWC (perceived website complexity) affect important user outcomes such as perceived web-information and web-system quality (McKinney et al. 2002), communication effectiveness (Geissler et al. 2001), and satisfaction (Stevenson et al. 2000). The research can largely be categorized into three schools of thought because of varied interpretations. First, studies suggest that simpler websites are easy to use and effective (Agarwal and Venkatesh 2002; Shneiderman 1998), arguing that greater PWC creates confusion and frustration in users, resulting in a negative impact on key user outcomes such as perceived ease of use. A second school of thought suggests that complexity increases the richness of information presented and thereby increases user satisfaction (Palmer 2002). The third school of thought suggests that there exists an inverted-U relationship between website complexity and communication effectiveness (Geissler et al. 2001; Stevenson et al. 2000), such that low levels of PWC create boredom for users, whereas high levels of PWC create confusion and conflict for users. Different studies present conflicting findings and, it is largely unclear whether website complexity *enhances* or *inhibits* user satisfaction. The present research speaks to this discrepancy of findings from previous research by contending that *context* plays a key part in consumer expectations of website complexity. Hence, as further justification for the present research, clarification of these conflicting results may enhance existing empirical research by further expanding extant knowledge of the complex relationships between actual and perceived complexity and consumer subjective states of satisfaction and liking.

Nadkarni and Gupta (2007) propose a "Task-Based Model of Perceived Website

Complexity" where PWC (perceived website complexity) is a function of three parts: *component* (density and dissimilarity of visual features such as text, graphics, video, and animation presented on the website), *co-ordinative* (range of topics covered by the website and interrelationships between these topics), and *dynamic* (ambiguity and clarity of action outcome relationship in a hyperlink). Their study shows that the relationship between objective website complexity and PWC is moderated by user familiarity. Further, that online task goals—goal-directed (focused on information gathering to achieve a predetermined end goal) and experiential goals are important in understanding the relationship between PWC and user satisfaction. They suggest that medium levels of PWC will maximize user satisfaction by arousing users' curiosity and engaging them in the navigation process without excessively burdening them. Thus, their research supports the inverted-U relationship between complexity and satisfaction.

The Problem of Information Overload

In empirical settings, many researchers have explored how the presentation of too many choices or product attributes leads to negative outcomes for individuals, such as suboptimal decisions or negative subjective mental states (frustration or dissatisfaction) due to information overload (Jacoby and Malhotra 1984; Keller and Staelin 1987). Over-choice as a phenomenon has been studied in terms of the effort-accuracy framework, with the underlying argument centering on its adverse affect on choice quality (Payne, Bettman and Johnson 1993). Previous research on choice set construction has shown that when the amount of information displayed is structurally varied, information overload, resulting from less information acquisition, can result in lowered decision quality (Keller and Staelin 1987; Lurie 2004).

Iyengar and Lepper (2000) find that larger choice sets create greater levels of frustration and regret and post-choice lowering of satisfaction in comparison to smaller choice sets. The overchoice effect, as presented by Gourville and Soman (2005) is more likely to occur in sets of items in which conflict within the items is greater, i.e. nonalignable assortments, and can result in lowered brand choice. More recently, Mick, Broniarczyk and Haidt (2004) discuss the deleterious consumer outcome effects of hyperchoice such as increased stress, negative emotions, and decreased satisfaction. As a possible remedy to this phenomenon, Chernev (2003) suggests that when providing consumers with a large choice set, the presence of an ideal point allows them to simplify the choice process and leads them to a stronger preference for their selected alternative.

In contrast to the over-choice effect, the research of Oppewal and Koelemeijer (2005) uses twelve items as their largest assortment, but finds that more choice is always regarded as better, regardless of the similarity of the items and whether the choice set already contains a preferred alternative. Although this finding conflicts with most previous studies regarding the over-choice phenomenon, the degree of similarity between the items is not directly discussed for the choice sets. Clearly, whether labeled information overload, over-choice, or hyper-choice, the negative consequences of this phenomenon have been reported extensively in the consumer behavior literature.

The law of diminishing returns, stated as "When increasing amounts of one factor of production are employed in production along with a fixed amount of some other production factor, after some point, the resulting increases in output of product become smaller and smaller" (Johns and Fair 1999). Although this law was originally proposed to explain productivity in farming situations, it has continued to be applied to consumer choice models to explain, for example, attribute valuation. Economics literature has intro-

duced cost-benefit analysis, which has been applied to consumer decision making strategy (Payne, Bettman, and Johnson 1993) in terms of the trade-off between effort (cognitive load) and accuracy (choice quality). This framework suggests that compensatory decision making strategies are often bypassed in order to save effort and use noncompensatory heuristic ones, leading to a possible decrease in decision accuracy (Luce, Bettman and Payne 2001).

Thus the harms of information overload due to excessive complexity are well documented in the literature. Not only can website visitors experience a range of negative subjective states such as dissatisfaction and frustration, but they can also be forced to make premature decisions (freezing), use noncompensatory choice strategies, or make suboptimal decisions.

CONCEPTUAL FRAMEWORK AND HYPOTHESES

For the purpose of trying to understand subtle yet important differences in how consumers perceive complexity of a website and how that perception then impacts their satisfaction and liking of that website, the present research uses two product domains, namely cameras and books. Using these two product categories will show that subjective perceptions of complexity are far more domain-specific and are based on more than the simple presentation characteristics of a website. This article contends that whether a purchase is high-technology or hedonic versus more utilitarian and thus mundane will impact the expectations of complexity for a website. These consumer expectations, in turn, may show that even if a website is perceived as too complex, a consumer's satisfaction and liking of it may not be negatively impacted. Although both cameras and books should be similar in their usefulness to consumers, they may not be viewed as completely parallel purchases. Whereas books would be considered utilitarian products, as a general

rule, especially among college students, cameras would be considered more hedonic purchases (Crowley, Spangenbert, and Hughes 1992; Voss, Spangenbert, and Grohmann 2003; Okada 2005). Due to the fact that participants were presented with two product domains, perceived complexity of the websites will not match the normal expectation given with the actual complexity ratings. Because of consumer expectations of higher complexity for high technology hedonic products, there should also be a main effect for the website type factor. Thus the main study presents the following research hypotheses:

H1a: There should be no main effect for actual complexity for the perceived complexity dependent variable.

H1b: There will be a main effect for the website type factor such that utilitarian websites will have lower perceived variety than hedonic websites regardless of their actual complexity levels.

H1c: Given H1a and H1b, it is not predicted that there will be an interaction effect between the actual complexity and website type factors for the perceived complexity dependent variable.

Geissler et al. (2001) use a combination of research methods (focus groups, interviews, and experiments) to identify design elements that influence consumers' perceptions of web page complexity. Their study reports that perceived complexity is a result of four major factors: number of links, number of graphics, home page length, and animation. Their results show that complexity increased with the number of distinguishable elements, the dissimilarity between the elements, and that there is a curvilinear relationship between complexity and communication effectiveness. They demonstrate that an optimal *zone* of relatively moderate complexity exists and that within

this range of moderate complexity, higher communication effectiveness (i.e. higher attention and attitude-toward-the-ad levels) is evident. They also suggest that goal-directed consumers seeking product information are more attentive. The main implication of their research is that the level of website complexity should be a critical consideration when designing a website.

Bansal et al. (2004) study e-satisfaction and its relationship to behavioral outcomes in an online setting by looking closely at customers' stated purchasing behavior and their actual purchasing behavior. They find that website attributes are significantly related to overall website satisfaction. Further, that overall website satisfaction is significantly related to stated behavioral outcomes (referral, retention, and conversion) and actual behavioral outcomes (site visits per person, time spent, and number of pages viewed). The major implication of their research is that website characteristics are the most important driver of behavioral outcomes.

Given the extant literature summarized above, it becomes clear that there are mixed findings on the relationship between complexity and satisfaction. The present research aims to clarify some of these mixed findings by separating actual and perceived complexity to differentiate between their effects on consumer satisfaction and liking. Given the nature of the purchases, as outlined in the first set of hypotheses, cameras being more hedonic purchases than books, the following research hypotheses are thus presented for satisfaction:

H2a: There will be a significant main effect for actual complexity such that participants should have lower satisfaction when websites have higher actual complexity.

H2b: Participants will have higher satisfaction in their interactions with hedonic websites than in their interactions with utilitarian websites.

H2c: Given H2a and H2b, there will be an interaction effect between actual complexity and website type for the satisfaction dependent variable.

Consumer liking of the websites is hypothesized to be consistent with consumer satisfaction and therefore, the hypotheses will be consistent with this notion. It is therefore hypothesized that:

H3a: There will be a significant main effect for actual complexity such that participants will have lower liking when websites have higher actual complexity and higher liking when websites have lower actual complexity.

H3b: As liking is expected to be highly positively correlated with satisfaction, participants will have significantly higher liking of hedonic websites than utilitarian websites.

H3c: Given H3a and H3b, there should be an interaction effect between actual complexity and website type for the liking dependent variable.

All of the above-detailed is summarized in a research model portrayed in Figure 1.

FIGURE 1

Research Model
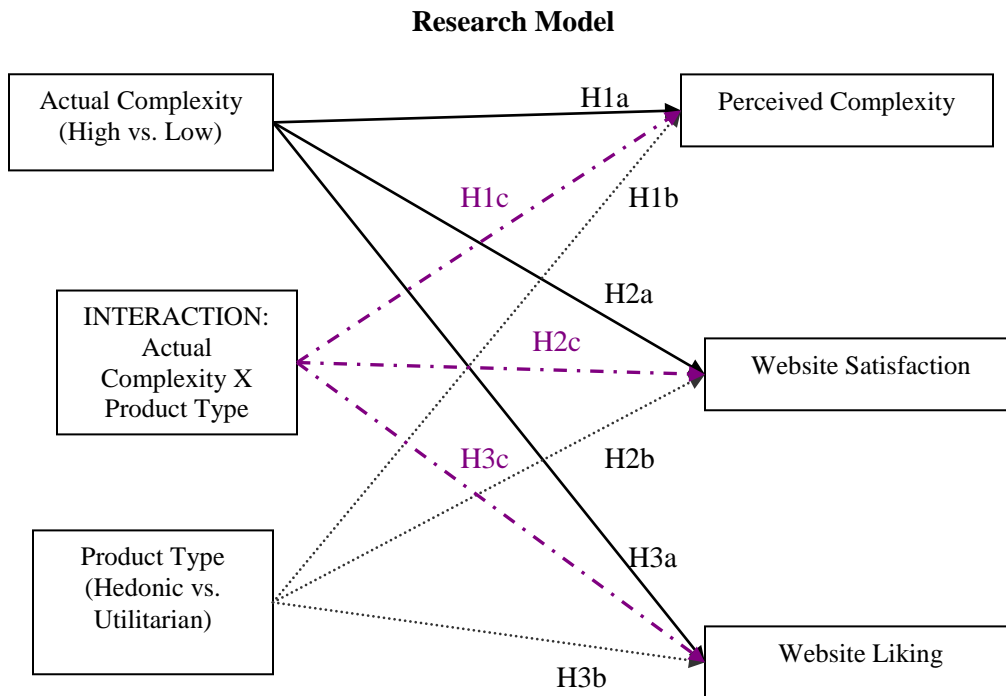
PRETEST: DETERMINATION OF ACTUAL VARIETY

The first step taken in the pretest was to determine the actual complexity of several websites from two product domains, namely books and cameras. To accomplish this, software called *Webtango* (which was created at the School of Information at University of California, Berkeley) was used. The goal of this software program is to be able to attain website quality ratings without the use of subjective scoring. To that end, Ivory, Sinha, and Hearst (2001) tested this software on several websites and determined a key set of metrics from their Webtango software. In the present research, Webtango is utilized to provide actual average complexity, reading complexity, and overall reading complexity for a set of ten websites, five camera ones and five books ones. The results, given in Table 1, show that Westviewpress and Fujifilm are low actual complexity websites whereas Akpeters and Vivitar are high actual complexity websites.

THE MAIN STUDY

Overview of Study and Independent Variables

All participants were required to complete tasks on four websites and then fill out a survey following each website. As this was a within subject design, each participant visited a total of 4 websites, which were presented in counterbalanced randomized order. Table 2 shows the four conditions and their corresponding tasks. The tasks were created and pretested to take approximately the same amount of time per website so that exposure time was controlled. The experiment employs a 2 (actual complexity level: high/low) x 2 (website type: cameras/books) within-subjects factorial design. Both of the independent variables, actual complexity and website type, were determined based on the pretest results.

TABLE 1

Actual Complexity per Website using Webtango

Reading Complexity	Overall Reading Complexity	Average complexity	Remote (original) URL for the page	Content	
11.5	19.2	15.35	http://books.mcgraw-hill.com/	books	
-1	-1	-1	http://www.westviewpress.com/	books	lowest
16	22.1	19.05	http://www.akpeters.com/	books	highest
12.2	14.5	13.35	http://www.oup.com/us/collections/owc	books	
17.5	17.6	17.55	http://www.wiley.com/	books	
10.7	17.1	13.9	http://www.quantumbooks.com	books	
-1	-1	-1	http://www.fujifilm.com	cameras	lowest
-1	-1	-1	http://www.kyoceraimaging.com	cameras	
18.6	19.3	18.95	http://www.vivitar.com	cameras	highest
-1	-1	-1	http://www.pentax.com	cameras	
-1	19.5	9.25	http://www.ezonics.com	cameras	
-1	-1	-1	http://www.sigmaphoto.com	cameras	

SAMPLE AND PROCEDURE

A total of 84 marketing under-graduates, enrolled in an introductory level marketing course at an eastern-based university, participated in this study. In this convenience sample, college students were chosen as the target population due to the purpose of the study (with its focus on establishing internal validity) and the salience caused by exposure they already receive to websites in their daily activities. All participant identification information and responses were kept confidential throughout the study to protect the anonymity of the subjects.

The respondents were approximately half males (53.9%) and half females (44.7%) with a median age of 19-21 years. The students' undergraduate standing was mainly junior in both groups (around 80%). Caucasian (80.3%) represents the pre-dominant race/ethnicity followed by Asian or pacific Island (13.6%), African American (4.4%), and Hispanic (1.8%).

Stimuli

Product domains. Marketing re-searchers have studied hedonic and utilitarian products and consumer motivations in various contexts. The findings indicate that even though products themselves get classified as broadly hedonic versus utilitarian (i.e. "wants" versus "needs"), context can play a large role in altering these classifications. For example, an "apartment with a view" would be seen as more hedonic whereas an "apartment close to work" would be considered more utilitarian (Dhar and Wertenbroch 2000). In order to select the product domains for the current research, a thorough literature review of hedonic and utilitarian product classifications from extant literature was conducted. Table 3 shows the results of scholarly research on such classifications.

TABLE 2
Tasks Given to Subject per Website

AKPETERS: http://www.akpeters.com/	FUJIFILM: http://www.fujifilm.com/
Task: 1. Go to http://www.akpeters.com/ 2. Find the Mathematics section of the catalog. 3. Go to the 'Recreational Math' section and sort the books by 'Bestselling'. 4. There are four different volumes of "Winning Ways for Your Mathematical Plays". 5. Which volume is the most expensive? Remember this for a few minutes and the survey will ask you about this. 6. Close the AKPETERS window. 7. Fill out the survey at the designated link & please answer the questions regarding this website.	**Task:** 1. Go to http://www.fujifilm.com 2. Find the category "Digital cameras and accessories". 3. Under the digital cameras showcase, there are different categories for the different models of the cameras. 4. Compare the different cameras under the 'Sophisticated' category and choose the best one based on the information given. Think of a short reason for your choice. Remember this for a few minutes and the survey will ask you about this. 5. Close the FUJIFILM window. 6. Fill out the survey at the designated link & please answer the questions regarding this website.
WESTVIEWPRESS: http://www.westviewpress.com/	VIVITAR: http://www.vivitar.com/
Task: 1. Go to http://www.westviewpress.com/ 2. Browse the content on the website by subject. 3. Find the Sports & Recreation section. 4. Pick a book that has to do with your favorite sport. Remember the book and the price of that book for a few minutes and the survey will ask you about this. 5. Close the WESTVIEWPRESS window. 6. Fill out the survey at the designated link & please answer the questions regarding this website.	**Task:** 1. Go to http://www.vivitar.com/ 2. Browse the content on the website. 3. Find the category for digital cameras and view the catalog. 4. Among the different cameras listed for 2004, choose the best camera out of the four and five mega-pixel models. Think of a short reason. Remember this for a few minutes and the survey will ask you about this. 5. Close the VIVITAR window. 6. Fill out the survey at the designated link & please answer the questions regarding this website.

