AN EXPLORATORY STUDY OF SATISFACTION IN BUYER-SELLER PARTNERSHIPS

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ABSTRACT

This qualitative study explores buyer-seller partnerships from both sides of the dyad. Multiple participants from the buyer and seller firms in three business-to-business partnerships were asked to describe how they perceived that partnership and why they perceived it that way. A conceptual framework with buyer and seller satisfaction as the focal consequence evolved from the data analysis. The categories that comprise the framework are defined and supported with exemplars from the data. The relationships between the categories are explored, and a higher level generalization of the framework is developed. Contributions to the field and managerial implications are identified and discussed, as are limitations of the study and opportunities for future research.

INTRODUCTION

Historically, most firms have viewed themselves as rather independent organizations, seeking to maximize their own profitability in the short run, sometimes even at the expense of their customers and suppliers. This perspective, however, is valid only if the transactions between buyers and suppliers are discrete market-based exchanges (Williamson 1985). But most transactions are not market-based exchanges; they are more typically part of an ongoing relationship between buyer and supplier (Webster 1992).

Over the past two decades, the concept of the supply chain has emerged from the realization that most firms are intermediaries in interdependent networks of upstream suppliers and downstream customers. And it is now readily accepted that the successful integration of the activities of this network (commonly referred to as supply chain management) is important in achieving a competitive advantage in the marketplace (Handfield and Nichols, Jr. 1999).

Many firms, embracing the perspectives of supply chain management, have moved to create a competitive advantage by establishing more collaborative, partner-like relationships with their buyers and suppliers. These relationships are the focus of an expanding body of literature. The operations and marketing streams of literature have explored the following aspects:

- The characteristics that differentiate partnerships from traditional buyer-seller relationships (Ashkenas 1990; Fontenot and Wilson 1997; Johnston and Lawrence 1988; Landeros and Monczka 1989; Leavy 1994).
- The potential benefits and risks of partnerships (Lyons, Krachenberg, and Henke Jr. 1990; Newman 1989; Spekman 1988a).
- Guidelines for deciding when to use partnerships (Ellram 1991c; Heide and John, 1990).
- The criteria used for selecting potential partners (Ellram 1990; Spekman 1988b; Stralkowski, Klemm, and Billion 1988).
- The life-cycle stages of partnerships (Ellram 1991a; Wilson 1995).
- Guidelines for developing and implementing partnerships (Ellram 1991b).

- The characteristics of partnership success and the obstacles that impede success (Anderson and Narus 1990; Essig and Amann, 2009; Dumond 1994; Dwyer, Schurr, and Oh 1987; Ellram 1995; Mohr and Spekman 1994; Morgan and Hunt 1994; Paun 1997; Pilling and Zhang 1992; Wilson and Vlosky 1997).

- The mechanisms that help to explain buyer-seller relationships (Bantham, Celuch, and Kasouf 2003; Claycomb and Frankwick 2010; Hald, Cordón, and Vollmann 2009)

- The processes that partnerships use in problem resolution (Landeros, Reck, and Plank 1995).

Buyer-seller partnerships are complex dyadic relationships that involve the buying organization and the supplying organization. Within each organization, multiple business functions interact both intra- and inter-organizationally, executing normal business transactions, designing and improving products and processes, jointly solving problems, and planning for the future. In a partnership, the two units and the functions within those units are interdependent. Yet, relatively few studies have looked at partnerships from the perspective of *the partners*, that is, from the perspectives of matched buyer-seller dyads (Ellram 1995; Ellram and Hendrick 1995). Those studies that have explored both sides of the partnership have done so from the single perspective of purchasing (representing the buyer) and sales/marketing (representing the seller). No studies have looked at partnerships from the perspective of those functions, other than purchasing and sales/marketing, that interact in the normal course of accomplishing everyday transactions between buyers and suppliers—for example, the engineering and manufacturing functions. This study addresses this gap in the current literature by using a multi-case study research design to explore buyer-seller partnerships from cross-functional perspectives within both partnering organizations.

The result of this study is a conceptual framework identifying the salient categories or constructs that help explain buyer-seller partnerships. The focal consequence of the framework is the level of satisfaction with the partnership as perceived by the buyers and the sellers.

Consumers' perception of value, their satisfaction/dissatisfaction, and loyalty have been, and continue to be, a primary focus of practitioners and scholars (e.g., Bassi and Guido 2006; Chow and Zhang 2008; Halstead and Jones 2007; Leingpibul, Thomas, Broyles, and Ross 2009; Sánchez-Fernández and Iniesta-Bonillo 2006). However, relatively little research has addressed these dynamics in business-to-business relationships.

Customer satisfaction in industrial markets has been investigated to some degree (Szymanski and Henard 2001), while supplier satisfaction has been studied to a lesser degree (Essig and Amann 2009). Similar to the studies on buyer-seller relationships, the limited research on buyer and seller satisfaction in industrial markets has typically focused on only one side of the dyad. This study also addresses that limitation and adds to the relatively limited literature on satisfaction in B2B relationships.

RESEARCH DESIGN AND METHODOLOGY

Research Design

There were two initial research questions that led to this study:

(1) How do the participants in a buyer-seller partnership perceive that partnership?
(2) Why do the participants perceive the partnership that way?

This study employed a theory building, multiple-case study research methodology as described by Eisenhardt (1989), Eisenhardt and Graebner (2007), Miles and Huberman (1994), and Yin (1994). This particular research design was appropriate given the nature of the research questions and the desire to provide more compelling evidence and robust findings (Herriott and Firestone, 1983).

The primary unit of analysis was the partnership, focusing on the individual participants' perceptions of the relationship. Furthermore, there are two additional embedded units of analysis, the buying and the selling organizations engaged in the partnership and the individual participants within those organizations.

The underlying logic supporting the building of theory from multiple case studies is the logic of replication. In replication logic, a series of cases is treated as a series of experiments with each case serving to confirm or disconfirm the emerging hypotheses and theory. Those cases which confirm emerging hypotheses and theory enhance confidence in their validity, while cases which result in disconfirmation can often provide an opportunity to refine and extend the emerging theory (Eisenhardt, 1989; Yin, 1994). The replication logic inherent in multiple case study qualitative research provides a strong base for theory building. The theory is better grounded, more accurate, and more generalizable (Eisenhardt, 2007).

Case Selection

The case selection rationale for this study is based on theoretical sampling. Theoretical sampling used in theory building studies is very different from the more familiar statistical sampling used in hypothesis-testing studies. In hypothesis-testing research, the selection of an appropriate population controls extraneous variation and helps to define the limits for generalizing the findings (Eisenhardt, 1989). However, in theory developing research, theoretical sampling is appropriate. The goal of theoretical sampling is to select cases that are likely to replicate or extend the developing theory, that represent theoretical categories, or that provide examples of polar types (Eisenhardt, 1989). In theoretical sampling, cases are chosen for theoretical reasons rather than statistical reasons. They are selected because they are particularly suitable for illuminating and extending relationships and logic among the emerging constructs and hypothesis (Eisenhardt, 2007). This case selection rationale also supports what Yin (1993) refers to as literal replication logic, which increases the confidence in the study's results and the robustness of the findings.

For this particular inquiry, three buyer-seller partnerships in different manufacturing sectors were selected for investigation. Each of these buyer-seller relationships had been in existence for four or more years, and this ongoing nature of the partnerships was not the result of legal or contractual obligations. Additionally, each partnership involved multiple participants from both sides of the dyad. The combination of these factors provided confidence that the case selection was appropriate for the research design.

Table 1 provides profile information regarding the sites selected for this study.