Cameras have been found to be hedonic purchases, and thus are currently used as a hedonic product. Due to the choice of college students as the sample, the contention of this research is that books are considered salient as utilitarian products for students. In the classroom setting, the average student should evoke a *classroom* schema when thinking of books. Although this may not be the case with every student, as previous literature has shown, overall classifications of books as utilitarian and cameras as hedonic should be appropriate.

Choice of actual websites. Similar to the procedure followed in previous internet research, the present study uses existing websites, which were identified via Webtango software, during a pretest. For example, McMillan, Hwang, and Lee (2003) study informational versus transformational creative strategies on websites (namely, Sterling-hotel.com, Treasurebay.com, Marriott.com, and Hilton.com), and document the use of a sorting technique to select the websites. Other research, such as Ha and Janda (2008), asks respondents to recall an actual website purchase and answer questions regarding their recent experiences.

TABLE 3

Prior Research on Hedonic and Utilitarian Purchasing

Authors	Hedonic Product Choices	Utilitarian Product Choices
Khan, Dhar, and Wertenbroch (2004)	Flowers, designer clothes, music, sports cars, luxury watches, chocolate	Microwaves, detergents, minivans, home security systems, personal computers
Dhar and Wertenbroch (2000)	M&M's, audio tapes, apartments with a view	Glue stick, computer diskettes, apartments close to work
Patrick and Park (2006)	Vacation, home-entertainment system	Washer/dryer, pest control service
Voss, Spangenberg, and Grohmann (2003)	Tobacco, beer, video games, television sets	Disposable diapers, shoelaces, alkaline batteries, article clips
Okada (2005)	Bailey's Irish Cream Cheesecake, $50 dinner certificate, camera, Sony Discman, PDA, sparkling red S2000	Cheesecake deLite, $50 grocery certificate, Casio scientific calculator, Webster's dictionary, Pilot EX sports-utility vehicle

Measures

Based on construct definitions, we reviewed the literature for existing scales, adjusted them to fit the website context where appropriate, and pretested them within the sampling context. The resulting survey instrument consisted of several items measuring perceived complexity, website satisfaction, and website liking. As a control variable, each respondent was also asked whether they were familiar with the type of website they just visited (cameras or books, respectively) as a "yes or no" question. Each measure is briefly described next (a detailed list of scale items & reliability is presented in Appendix A).

Effects of actual complexity and website type were assessed across the dependent variables of perceived complexity, satisfaction, and liking. *Perceived complexity* was measured with an eight-item seven-point semantic differential scale which has been previously used in a website context (Geissler, Zinkhan, and Watson 2001). *Satisfaction* was measured with a four-item seven-point semantic differential scale to measure the subject's degree of satisfaction with their experience with the website (Bruner et al. 2001). *Liking* (Murry and Dacin 1996), adapted for websites, was measured with a six-item Likert scale anchored by endpoints strongly disagree/ strongly agree.

RESULTS

Within subjects analysis of variance was conducted to assess the effects of actual complexity and website type. Results are presented in Tables 4 and 5.

TABLE 4

**Experiment: Effect of Actual Complexity and Website Type Conditions
on Perceived Complexity, Satisfaction, and Liking**

	F-Values		
Main Effects:			
Actual Complexity (AC)	0.97	3.51[c]	9.93 [a]
Website Type (W)	10.87[a]	15.35 [a]	21.23 [a]
Interaction Effects:			
AC X W	1.40	19.53 [a]	29.92[a]

[a] $p < .001$, **[b]** $p < .05$, **[c]** $p < .10$

TABLE 5

**Experiment: Dependent Variable Means for
Perceived Complexity, Satisfaction, and Liking**

Independent Variables	Perceived Complexity	Satisfaction	Liking
Actual Complexity Condition			
Low	3.83	4.74	4.41
High	3.71	4.51	3.92
Website Type Condition			
Books	3.55	4.41	3.84
Cameras	3.98	4.84	4.49

FIGURE 2

Effects of Actual Complexity and Website Type Conditions on Perceived Complexity
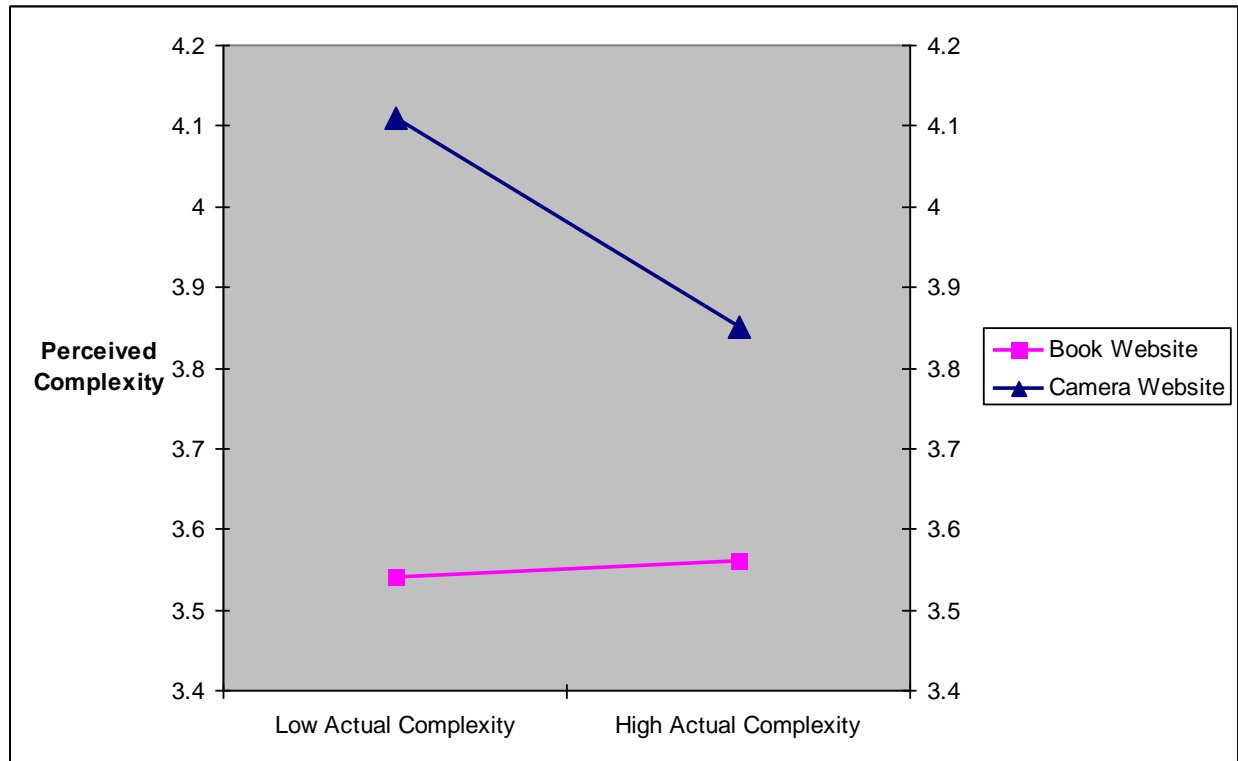
Perceived Complexity. The analysis yielded several interesting relationships regarding the actual complexity and website type factors. Consistent with H1a and as shown in Figure 2, there was no main effect for low versus high actual complexity, F (1, 83) = .97, p >.1, M = 3.83 vs. M = 3.71, nor as hypothesized in H1c, was there an interaction effect for the two factors, F (1, 83) = 1.40, p >.1. As predicted in H1b, there was a main effect for website type, such that book websites had significantly lower perceived variety than camera websites, F (1, 83) = 10.87, p <.01, M = 3.55 vs. M = 3.99. For camera websites, low actual complexity resulted in higher perceived complexity, M = 4.11 vs. M = 3.85.

Satisfaction. As shown in Figure 3, the manipulation of actual complexity and website type resulted in significant differences in satisfaction. There was a marginally significant main effect for low versus high actual complexity (F (1, 85) = 3.51, p =.06, M = 4.74 vs. M = 4.51), such that subjects were more satisfied with websites which had lower actual complexity than those that had higher actual complexity, as hypothesized in H2a. There was also a significant main effect for books versus camera websites (F (1, 85) = 15.35, p <.01, M = 4.41 vs. M = 4.84) such that camera websites produced significantly higher satisfaction than book ones, per H2b. As expected given in H2c, there was an interaction effect for actual complexity and website type, F (1, 85) = 19.53, p <.01.

FIGURE 3
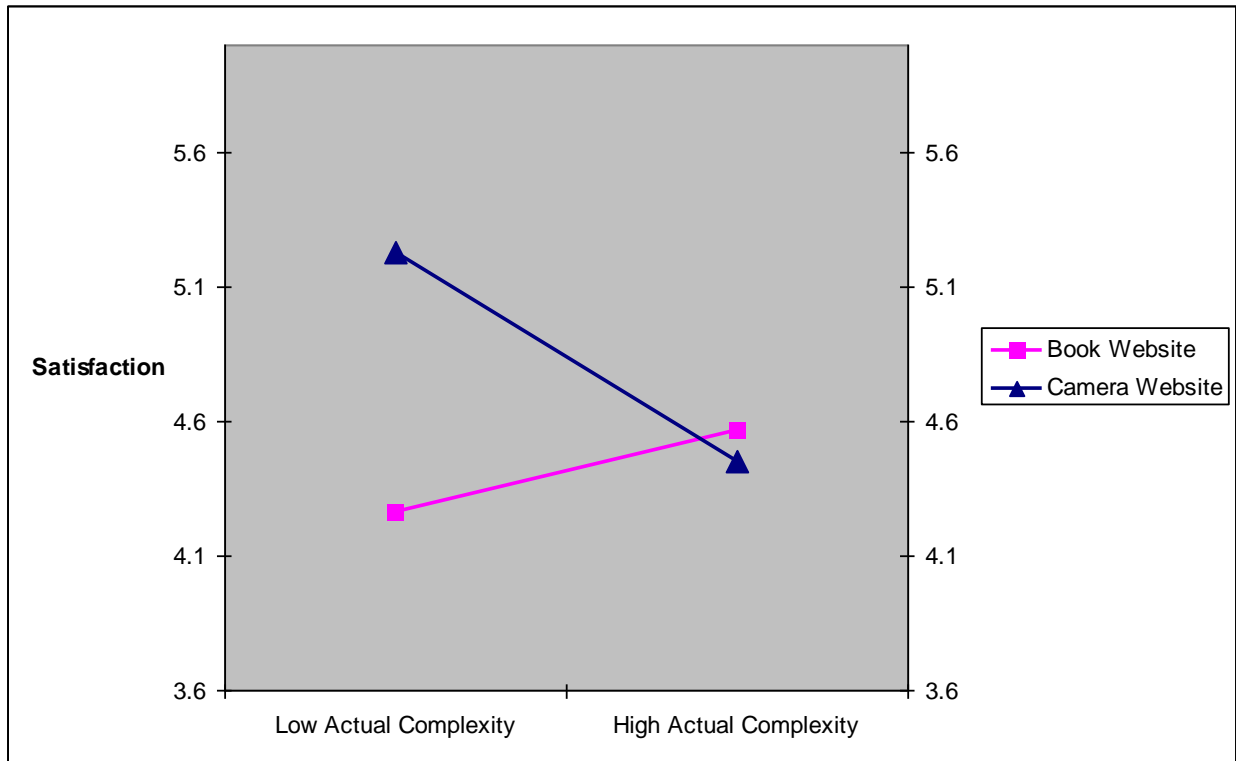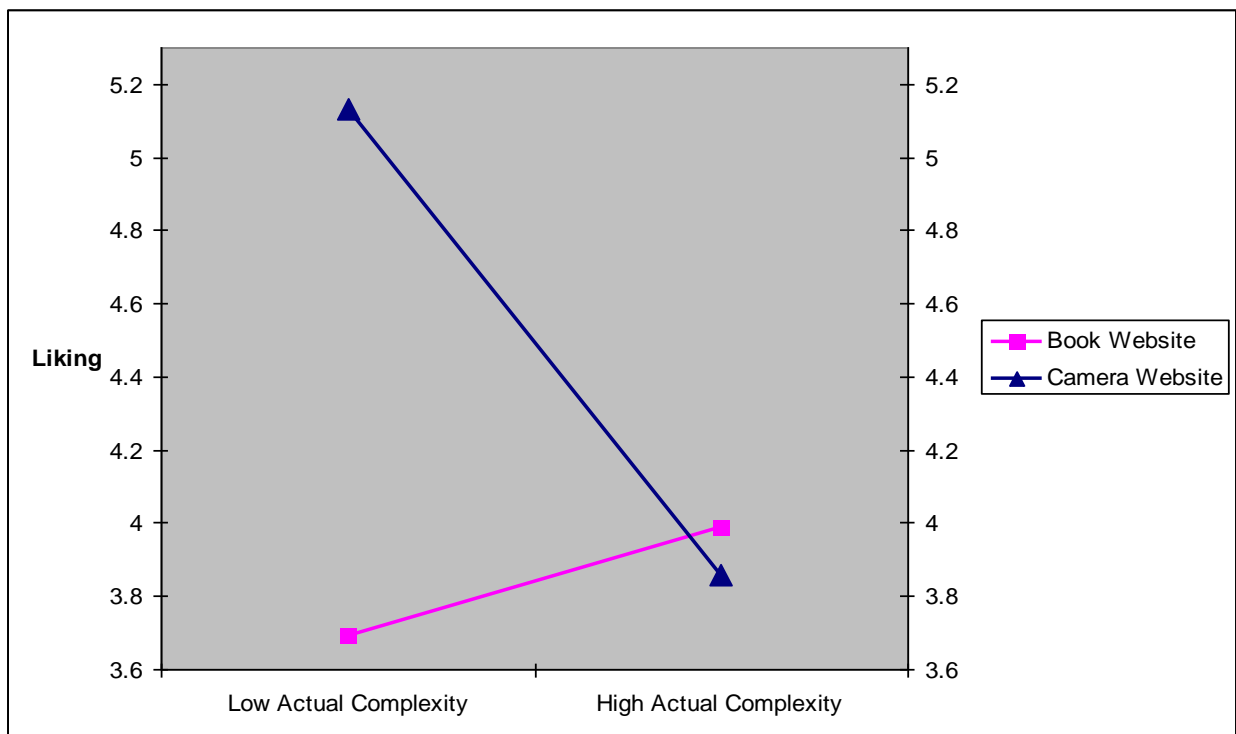**Effects of Actual Complexity and Website Type Conditions on Satisfaction**

FIGURE 4
Effects of Actual Complexity and Website Type Conditions on Liking

Liking. As expected in H3a and H3b, there were significant main effects for both low versus high actual complexity, (F (1, 77) = 9.93, p <.01, M = 4.41 vs. M = 3.92), and books versus camera websites (F (1, 77) = 21.23, p <.01, M = 3.84 vs. M = 4.49). As predicted in H3c, there was an interaction effect for actual complexity and website type, F (1, 77) = 29.92, p <.01 for the liking dependent variable. Figure 4 reveals the pattern of relationships.

Familiarity with type of website (control variable). As expected based on the pretesting, subjects were not found to be familiar with the four websites which were chosen for the study. Frequency pie charts show the familiarity measures for all four of the websites in the study and are given in Figure 5. The website types are shown to be extremely unfamiliar to the respondents of the study, as can be seen from the pie charts.

Additional Correlation Analysis

Correlation analysis was used to further understand the hypothesized relationships between perceived complexity, satisfaction and liking for the factors of actual complexity and website type. As mentioned above, this research finds that hedonic and high technology products tend to make consumers more expectant of higher complexity and thus engender satisfaction even when they are high in actual complexity. To further clarify this finding, Figure 6 shows the correlations between perceived complexity and satisfaction for the high versus low actual complexity and books versus camera websites factors. Notably for high actual complexity websites, there was a stronger correlation between perceived website complexity and satisfaction.

FIGURE 5

**Control Variable: Familiarity (Yes versus No) for each Website as Frequency Pie Charts**

AKPETERS: http://www.akpeters.com/

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	yes	1	1.2	1.2	1.2
	no	83	98.8	98.8	100.0
	Total	84	100.0	100.0	

FUJIFILM: http://www.fujifilm.com/
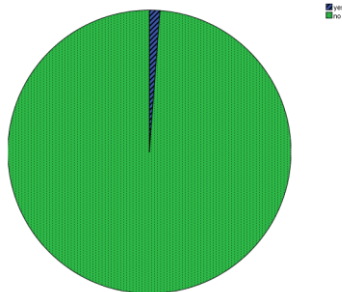
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	yes	1	1.2	1.2	1.2
	no	81	96.4	98.8	100.0
	Total	82	97.6	100.0	
Missing	System	2	2.4		
Total		84	100.0		

WESTVIEWPRESS: http://www.westviewpress.com/
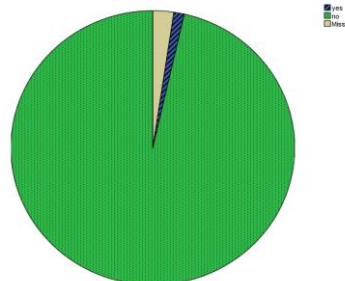
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	yes	2	2.4	2.5	2.5
	no	79	94.0	97.5	100.0
	Total	81	96.4	100.0	
Missing	System	3	3.6		
Total		84	100.0		

VIVITAR: http://www.vivitar.com/
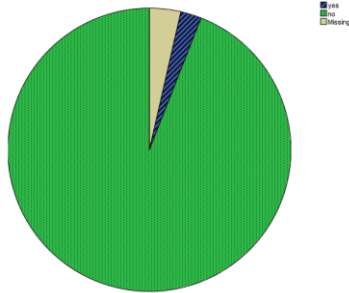
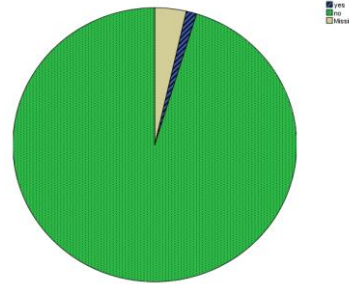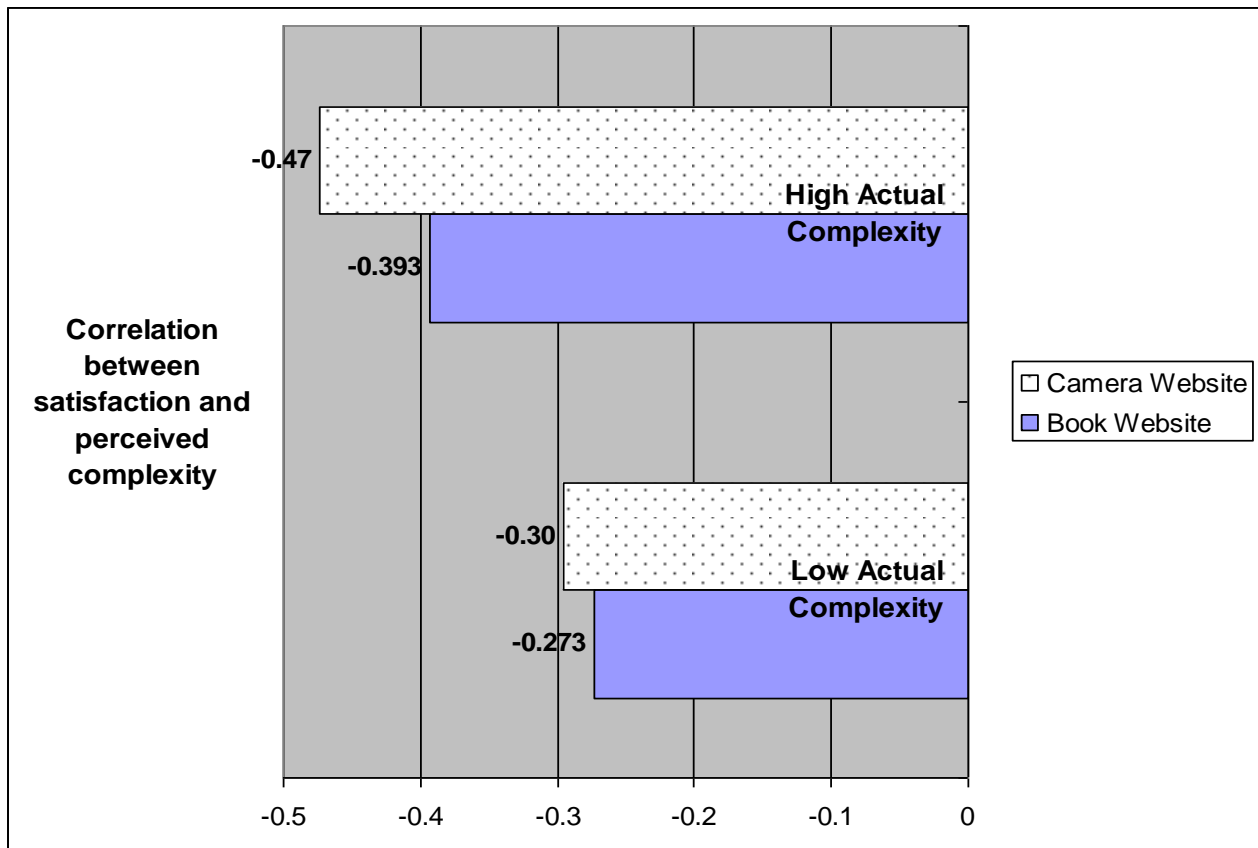|		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	yes	1	1.2	1.2	1.2
	no	80	95.2	98.8	100.0
	Total	81	96.4	100.0	
Missing	System	3	3.6		
Total		84	100.0		

FIGURE 6
Additional Analysis: Correlations for Low versus High
Actual Complexity and Website Type Conditions

Note: All correlations are significant at the .05 level.

DISCUSSION

As predicted by visual complexity theory (and can be seen in Figure 2), perceived complexity is as much a product of the actual stimulus (the website in this case) as it is a product of the task or topic of that stimulus (the website product domain or type in this case). In the case of the present research, participants found all camera websites to be much higher in complexity than all book websites, as they had preconceived expectations in those directions. Even though this was the case, they still found the camera websites, being more hedonic in nature, to be more satisfying and likeable than the book websites. So, the complexity they perceived did not decrease their subjective experiences as one may have expected. They were, however, well calibrated with the actual complexity and with the expected outcome of information overload, in that when the complexity level was notably too high, their liking and satisfaction did decrease, even for camera websites (as revealed in Figures 3 and 4).

The correlations of perceived complexity and satisfaction for the manipulated factors (Figure 6) show that for the high actual complexity websites, regardless of the website type, there was a high significant negative correlation (0.4 or above absolute value) between perceived complexity and satisfaction. On the other hand, for the low actual complexity websites, the correlations were significant and negative, but with lower magnitude, indeed lower than the normal 0.4 magnitude required in marketing research.

In addition, the inter-correlations between the constructs of perceived complexity, satisfaction, and liking, presented in Table 6, show that participants were well-calibrated in their subjective conceptualizations of complexity, satisfaction and liking in all four of the experimental conditions they were presented with.

TABLE 6

Intercorrelations among Experiment Constructs

Condition	*Constructs*	*Intercorrelations (n=83)*		
Low Actual Complexity on a Utilitarian Website		**1**	**2**	**3**
	1. Perceived Complexity	--		
	2. Satisfaction	-.39**	--	
	3. Liking	-.32**	.75**	--
Low Actual Complexity on a Hedonic Website		**4**	**5**	**6**
	4. Perceived Complexity	--		
	5. Satisfaction	-.47**	--	
	6. Liking	-.37**	.81**	--
High Actual Complexity on a Utilitarian Website		**7**	**8**	**9**
	7. Perceived Complexity	--		
	8. Satisfaction	-.27*	--	
	9. Liking	-.15	.69**	--
High Actual Complexity on a Hedonic Website		**10**	**11**	**12**
	10. Perceived Complexity	--		
	11. Satisfaction	-.29**	--	
	12. Liking	-.25*	.85**	--

$* p < .05$ $** p < .01$

Thus, the findings of this study confirm all of the research hypotheses. The most important aspect of this research is in the view of complexity not as an objective measure of a website, but as an individual differences measure, which, depending on the user, can readily create either more or less satisfaction or liking.

CONCLUSIONS, IMPLICATIONS, LIMITATIONS AND FUTURE RESEARCH

This article extends previous work done in this field by furthering the understanding of how website complexity impacts user satisfaction when taking into account the subject matter of the website. One contribution of this article lies in the use of the software Webtango to measure actual complexity and compare/contrast this measure with perceived website complexity. As can be seen from the experimental results, controlling actual complexity and website product type resulted in several interesting interactions in individual subjective experiences of satisfaction and liking. In addition to manipulating actual website complexity through use of software, the present research takes research from several fields, including cognitive psychology, information systems, human factors, and marketing, to obtain a synthesized view of the complexity literature. This interdisciplinary view of complexity shows that it has been a difficult construct to measure, manipulate and control not only in websites, but also in simple static visual stimuli as well. Thus, this article extends the concept of complexity itself as it relates to websites by contrasting actual with perceived complexity. Finally, this article empirically shows that whereas actual complexity is a valid measure and can be used as a general starting point for website designers, it does not provide the complete picture to guard against information overload. Instead, it is important for e-commerce companies to conduct consumer surveys when they make changes to their websites in order to take into account the previous expectations of the consumers with respect to the subject domain of the website.

These results are vital because they imply that website design has to continue to adapt to actual product characteristics and designs. A good example is how many technology websites today have video tutorials for their products so as to increase the satisfaction with the website and their products.

As a potential limitation of this article, a student convenience sample was used, and future research could gather actual e-commerce consumer data to make sure that the results would still apply. Although using a student sample can be considered problematic, it is a very common technique in causal internet research, since the target market tends to be young for internet-based consumption (e.g., Martin, Sherrard, and Wentzel 2005; Geissler, Zinkhan and Watson 2006; Gallagher, Foster and Parsons 2001). A future research attempt could look at connecting perceived website complexity and website satisfaction to brand loyalty or brand awareness. Additionally, several other product domains could be added into future research, for example, computers, clothing, perfumes, and so on, to see whether other interesting interactions take place regarding the subject matter of the website. Another interesting way to extend this research would be to measure not only subjective self-report constructs such as satisfaction and liking, but also actual behavioral measures (perhaps by using clickstream data) such as whether a consumer actually makes a purchase on the websites of interest. Also, newer websites could be used in future experimentation, since technology website design continues to become more and more complex and sophisticated. Finally, a longitudinal study could also be conducted using several existing websites to see if consumer learning impacts the results of the present research.

APPENDIX A

Scale Items and Reliability

Complexity (endpoints given for semantic differential scale) *(α = .81)*

Select the response that best fits your assessment of the website you just viewed (8 questions follow):

1. not complex - complex
2. not dense – dense
3. not crowded – crowded
4. not interactive – interactive
5. no variety – lots of variety
6. inefficient – efficient
7. not overwhelming – overwhelming
8. simple – complicated

Satisfaction (endpoints given for semantic differential scale) *(α = .96)*

Select the response that best fits your feeling toward the website you just viewed (4 questions follow):

1. very dissatisfied – very satisfied
2. terrible – delighted
3. very dissatisfied – not at all dissatisfied
4. not at all satisfied – very satisfied

Liking (Likert scale anchored by strongly disagree and strongly agree) *(α = .91)*

Please select your response (6 questions follow):

1. If I knew I needed to interact with this website, I would look forward to doing so.
2. I liked interacting with this website.
3. I would never want to interact with this website again. (R)
4. I am glad I had a chance to interact with this website.
5. There is something about this website that appeals to me.
6. I disliked interacting with this website more than I do most other websites. (R)

REFERENCES

Agarwal, R., & Venkatesh, V. (2002), "Assessing a firm's Web presence: a heuristic evaluation procedure for the measurement of usability," *Information Systems Research, 13*(2), 168-186.

Bansal, H. S., McDougall, G. H. G., Dikolli, S. S., & Sedatole, K. L. (2004), "Relating e-satisfaction to behavioral outcomes: an empirical study," *Journal of Services Marketing, 18*(4), 290-302.

Berlyne, D. E. (1960), *Conflict, Arousal, and Curiosity*. New York: McGraw-Hill.

Bruner, G. C., James, K. E., & Hensel, P. J. (2001), *Marketing Scales Handbook: A compilation of multi-item measures*. Chicago: American Marketing Association.

Chernev, A. (2003), "When more is less and less is more: The role of ideal point availability and assortment in consumer choice," *Journal of Consumer Research, 30*(2), 170-183.

Crowley, A. E., Spangenberg, E. R., & Hughes, K. R. (1992)," Measuring the hedonic and utilitarian dimensions of attitudes toward product categories. *Marketing Letters, 3*(3), 239-249.

Dhar, R., & Wertenbroch, K. (2000), "Consumer choice between hedonic and utilitarian goods," *JMR, Journal of Marketing Research, 37*(1), 60.

Donderi, D. C. (2006), "Visual Complexity: A Review," *Psychological Bulletin, 132*(1), 73.

Fischer, P., Schulz-Hardt, S., & Frey, D. (2008), „Selective Exposure and Information Quantity: How Different Information Quantities Moderate Decision Makers' Preference for Consistent and Inconsistent Information," *Journal of Personality and Social Psychology, 94*(2), 231.

Gallagher, K. K., Foster, K. D., & Parsons, J. (2001), "The Medium Is Not the Message: Advertising Effectiveness and Content Evaluation in Print and on the Web," *Journal of Advertising Research, 41*(4), 77-70.

Geissler, G. L., Zinkhan, G. M., & Watson, R. T. (2001), "Web homepage complexity and. communication effectiveness," *Journal of the Association of Information Systems, 2*(2), 1-46.

Geissler, G. L., Zinkhan, G. M., & Watson, R. T. (2006), "The influence of home page complexity on consumer attention, attitudes, and purchase intent," *Journal of Advertising, 35*(2), 69.

Gourville, J. T., & Soman, D. (2005), 'Overchoice and Assortment Type: When and Why Variety Backfires," *Marketing Science, 24*(3), 382.

Ha, H.-Y., & Janda, S. (2008), 'An empirical test of a proposed customer satisfaction model in e-services," *The Journal of Services Marketing, 22*(5), 399.

Hochberg, J. (1957), 'Effects of the Gestalt Revolution: The Cornell symposium on perception," *Psychological Review, 64*, 73-84.

Ivory, M., Sinha, R., & Hearst, M. (2001), '*Empirically validated web page design metrics,"* Article presented at the SIGCHI '01, Seattle, WA.

Iyengar, S. S., & Lepper, M. R. (2000), 'When choice is demotivating: Can one desire too much of a good thing?," *Journal of Personality and Social Psychology, 79*(6), 995.

Jacoby, J., & Malhotra, N. K. (1984), 'Perspectives on Information Overload/Reflections on the Information Overload Paradigm in Consumer Decision Making," *Journal of Consumer Research, 10*(4), 432.

Johns, K. E., & Fair, R. C. (1999), *Principles of Economics* (5th ed.): Prentice-Hall.

Keller, K. L., & Staelin, R. (1987), "Effects of Quality and Quantity of Information on Decision Effectiveness," *Journal of Consumer Research, 14*(2), 200.