Table 1

Study Site Profiles

	Partnership A - B		Partnership C - D		Partnership E- F	
	Buyer A	**Supplier B**	**Buyer C**	**Supplier D**	**Buyer E**	**Supplier F**
Industry	SIC 3577 Computer Peripheral Equipment Manufacturing	SIC 3672 Printed Circuit Board Manufacturing	SIC 3629 Electrical Industrial Apparatus Manufacturing	SIC 3363 Aluminum Die Casting Manufacturing	SIC 3563 Air & Gas Compressor Manufacturing	SIC 3321 Gray & Ductile Iron Foundries
Number of Employees	300	130	1500	100	700	1500
Sales ($ Millions)	$90	$12	$600	$11	$150	$100
Annual Direct Materials Purchase ($ Millions)	$33	-	$45	-	$80	-
Annual Purchase From Partner ($ Millions)	$1.5	-	$4	-	$20	-
Time as Partners (Years)	6	6	5	5	4	4

Data Sources

The primary sources of data for this study were personal interviews conducted with those employees who are involved with the management and operation of the partnership. These individuals were managers and individual contributors and represent various functions within both the buyer and supplier organizations. The key informants were identified in preliminary discussions with primary contacts at both buyer and supplier firms. Additional key individuals, identified through the course of the interviews, were added to the list of interviewees. At least ten personal interviews per case were conducted, roughly split between the buyer's organization and the seller's. In total 36 interviews were conducted during the main study (see Table 2).

Table 2
Study Data Sources

Partnership A - B		*Partnership C - D*		*Partnership E - F*	
Buyer A	*Supplier B*	*Buyer C*	*Supplier D*	*Buyer E*	*Supplier F*
Corporate Purchasing Manager	General Manager	Materials Manager	President	Purchasing Manager	Sales Manager
Department Purchasing Manager	Quality Manager	Buyer	Operations Manager	Quality Engineer	Quality Manager
Buyer	Customer Service Rep.	Design Engineering Manager	Shop Manager	Design Engineer	Quality Manager
Quality Engineer	Tool Engineering Manager	Quality Engineer	Shop Foreman	Design Engineer	Quality Engineer
Design Engineer	Tooling Engineer	Quality Specialist	Production Control Specialist	Process Engineer	Materials Manager
Process Engineer		Production Control Specialist	Design Engineering Manager	Process Engineer	
			Quality Engineer		
			Comptroller		

Data Collection

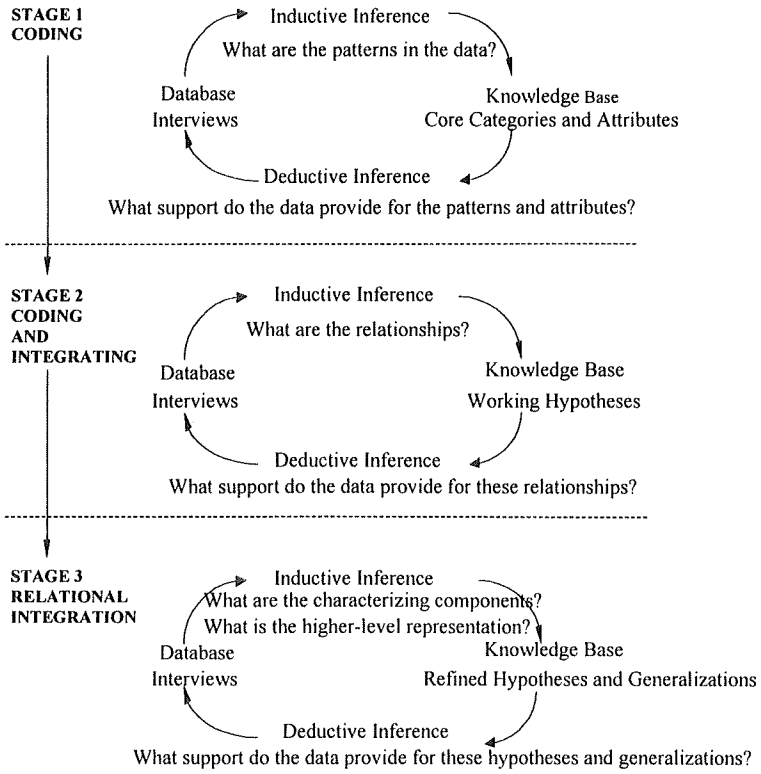
Personal interviews were conducted with the appropriate individuals within each firm of the partnering dyad. An open-ended interviewing approach was used. Each interview began by asking the participant "What is it like to work with Company X (the partnering firm)?" The participant was prompted to take the lead in where the conversation headed. This form of interviewing provided the perspectives of the participants, in the participants' own words.

Interviews were audio taped and later transcribed; interview notes were also taken. In the few instances where personal interviews were not possible, taped phone interviews were conducted. The data gathered from the transcriptions of the interviews was used to create a case study database using QSR NUD*IST, a commercial, qualitative data analysis software program. (QSR NUD*IST has been superseded by NVivo.)

RESULTS AND DATA ANALYSIS

Qualitative data analysis requires the researcher to move constantly between inductive and deductive thinking as he/she moves through the stages of identifying code categories and their attributes, developing working hypotheses that describe the relationships among the categories, and finally refining the hypotheses and forming higher-level generalizations from the data (Glaser and Strauss, 1967; Strauss and Corbin, 1990).. The process is described by Shelly and Sibert (1992, pg. 73) as ". . . a cycle of complementary tasks which inform each other and which as a grouping, lead the researcher from concrete to abstract representations of the phenomena under study." Figure 1 graphically displays the data analysis process followed.

Figure 1
A Staged Model of the Qualitative Analysis Process
(Based on Shelly and Sibert (1992) and Sibert and Shelly (1995))



Separating the data analysis and the results in a qualitative study makes it more difficult to follow the progressive inductive-deductive cycle as ideas emerge from the data and then are refined by further comparison to the data. This section will, therefore, address the process of data analysis and the reporting of results together (Bogdan and Biklen, 1992). The intent is to provide the reader a "guided tour" of the key aspects of the researcher's perspective as he progressed through the iterative cycles of qualitative data analysis. The tour is divided into three stages that roughly parallel the stages of qualitative research described by Shelly and Sibert (1992) and depicted in Figure 1.

STAGE ONE

The focus of this stage is to *inductively* generate categories and their attributes from the interview database, and then deductively check these emerging concepts against the data, revising the categories and attributes as appropriate. The outcome is the identification and definition of the following nine categories. Selected examples from the data that support the definitions will be provided.

Organizational Self-awareness:

Organizational self-awareness is conceptualized as the understanding the partnering firms have of themselves. This

understanding includes such factors as: their strengths and weaknesses compared to their competition; their business and supporting functional strategies; a very thorough understanding of their manufacturing processes and the capabilities of those processes; and their expectations of the partnership. It is important to point out that this definition implies that the *individuals* involved in the partnership are aware of these factors and share a collective understanding of the factors relative to their firms. The following quotations provide examples of this category. All quotations in this section will be attributed to the appropriate dyad of the partnership and will be annotated as to which attributes are represented.

Quotation One:

Buyer A—Understanding of business drivers and their relationship to the partnership

Naturally, we're in business to make money. Nobody, I think, goes in business to lose money. In our industry, our niche in the industry is pretty competitive, pretty cost-driven and competitive. So, routinely, we go through re-design or cost-saving activities so that we can cut our costs and our price then to the customer. We do it from a manufacturing standpoint, as far as labor that we're putting into products and also from a component standpoint.

Actually components make up about 85% of the cost of a product, so it's a significant piece. Labor, actual direct labor and the manufacturing area is less than 5% of the overall cost. So there's a lot more focus on component cost and what improvements there could be to the overall picture versus actual manufacturing processes. The printed circuit board is one of the costlier components of the unit, and I know that every year we get quotes on our boards, on everything, on all of our components. And at some point, it might have been in 1995, (Supplier B's) quotes to us were kind of high. I think they were asking for an increase, and we wanted a decrease. Every year we want decreases, and they actually came back with an increase and on some of the newer products that we were just finishing up in development and design and sending over to them. We were seeing what we perceived as an increase over what we anticipated based on similar products.

Quotation Two:

Supplier B—Expectations of the partnership

I remember having several meetings with (Buyer A's) upper management where some of their people stood up and said, 'Hey guys, we better take care of our problems before we ask (Supplier B) to take care of their problems.' And that started the real col-laborative attitude. It wasn't them against us.

Commitment to the Partnership:

Commitment to the partnership is defined as the desire to continue the partnership and work to ensure its continuance. Mohr and Spekman (1994) describe commitment as the willingness to exert effort on behalf of the relationship. This willingness to work on the relationship to ensure that it endures (Morgan and Hunt, 1994) can result from a number of factors.