Khan, U., Dhar, R., & Wertenbroch, K. (2004), "*A Behavioral Decision Theoretic Perspective on Hedonic and Utilitarian Choice*," Unpublished manuscript.

Koffka, K. (1935), *Principles of Gestalt Psychology*. New York: Harcourt, Brace & World.

Kotha, S., Rajgopal, S., & Venkatachalam, M. (2004), 'The Role of Online Buying Experience as a Competitive Advantage: Evidence from Third-Party Ratings for E-Commerce Firms," *The Journal of Business, 77*(2), S109.

Kruglanski, A. W., & Webster, D. M. (1996), "Motivated closing of the mind: Its cognitive and social effects" *Psychological Review, 103*, 263-283.

Luce, M. F., Bettman, J. R., & Payne, J. W. (2001), "Consequences of trade-off difficulty," *Journal of Consumer Research* (1), 90.

Lurie, N. H. (2004). "Decision Making in Information-Rich Environments: The Role of Information Structure," *Journal of Consumer Research, 30*(4), 473.

Martin, B. A. S., Sherrard, M. J., & Wentzel, D. (2005), "The role of sensation seeking and need for cognition on Web-site evaluations: A resource-matching perspective," *Psychology & Marketing, 22*(2), 109.

McKinney, V., Yoon, K., & Zahedi, F. (2002), "The measurement of Web-customer satisfaction: An expectation and disconfirmation approach," *Information Systems Research, 13*(3), 296.

McMillan, S., Hwang, J.-s., & Lee, G. (2003), "Effects of Structural and Perceptual Factors on Attitudes toward the Website" *Journal of Advertising Research, December*, 400-409.

Mick, D. G., Broniarczyk, S. M., & Haidt, J. (2004), "Choose, Choose, Choose, Choose, Choose, Choose, Choose: Emerging and Prospective Research on the Deleterious Effects of Living in Consumer Hyperchoice," *Journal of Business Ethics, 52*(2), 207.

Murray, E. (1908), "A qualitative analysis of tickling: Its relation to cutaneous and organic sensation," *American Journal of Psychology, 19*, 289-344.

Murry, J. P., & Dacin, P. A. (1996), "Cognitive "Moderators of Negative-Emotion Effects: Implications for Understanding Media Context," *Journal of Consumer Research, 22*(March), 439-447.

Nadkarni, S., & Gupta, R. (2007)., "A task-based model of perceived website complexity," *Management Information Systems Quarterly, 31*(3), 501-524.

Okada, E. M. (2005), "Justification Effects on Consumer Choice of Hedonic and Utilitarian Goods," *JMR, Journal of Marketing Research, 42*(1), 43.

Oliver, R. (1980), "A cognitive model of the antecedents and consequences of satisfaction decisions," *Journal of Marketing Research, 17*(November), 460-469.

Oppewal, H., & Koelemeijer, K. (2005), "More choice is better: Effects of assortment size and composition on assortment evaluation," *International Journal of Research in Marketing, 22*(1), 45-60.

Palmer, J. (2002), "Website Usability, Design and Performance Criteria," *Information Systems Research, 13*(2), 150-167.

Patrick, V., & Park, C. W. (2006), "Paying before consuming: Examining the robustness of consumers' preference for prepayment. *Journal of Retailing, 82*(3), 165-175.

Payne, J. W., Bettman, J. R., & Johnson, E. J. (1993), *The Adaptive Decision Maker*, New York: Cambridge University Press.

Peterson, R. A., Balasubramanian, S., & Bronnenberg, B. J. (1997), "Exploring the implications of the internet for consumer marketing," *Journal of the Academy of Marketing Science, 25*(4), 329-346.

Schneiderman, B. (1998), *Designing the User Interface: Strategies for Effective Human-Computer Interaction*, Reading: Addison-Wesley.

Stevens, S. S. (1975), *Psychophysics: Introduction to its perceptual, neural, and social prospects*, New York: Wiley.

Stevenson, J. C., Bruner, G. C., & Kumar, A. (2000), "Webpage background and viewer attitudes," *Journal of Advertising Research, 404*(1/2), 29-34.

Voss, K. E., Spangenberg, E. R., & Grohmann, B. (2003), "Measuring the Hedonic and Utilitarian Dimensions of Consumer Attitude," *JMR, Journal of Marketing Research, 40*(3), 310.

Send correspondence regarding this article to:

Anjala Krishen
Department of Marketing
University of Nevada Las Vegas
Las Vegas, Nevada 89154
Tel.: +1-702-895-3591
fax: +1-702-895-4854
e-mail: anjala.krishen@unlv.edu

NEGATIVE WORD-OF-MOUTH AND REDRESS STRATEGIES:
AN EXPLORATORY COMPARISON OF
FRENCH AND AMERICAN MANAGERS

Anne-Françoise Audrain-Pontevia, Rouen School of Management, France
Allan J. Kimmel, ESCP-EAP, European School of Management, Paris, France

ABSTRACT

This research studies the strategies used by managers to cope with negative word of mouth. We investigated seven different coping strategies across French and North American managers. The results revealed that, for coping with negative word-of-mouth, managers evaluate as the most efficacious strategy that of increasing trust in the negatively discussed product, service, or company. The results also suggest that doing nothing is perceived as less effective than increasing trust or denying negative word of mouth. Finally, we find a high degree of similarity in the perceptions of the utility of negative word-of-mouth redress strategies across the two managerial cultures.

INTRODUCTION

It has long been acknowledged that word-of-mouth (WOM) is an important marketplace phenomenon. Over the past decades, WOM has been intensively examined in the marketing literature (De Bruyn and Lilien 2008; Richins 1984; Wangenheim and Bayón 2004; Westbrook 1987). To date, investigators have mostly studied the antecedents of WOM, such as customer satisfaction/dissatisfaction (e.g., Anderson 1998; East, Hammond and Wright 2007; Godes and Mayzlin 2004; Mangold, Miller and Brockway 1999; Oliver 1980; 1981; Westbrook 1987) and factors that encourage individuals to engage in WOM (e.g., Sundaram, Mitra and Webster 1998; Tax, Chandrashekaran and Christianser 1993). Some have examined the consequences of WOM, for example, on brand choice and market share (e.g. Arndt 1967;

Chevalier and Mayzlin 2003; East, Hammond and Lomax 2008; Herr, Kardes, and Kim 1991; Mittal, Ross and Baldasare 1998), or companies' growth (Reichheld 2003). It has been shown that negative WOM (NWOM) tends to decrease purchase probability (East et al. 2008) and thus can be financially damaging for a firm (Lau and Ng 2001). In addition, NWOM may affect product or service evaluations (Herr, Kardes and Kim 1991). Therefore, it is in the best interest of companies to take steps to prevent NWOM, as well as to adopt counter strategies to cope with customers' NWOM, once it occurs. However, it is not clear how managers should deal with NWOM, and redress strategies are still largely under-used and under-researched, in spite of the considerable impact customers' negative comments may have (Chevalier and Mayzlin 2003; East et al. 2008; Nyer and Gopinath 2005).

With limited exceptions, the efficacy of specific strategies for coping with NWOM has not been empirically addressed by researchers (cf. Kimmel and Audrain 2002; Nguyen 2008). For example, Ainsworth (2004) assessed perceptions of corporate efforts to respond to destructive complaints. His survey of 158 consumers revealed that 32% of the respondents agreed that companies should directly respond to the allegation through its own Website, whereas 24% believed that it was best to "do nothing." Other coping strategies (e.g., legal action, ask to cease and desist, register all possible domain names) were viewed as relatively ineffective. As is typical of such WOM investigations to date, however, Ainsworth's study did not consider the efficacy of coping strategies from management's perspective.

This research represents a preliminary effort to rectify this deficiency in the WOM literature by exploring NWOM redress strategies from the point of view of company representatives. Specifically, we identify the various redress strategies actually utilized by brand managers to cope with NWOM and to assess their effectiveness. Utilizing a variation of the critical incidents technique (Fivars 1980; Flanagan 1954), we surveyed North American and French managers of consumer goods companies in order to gauge their perceptions of the effectiveness of various potential redress strategies for specific instances of NWOM that previously had reached their ear. A comparison of the effectiveness of the strategies used across these two national samples has some important advantages. It can provide insight into whether context-specific responses to external corporate threats can be recommended, despite the recent evolution of market globalization, and it provides an opportunity to assess differences across two corporate cultures characterized by different managerial styles.

LITERATURE REVIEW

WOM Defined

WOM has been defined in various ways in the marketing literature (e.g. Dichter 1966; Fornell and Bookstein 1982). Richins (1984) defined the term as interpersonal communication among consumers concerning a marketing organization or product. West-brook (1987) viewed WOM as a post-purchase phenomenon consisting of informal communications directed at other consumers about the ownership, usage, or characteristics of particular goods and services and/or their sellers. Similarly, Sundaram, Mitra and Webster (1998) defined WOM as a form of interpersonal communication among consum-ers concerning their personal experiences with a firm or a product.

WOM and Rumors

Given that typical definitions of WOM make no statement about the veracity of the informal information that is transmitted among consumers, WOM shares certain similarities with rumor. Rumor represents a story or statement in general circulation without confirmation or certainty as to the facts (Allport and Postman 1947; Knapp 1944). According to the American Psychological Association's Encyclopedia of Psychology, a rumor is "an unverified proposition for belief that bears topical relevance for persons actively involved in its dissemination" (Kimmel 2004). In our view, WOM and rumors are distinct on several points. Firstly, WOM differs from rumors on its evidential basis: WOM is presumed to be founded on evidence; whereas the veracity of rumors is unknown at the time of its spread (Rosnow 1991). Secondly, WOM is perceived as having a more reliable, credible and trustworthy source of information than rumors (Kamins, Folkes and Perner 1997). These differentiating points can be partly explained by the fact that the content of WOM typically involves comments about product per-formance, service quality, and trustworthiness passed from one person to another (Charlett and Garland 1995). Indeed, WOM is often defined as a piece of advice that is offered by one consumer to another (East 2002). Persons who convey WOM often have had personal experience with products or services from a particular organization and tend to be regarded as fairly objective sources of information by receivers. By contrast, the original source of rumor content typically is undefined or vague (e.g., "a friend of a friend") (Kimmel and Audrain 2002).

The Effects of Negative WOM

The respective impacts of negative and positive WOM have been extensively discussed in the marketing literature. NWOM

is viewed as interpersonal communication among consumers concerning a marketing organization or product which denigrates the object of the communication (Richins 1983). Various investigations have underlined the damage that NWOM can entail for retailers and manufacturers (Charlett and Garland 1995; Theng and Ng 2001; De Carlo, Laczniak, Motley and Ramaswami 2007). Whereas PWOM includes recommendations to others, conspicuous display, and inter-personal discussions relating pleasant, vivid, or novel experiences, NWOM has to do with product denigration, unpleasant experiences, and private complaining (Anderson 1998).

An initial stream of research focused on the assumption that WOM is determined by consumer satisfaction, with consumer satisfaction leading to PWOM (Oliver 1981; Westbrook 1987; Anderson 1998) and consumer dissatisfaction leading to NWOM (Diener and Greyser 1978; Richins 1983; Westbrook 1987; Anderson 1998).). A second stream of research focused on the incidence and effects of negative versus positive WOM (Chevalier and Mayzlin 2003; Godes and Mayzlin 2004), with studies revealing that NWOM has a stronger impact on market share than PWOM. Whether dissatisfaction or unfavorable attitudes lead consumers to engage in more or less WOM than satisfaction or favorable attitudes has been widely debated and the research literature is somewhat conflicting. Holmes and Lett (1977), for example, reported that customers with favorable brand attitudes talked significantly more to others than those with unfavorable attitudes about the brand. More recently, Anderson (1998) found that dissatisfied customers do engage in more WOM than satisfied ones, but that the common suppositions concerning the size of this difference appears to be exaggerated. Godes and Mayzlin (2004) and Chevalier and Mayzlin (2003) found a preponderance of positive appraisals as opposed to negative ones, respectively, for online evaluations of

TV programs and books. In their analysis of the ratio of PWOM to NWOM in 15 separate studies involving a range of product and service categories, East, Hammond, and Wright (2007) found an average ratio of 3:1, with consumers more likely to transmit PWOM in every case. However, they also found that NWOM was related to market share in three out of five categories studied (for computers, leather goods, and mobile phone handsets, but not for mobile phone airtime and cameras), consistent with Charlett and Garland's (1995) contention that NWOM—whatever its frequency—can be particularly insidious for firms. More recently, East et al. (2008) provided evidence that the impact of PWOM and NWOM is strongly related to such factors as the pre-WOM probability of purchase, whether the WOM pertains to the consumer's preferred brand, and the strength of the expression of the WOM.

Although PWOM can be an effective form of marketing promotion for company offerings, it is also the case that NWOM may strongly endanger companies' products and services (De Carlo et. al. 2007; Arndt 1969; Lau and Ng 2001; Chevalier and Mayzlin 2003). With the proliferation of brands and the growing convergence in their quality, NWOM represents a fundamental means by which consumers can rule out brands in their product choices or influence the choices of others. For example, in their study of online book reviews, Chevalier and Mayzlin (2003) found that although the reviews tended to be overwhelmingly favorable at two popular sites, the impact of negative reviews far outweighed the impact of positive reviews on relative sales. Arndt (1967) finds that NWOM can accelerate or retard the acceptance of new products. More precisely, Arndt's research underlines that NWOM may retard sales of a food product more than twice as strongly as PWOM may promote sales of that product. De Carlo et al. (2007) also argue that NWOM as compared to PWOM has a

stronger effect on consumers. Their research outlines that NWOM may lower customers' attitudes toward stores. Nonetheless, in spite of the seriousness and potential effects of NWOM, little is known about how managers typically respond when they learn of an increase in its spread, and to what extent selected coping strategies effectively offset the damaging effects of NWOM.

Coping Strategies

As mentioned, little attention has been devoted to investigating the effectiveness of strategies to cope with or prevent NWOM, in spite of evidence suggestive of the considerable impact NWOM may have on brands, products, services and even on companies themselves (Kimmel and Audrain 2002; Sametrex 2008). The present research explored seven coping and prevention strategies managers use when they become aware of NWOM. Consistent with the literature (Lazarus and Launier 1978; Lazarus, Averill and Opton 1974) we define WOM coping strategies as strategies involving the problem-solving efforts managers take to master, tolerate, or minimize WOM considered as threatening for the product, service, markets, or the company itself. Specifically, we explored North American and French managers' perceptions of WOM coping strategies utilized by their firms.

We chose to compare French and North American managerial strategies because of their varying managerial styles. Overall, American managers are understood to be more interventionist and customer-oriented than French managers. Baudry (2002) and Gelfand, Erez and Aycan (2007) also suggested that American managers use more formalized approaches than French managers, the latter of whom are likely to be more flexible. Given these differences, we intuitively expected a greater flexibility in the tactics used by French managers to respond to

NWOM, with American firms relying more on formalized, pre-determined redress strategies.

METHODOLOGY

Participants

A total of 119 French and American marketing professionals from consumer goods firms responded to a questionnaire pertaining to WOM. We chose consumer goods firms because we expected them to serve as likely targets for consumer WOM. We also expected brand managers and corporate communication specialists to be sensitive to NWOM in the consumer marketplace. The participants were employed by a representative range of consumer goods companies, including food and beverage, apparel, electronics, cosmetics/beauty/hygiene, pharmaceuticals, health care in both countries, and were similar across the two samples. The purposive sample of 66 French and 53 American product or brand managers and communication specialists was obtained from business school alumni directories, continuing education classes, and professional marketing association directories. We invited volunteers selected in these ways to participate in a survey concerning their experiences with consumer word-of-mouth. They were included as respondents based on the understanding that they had the professional experience upon which to provide information relative to the study's objectives. All respondents were assured that their anonymity would be protected and that their questionnaire responses would remain confidential. Overall, we concluded that our sample size was adequate to achieve the objectives of our exploratory investigation. Smaller sample sizes typically are viewed as justified when purposive sampling is utilized (Cohen 1962, 1963; Haase, Waechter and Solomon 1982; Rosenthal and Rosnow 1991). Further,

according to Cohen's (1988) assessment of sample sizes required to detect various effects, a total N of 85, split evenly into two groups, is sufficient to conduct statistical comparisons with power = .80 at the 5% level of significance (two-tailed).