The study data revealed multiple attributes of commitment—the desire to reduce business uncertainty and increase business stability, the belief that the cost to move away from the partnership would exceed the benefits, the realization of the interdependence of the firms, and the willingness or desire to maintain the relationship. The data also highlighted another important aspect of commitment; commitment exists at both the organizational level and at the personal level. The following quotations from study informants provide examples from the data.

Quotation One:

Buyer A—Realization of the interdependence of the firms

If you had a short term need to use a supplier, you probably wouldn't be so concerned about their success; you'd want the best deal you could get. But when you want to develop a long term relationship, you have to be worried about them meeting their goals; them getting what they need so they can be successful and so that they'll be around for that lasting relationship. I think that we understand that probably better, or I understand it better than I ever have, and I see that sort of relationship with (Supplier B). They understand that their continued success at having us for a customer depends on our being successful and that they own a piece of that; they need to be there providing quality printed circuit boards that meet all quality expectations and that arrive here on time.

Quotation Two:

Supplier B—Desire to maintain the partnership

I think you've got to want to do it. You've got to want to be the partner. You've got to want to partner with whomever. It's almost like a marriage; you've just got to want to do that. You don't have to marry them to still be their number one supplier. But for both to become profitable, and maybe strengthen the profitability, now you get into the partnering, and it's going to open up some doors.

Communication:

Communication processes underlie most aspects of organizational interaction and, therefore, are typically viewed as being critical to organizational success (Mohr and Spekman, 1994). The data in this study support this view with informant after informant commenting on the importance of communication to the success of the partnership.

Communication in the context of organizational relationships has often been broadly defined "as the formal and informal sharing of meaningful and timely information between firms" (Anderson and Narus, 1990, p. 44). In addition, communication has been defined to include "the ways in which information is exchanged and shared between partners and the openness between partners in their exchanges of information" (Fontenot and Wilson, 1997, p. 7) and "the means by which channel activities are coordinated" (Paun, 1997, p. 16).

The study data clearly reveals that communication is a complex category consisting of numerous, multi-dimensional attributes. The importance of communication quality—the accuracy, timeliness, adequacy, and credibility of information (Mohr and Spekman, 1994)—is evident in the data. The requirement that effective information exchange be participative and bilateral in nature was also evident (Mohr and Spekman, 1994; Dwyer, Schurr, and Oh, 1987).

Two additional attributes that appeared in the data were the importance of multiple channels of information exchange between partners and the importance of direct, interpersonal communication, particularly face-to-face interactions. The data suggest that not only was the information being communicated important, but how it was communicated was also important to the success of the partnership. It appears that the means of communication was particularly important in the development and maintenance of long-term relationships between the partners. Communication is, therefore, defined as the content and the means of information exchange between partnering firms. Effective communication would then imply that the quality of information exchanged is high and that the means of exchange enhances the development and maintenance of long-term relationships between the partners. The following

quotations from the data base provide examples of this category.

Quotation One:

Supplier D—Direct, interpersonal communication and multiple communication channels

I think the information, the communication that we have with them, they have made themselves available to talk to them at any time, they feel free to call us and talk to us at any time. We deal with some of the people even on the floor up there. That's kind of changed over the years too, that was kind of restricted earlier, where now they're becoming more open because of some of the new things they're doing up there, and they're becoming even more open than they were in the past. And that has helped us to communicate. (_____), who works with me, he talks to (Buyer C) quite often, all the time, about what we're doing internally here, to make sure that we are on the same wavelength with them that we need to be, versus assuming that something should happen, and then when it doesn't, we have a negative. And we have a big open relationship with them, in fact, we go and visit them quite often, and they come down and visit us quite often. In fact, (_____) comes down usually once a month and visits, and we go over all the plans that we have here. We talk about tooling, any kind of engineering changes, how the machines are running, you know, all those kinds of issues. And again, that's something that is unique to that customer that we don't have with a lot of the other ones.

Quotation Two:

Supplier D—Direct, interpersonal communication

It's great to talk over the phone, it's great to send a fax back and forth, but you know, I've always been a proponent, even when I teach my children, when you have a problem, let's talk about it face-to-face rather than on the phone or leaving a note. You don't get the same effect; it doesn't really come out the same way. When you're talking to someone like we are talking now, you can get a better feel for what's going on and know whether something's legitimate or not. Whereas on the phone, they may be crying wolf about something when they really don't need something, and when you're face-to-face, you really can get those things out a little better, and I think that's imperative to what we do, especially with them.

Inter-organizational Understanding:

Inter-organizational understanding refers to the understanding and knowledge that an individual involved in the partnership has of the partner's business. This includes knowledge of the partner's markets, strategies, processes, and expectations of the partnership.

This category goes beyond the mere exchange of information and implies that the information is truly understood; that is, the information, its context, and its implications are viewed from the perspective of the partner. This understanding does not just happen; it develops through the active involvement and interaction of individuals with their partnering firms. Mohr and Spekman (1994) allude to this category in their discussion of information sharing: "By sharing information and by being knowledgeable about each other's business, partners are able to act independently in maintaining the relationship over time" (p. 139). The essence of this category, then, is the individual and collective knowledge that a firm has of its partner's business. The following quotations from study informants characterize this category.

Quotation One:

Buyer E—Understanding the partner's perspective

Yeah, I mean any time that we requested a trip out there, and really this last trip back in April, (_____), another product engineer, and myself, basically requested to (Supplier F), let us come out, we brought a couple of our designers with us, let us come out and just get our hands on the tooling, just take time to go out and explain to us, why, how the tooling is, and why it does what it does. And look at things from their engineering perspective only, and not how we manufacture the end part, but what goes into the engineering. And I think that was the big, the big push towards improvement here. Because we got a better understanding. Now we could help; we could help adjust the print such that the part was now manufacturable (by them), okay. And also give tolerances to the casting based on their casting process.

Quotation Two:

Supplier B—Understanding the partner's perspective

And we charge more than (Buyer A) needs to pay for commodity-type boards. There is a level of service and quality that they don't need on this commodity. But we understand that. And yeah, we lost several hundred thousand dollars worth of business, but we are business people, and we are not going to cry about it. Let's just go on. If it is a good decision for them that means it is going to be a good decision for us because it keeps you profitable. Pretty much what we both want to be, in business 20 years from now.

Cooperation:

Cooperation has been defined as "similar or complementary coordinated actions taken by firms in interdependent relationships to achieve mutual outcomes or singular outcomes with expected reciprocation over time" (Anderson and Narus, 1990, p. 45). The definition of cooperation employed in this study refers not only to the coordinated actions taken by firms, but also refers to the firms' willingness to take those actions. This willingness to engage in such actions is important. If a firm has to continually coerce its partner to engage in these types of actions, the firm would not be viewed as being cooperative.

Morgan and Hunt (1994) make a distinction between cooperation and acquiescence. They define acquiescence as passively or reactively agreeing to a partner's request for improvement, whereas cooperation is proactively suggesting ideas for improvement. The definition used in this study does not differentiate between cooperation and acquiescence. The data implied that the willingness of the partner to engage in coordinated actions was of major importance, whereas the proactive or reactive nature of that willingness was of less importance. It should, however, be pointed out that if one partner *expected* the other partner to take a proactive position, and a reactive position was most commonly assumed, the satisfaction with the partnership might be affected.

Cooperation is, therefore, conceptualized as the firm's willingness to take coordinated actions with its partner to achieve mutual outcomes or singular outcomes with expected reciprocation over time. The definition of this category, like the previous ones, implies that the particular category is both an organizational and individual phenomenon, i.e., for a firm to be perceived as being cooperative, at least some members of that firm must be perceived as cooperative. The following quote from the research data provides an example of this category.

Quotation:

Buyer A—Willingness to take coordinated action

(_____) has been at (Supplier B) since I can remember. He's the QA manager there and may very well be someone that you are talking to. He was a tremendous help, and he never, as immature as we were, as far as developing a knowledge base on printed circuit boards, he always was helpful and a mentor. He never laughed at us. He probably had lots of opportunities where he could have. So, that was, in my mind, that was extremely key. That was a big distinction between doing business with (Supplier B) and doing business with the other house on the West Coast.

Joint Problem Solving:

Joint problem solving is defined as the collaborative participation of both partnering firms in the functional resolution of conflicts and in the joint planning and implementation of improvement projects. Joint problem solving implies more than cooperation (defined in this study as the willingness to take coordinated actions). The data suggests that joint problem solving is action oriented and involves both partners rolling up their sleeves and tackling a problem together.

Traditionally, joint problem solving has been defined more narrowly than it is here, primarily in the context of conflict between parties. For example, Mohr and Spekman (1994) categorize joint problem solving as one of several conflict resolution techniques. Conflict is inevitable in most relationships (Fontenot and Wilson, 1997 and Dwyer, Schurr, and Oh, 1987). There are, however, numerous opportunities for partnering firms to engage in joint activities for the purpose of solving or avoiding problems which are not precipitated by conflict or disagreement between the partners. An excellent example of this type of activity is the increased involvement of suppliers in the development of new products (Wheelwright and Clark, 1992). The definition employed here takes that broader view of problem solving. The following quotations from the data provide examples.

Quotation One:

Buyer C—Collaborative problem solving

I would say (Supplier D) is much more hands-on when working through problems. Their attitude is always receptive, they don't get defensive. Some suppliers, not all, but some, the minute you discover a problem, hit the defensive mode that second. I've never seen (Supplier D) get defensive at the start of an issue, which is a good thing.

Quotation Two:

Supplier B—Joint planning and implementation of improvement projects

One of our ongoing projects right now is scoring with (Buyer A), scoring the circuit boards. They have a water jet machine, and they separate the boards with a water jet. From what I hear, the machine breaks down quite a bit, and it's not very accurate in removing a lot of material. A lot of material lost, it's not going to be very cost-effective. A scoring machine will put the boards directly against one another, no loss in board size, get more boards on a master, better efficiency, better yield, lower cost. Right now, we're working on projects with them to try to bring them on-line with scoring. Most of their parts can't really accommodate that because they're not square. Some are a version of square, and I can get it to work. And we had one problem, that the boards, they were getting, literally falling out of the panels. They were scored to the spec that we originally came up with, but after assembly I imagine that the web weakened a little bit, and it got a little bit less.

So I had one of the engineers give me a call and say, 'they're falling out, what can you do?' I said, 'well, I'd change the web spec. And I would beef the web up maybe four to five mils, and we'll try that out.' And they were pleased with that, and they decided to go with that. I haven't heard of any problems since, and this was a month ago, maybe. We've sent, I believe, two orders since then.

Tangible Outcomes:

Tangible outcomes refer to those quantifiable business results that stem from the partnership. From a social exchange theory perspective, these outcomes can be viewed as being similar to the economic rewards sought in exchange relationships (Emerson 1976; Briggs and Grisaffe, 2010). Included in this category are those objective measures mentioned by the informants in the study. Those measures include: sales volume; profit/margin; quality; and delivery. The following quotations provide examples.

Quotation One:

Supplier D—Reliable volume of sales

It's good business. Solid, large volume, solid business that one can count on. It's basically a fair margin; it's not tremendously profitable, but it's solid and it's a pleasure to deal with a sophisticated customer.

Quotation Two:

Buyer E—Reliable quality and responsiveness

Prior to (Supplier F) coming on board, we had three or four different suppliers. And they were tough to deal with. They, their metal changed, it'd be hard, it'd be soft, it'd be porous, there were all kinds of problems from that. Well, (Supplier F) has a certain amount of it too. But it's very difficult to get other suppliers to react to problems. And if they did, when they did react, it would be way down the road. And (Supplier F) is there, like right now!

Intangible Outcomes:

Intangible outcomes refer to those outcomes that are associated with the partnership yet cannot be readily quantified. Again using a social exchange theory perspective, intangible outcomes would include the social outcomes that partners seek in exchange relationships (Emerson, 1976; Briggs and Grisaffe, 2010), and other desirable outcomes that are extremely difficult for partners to quantify. These outcomes include: the creation of new knowledge; the development of new capabilities; the ease of working with the partner; the formation of social bonds; and the development of trust. The data suggested that the attributes of intangible outcomes were very important to the informants, having significant influence on how they felt about the partnership. The following quotations help to illustrate the definition of this category.

Quotation One:

Supplier B—The creation of new knowledge

We have gotten a lot of business out of that relationship. We average over a million dollars a year. We have also received a lot of knowledge. (Buyer A) is very free with their knowledge. When they hear or learn something good, they are willing to teach us.

Quotation Two:

Supplier B—The development of new capabilities

They have forced us, I remember standing up in front of a meeting, it was one of the original meetings and (_____), he was in there along with a lot of other people, and he says, well, it was one of those questions, and we laid out this is how many hours it takes to do this, and this is how many hours it takes to do this, and there is no way we can build a board in less than 12 days. At the end of it (_____) said, 'Why not?' You know, can't you do this, can't you do that? And like I say, now we have built, I believe we delivered one, it was counter-to-counter delivery to (Buyer A) last night. I believe it was a three day turns around on a six layer board. And it was an eye opening, sitting there in a meeting, and I vividly remember it, him saying, 'Well, why can't you do that?' And it's, we went back and we talked about it and it took us months to do it, we were at 20 days, and six months later we were down to 15 days, and maybe a year after that we were down to 10 days with a couple five day turns. We make a lot of money building five day turns for some of our customers.

Quotation Three:

Buyer E—The development of trust

I think there is pretty good level of trust that we'll be honest with each other, even if it's a difficult situation. And I think it has to do with the people that are involved again, and how they are.

Quotation Four:

Supplier F—The development of trust

And there is a high degree of trust. I can say all I want to about the people, the engineers, the differences, but there is trust. They trust us to do what we say we are going to do, and we trust them to do the same. I think that's the key.

Satisfaction:

Satisfaction has often been employed as a proxy for success in studies of inter-firm exchange relationships (Anderson and Narus, 1990; Anderson and Narus, 1984; Frazier, Spekman and O'Neal, 1988). The rationale for this use of satisfaction as a surrogate for success "is based on the notion that success is determined, in part, by how well the partnership achieves the performance expectations set by the partners (e.g., Anderson and Narus, 1990). A partnership that generates satisfaction exists when performance expectations have been achieved" (Mohr and Spekman, 1994, p. 136).

The study data reveals that participants have performance expectations that are associated with the tangible outcomes of the partnership and the interactions associated with joint problem solving activities. The data would also indicate that satisfaction is affected by the presence of intangible outcomes associated with the partnership. However, it was not clearly evident in the data that participants have predetermined expectations relative to intangible outcomes. This could perhaps be explained by the very nature of intangible outcomes, i.e., they are more abstract and less quantifiable consequences of partnerships. Perhaps the participants do not consciously establish expectations for these outcomes, or perhaps they cannot readily articulate them. The data did, however, suggest that the relative level of these outcomes, as perceived by the individual, is important for generating a sense of satisfaction with the partnership. Anderson and Narus (1984) take this more holistic perspective of satisfaction when they define it as "a positive affective state resulting from the appraisal of all aspects of a firm's working relationship with another firm" (p. 66). Satisfaction, as defined for this article, refers to the degree to which the interactions of the partners and the outcomes of the partnership meet the performance expectations of the partners and the perceived

level of positive intangible outcomes associated with the partnership.

Examples of satisfaction, taken from the data, follow. These examples are related to the joint problem solving and/or intangible outcome aspects of satisfaction. The data yielded fewer examples related to the aspect of tangible outcomes. This is not to imply that tangible outcomes are not important, it could, however, imply that participants perceive tangible outcomes as "givens" in ongoing partnerships, and if expectations relating to those tangible outcomes are not met, they then become "top of mind" and are addressed through joint problem solving activities.

Quotation One:

Supplier F—Intangible outcomes (ease of working with partner) and expectations related to joint problem solving

They're very down to earth people. They understand their machining operation well. They understand their product line. The engineers and everybody involved are just, they're more willing to work with you on resolving problems. And I think the biggest thing is that they listen to what you're telling them.

Quotation Two:

Buyer E—Expectations related to joint problem solving (negative example)

Well, basically I am not that satisfied with (Supplier F). Their approach is what I would term non-proactive. And I think it's, I'll make an observation, I believe it is indicative of a lot of the foundry industry. Basically they have been doing things for x number of years in a given way, and to get them to change creates a lot of turmoil and a lot of resistance.