Procedure

The English version of the questionnaire was translated into French for administration to French respondents. Two bilingual professionals, one French and one American, independently assessed both versions of the questionnaire in order to assess the accuracy of the translation. Following minor changes to the translated questionnaire, the two versions were again independently compared in order to confirm the elimination of all apparent discrepancies.

To identify instances of WOM, a variation of the critical incidents technique (Flanagan 1954) was utilized, in order to gain insight into the nature of WOM that reaches the ear of managers and the perceived effects of the WOM. We asked respondents to describe some situations in which they encountered either positive or negative WOM. Respondents first were asked to indicate how frequently, on average, they became aware of WOM. They then rated seven strategies according to whether they were used by the company to prevent and/or neutralize the negative effects of WOM. Specifically, we listed seven strategies (see Table 1) which might be used to prevent or counter customers' negative WOM. These strategies were derived from the authors' earlier studies in this program of research. The first strategy, which may be seen as an absence of response, is that of ignoring

customer WOM or choosing to do nothing. This passive strategy may well typify the reaction of many firms, because many of them apparently ignore or fail to take seriously customer NWOM (Charlett and Garland 1995). This strategy can be understood as preferred by companies given that it does not require any financial or managerial investment. The second and third strategies may be defined as 'active' ones, consisting of denying the content of customers' NWOM, either by a company official (see Table 1, strategy two) or by a trusted outside source (see Table 1, strategy three). The fourth strategy consists of spreading counter information directly to deny the content of the NWOM in circulation. This strategy aims at delivering a message consistent with the company's expectations or interests and contrasts with the 'do nothing strategy'. The fifth strategy (see Table 1) focuses on customers trust towards the company's offended products or services or even towards the company *per se*. It specifically aims at increasing or reinforcing customers' trust. The sixth and seventh strategies (see Table 1) consist of establishing a hotline or a Website to provide customers with information or to respond to their questions related to the content of the NWOM. These approaches provide the opportunity for customers to get in touch with the company (in the case of strategy six and seven) and to interact with company officials (strategy six).

For each strategy, respondents rated the effectiveness on four-point Likert scales (1=not effective at all to 4=high average effectiveness).

TABLE 1

Strategies Used to Cope with or Prevent Negative WOM

_____

Coping strategy	Illustration
1. Ignore the NWOM	Non-reaction to NWOM in circulation
2. Deny the NWOM by company official	The company president denies the WOM content in a full-page newspaper ad
3. Deny the NWOM by trusted outside source	The cooperation of a respected community leader is enlisted to deny the content of NWOM in circulation
4. Spread counter information to NWOM	Customers are provided directly with information that disproves or otherwise counters the NWOM content
5. Attempt to increase trust in the company/product/ service	The company communicates its return policies and guarantees for dissatisfied customers
6. Establish a hotline to provide customers with information related to the topic of the NWOM	A 24/7 telephone hotline is created in order to respond to customers' questions and concerns
7. Establish an interactive Web site	An online corporate blog, forum, or message board is set up in order to take questions and respond to customer complaints

RESULTS

Effectiveness of NWOM Redress Strategies

Table 2 summarizes the results regarding the strategies used to cope with or prevent NWOM for the two samples. According to the French and North American managers studied, the most successful strategy to cope with NWOM involves efforts to increase trust in the product, service, or company that serves as the focus of NWOM content (average effectiveness = 3.68). This strategy was viewed as more effective than denying NWOM (t = 4.79; sig. < .05). Trust has been shown to be a key construct in the marketing literature, especially with respect to relationship marketing (e.g. Morgan and Hunt 1994). Defined as a generalized expectancy held by an individual that the word of another can be relied on (Rotter 1967), trust also expresses someone's willingness to rely on an exchange partner in whom one has confidence (Moorman, Deshpandé and Zaltman 1993). According to Morgan and Hunt (1994), trust leads to cooperative behaviors, which is important in order to counter NWOM. Accordingly, anecdotal evidence suggests that companies that are successful in creating conversational or collaborative connections with customers are those whose initiatives are built on trust (Oetting 2006; Tapscott and Williams 2006). Thus, it appears that enhancing trust in the company or its offerings when faced with the spread of NWOM increases cooperative behaviors among the participants in the marketing exchange and therefore help to reinforce the customer/firm relationship. Openness fosters trust, which in turn can provide a strong counter to potentially damaging NWOM.

TABLE 2

Perceived Effectiveness of NWOM Redress Strategies

1. Attempt to increase trust in the company/ product/service	3.68
2. Deny the NWOM by company official	3.24
3. Deny the NWOM by trusted outside source	3.24
4. Ignore the NWOM	3.06
5. Establish an interactive Web site	2.97
6. Establish a hotline to provide customers with information related to the topic of the negative word-of-mouth	2.86
7. Spread counter information to NWOM	2.58

Measured on four-point Likert scales (1= not effective at all to 4 = high average effectiveness).

The second most effective strategy identified by the managers was that of denying NWOM content, either by a company official or an outside source (average effectiveness =3.24, see Table 2). Although denials might appear quite difficult to effectively implement, because consumers likely expect companies to deny negative comments that reflect poorly on the firm or brand image, this NWOM redress strategy apparently proves more useful according to managers than the decision to do nothing (t=1,75 ; sig. < .05). The strategy of ignoring NWOM was perceived as lower in effectiveness by the respondents (average effectiveness = 3.06). Though this result might appear counter-intuitive, ignoring NWOM may be seen as a financially interesting strategy for companies, given that it does not require any financial or time investment. In contrast, the seven other strategies we investigated require the company to be more active and invest time, training and money.

The data also revealed that establishing a Website is comparable to the do nothing strategy, i.e., ignore the NWOM (p=0.105). One possible explanation for this somewhat surprising result is that building a Website or using the company's official Website, though conceivably an effective and potentially trustworthy means for countering NWOM, may be perceived as too expensive in contrast to the other strategies. Additionally, countering NWOM on an internet Website might be deemed as risky because it can expose the NWOM to millions of consumers with just the click of a mouse. Consistent with Ainsworth's (2004) finding that consumers view the company Website as an appropriate channel for responding to NWOM, we expect that in the future such websites will contribute to the building of buyer-customer relationships and will play a key role in the strategies aimed at preventing or coping with customer NWOM. Our findings also revealed that the redress strategy

of establishing a hotline (average effectiveness = 2.86) was viewed by managers as less effective in countering NWOM than ignoring the NWOM. Yet, one lesson that can be applied from the crisis management literature is that the establishment of a telephone hotline, like that of creating a customer-oriented Website, could help to nurture an interactive relationship with customers and offset the consequences of NWOM (e.g. Fearn-Banks 1996; Kimmel 2004).

Our respondents also claimed that consumers rarely utilize a company's official channels for information following the reception of NWOM about the firm or the company's service / product. Finally, attempts to spread information counter to NWOM were considered the least effective redress approach (average effectiveness =2.58). This stands to reason, given the informal nature of WOM and the difficulties in establishing credibility for information that runs counter to the prevailing marketing buzz.

Effectiveness of the Strategies Used to Cope with Negative WOM across the French and American Samples

Overall, our results revealed a high degree of similarity among the French and North American managers in their perceptions of the effectiveness of the NWOM redress strategies (see Table 3). This is counter-intuitive, since we expected different response patterns in view of the general philosophical and managerial differences existing between French and American managers. Out of seven possible redress strategies, we obtained a significant difference between the two samples only for the decision to ignore NWOM, with American managers (m =3.26) having rated this strategy as significantly more effective than the French managers (m =2.89) (t = 2.745; p < .05). This finding is somewhat surprising given previous in-dications that American managers tend to be

more interventionist than French managers when faced with various threats to the firm (Baudry 2002). However, French managerial methods have also been described as being highly developed for controlling risk and avoiding uncertainty, whereas American managers tend to score low on uncertainty avoidance measures (Hofstede1983; Reihlen 2004). Further, in a cross-cultural assessment of leadership styles within the US and France, Peters and Kabacoff (2003) found that French managers characterized themselves as more

"hands-on" than their American counterparts, and were more oriented towards proactively soliciting and acting on the ideas and input of specialists. In light of these differences, one might intuitively have expected a greater flexibility in the tactics used by French managers to respond to NWOM, and American managers relying more on a formalized pre-determined strategies for negative WOM control (including the strategy of ignoring NWOM).

TABLE 3

**Perceived Effectiveness of NWOM Redress Strategies for
French and North American Managers**

	US	French	t	Sig.
Attempt to increase trust in the company/ product/ service	3.77 (1)	3.61 (1)	1.108	0.270
Deny the NWOM by company official	3.38 (2)	3.12 (3)	1.664	0.099
Deny the NWOM by trusted outside source	3.34 (3)	3.15 (2)	1.215	0.227
Ignore the NWOM	3.26 (4)	2.89 (6)	2.745	0.007
Spread counter information to NWOM	2.55 (5)	2.61 (7)	0.458	0.648
Establish a hotline to provide customers with information related to the topic of the NWOM	2.75 (6)	2.94 (5)	0.246	0.806
Establish an interactive Web site	2.94 (7)	2.98 (4)	1.464	0.146

Measured on four-point Likert scales (1=not effective at all to 4=high average effectiveness).

Overall, our findings indicate that the strategies used by North American and French managers are very similar. Across both samples, efforts to increase trust and deny NWOM emerged as the redress

strategies perceived as most effective in dealing with NWOM. These findings offer preliminary evidence that managers can utilize similar strategies across varying country settings in their efforts to counter NWOM. The question remains, however, as

to whether similar means can be employed cross-culturally to increase trust and establish greater openness with customers.

DISCUSSION

Although limited in scope, we believe this exploratory study makes several contributions to our understanding of managerial reactions to NWOM. It underlines that in general strategies to prevent or cope with NWOM are viewed by consumer goods managers as useful in coping with NWOM threats. All seven redress strategies studied were rated on average as medium to high in effectiveness. Specifically, managers believe that it is better to do something to prevent or cope with potentially damaging WOM than to do nothing in the hope that it will eventually disappear over time. As opposed to the "do nothing" approach, the managers viewed two redress strategies as significantly more effective in countering NWOM: (1) increase trust in the company, product, or service that serves as the target of NWOM and (2) deny NWOM by a company official or an outside source.

These findings coincide with the extant literature on the strategies most likely to offset the harmful consequences of marketplace rumors (Kimmel 2004). Further, our results revealed a high degree of similarity in redress strategies utilized by managers within two different cultural contexts. In fact, with the exception of the "ignore NWOM" approach, all of the redress strategies were perceived similarly in terms of their effectiveness across the French and American samples. Overall, as an initial attempt to investigate the strategies aiming at coping with NWOM, our results provide preliminary insight into managerial coping strategies in light of the growing threats posed by consumer NWOM. Perhaps most importantly, our investigation suggests that trust appears to play an especially significant role in the ways that companies can effectively deal with NWOM. In our view, whatever coping strategies are employed by management to counter NWOM, they need to be based on and reflective of the company's genuine interest in building trusting and open relationships with consumers.

Lastly, a comparison of our findings to the rumor literature suggests parallels and divergence regarding the strategies used to cope with either NWOM or insidious rumors. For example, it is often advocated that the most obvious means of fighting a rumor is to strongly deny it (Kimmel 2004). In contrast, our analysis reveals that increasing trust is viewed as the most powerful strategy to cope with NWOM. Yet, restoring customer trust appears to be key in both cases. Additionally, the 'do nothing strategy' is frequently used in both cases.

LIMITATIONS AND FUTURE RESEARCH

As an exploratory investigation, the present research has several limitations. One limitation pertains to the fact that only seven NWOM redress strategies were evaluated. In light of emerging communication technologies, it would be interesting to monitor new approaches by which managers can leverage the PWOM being transmitted by current and potential customers. It also is important to bear in mind that the implications of our results for marketing practitioners are tempered by certain limitations inherent in the methodology. Our data were derived from a critical incidents procedure dependent on participants' free recall of the effectiveness of the evaluated redress strategies. A self-serving bias cannot be ruled out in the reported effectiveness of strategies highlighted by managerial respondents. Accordingly, we encourage replications utilizing other methodologies, perhaps focusing on managerial response to real-time incidents of NWOM.

Another limitation lies in the fact we did not take into account situational, political, economic and legal factors which have the potential to exert powerful effects within culture (Gelfand, Erez and Aycan 2007). We therefore encourage future research to control these factors to assess the cross-cultural differences across French and American managers to cope with NWOM.

Future research could benefit from a focus on the mechanisms that account for the perceived efficacy of the various redress strategies highlighted in the present study and the means by which they operate to reduce the threats stemming from the spread of NWOM. It also would be interesting to enlarge the focus to other countries and managerial cultures, so as to assess the utility of these strategies in other settings. More work is also needed to compare the redress strategies to cope with NWOM versus the strategies used to cope with rumors.

REFERENCES

Allport, G.W. and Postman, L. (1947), The psychology of rumor, New-York: Holt, Rinehart and Winston.

Anderson E. W, (1998), "Customer satisfaction and WOM." *Journal of Service Research,* 1 (1), 5-17.

Arndt, J. (1967), "Role of product-related conversations in the diffusion of a new product," *Journal of Marketing Research*, 4 (3), 291-295.

Baudry, P. (2003), Français et Américains: L'Autre Rive [French and Americans: The Other Bank], Paris: Ed. Village Mondial.

Bayus, B. L. (1985), "Word of mouth: The indirect effects of marketing efforts." *Journal of Advertising Research, 25* (3), 31-39.

Carlo (de) T.E., Laczniak, R.N., Motkey, C.M. and Ramaswami, S. (2007), "Influence of image and familiarity on consumer response to negative word-of-mouth communication about retail entities," *Journal of Marketing Theory and Practice*, 15 (1), 41-51.

Charlett, D., Garland, R. and Marr, N. (1995), "How damaging is negative word of mouth? " *Marketing Bulletin, 6*, 42-50.

Chevalier, J. A. and Mayzlin, D. (2003), "The effect of word of mouth on sales: Online book reviews." *Journal of Marketing Research, 43* (3), 345-354.

Cohen, J. (1962), "The statistical power analysis of applied psychological research." *Journal of Abnormal and Social Psychology*, 65, 145-153.

Cohen, J. (1973), "Statistical power analysis and research results". *American Educational Research Journal*, 10 (3), 225-229.

De Bruyn, A. and Lilien, G. L. (2008), "A multi-stage model of word-of-mouth influence through viral marketing." *International Journal of Research in Marketing, 25* (3), 151-163.

Dichter, E. (1966), "How WOM advertising works?" *Harvard Business Review*, 16 (November-December), 147-66.

Diener, B. J. and Greyser, S.A. (1978). "Consumer views and redress needs," *Journal of Marketing, 42* (4), 21-27.

East, R., Hammond, K., Lomax, W. and Robinson, H. (2005), "What is the effect of a recommendation?" *The Marketing Review, 5* (2), 145-157.

East, R., Hammond, K. and Lomax, W. (2008), "Measuring the impact of positive and negative word of mouth on brand purchase probability." *International Journal of Research in Marketing, 25* (3), 215-224.

East, R., Hammond, K. and Wright, M. (2007), "The relative incidence of positive and negative word of mouth: A multi-category study." *International Journal of Research in Marketing, 24* (2), 175-184.

Fearn-Banks, K. (1996), Crisis communications: A casebook approach. Mahwah, NJ: Lawrence Erlbaum.

Fivars, G. (1980), The Critical Incident Technique: A Bibliography, American Institutes for Research, Palo Alto, CA

Flanagan, J.C. (1954), "The critical incident technique", *Psychological Bulletin, 51* (4), 327-359.

Fornell, C. and Bockstein, F.L. (1982), "Two structural equation models: Lisrel and Plss applied to exit-voice theory," *Journal of Marketing Research, 19* (4), 440-452.

Gelfand, M.J., Erez, M. and Aycan, Z. (2007), "Cross-cultural organizational behaviour," *Annual Review of Psychology*, 58, 479-514.

Godes, D. and Mayzlin, D. (2004), "Using online conversations to study word of mouth communication." *Marketing Science, 23* (4), 545-560.

Haase, R. F., Waechter, D. M., and Solomon, G. S. (1982), "How significant is a significant difference? Average effect size of research in counseling psychology." *Journal of Counseling Psychology*, 29, 58-65.

Hofstede, G. (1983), "National Cultures in Four Dimensions: A Research-Based Theory of Cultural Differences Among Nations," *International Studies of Management and Organization, 13* (1, 2), 46-74.

Herr, P. M., Kardes, F. R. and Kim, J. (1991), "Effects of word-of-mouth and product-attribute information on persuasion: An accessibility-diagnosticity perspective." *Journal of Consumer Research, 17* (4), 454-462.

Holmes, J. and Lett, J. (1977), "Product sampling and word of mouth." *Journal of Advertising Research, 17* (5), 35-45.

Kamins, M. A., Folkes, V. S. and Perner, L. (1997), "Consumer responses to rumors: Good news, bad news." *Journal of Consumer Psychology, 6* (2), 165-187.

Kimmel, A. J. (2004), Rumors and Rumor Control: A Manager's Guide to Understanding and Combatting Rumors. Mahwah, NJ : Lawrence Erlbaum Publishers.

Kimmel, A. J. & Audrain, A.-F. (2002), "Rumor control strategies within French consumer goods firms." Paper presented at the 110th American Psychological Association conference, Chicago, August.

Kirby, J. and Marsden, P. (eds.) (2006), Connected marketing: The viral, buzz and word of mouth revolution. Oxford, UK: Butterworth-Heinemann.

Knapp, R.H. (1994), "A psychology of rumor." *Public Opinion Quarterly, 8* (1), 22-27.

Knowledge@Wharton. (2006), *Beware of dissatisfied consumers: They like to blab*. Available: http://knowledge.wharton.upenn.edu/article.cfm?articleid=1422

Laczniak, R.N., DeCarlo T.E., and Ramaswami, S.N. (2001), "Consumers' responses to negative word-of-mouth communication: An attribution theory perspective", *Journal of Consumer Psychology, 11* (1), 57-73.

Lau, G. T. and Ng, S. (2001), "Individual and situational factors influencing negative word-of-mouth behaviour," *Canadian Journal of Administrative Sciences, 18* (3), 163-178.

Lazarus, R.S, and Launier, R. (1978), "Stress-related transactions between person and environment." In L.A. Pervin & M. Lewis (Eds.), Perspectives in interactional psychology (pp. 287-327). New York: Plenum.

Lazarus, R.S., Averill, J.R. and Opton, E.M. Jr. (1974), The psychology of coping: Issues of research and assessment", In Coelho, G.V., Hamburg, D.A., Adams, J.E. (Eds.), Coping and adaptation, (pp. 249-315). New York: Basic Books.

Liu, Y. (2006), "Word of mouth for movies: Its dynamics and impact on box office revenue." *Journal of Marketing, 70* (3), 74-89.

Mangold, W. G., Miller, F. And Brockway, G. R. (1999), "Word-of-mouth communication in the service marketplace." *Journal of Services Marketing, 13* (1), 73-89.

Moorman C., Deshpandé R. and Zaltman G., (1993), "Factors affecting trust market research relationships." *Journal of Marketing, 57* (1), 81-101.

Morgan, Robert M., and Hunt Shelby D., (1994), "The commitment-trust theory of relationship marketing," *Journal of Marketing, 58* (3), 20-38.

Naylor, G. & Kleiser, S. B. (2000), "Negative versus positive word-of-mouth: An exception to the rule." *Journal of Satisfaction, Dissatisfaction and Complaining Behavior, 13*, 26-36.

Nguyen, S. (2008), *"Word of mouth: Business implications for a credible source of information."* Available: http://knol.google.com

Nyer, P. U. and Gopinath, M. (2005), "Effects of complaining versus negative word of mouth on subsequent changes in satisfaction: The role of public commitment." *Psychology and Marketing, 22 (*12), 937-953.

Oetting, M. (2006), "How to manage connected marketing". In J. Kirby & P. Marsden (Eds.), *Connected marketing: The viral, buzz and word of mouth revolution* (pp. 232-266). Oxford, UK: Butterworth –Heinemann.

Oliver, R.L. (1981), "Measurement and evaluation of satisfaction processes in retail settings", *Journal of Retailing, 57* (3), 25-87.

Reichheld, F. (2003), "The one number you need to grow." *Harvard Business Review, 81* (November-December), 1-11.

Reihlen, M. (2004), "In Europe, Does National Culture Induce a Particular Management Style?" Available: www.facilitycity.com

Richins, M. L., (1983), "Negative word-of-mouth by dissatisfied consumers: A pilot study", *Journal of Marketing, 4* (4), 68-78.

Richins, M. L. (1984), "Word-of-Mouth Communication as negative information", *Advances in Consumer Research*, 11, Eds. Thomas C. Kinnear, Provo, UT: Association for Consumer Research, 697-702.

Rosen, E. (2001), "The anatomy of buzz: How to create word-of-mouth marketing." New York: Doubleday/Currency.

Rosenthal, R. and Rosnow, R. L. (1991), *"Essentials of behavioral research: Methods and data analysis"* (2nd ed.). New York: McGraw-Hill.

Rosenthal, R., Rosnow, R. L., and Rubin, D. B. (2000), *"Contrasts and effect sizes in behavioral research: A correlational approach."* Cambridge, UK: Cambridge University Press.

Rosnow, R.L. (1991), "Inside rumor: A personal journey," *American Psychologist*, *46* (5), 484-496.

Rotter, J.B. (1967), "A new scale for the measurement of interpersonal trust', *Journal of Personality," 35* (4), 651-665.

Sametrex. (2008, April 2), "Economic impact of word-of-mouth calculated using net promoter model.*"* Available: http://www.marketingcharts.com

Söderlund, M. (1998), "Customer satisfaction and its consequences on customer behaviour revisited: The impact of different levels of satisfaction on word-of-mouth feedback to the supplier and loyalty." *International Journal of Service Industry Management, 9* (2), 169-188.

Sundaram, D.S., Mitra, K. and Webster, C. (1998), "Word-of-mouth communications, a motivational analysis." *Advances in Consumer Research, 25*, 527-531.

Tapscott, D. and Williams, A. D. (2006), Wikinomics: How mass collaboration changes everything. New York, NY: Portfolio.

Tax, S.S., Chandrashekaran, M. and Christiansen, T. (1993), "WOM in consumer decision making: An agenda for research," *Journal of Consumer Satisfaction, Dissatisfaction and Complaining Behavior, 6*, 74-80.

Technical Assistance Research Program (TARP) (1981), Measuring the grapevine: Consumer response in experimental social psychology, L. Berkowitz, Ed. NY: Academic Press, 193-232.

Westbrook, R.A., (1987), "Product / consumption based affective responses and postpurchase processes," *Journal of Marketing Research, 24* (3), 258-270.

Send correspondence regarding this article to:

Anne-Francoise Audrain-Pontevia
Associate Professor of Marketing
Rouen School of Management
Boulevard André Siegfried, 76000 Mont-Saint-Aignan,
Rouen, France
00 (33) 2-32-82-57-69
anne-francoise.audrain@groupe-esc-rouen.fr

BRAZILIAN FOOD RETAILER SATISFACTION WITH SUPPLIERS

Luciana de Araujo Gil, Michigan State University
Jong Pil Yu, Sejong University, Seoul, Korea
Lester W. Johnson, University of Melbourne, Carlton, Vic 3053 Australia
Alan Pomering, University of Wollongong, Wollongong, NSW 2522 Australia

ABSTRACT

We examine the impact of relational investment and cooperation on both economic and non-economic satisfaction of food retailers with their suppliers. The sample included 101 food retailers in selected cities in Brazil. We find that relational investment has the greatest impact on economic satisfaction whereas cooperation has the greater impact on non-economic satisfaction. Suggestions for further research are developed.

INTRODUCTION

Retailing involves a great number of issues that makes it a business activity that is indeed different from most manufacturing industries (Dawson, 2000), for example, its emphasis on holding inventory, distribution, and merchandising. Furthermore, retailers around the world now have equal or even greater power than manufacturers when it comes to the retailing stage of supply chains, and that can affect their relationships (Li, Huang, & Ashley, 2002). Once manufacturers experience decreased channel power (Bobrow 1981) relative to retailers, a vehicle for assessing the manufacturer's channel relationships with retailers would be worthwhile because satisfaction of the intermediary is becoming more important in managing continuing relationships. The extent to which those involved in distribution are satisfied with the performance of each supplier is becoming a key determinant of success (Schellhase, Hardock, & Ohlwein, 1999).

To assess manufacturers' channel relationships, one construct that has been explored both conceptually and empirically is channel member satisfaction. This has been a popular construct in empirical studies, with 71 studies between 1970 and 1996 incorporating satisfaction in their model of channel relationships (Geyskens, Steenkamp, & Kumar, 1999). In business-to-business relations, the satisfaction of the needs of target customers, that is, the downstream business is an important factor on which to base the long-term success of a project (Yu & Pysarchik, 2002). The focus of this article is the assessment of manufacturers' channel relationships with food retailers in Brazil, using channel member satisfaction as our reference framework.

For some time, the extent to which the goods and services offered satisfied needs was largely monitored on the basis of sales and profit figures (McNeal & Lamb, 1979). In an attempt to develop a more complete understanding of satisfaction, in this study we divide the construct into economic and non-economic aspects (Andaleeb, 1996; Gaski, 1986; Wilkinson, 1981; Yu & Pysarchik, 2002). The aim of this article is to illustrate and examine the supplier-retailer satisfaction relationship in the Brazilian food industry. There are several factors that contribute to satisfactory channel conditions but we will focus on two main factors, cooperation and relational investment, in order to examine this construct. While we appreciate that intervening variables, such as the relative power of a channel member or the particular cultural characteristics that might explain the Brazilian food retail sector, and interactions between these variables, might be of interest to readers, we have limited the scope of our study to omit such investigations, but note their value as subjects for future research.

It must be noted that we depart from convention in studies similar to ours in that we only gather data from one source in each participating organization. We have taken this more direct approach of including the perspectives of those most closely associated with the relationship because we believe that such individuals are the most suitable to comment on the nature of his or her organization's supplier-retailer relationships. This practice also offered various efficiencies, without compromising our study's integrity, and also was deemed to be more sensitive to the cultural characteristics of the Brazilian food retailing sector.

BACKGROUND

The Brazilian grocery industry is embedded in a dynamic environment, where the interface between manufacturers and retailers is changing. In one recent commentary it was observed that in one globalizing decade, Latin American retailing made the change which took the US retail sector 50 years to make (Reardon, Berdegué, & Farrington, 2002). The last decade in Brazil was marked by increased competition, owing to, among other factors, deregulation and the opening of the market (Figueiredo, Arkader, Lavalle, & Hijjar, 2003). Among the consequences of this process, have been increasing competition from imported products, growing foreign investment in large-scale grocery stores and supermarkets, an increase in ownership concentration through mergers and acquisitions, and a change in the negotiation power of distribution channel members in grocery supply chains.

An indication of growth in Brazil is that its stock market rose more than 70 percent in 2007, while maintaining a steady country-wide inflation rate of 4.2 % per year. This growth is also reflected in the Brazilian food retail sector (Cohen, 2008). Experts even believe that Brazil will become part of the largest world economies before 2050 (Keston, 2007). The emerging Brazilian economy has shown signs of advanced economies, but has not yet fully demonstrated itself as a developed country. A less developed country, also called a third world nation, is defined by a low standard of living, an undeveloped industrial base, a low per capita income and a moderate to low Human Development Index (HDI) score (Mouton & Waast, 2006).

The Brazilian food retail industry pre-1993 had sales of US$39 billion, but in 1999 total sales of the industry were around US$48 billion, an increase of 23 per cent in six years. Furthermore, there were more than 51,000 supermarket and hypermarket stores operating in the country in 1999 (Rocha & Dib, 2002). In 2001, the Brazilian grocery retail industry operated 69,396 outlets with sales representing 6.2 percent of the country's GNP, generating 700,000 jobs. In 1997 the top five grocers in the Brazilian market represented 27 percent of industry sales, but by 2001 this proportion had risen to 39 per cent (ABRAS, 2003). Although the online grocery segment is growing, it still represents only a very small share of the market.

According to Reardon, et al (2002, p. 1), "supermarkets, and the large-scale food manufacturers who have grown with them, have deeply transformed agrifood markets in the region, with potentially negative consequences for small farms and processing and distribution firms." One consequence of this has been a switch away from traditional wholesalers, who may lack standards and mix items of different grades, towards direct procurement arrangements or towards new types of wholesalers (Reardon, et al 2002). Some large grocery chains are even using the scale of their distribution centers, sourcing networks, and/or joint-venture operations both to not only supply their local stores but also to export produce within Latin America to the global market. The French hypermarket giant, Carrefour, for example, is contracting melon producers in northeast Brazil to supply its 67 stores in Brazil as well as Carrefour

distribution centres in 21 countries (Reardon, et al 2002, p. 3).

In line with the international trend, local Brazilian retailers have suffered from compressed margins as a result of intensified competition and consumer interest in low prices. For this reason, companies have been obliged to cut costs and give more attention to service in order to increase value offered to customers. Other peculiar characteristics of the local business and economic environment have also been putting pressure on retailers to reduce inventories in order to maintain profitability. Given that many of the food retailing companies in Brazil are small and family-owned (Ball, 1996) this pressure can be even harder to deal with for these local firms. (Musgrove & Galindo, 1988) suggest that the large social differences in Brazil make poor consumers typically patronize the most expensive retailers. The very small establishments *(varejistas),* which usually have high costs due to small volumes and scale, are prevented from competing on price with larger and more modern retailers.

During the bad old days of the 1980s prices rose so rapidly that comparability between stores was impossible and retailers were more interested in managing the cash they received than investing in automation. Now, with the country's new economic plan firmly established, consumers have become more price-conscious. As a result, Brazilian food retailers are also feeling the pressure to offer EDLP (everyday low prices), and future increases in profits will have to be derived from greater efficiencies (Ball, 1996). Since July 1994 the new economic plan (*plano real*) to control inflation has enjoyed success, inflation is now under control, and comparing prices of different retailer brands is a task that is now possible for most Brazilian consumers.

Increasing sector competition and more price-conscious consumers have raised the importance for Brazilian retailers to negotiate strongly with manufacturers. For retailers, this is now a major issue. The efforts of aggressive foreign suppliers trying to reduce retailers' margins have had to be resisted. Better supply chain management practices, such as the use of sophisticated IT systems that allow suppliers to see which goods have been sold in which stores for speedier stock replenishment, have shifted the responsibility to the manufacturer to have the right items in the right place on time (Ball, 1996). For this reason, retailers are also becoming networking organizations, given that products come from a large number of suppliers and that a retailer's total offering to a large extent depends on its ability to co-ordinate actions among channels.

Economic and non-Economic Satisfaction

The relationship between performance on certain customer logistic service dimensions and customer satisfaction has been the object of limited study so far (Emerson & Grimm, 1996; Mentzer, Gomes, & Krapfel, 1989). (Ruekert & Churchill, 1984) suggest that channel member satisfaction comprises "the domain of all characteristics of the relationship between a channel member (the focal organization) and another institution in the channel (the target organization) which the focal organization finds rewarding, profitable, instrumental and satisfying, or, alternatively, frustrating, problematic, inhibiting or unsatisfying."