Quotation Three:

Buyer E—Intangible outcomes (ease of working with partner, negative example)

I don't enjoy doing business with (Supplier F), I really don't, only because of this, this attitude that they have, okay, you know, not wanting to listen early on in the program to what we say, not wanting to listen to our needs, okay. And it's just, I get very frustrated with them.

Quotation Four:

Supplier B—Expectations related to joint problem solving

If you look at everybody's mission statements, very seldom can you miss the words 'exceeding customer's expectations.' Doing it together to me is a good definition for partnership.

STAGE TWO

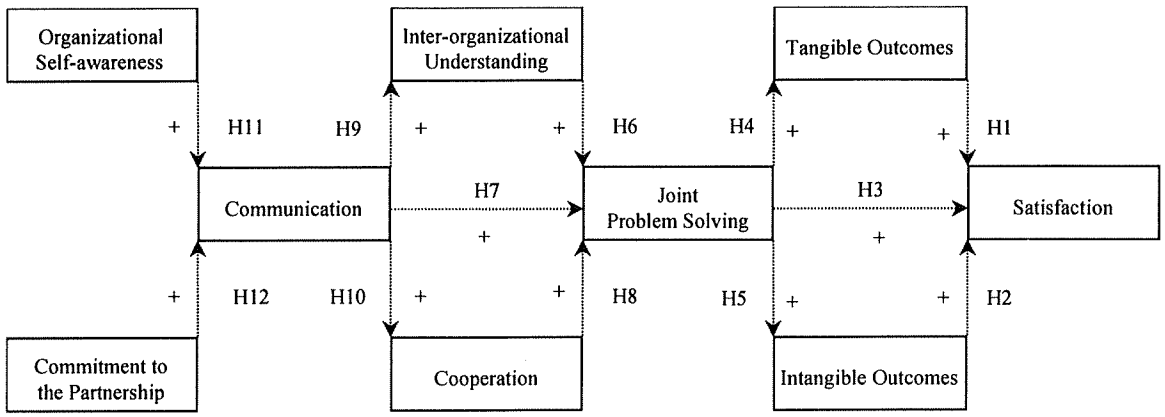
Stage Two focuses on the *inductive* identification of the relationships between the categories identified in Stage One. These hypothesized relationships are then *deductively* checked against the interview database and compared to pertinent literature in the field. There are two outcomes of this stage. The first is a conceptual framework that addresses the important characteristics of buyer-seller partnerships that were identified in this study and their hypothesized relationships. The second outcome is a comparison of this conceptual model to other selected studies in buyer-seller partnerships.

Conceptual Framework

Figure 2 represents the model of ongoing, working partnerships between industrial manufacturing firms developed from the interview database in this study. The

framework is meant to apply to both the buyer and the supplier firms' perspectives of their partnerships. This perspective is similar to previous conceptual models of working partnerships (Dwyer, Schurr, and Oh, 1987; Frazier, 1983; Anderson and Narus, 1990), and is based on the rationale that both firms are engaged in the same relationship and, therefore, symmetry of the constructs underlying the partnership is expected. This symmetrical perspective is supported by the data.

Figure 2
Conceptual Framework of Buyer-Seller Partnership and Hypothesized Relationships



The conceptual framework (see Figure 2) displays the nine categories that were identified in the process of data analysis and the hypothesized relationships between the categories. It is important to point out that the arrows that connect the categories in the framework do not imply causality or temporal precedence; they should only be interpreted as implying a hypothesized relationship between the categories.

The focal consequence of the conceptual framework is the level of satisfaction that the individual participants have relative to the partnership. This level of satisfaction appears to be directly related to three categories: tangible outcomes, intangible outcomes, and joint problem solving. The relationship between satisfaction and tangible outcomes can be stated more formally by the following research hypothesis:

H1: The realization of expected tangible outcomes is positively associated with the participants' satisfaction with the partnership.

The study data show that realizing the expected tangible outcomes associated with a partnership are taken for granted by the partners. If the expected tangible outcomes are not realized, a level of dissatisfaction prevails; however, realizing the expected tangible outcomes does not assure satisfaction with the partnership. Participants' satisfaction with the partnership is associated with the presence of positive intangible outcomes.

As stated before, it was not evident in the data that participants have predetermined expectations relative to intangible outcomes. It was evident, however, that the development of positive intangible outcomes was present when the participant viewed the partnership

with a sense of satisfaction. Stated more formally, it is expected that:

H2: The realization of positive intangible outcomes is positively associated with the participants' satisfaction with the partnership.

The participants did not appear to be satisfied with their partnership solely on the basis of positive outcomes. The interactive processes of the partnership had a great deal to do with how the partners felt about the partnership. It appeared that there was a positive relationship between how well the partners worked together in collaboratively solving problems and their level of satisfaction with the partnership. It is therefore expected that:

H3: Collaborative joint problem solving interactions are positively associated with the participants' satisfaction with the partnership.

The study data reveal that joint problem solving activities played a key role in whether or not the partnership was viewed favorably by the participants. The ability for the partners to collaboratively interact and jointly solve problems appeared not only to be associated with satisfaction, but also with tangible and intangible outcomes. The following research hypotheses formally state the posited relationships between these categories:

H4: Collaborative joint problem solving activities are positively associated with the realization of expected tangible outcomes.

H5: Collaborative joint problem solving activities are positively associated with the development of positive intangible outcomes.

Successful joint problem solving activities appear to be affected by the level of inter-organizational understanding between the partners, the level of cooperation that exists between the partners, and the effectiveness of the communication processes that exist between the partners. For firms to engage in collaborative problem solving activities and experience positive outcomes, there must be a willingness to engage, a sound basis of understanding between the firms, and effective communication that facilitates the sharing of information. Thus, it is expected that:

H6: The greater the level of inter-organizational understanding between the partners, the more effective their joint problem solving activities will be.

H7: The more effective the communications between the partners, the greater the effectiveness of their joint problem solving activities.

H8: The greater the level of cooperation between the partners, the more effective their joint problem solving activities will be.

Effective communication, as previously defined, means that the quality of information exchanged is high and that the means of exchange enhances the development and maintenance of long-term relationships between the partners. Hypothesis 7 posits that there is a direct positive relationship between communication and joint problem solving. The data also suggest a direct positive relationship between communication and the categories of inter-organizational understanding and cooperation. The following research hypotheses formally state the posited relationships between these categories.

H9: The more effective the communications between the partners, the greater the development of inter-organizational understanding.

H10: The more effective the communications between the partners, the greater their level of cooperation.

The overall effectiveness of communication appeared to be influenced by the willingness of the partners to exert effort on behalf of the partnership, i.e., the level of commitment to the partnership, and quality of the information shared. As stated previously, the quality of information can include such aspects as timeliness, adequacy, accuracy, and relevance (Mohr and Spekman, 1994). The data suggested that the quality of information was rooted in the knowledge the partners had of themselves, i.e., their organizational self-awareness. It should follow then that the level of organizational self-awareness is related to the effectiveness of communications between the partners. The relationships between these categories are stated in the following research hypotheses:

H11: The greater the level of organizational self-awareness, the more likely that communications between the partners will be effective.

H12: The greater the level of commitment to the partnership, the more likely that communications between the partners will be effective.

Comparison of the Conceptual Model to the Buyer-Seller Partnership Literature

While existing papers in the literature address various elements that overlap with parts of the model proposed here, no previous treatment involves all the components, nor the particular arrangement depicted in this study. This section will discuss the salient differences between the results of this study and a small, yet representative, part of the current literature addressing buyer-seller partnerships. In most instances, comparisons will focus on four studies which have proposed conceptual frameworks related to partnerships—Anderson and Narus, 1990; Dwyer, Schurr, and Oh, 1987; Mohr and Spekman, 1994; and Morgan and Hunt, 1994. These models provide a robust representation of buyer-seller partnerships (Fontenot and Wilson, 1997), and, therefore, provide an excellent basis for comparison with the framework and constructs of this study. In the few instances where these four models do not provide a good comparative base, other studies—namely those by Frazier, Spekman, and O'Neal (1988) and Landeros, Reck, and Plank (1995)—will be used as the basis for comparison. The section is organized around each of the categories and their hypothesized relationships that were introduced in the previous section.

Organizational Self-awareness. Landeros, Reck, and Plank's (1995) construct of *buyer's expectations* highlights the criticality of establishing precise expectations for the partnership that is seen in this study as an important attribute of organizational self-awareness. Frazier, Spekman, and O'Neal (1988) introduce a construct they call *market position and aspirations of the OEM* (original equipment manufacturer) that is likewise similar to organizational self-awareness.

These studies take the perspective of the buyer. In recognizing partnerships as being bilateral relationships between buyers and sellers, it is only reasonable to expect that the supplier must likewise be aware of their needs, expectations, capabilities, etc. It is important that both partners possess a reasonably well developed sense of self-awareness. This self-awareness, when communicated effectively to the other partner, facilitates inter-organizational understanding. This rationale, supported by the research data, was the basis for the hypothesized

relationships between organizational self-awareness and communication, and communication and inter-organizational understanding.

Commitment to the Partnership. The relationship between commitment and other constructs important to partnerships varies in the literature. Mohr and Spekman (1994) hypothesize that commitment is directly related to success of the partnership as measured by satisfaction and sales. Dwyer, Shurr, and Oh, (1987) propose that commitment is the resulting phase of development in buyer-seller relationships. Morgan and Hunt (1994), on the other hand, propose that commitment is one of two "key mediating variables"—the other being trust—positioned between five antecedents and five outcomes. The position of commitment in these three models varies from being an antecedent, to a mediating variable, to an outcome.

This research hypothesizes that commitment is positively related to effective communication and ultimately to satisfaction. It most closely resembles Mohr and Spekman's (1994) work relative to commitment's relationship to other constructs, especially when one considers that Mohr and Spekman also posit a direct relationship between communication and satisfaction/sales. The researcher believes that the apparent differences in the role of commitment, as described by these studies, can be at least partially explained by the dynamic nature of partnerships. As previously stated, it is reasonable to perceive that satisfaction with a partnership would have a positive influence on future commitment to the partnership. If one envisions partnerships as being represented over time as a spiral of related constructs, it is possible to see how a particular construct could, depending on the perspective, be an antecedent, a mediating variable, or an outcome. Anderson and Narus (1990) explain this spiral perspective of partnerships as they describe their posited relationship between communication and trust:

> Our interpretation is that building and maintaining relationships is an iterative process. Meaningful communication between firms in a working partnership is a necessary antecedent of trust (cf. Anderson and Narus 1986). In subsequent periods, however, this accumulation of trust leads to better communication (p. 45).

Morgan and Hunt (1994) also support this perspective of ongoing partnerships.

Communication. Communication is a common element to the four models being used for comparison. The definitions of this construct are similar across the studies and consistent with the definition developed in this study—the content and the means of information exchange between partners.

This study, however, emphasizes the importance of the means of information exchange. The content of information exchange is seen as a necessary, yet not a sufficient attribute of effective communication. The means of information exchange, particularly face-to-face exchanges, appear to be important in the development and maintenance of the hypothesized positive relationships between communication and the categories of inter-organizational understanding, joint problem solving, and cooperation.

Inter-organizational Understanding. The four comparative models do not contain a construct that is analogous to inter-organizational understanding, defined in this study as the understanding and knowledge that an individual involved in the partnership has of the partner's markets, strategies, processes, and expectations. The work of

Landeros, Reck, and Plank (1995) does, however, propose a construct they call mutual understanding and commitment.

This article proposes that inter-organizational understanding is dependent on the individual participant's knowledge of the partner's business and their specific role in the relationship and that there is a positive relationship between inter-organizational understanding and joint problem solving (H6). Landeros, Reck, and Plank (1995) share these perspectives.

Cooperation. Cooperation as defined in this study differs slightly from the one proposed by Anderson and Narus (1990) and later used by Morgan and Hunt (1994). The definition proposed here includes an attitudinal characteristic, that is, the "willingness" of the firms to engage in coordinated actions.

Anderson and Narus (1990) view cooperation as being a posited consequence of trust and an antecedent to satisfaction. Morgan and Hunt (1994) see cooperation as being a crucial factor in promoting relationship marketing success and stemming directly from their key mediating variables of commitment and trust. Mohr and Spekman (1994) identify coordination (similar to cooperation) as one of four attributes of the partnership (the others being commitment, interdependence, and trust) and hypothesize that more successful partnerships, compared to less successful partnerships, exhibit higher levels of these attributes.

The conceptual framework presented in this study posits that there is an indirect positive relationship between cooperation and satisfaction, with joint problem solving being the primary mediating variable between cooperation and satisfaction. Cooperation appears to be similar to commitment in that it has been represented as an antecedent, a mediating variable, and an outcome of partnerships. The researcher believes that these differences can also stem from the recursive nature of ongoing partnerships (Anderson and Narus, 1990).

Joint Problem Solving. Recall from the previous discussion of this category that the definition used here takes a broader view of problem solving than is typically used in partnership literature. That is, here it implies joint participation in activities focused on solving or avoiding problems that were not necessarily precipitated by conflict or disagreement between the partners. Further, it was hypothesized that joint problem solving facilitates the realization of tangible and intangible outcomes and is important in creating and sustaining satisfaction.

Anderson and Narus (1990) posit an indirect positive relationship between functionality of conflict and satisfaction. They propose that the functionality of conflict has a negative relationship with conflict, which in turn has a negative relationship with satisfaction. Morgan and Hunt (1994) view functional conflict as an outcome of partnerships that is positively influenced by trust. Dwyer, Schurr, and Oh (1987) attribute conflict management to the commitment phase (the outcome phase) of relationship development.

These perspectives, although differing in their posited relationships relative to this construct, all recognize the potential functional nature of conflict. They appear to imply, but do not stress, the process orientation of this construct. This study, in hypothesizing that joint problem solving is a mediating construct, directly influenced by partnership enablers and directly influencing performance and relational outcomes, stresses the process orientation of joint problem solving.

Tangible Outcomes. All four of the comparative models include a construct that is, at least to some degree, similar to tangible outcomes as defined here. However, the posited relationships are quite different.

Mohr and Spekman (1994) posit that sales volume flowing between dyadic partners is one of two indicators of partnership success (the other indicator is satisfaction and will be discussed later in this section). Dwyer, Schurr, and Oh (1987) include tangible outcomes as an attribute in their construct of attraction, described as the initiating process of the exploration phase of partnerships. Anderson and Narus (1990) view tangible outcomes as influencing the organizations' dependence on the working partnership. In their model, this construct has a direct positive relationship with satisfaction. Morgan and Hunt (1994) propose that *a relationship benefit is* a precursor to commitment.

The research presented here shows the greatest similarity to Mohr and Spekman's work (1994), that is, tangible outcomes are influenced by the attributes that characterize the partnership, the communication behavior engaged in by the partners, and the conflict resolution techniques employed to settle disagreements.

Intangible Outcomes. Intangible outcomes refer to those outcomes that are associated with the partnership yet, cannot be readily quantified. This research differs from the comparative models in that it differentiates tangible and intangible outcomes and places specific importance on the relationship between intangible outcomes and satisfaction.

Interestingly, all four comparative models included the concept of trust. The posited definitions of trust are similar across the models, but the placement of trust within the models is markedly different.

Morgan and Hunt (1994) described trust as being one of the key mediating variable in their model, the other being relationship commitment. Anderson and Narus (1990) hypothesize that there is a positive relationship between communication and outcomes given comparison levels and trust. Trust, in turn, is positively related to cooperation and functionality of conflict.

Dwyer, Schurr, and Oh (1987) view trust as an attribute of *expectations development,* which is a sub-process of the exploration phase of partnerships. While Mohr and Spekman (1994) view trust as being one of the attributes of the partnership that directly influences success of the partnership.

The concept of trust also plays an important role in the research presented here. However, in this study, trust is viewed as an attribute of intangible outcomes. The participants described trust as belief in the partner's honesty and that the partner will be true to his word (like Dwyer, Schurr, and Oh, 1987). Trust did not appear to be an antecedent or a mediating variable, but rather an outcome—developing over time and being based on previous direct experience with the partner.