Schellhase *et al.* (1999) believe that customer satisfaction from the retailer point of view has not been extensively studied. They also argue customer satisfaction is a difficult construct, which cannot be directly measured. Some studies (Brown, Lusch, & Smith, 1991) take an economic view of satisfaction, defining it as the perceived gap between prior expectations and actual profits. But other studies look at satisfaction in more non-economic, psychosocial terms, defining it as an emotional response to the overall working relationship with the channel partner (Anderson & Narus, 1984; Crosby, Evans, & Cowles, 1990).

Geyskens *et al.*, (1999) suggest economic satisfaction can be defined as a channel member's positive, affective response to the economic rewards that flow from the relationship with its partner, for instance sales volume and margins. So, an economically satisfied channel member would consider the relationship a success, with respect to goal attainment, once he or she is satisfied with the productivity of the relationship, as well as with the financial outcomes. But, it is important to consider that the idea that decisions are made purely on economic criteria is now considered to be unrealistic (Schellhase et al., 1999).

Channel theory states that if a channel's intermediate relational (or process) outcomes advance, then, consequently, so too will its economic outcomes. According to Frenzen & Davis (1990), social relationships can modify market operations, and this was found in embedded markets where a preexisting social relationship creates a predisposition to view aspects such as trust and commitment as or more important than regular economic attributes. Nonetheless, previous studies have suggested that personal relationship networks, sometimes referred to as informal social bonds, can lead individuals to carry expectations and obligations in order to facilitate or exchange favors (Ambler, Styles, and Wang, 1999).

Furthermore, non-economic satisfaction can be defined as a channel member's positive, affective response to psychosocial aspects of a relationship, in that interactions with the exchange partner are fulfilling, gratifying, and easy (Mohr, Fisher, & Nevin, 1996). In this case it is to be appreciated that the contact with its partner is also on a personal level, where willingness of an exchange of ideas is present. This economic and non-economic construction of satisfaction has been used in previous studies (Geyskens et al., 1999; Yu & Pysarchik, 2002), and will also be the focus of the current article.

According to Figueiredo *et al.,* (2003) Brazilian retailers are still far from satisfied with the percentage of late deliveries that they are getting from their suppliers (considering both the need to provide good service to customers and the high cost of inventory holding in Brazil). This study aims to shed light on answers to some key questions related to this topic.

Cooperation

Growing concentration in the Brazilian retail industry is leading to increased bargaining power, allowing retailers to demand better customer service from suppliers, imposing challenging requirements (Blecher & Reboucas, 2002). Cooperation and relational investment can be considered powerful tools in this scenario. In the USA and in European markets, approaches with a focus on enhanced performance in the grocery supply chains, called efficient consumer response (ECR), are being proposed by different organizations. This suggests a collaboration among competitors on a manufacturer as well on a retail level (Svensson, 2002). One major issue in these activities is to maintain market orientation of the distribution, which consists of the sum of the individual member's activities in this respect (Siguaw, Simpson, & Baker, 1998). Such collaboration and cooperation has been the focus of several studies (Kotzab & Teller, 2003). Cooperation can be defined as "similar or complementary coordinated activities performed by firms in a business relationship to produce superior mutual outcomes or singular outcomes with expected reciprocity over time" (Anderson, Hakansson, & Johanson, 1994). The relationship between channel satisfaction and cooperation has been explored in extant studies (Hunt & Nevin, 1974).

Gwinner *et al.* (1998) suggest that consumers will commit themselves to establishing, developing, and maintaining relationships with a service provider that offers a better-valued benefit. Relationship marketing issues have received increasing

attention from both academics and practitioners because of the potential benefits for both ends of the supply chain (Colgate & Danaher, 2000). In this vein, another key issue that some researchers are highlighting is category management (Dapiran & Hogarth-Scott, 2003). Category management could be defined as a process by which retailers and their suppliers jointly develop strategic category plans. This idea matches with the focus of Schellhase *et al.*'s (1999) study, namely that retailers' satisfaction with their suppliers is principally determined by the following factors: contact persons, intensity of cooperation, management of prices and conditions, and quality and flexibility.

The traditional win-lose paradigm has become obsolete in Brazil, the result, to some extent, of rising complexity and dynamics, especially due to recent developments within the fast moving consumer goods market. Still, the division of labor and roles within marketing channels can be agreed upon to some extent by channel members, such as retailers and suppliers, who often have different views on who should be responsible for what (Elg, 2003).

In light of the above-detailed, we posit the following research hypotheses:

H1a: Cooperation is positively related to economic satisfaction

H1b: Cooperation is positively related to non-economic satisfaction

Although sometimes the rapprochement between retailers and suppliers can be a cash-driven peace settlement (Bentley & Benady, 1996), the effect of specific asset investments over collaborative relationships with suppliers is also important (Claro & Claro, 2004). According to Schellhase et al. (1999), retailers' satisfaction is also enhanced by keeping agreements, and maintaining an open style of communication and cooperation based on a continuity of partnership, which can be seen as relational investment.

Relational Investment

Relational investment is defined as any kind of effort to comprehend the partner's goals and help joint interaction (Madhok & Tallman, 2007). In a retailing environment, retailers with solid long-term relationships can experience a competitive advantage by receiving merchandise in short supply, information on new and best-selling products and competitive activity, the best allowance prices, and advertising support. At the same time, suppliers with successful long-term relationships can achieve a competitive advantage by obtaining information on best-selling products and competitive activity, better cooperative advertising, and special displays for their merchandise (Ganesan, 1994).

Brazil is a paradoxical country, despite its annual GDP growth of 5.4% (Cia.gov., 2008), poverty levels remain above 30% (Cia.gov., 2008). Brazil's rapid emergence as a global consumer power makes it an important case study of consumer trends in a developing country. Culturally speaking Brazil is considered a collectivist and high context country (Würtz, 2005) where relationships are very important in any segment of the society.

Considering relationships from the end-consumer's perspective, several studies have emerged indicating that investment in a relationship may be one of the reasons consumers stay with their service provider. For example, Gwinner, Gremler, & Bitner (1998) argue that consumers will connect themselves to establishing, developing, and maintaining relationships with a service provider that can offer a superior valued benefits. They observed that consumers receive many benefits from developing relationships and that these benefits could be classified under three headings: confidence, social and special treatment benefits. These

authors also found that even if a consumer perceives the main service attributes as being less than optimal, they might remain in a relationship if they are receiving important relational benefits.

The importance of relational investment between retailers and suppliers is emphasized in Ganesan's (1994) study. Another study explores what its called "relational quality" (Arino, Torre, & Ring, 2001), which is defined by the three elements affecting relational quality in alliances: the initial conditions surrounding the exchange; the cumulative experiences of the parties with each other's behaviors as they interact; and the impact that external events have on perceptions of the behavior and attitudes of the parties about each other's trustworthiness. Another similar term related to this topic is "relationalism" (Noordewier, John, & Nevin, 1990), which can be defined as "expectations of continuity of a relationship" which captures the probability of a future interaction between retailer and supplier.

Relational investment is a new term in the supply chain arena, although attempts to relate "credible commitments" (such as means of investment in dedicated assets) and trust-based relationships with satisfaction were already the focus of previous studies, such as (Heide, 1994). Hence, the retailer can perceive this attitude as a reward or even a source of mutuality of interests. Furthermore, Elg (2003) emphasizes the importance of the manufacturer letting the same employee handle the contacts for a longer period of time, stressing that long-term relationships at a personal level can impact not just future experiences but also the past ones.

Relational investment is connected with the idea of the Social Exchange Theory, which explains social change and stability as a process of negotiated exchanges between parties. This theory posits that all human relationships are formed by the use of personal cost-benefit analysis and the comparison of alternatives. For instance, when a person perceives the costs of a

relationship as outweighing the perceived benefits, then the theory predicts the person will choose to leave the relationship. The early permutations of Social Exchange Theory stem from Gouldner's (1960) norm of reciprocity, which argues that people should return benefits offered to them in a relationship. Later modifications to this theory focus attention on relational development and maintenance rules (Murstein, Cerreto & MacDonald, 1977).

One of the major retailer criticisms of suppliers is that some of them do not offer qualified field personnel, and a huge complaint is that the retailers want to know with whom they are dealing (Schellhase et al., 1999). Moreover, studies related to supplier-retailer relationships have found a significant relationship between satisfaction with outcomes and commitment to a relationship (Rusbult, Verette, Whitney, Slovik, & Lipkus, 1991). With relational investment and cooperation it is possible to achieve the so-called win-win-win situation where all partners within the supply chain (producer, retailer and end user) can gain profitability by doing more with less (e.g. (Svensson, 2002).

Based on the discussion above, we pose the following research questions: does the existence of a good relationship between the manufacturer and the retailer increase the non-economic and economic satisfaction equally? Also, can cooperation between the retailer and supplier diminish the impact of negative experiences that may lead to dissatisfaction? In seeking to answer these questions, we therefore hypothesize:

H2a: Relational investment is positively related to economic satisfaction
H2b: Relational investment is positively related to non-economic satisfaction

METHODOLOGY
Instrument Development

Measures of retailers' economic satisfaction were adapted from the six-item

(Wilkinson, 1981) scale of satisfaction in distribution channels. Retailers' non-economic satisfaction was measured by asking their level of agreement with three items adapted from Andaleeb (1996) and Gaski (1986). Cooperation measures were adapted from Skinner, Gassenheimer, & Kelley (1992), and Relational Investment from Colgate & Lang (2001), given that these previous studies supported the applicability of those scales.

Seven-point scales were used in all the questions, anchored by: Extremely dis-satisfied/Extremely satisfied, and Extremely disagree/Extremely agree. Scale items are shown at the end of this article in an Appendix.

TABLE 1

Sample Characteristics

Characteristics	*Frequency (N=101)*	*Percent*
Gender of the respondent		
Male	57	56.4
Female	44	43.6
Age of the respondents		
Below 30	21	20.8
30-9	30	29.7
40-9	33	32.7
Above 50	17	16.8
Company's business form (N=100)		
Retailer	63	62.4
Wholesaler	9	8.9
Importer	3	3
Broker	2	2
Stockist	5	5
Trading Company	2	2
Other	16	15.8
Retailers' years with major supplier		
Less than 4 yrs	35	34.7
4-10 yrs	45	44.6
More than 10 yrs	20	19.8
Missing	1	1
Retailers' number of employees		
Less than 6	28	27.7
6-25	49	48.5
26-80	9	8.9
81 and more	10	9.9
Missing	5	5

The questionnaire (originally developed by Yu & Pysarchik, 2002) was constructed originally in English, and then double-blind translated back into Portuguese to increase the accuracy of the translation. When answering the questionnaire, respondents were first asked to identify their most important supplier of processed food products, and then respond to the questions with this manufacturer in mind.

Data Collection

This study utilizes a self-report questionnaire to record information from Brazilian food retailers selected from the telephone directory. To recruit participants, either the storeowner or the marketing manager was contacted by telephone to request his/her participation. Usually they filled in the survey by themselves or responses were provided by an employee nominated by them. Due to this system of data collection, our response rate was 90%.

The data were collected in various cities located in the State of São Paulo between May and August 2004, and included 101 retailers in the grocery sector. São Paulo state was chosen because it is the richest state in the country and for its high concentration of population and grocery retailers in general.

Sample Characteristics

In all, one hundred and one respondents (food retailer owners or employees) completed the questionnaire (Table 1). The modal age range of the sample respondents is from 40 to 49 years, 56.4% of whom are male. Of the participating firms, most were retailers (62.4%), who have dealt for between four to ten years with the same major supplier. Furthermore the companies surveyed typically have between 6 to 25 employees.

ANALYSIS

The multi-item scales for each construct were treated as single measures. The reliabilities and number of items can be observed in Table 2. Also, the correlation matrix among variables is shown in Table 3.

TABLE 2

Reliability Measures

Scales	Reliability Cronbach Alpha	Number of items
Economic Satisfaction	*0.92*	*6*
Non- Economic Satisfaction	*0.93*	*3*
Relational Investment	*0.81*	*4*
Cooperation	*0.82*	*2*

TABLE 3

Correlation Among Variables

	Relational	*Cooperation*	*Economic Satisfaction*	*Non-economic satisfaction*
Relational Investment	1			
Cooperation	.428**	1		
Economic Satisfaction	.681**	.475**	1	
Non-economic Satisfaction	.532**	.629**	.645**	1

Hypotheses 1a and 2a predicted that relational investment and cooperation would be predictors of economic satisfaction. A multiple regression analysis was performed to analyze these relationships (see Figure 1). The result was overall significance ($F_{(1, 97)}$ = 8.162, $p<.05$, $R^2 = .491$). Relational investment was a good predictor of economic satisfaction (B= .617, t=7.321, $p<.05$), as was cooperation (B=.230, t= 2.857, $p<.05$).

FIGURE 1
Model of Brazilian grocery manufacturer and retailer relations

Un-Standardized coefficient B in the boxes.
All are significant at p<.01

Hypotheses 1b and 2b predicted that relational investment and cooperation would be predictors of non-economic satisfaction. A multiple regression analysis was performed to analyze these relationships. Again, the results were significant (F (1, 97) =19.906, p<.05,

R^2 =.488). Relational investment was a good predictor of non-economic satisfaction (B= .360, t=4.462, p<.05), as was cooperation a good predictor (B=.462, t= 5.994, p<.05). The detailed results are reported in Table 4.

TABLE 4

Coefficients

Path	Un-Standardized Coefficients	Standardized Coefficient	t	sig
Relation → Economic satisfaction	.617	.581	7.321	0.000
Relation → Non-Economic satisfaction	.230	.227	2.857	0.005
Cooperation → Economic satisfaction	.360	.355	4.462	0.000
Cooperation → Non-Economic satisfaction	.462	.477	5.994	0.000

Although all predictors were significant, the stronger relationship was found between relational investment and economic satisfaction. Even though our sample cannot be considered large, this result should be emphasized. From this, we can infer that relational investment and economic satisfaction are strongly related.

DISCUSSION AND IMPLICATIONS

From our results, we can see that in the Brazilian context food retailers consider relational investment more important than cooperation when focusing on economic satisfaction in a relationship with their major or more important suppliers, especially for relatively small organizations, which con-stituted the majority of our sample. This may be related to some cultural issues on the basis

of Hofstede's four cultural dimensions (Hofstede, 1983). Brazil is a collectivist culture, causing any kind of social relationship to have a huge impact on anything related to satisfaction. It is worth noting that in the end-consumer context, as Crotts & Erdmann (2000) reported in their study, culture has been found to influence willingness to report satisfaction.

If we consider the items of the relational investment scale we can see the behaviors that might guide managerial decision-making in order to drive greater satisfaction: managers should put into practice decision making and those activities that will: (a) help partners get to know each other, and each other's business activities, better; (b) reward partners on the basis of their continued relationships; and (c) deepen the various bonds of the relationship, such as structural and social bonds. Subject to

cultural constraints, activities to enhance inter-organizational familiarity might include hosting shared social events, such as celebrations of business milestones, national days, or employee awards, particularly those personnel that are key to these inter-business transactions.

Rewards for continued relationships might take the form of bonuses for joint-productivity improvements or milestones achieved, while preferred-supplier status and service warranties might help deepen loyalty. The costs of these relation-developing initiatives would need to be measured against the benefits of course. However, it is generally accepted that developing good, existing relationships is preferred to starting new ones. We acknowledge here that while it might be expected that smaller firms are in a better position to build inter-organizational relationships, due to their scale, there is often considerable potential for such activities to 'fall through the cracks'. We would therefore recommend greater vigilance toward this task, typically through extending the breadth of the sales and marketing role.

While not as strong a relationship as relational investment, cooperation should also be considered by management for its contribution to driving satisfaction. Clearly, respondents who rated high on this measure accept that their goals are best met when they work together with suppliers, and when they maintain good working relationships with suppliers. In this way, there is a clear connection between cooperation and investing in supplier relationships, though our def-initions have differentiated the two. Relational investment must be understood to go far beyond mere cooperation. As we have defined cooperation, in terms of coordinating activities between partners to produce superior mutual outcomes, or perhaps singular outcomes with expected reciprocity over time, it is the basis of category management, whereby retailers and their suppliers jointly develop their strategic category plans.