Satisfaction. This research hypothesizes that the realization of expected tangible outcomes and positive intangible outcomes were necessary, yet not sufficient to promote a sense of satisfaction with the partnership. It further hypothesizes that collaborative joint problem solving interactions appear to be an important factor in creating and sustaining a relationship where partnership satisfaction prevails.

Anderson and Narus's (1990) model also places satisfaction as the focal consequence of partnerships. They define satisfaction as the affective state that results from all aspects of the working relationship. They highlight that satisfaction is an affective measure, contrasted to an objective assessment of outcomes. However, they posit that an objective assessment, characterized as outcomes given comparison levels, has a positive relationship to satisfaction. They also propose that three less tangible constructs are related to satisfaction; conflict and influence by the partner firm are negatively related to satisfaction, while influence over the partner firm is positively related. This perspective is very similar to the one put forth in this article; that is, satisfaction is

influenced by both tangible and intangible outcomes.

Mohr and Spekman (1994) include satisfaction (an affective indicator), along with dyadic sales (an objective indicator), as the defining attributes of partnership success. Their definition of satisfaction is somewhat narrower than that employed in this study, in that they view satisfaction with the partnership as resulting from performance expectations being met.

Dwyer, Schurr, and Oh (1987) state that the trust and joint satisfactions of the partnerships are established in the exploration stage of the partnership, further developed in the expansion stage, and provides the foundation for the commitment stage. They further propose that "dissatisfactions" with the partnership are the basis for the dissolution stage of partnerships. Even though satisfaction is a seemingly integral construct of their model, they do not provide a definition of satisfaction. This researcher's interpretation of their implied definition is that satisfaction refers to the partners' perception of the effectiveness of the exchange relationship relative to the real or anticipated costs associated with the relationship (based on information on p. 14 of the journal article).

Morgan and Hunt (1994) do not include satisfaction in their model; however, their construct of propensity to leave—the perceived likelihood that a partner will terminate the
relationship—can be viewed as being related to satisfaction/dissatisfaction with the partnership. They posit that there is a negative relationship between relationship commitment and the propensity to leave.

STAGE THREE

At this point in the qualitative data analysis process, the researcher focuses on identifying the characterizing components of the emerging model. Focusing now on the collective stories of the participants, the researcher looks for a higher order generalization of the data. In this study, each of the participants' stories described outcomes or results that stemmed from the partnership, a set of processes that led to those results, and a set of categories that enabled the processes and interactions of the partners to drive toward the outcomes. The outcome of Stage Three is a higher level representation of partnerships. Stage Three also directly leads to the identification of some important managerial implications. These managerial implications will be reviewed later in this article.

Higher-Level Conceptualization of Partnerships

The previous segments of this section described the individual categories and their hypothesized relationships that evolved from the research data. Figure 2 provided a graphical representation of this information. This picture of buyer-seller relationships is interesting and informative, yet runs the risk of oversimplifying the complexity of these relationships that must function simultaneously at the inter-organizational and inter-personal levels.

The partnerships studied can be characterized by three superordinate categories. The first category, partnership enablers, consists of the subordinate categories, organizational self-awareness, commitment to the partnership, communication, cooperation, and inter-organizational understanding. The combination of these subordinate categories and the relationships between them appear to be what enables the second superordinate category, the partnership driver, to function effectively.

The partnership driver consists of the joint problem solving activities engaged in by the partners. It is the collection of these activities that generate and perpetuate the third superordinate category, the performance and relational outcomes of the partnership, comprised of the tangible and intangible

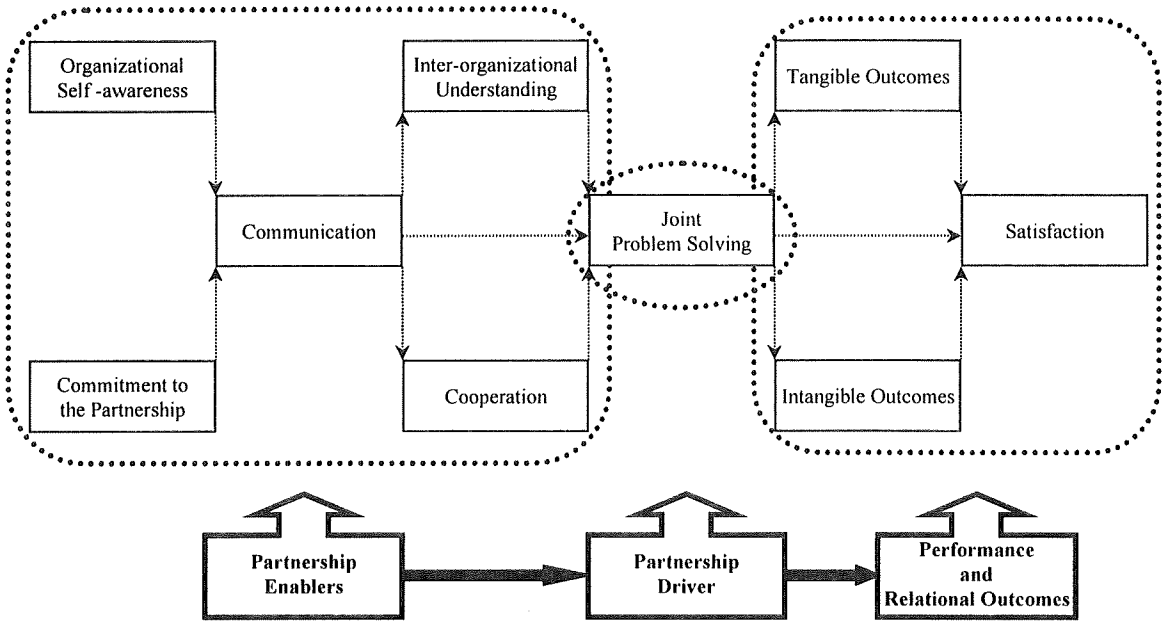
outcomes and their combined influence on partnership satisfaction.

The significance of the performance and relational outcomes as a superordinate category is that both tangible and intangible outcomes must be achieved for the participants to regard the partnership with a sense of satisfaction. Achieving, or perhaps even exceeding, expected business performance results does not appear to be enough to create a sense of satisfaction. Relational outcomes, such as the ease of working with the partner, the formation of social bonds, and the development of trust, must also be present for the participants to feel good about the partnership.

This more general conceptualization of buyer-seller partnerships is supported by the aggregated stories the participants told about their partnerships. An overview of these collective stories will follow to provide examples of the superordinate categories and the relationships among them.

Figure 3

Higher-level Generalization of Buyer-Seller Partnerships



Partnership Enablers. (The following comments apply to all three partnerships.) There appeared to be a mutual commitment to the partnership. Participants on both sides of the dyad appeared to recognize the interdependence of the organizations and seemed to have a strong desire to continue the relationship.

All participants seemed to have a very cooperative spirit relative to the interactions of the partnership. They all seemed willing, even eager, to engage and interact with their partner.

All participants also seemed to have a well-developed sense of organizational self-awareness. They understood their businesses and had clear expectations of what they expected from the partnership. The similarity of stories from participants within each dyad implied that there was a common sense of self-awareness within each organization.

The partnerships appeared to have effective communication processes that facilitated the exchange of information and knowledge between the organizations and among the participants, transforming organizational self-awareness into inter-organizational understanding. The communication processes also positively influenced the level of cooperation in the partnership and the effectiveness of their joint problem solving activities.

In all the partnerships, it appeared that it was the collective sum of these categories—commitment to the partnership, cooperation, organizational self-awareness, communication, and inter-organizational understanding—that enabled effective, efficient joint problem solving to take place. The combination of these categories forms the partnership enablers.

Partnership Drivers. When the participants of all three cases were asked to describe their partnership, they typically responded that it was a "good" partnership, one where they worked well together. Probing further on this idea of working well together, participants would describe situations where individuals from both the buyer and supplier organizations would collaboratively interact in developing and implementing the solution to some problem. Certainly the solutions to these problems were important to the participants and their organizations, many of the solutions leading to positive tangible outcomes for the partners, but it appeared that the process was also very important. Most of the stories that the participants told centered on the interaction of the partners in joint problem solving activities. These activities generated the tangible and intangible outcomes and in conjunction with those outcomes, generated a sense of satisfaction with the partnership. Joint problem solving appeared to be a key driver for the success of this partnership.