Implicit in such mutual planning is trust between the category partners; therefore building this trust must become a prime focus for managers of both organizations. An organization's efforts to build relationships, discussed in the previous paragraph will go some way toward developing the requisite trust, and helping partners appreciate competition. That is, their relationships are not antagonistic, with each relational partner out to maximize his or her individual profit at the expense of the other, but rather they are symbiotic, offering a win-win result when not enacted sub-optimally. Clear, open and regular communication between partners must be at the foundation of such cooperation. Again, this must be included in the role description of sales and marketing personnel.

While *category management* was mentioned above as offering one route to increased supplier-retailer satisfaction, through food retailers "making use of consumer preferences to determine the key items for their business, as well as aspects such as in what quantities these items should be bought, at what price they should be offered, what shelf space they should deserve and in what place in the store they should be displayed" (Arkader & Ferreira 2004, p. 42), recent research highlights there are obstacles to this approach. Arkader and Ferreira (2004, p. 48) found "negotiation impasses and mistrust in the exchange of information between manufacturers and retailers, and a very antagonistic commercial culture in retail buyer–supplier relationships seems to be prevailing, aiming at short-term negotiations based on volumes and prices," suggesting our recommendations for increasing relational investment and cooperation between supply chain partners does not come free of significant operational challenges.

While our study attempted to generalize results for Brazil broadly, it must be remembered that we conducted our investigation in some cities of only one State, and Brazil has a total of twenty-six States and

one federal district. The nature of the sample therefore limits our ability to make overly broad generalizations from the findings.

Another limitation is that none of the measures included in this study considers the issue of *power*, which is an element of any relationship and exists even when not activated (Dapiran & Hogarth-Scott 2003; Kadiyali, Chintagunta, & Vilcassim 2000). Furthermore, power can be sub-divided into coercive and non-coercive sources (Gaski & Nevin, 1985). The incorporation of this construct into the understanding of satisfaction among Brazilian food retailing supply chain members would be one suggestion for further research, especially as suppliers are gaining muscle in business negotiations.

The extent to which those involved in distribution are satisfied with the performance of each supplier is becoming a key determinant of success. An important issue that could be examined would be expectations. For instance, customers with higher expectations of relationship continuity having lower service recovery expectations after a service failure, and tend to attribute failures to less stable causes (Hess, Ganesan, & Klein, 2003).

Brazil has joined the trend of own-branded products, and this may have influenced our result. Sometimes, the retailer can appear reluctant to share information with suppliers, but there can be significant differences between suppliers of retailer brands and manufacturers only supplying their branded products (Elg, 2003).

Furthermore, when retailers perceive the vendor as being dependent on them, they have little motivation to develop a strong, cooperative long-term relationship.

It is important to keep in mind that for decades, and until less than ten years ago, during the long inflationary period in the Brazilian economy, inventory holding was seen by most retailers as the key to their business success, which is very different from today's reality. Also, extant literature indicates that former experience with service plays a decisive role in building customer expectations toward future service. So, previous experiences, and whether the retailer has had a long-term relationship with the manufacturer, can play an important part in influencing expectations.

The existence of norms and structures that reward cooperative behavior in general can also be expected to support inter-firm market orientation (Elg, 2003), and this was also not measured in our study. Also, it is important to remember that when the channel member's overall performance is high, the channel partner is highly motivated to maintain the relationship (Frazier, Gill, & Kale, 1989), which can also affect the perceived levels of economic and non-economic satisfaction.

The light we have cast on the answer to the main research question: "Have food retailers been satisfied with the cooperation and relational investment levels with their suppliers?" reflects that Brazilian retailers perceive relational investment as a very important tool in achieving this critical end.

APPENDIX A
(all are seven-point scales)

Economic Satisfaction*: (Wilkinson 1981), (extremely dissatisfied/ extremely satisfied)*

1. The price at which the supplier sells food products to you.
2. The credit facilities the supplier makes available to you.
3. The discount allowances your supplier gives you for large orders, etc.
4. The discount allowances your supplier gives you for regular and early payment.
5. The supplier's products and services help me achieve my revenue/business objectives.
6. The services your supplier provides that save you money.

Non-Economic Satisfaction*: (Andaleeb 1996) and (Gaski 1986),*
(extremely disagree/ extremely agree)

1. I am satisfied with the products and services I get from this supplier.
2. The relationship between this supplier and me seems to reflect a happy situation.
3. The relationship between this supplier and me is very positive.

Cooperation*: (Skinner et al. 1992), (extremely disagree/ extremely agree)*

1. My future goals are best reached by working with my supplier rather than against my supplier.
2. My future profits are dependent on maintaining a good working relationship with the supplier.

Relational Investment*: Colgate & Lang, (2001), (extremely disagree/ extremely agree)*

1. The staff of this supplier knows me.
2. I receive preferential treatment from this supplier.
3. I feel a sense of loyalty to this supplier.

REFERENCES

ABRAS. (2003), *Estatísticas setoriais*. Associação Brasileira de Supermercados. Retrieved, from the World Wide Web: www.abrasnet.com.br

Andaleeb, S. S. (1996), "An experimental investigation of satisfaction and commitment in marketing channels: The role of trust and dependence," *Journal of Retailing, 72*(1), 77-93.

Anderson, J. C., Hakansson, H., & Johanson, J. (1994), "Dyadic business relationships withing a business network context," *Journal of Marketing, 58*(4), 1-15.

Anderson, J. C., & Narus, J. A. (1984), "A model of the distributor's perspective of distributor-manufacturer working relationships," *Journal of Marketing, 48*(4), 62-74.

Arino, A., Torre, J. d. l., & Ring, P. S. (2001), "Relational quality: Managing trust in corporate alliances," *California Management Review, 44*(1), 109-131.

Arkader, R., & Ferreira, C. F. (2004), "Category management initiatives from the retailer perspective: A study in the Brazilian grocery retail industry," *Journal of Purchasing and Supply Management, 10*(41-51).

Ball, M. (1996), "The real challenge for Brazil's retailers," *Corporate Finance* (144), 30.

Bentley, S., & Benady, D. (1996, Aug 16), "Shelving old differences," *Marketing Week, 19,* 28-31.

Blecher, N., & Reboucas, L. (2002, June 12), "A ditadura do varejo," *Exame,* 44-55.

Bobrow, E. E. (1981), "Marketers must design strategies to cope with power shift to retailers, distributors," *Marketing Marketers Must Design Strategies to Cope with Power Shift to Retailers, Distributors News, 15*(8), 1-2.

Brown, J. R., Lusch, R. F., & Smith, L. P. (1991), "Conflict and satisfaction in an industrial channel of distribution," *International Journal of Physical Distribution & Logistics Management, 21*(6), 15-26.

Cia.gov. (2008), "*The world factbook- Brazil,*" Central Intelligence Agency - CIA. Retrieved Jan, 21, 2008, from the World Wide Web: https://www.cia.gov/library/publications/the-world-factbook/geos/br.html

Claro, D. P., & Claro, P. B. d. O. (2004), "Gerenciando relacionamentos colaborativos com fornecedores. *RAE," Revista de Administração de Empresas, 44*(4).

Cohen, R. (2008, Jan, 3), "Brazilian lessons for 2008*," New York Times*.

Colgate, M., & Lang, B. (2001), "Switching barriers in consumer markets: An investigation of the financial services industry," *The Journal of Consumer Marketing, 18*(4/5), 332-347.

Colgate, M. R., & Danaher, P. J. (2000), "Implementing a customer relationship strategy: The asymmetic impact of poor versus excellent execution.," *Academy of Marketing Science. Journal, 28*(3), 374-387.

Crosby, L. A., Evans, K. R., & Cowles, D. (1990), "Relationship quality in services selling: An interpersonal influence perspective," *Journal of Marketing, 54*(3), 68-81.

Crotts, J. C., & Erdmann, R. (2000), "Does national culture influence consumers' evaluation of travel services? A test of Hofstede's model of cross-cultural differences," *Managing Service Quality, 10*(6), 410-419.

Dapiran, G. P., & Hogarth-Scott, S. (2003)," Are co-operation and trust being confused with power? An analysis of food retailing in Australia and the UK," *International Journal of Retail & Distribution Management, 31*(4/5), 256-267.

Dawson, J. (2000), "Viewpoint: retailer power, manufacturer power, competition and some questions of economic analysis," *International Journal of Retail & Distribution Management, 28*(1), 5-8.

Elg, U. (2003), "Retail market orientation: A preliminary framework," *International Journal of Retail & Distribution Management, 31*(2/3), 107-117.

Emerson, C. J., & Grimm, C. M. (1996), "Logistics and marketing components of customer service: an empirical test of the Mentzer, Gomes and Krapfel model," *International Journal of Physical Distribution & Logistics Management, 26*(8), 29-42.

Figueiredo, K., Arkader, R., Lavalle, C., & Hijjar, M. F. (2003), "Improving manufacturers' distribution performance and customer service in grocery products supply in Brazil: a longitudinal study," *Integrated Manufacturing Systems, 14*(8), 664-676.

Frazier, G. L., Gill, J. D., & Kale, S. H. (1989), "Dealer dependence levels and reciprocal actions in a channel of distribution in a developing country," *Journal of Marketing, 53*(1), 50-69.

Frenzen, J., & Davis, H. (1990), "Purchasing behavior in embedded markets," *Journal of Consumer Research, 17*(1), 1.

Ganesan, S. (1994), "Determinants of long-term orientation in buyer-seller relationships," *Journal of Marketing, 58*(2), 1-19.

Gaski, J. F. (1986), "Interrelations among a channel entity's power sources: impact of the exercise of reward and coercion on expert, referent, and legitimate power sources," *JMR, Journal of Marketing Research, 23*(1), 62-77.

Gaski, J. F., & Nevin, J. R. (1985), "The differential effects of exercised and unexercised power sources in a marketing channel," *JMR, Journal of Marketing Research, 22*(2), 130-142.

Geyskens, I., Steenkamp, J.-B. E. M., & Kumar, N. (1999), "A meta-analysis of satisfaction in marketing channel relationships," *JMR, Journal of Marketing Research, 36*(2), 223-238.

Gwinner, K. P., Gremler, D. D., & Bitner, M. J. (1998), "Relational benefits in services industries: The customer's perspective," *Academy of Marketing Science. Journal, 26*(2), 101-114.

Heide, J. B. (1994), "Interorganizational governance in marketing channels," *Journal of Marketing, 58*(1), 71-85.

Hess, R. L., Ganesan, S., & Klein, N. M. (2003), "Service failure and recovery: The impact of relationship factors on customer satisfaction" *Academy of Marketing Science. Journal, 31*(2), 127-145.

Hofstede, G. (1983), "The cultural relativity of organizational practices and theories," *Journal of International Business Studies, 14*(000002), 75-89.

Hunt, S. D., & Nevin, J. R. (1974), "Power in a channel of distribution: Sources and consequences," *JMR, Journal of Marketing Research, 11*(2), 186-193.

Kadiyali, V., Chintagunta, P., & Vilcassim, N. (2000), "Manufacturer-retailer channel interactions and implications for channel power: An empirical investigation of pricing in a local market," *Marketing Science, 19*(2), 127-148.

Keston, J. (2007), "*Another BRIC in economic wall - The arrival of developing countries*," WRAL Broadcasting. Retrieved Ja, 21, 2008, from the World Wide Web: http://www.wral.com/business/local_tech_wire/opinion/story/1867292/

Kotzab, H., & Teller, C. (2003), "Value-adding partnerships and co-opetition models in the grocery industry," *International Journal of Physical Distribution & Logistics Management, 33*(3), 268-281.

Li, S. X., Huang, Z., & Ashley, A. (2002), "Manufacturer-retailer supply chain cooperation through franchising: A chance constrained game approach," *INFOR, 40*(2), 131-148.

Madhok, A., & Tallman, S. (2007), "Resources, transactions and rents: Managing value through interfirm collaborative relationships,"

McNeal, J. U., & Lamb, C. W., Jr. (1979), "Consumer satisfaction as a measure of marketing effectiveness," *Akron Business and Economic Review, 10*(2), 41-45.

Mentzer, J. T., Gomes, R., & Krapfel, R. E., Jr. (1989), "Physical distribution service: A fundamental marketing concept?," *Academy of Marketing Science. Journal, 17*(1), 53-62.

Mohr, J. J., Fisher, R. J., & Nevin, J. R. (1996), "Collaborative communication in interfirm relationships: Moderating effects of integration and control," *Journal of Marketing, 60*(3), 103-115.

Mouton, J., & Waast, R. (2006, April, 18), "*The unesco forum on higher education, research and knowledge*," Study on National Research Systems. Retrieved Jan, 21, 2008, from the World Wide Web: http://portal.unesco.org/education/en/files/52280/11694606785Mouton_Progress_Report.pdf/Mouton_Progress+Report.pdf

Musgrove, P., & Galindo, O. (1988), "Do the poor pay more? Retail food prices in northeast Brazil," *Economic Development and Cultural Change, 37*(1), 91-109.

Noordewier, T. G., John, G., & Nevin, J. R. (1990), "Performance outcomes of purchasing arrangements in industrial buyer-vendor relationships," *Journal of Marketing, 54*(4), 80-93.

Reardon, T., Berdegué, J. A., & Farrington, J. (2002), "Supermarkets and Farming in Latin America: Pointing directions for elsewhere?," *Natural Resource Perspectives, 81*.

Rocha, A. d., & Dib, L. A. (2002), "The entry of Wal-Mart in Brazil and the competitive responses of multinational and domestic firms," *International Journal of Retail & Distribution Management, 30*(1), 61-73.

Ruekert, R. W., & Churchill, G. A., Jr. (1984), "Reliability and validity of alternative measures of channel member satisfaction," *JMR, Journal of Marketing Research, 21*(2), 226-233.

Rusbult, C. E., Verette, J., Whitney, G. A., Slovik, L. F., & Lipkus, I. (1991), "Accommodation processes in close relationships: Theory and preliminary empirical evidence," *Journal of Personality and Social Psychology, 60*(1), 53-78.

Schellhase, R., Hardock, P., & Ohlwein, M. (1999), "Customer satisfaction in business-to-business marketing: the case of retail organizations and their suppliers," *The Journal of Business & Industrial Marketing, 14*(5/6), 416-430.

Siguaw, J. A., Simpson, P. M., & Baker, T. L. (1998), "Effects of supplier market orientation on distributor market orientation and the channel relationship: The distributor perspective," *Journal of Marketing, 62*(3), 99-111.

Skinner, S. J., Gassenheimer, J. B., & Kelley, S. W. (1992), "Cooperation in supplier-dealer relations," *Journal of Retailing, 68*(2), 174-193.

Svensson, G. (2002), "A firm's driving force to implement and incorporate a business philosophy into its current business activities: The case of ECR," *European Business Review, 14*(1), 20-29.

Wilkinson, I. (1981), "Power, conflict, and satisfaction in distribution channels - An empirical study," *International Journal of Physical Distribution & Materials Management, 11*(7), 20-30.

Würtz, E. (2005), "A cross-cultural analysis of websites from high-context cultures and low-context cultures," *Journal of Computer-Mediated Communication, 11*(1), 274-299.

Yu, J. P., & Pysarchik, D. T. (2002), "Economic and non-economic factors of Korean manufacturer-retailer relations," *The International Review of Retail, 12*(3), 297-218.

Send correspondence regarding this manuscript to:

Luciana de Araujo Gil
Department of Advertising, Public Relations and Retailing
Michigan State University
East Lansing, MI 48823
gillucia@msu.edu

FIGURE 1

Model of Brazilian Grocery Manufacturer and Retailer Relations

Relational Investment		Economic Satisfaction $R^2 = .501$
.617		
.360		
.230		Non-economic Satisfaction $R^2 = .498$
Cooperation	.462	

Un-Standardized coefficient B in the boxes.
All are significant at p<.01