Performance and Relational Outcomes. The participants representing Partnerships A-B and E-F seemed to regard their relationship with a high degree of satisfaction. Those partnerships were providing expected outcomes relative to business performance, and the individuals appeared to genuinely enjoy working and interacting with each other.

In partnership C-D, neither partner felt that the expected business outcomes were being consistently met. However, both partners were developing and implementing new capabilities that stemmed from their relationship and appeared to have good working relationships with their partner. The researcher noted, however, that they did not describe their interactions with the enthusiasm of the individuals in the other partnerships. Overall, the participants in Partnership C-D seemed to regard their relationship as being basically satisfactory; however, the researcher did not get the impression that this relationship was as strong as the other two.

Summary of Data Analysis and Results

As previously stated, the essence of qualitative data analysis is the iterative inductive-deductive process of data reduction, with the researcher moving from specific data instances to abstract generalizations of the phenomenon under study. This section has provided the reader a description of the results of the study and an explanation of the data analysis process followed by the researcher.

DISCUSSION

The conceptual model depicted in Figure 3 characterizes the results of this study at a higher-level of abstraction. This generalization is quite different from the existing literature on buyer-seller partnerships in the representation of joint problem solving as being the key mediating category between the partnership enablers and the performance

and relational outcomes. Although the other comparative models include a construct that is at least similar to joint problem solving, none propose that the construct plays such an influential role, nor stress its interactive problem solving/problem preventing attributes.

The results of this study showed a somewhat surprising similarity in how buyer and supplier dyads perceived their partnership. It further showed similar perspectives among the different functional participants in the partnership. An example from the data will be used to further clarify this point.

The following are two quotes from participants that represent different functions. The first quote is from the Comptroller of Supplier D, and the second quote is from the Quality Engineer of Buyer E.

> It's good business. Solid, large volume, solid business that one can count on. It's basically a fair margin; it's not tremendously profitable, but it's solid and it's a pleasure to deal with a sophisticated customer.

> Well, we're still doing business with them, and the PPMs have gone down to the point where most people are satisfied. That's the measurement procedure I would give. They've gotten better. We've learned a few things and gotten better ourselves, and we're still in business with them. We haven't switched to another vendor, which we've done in other cases.

At the attribute level, the specific data instances are different. The first represents sales volume and profit, while the second represents quality. However, at the category level, where the data instances are abstracted into more generalized, common themes, both quotes are viewed as representing Tangible Outcomes. This finding partially corroborates Ellram's (1995) study of partnership dyads where both buyers and suppliers rated all 17 factors investigated as being important in establishing and maintaining partnerships.

In summary, this study supports the existing literature on buyer-seller partnerships with respect to many of the criteria examined. While the labels for the described criteria vary from study to study, as do the proposed relationships among the criteria, it is evident the researchers have similar perspectives on many of the important constructs. This study adds to the existing literature by its characterization of the dimensions of organizational self-awareness and inter-organizational understanding inasmuch as previous research has taken a narrower view of these dimensions. This study also expands the definition of joint problem solving and emphasizes the importance of this category in generating performance and relational outcomes. It further contributes to the literature in its examination of both sides of the relationship from multiple perspectives, whereas previous research has typically focused on only one side of the dyad. Collectively, the support of the current literature from an expanded perspective, and the additions to the literature from this perspective provides a richer understanding of the dynamics in buyer-seller partnerships.

MANAGERIAL IMPLICATIONS

As previously described, in Stage Three of this qualitative study, the researcher switched his focus from analyzing individual participant interview data to analyzing the aggregated stories the participants told about their partnerships. In addition to the higher order conceptual model displayed in Figure 3, this analysis of the collective stories of the participants also resulted in several findings

that managers and practitioners may find directly applicable in sustaining working partnerships.

Finding # 1. Partnerships are long-term relationships between organizations, but it is the individuals actively engaged in the partnerships that make them successful.

Organizations engage in partnerships, but it is the individuals actively engaged in the day-to-day interactions of the partnerships that make them successful. It is the individuals who empower the partnership enablers, energize the partnership driver, and ultimately judge the partnership based on their satisfaction with the performance and relational outcomes of the partnership.

The importance of the individual to the success of the partnership has significant implications on the selection of personnel to be involved in partnership activities. The individuals must be willing and capable of seeing situations from perspectives other than their own. In addition, they should be competent in their area; they should enjoy interpersonal interaction and have a proclivity for being a team player.

Given the importance of the individual to the partnership, it follows that changes in participants would have a significant impact on the partnership. All aspects of the partnership, the enablers, the driver, and the outcomes are vulnerable to disruption when established participants are replaced by new participants. It takes time and repeated interactions among individuals to develop the mutual understanding and cooperation that enable the partners to effectively work together.

Finding # 2. Partnerships are built on a foundation of shared knowledge and mutual understanding.

The individuals actively engaged in the partnership must understand their partner's business from the perspective of their partner. It is essential that this understanding cover the partner's expectations of the partnership, their partner's requirements and the roles to be played by each organization and individual involved.

This sharing of knowledge and development of mutual understanding across organizational boundaries is built upon the individual participants within each organization having a complete understanding of their own business. This individual organizational self-awareness should go beyond a functional perspective, in other words, the individuals should have an understanding of their business from multiple perspectives.

Finding # 3. Face-to-face communication is key to partnership success.

As stated earlier in this paper, communication processes are typically viewed as being critical to organizational success. This study supports that view and also highlights the importance of face-to-face communication among partnership participants. Face-to-face interaction facilitates the development of cooperation and inter-organizational understanding and enhances joint problem solving. Other modes of communication, e.g., e-mail, telephone and fax, shared electronic databases, etc., are important and valuable modes of exchanging information. However, face-to-face communication enhances understanding and aids in generating the relational outcomes, such as the social bonds and sense of trust that develop between partners and strengthen the relationship.

Finding # 4. Multi-functional teams facilitate the generation of business and relational outcomes.

Multi-functional partnership teams provide a structure that facilitates the sharing of knowledge, development of mutual understanding, and joint problem solving.

These teams can provide multiple communication channels between the organizations that in turn can provide more direct information exchange between partners and aid in strengthening the partnership, so it is less dependent upon any one individual. This last aspect can be particularly important when partnership participants change, as mentioned in number 1 above.

Finding # 5. Joint problem solving activities generate the partnership outcomes.

The collaborative participation of both partnering organizations in the resolution of conflicts and in the joint planning and implementation of improvement projects is what drives both the tangible and intangible outcomes of the partnership. Joint problem solving activities should embrace the important aspects of partnerships described previously. These aspects, taken collectively in the context of joint problem solving, provide the means of generating both performance and relational outcomes that are satisfying to the participants and aid in perpetuating the relationship.

Finding # 6. Performance outcomes are important, but so are relational outcomes.

Firms enter into partnerships with the expectation of improving some set of tangible business performance metrics. These outcomes are essential to the long-term survival of the partnership. However, overall satisfaction with the partnership also appears to be dependent upon the presence of relational outcomes. These outcomes are most important for those individuals who participate directly in the partnership. Managers who are removed from the regular interactions of the partnership, yet involved in making decisions that might impact the partnership, must be aware that the both types of outcomes are important for maintaining these relationships over time.

Finding # 7. A structured approach to the management of partnerships facilitates communication and effective joint problem solving activities.

It is important to provide a structure that will facilitate ongoing communication and the development of mutual understanding, in that they play such vital roles in partnerships. Project management-oriented approaches with regular team meetings and project status reports appeared to work well for two of the partnerships investigated here. This approach was particularly effective in keeping joint problem solving activities on track.

Higher level strategy-oriented meetings are also important to hold on at least an annual basis. The focus of these meetings should be to establish a shared understanding of each firm's strategic priorities and how these priorities affect the requirements placed on the partnership. The consensual results of this meeting become input for the prioritization of activities within the joint problem solving teams.

LIMITATIONS AND DIRECTIONS FOR FUTURE RESEARCH

The author has identified three primary limitations associated with this research. The first limitation is inherent in qualitative case study methodology. As stated previously, case study research relies on analytical generalization rather than statistical generalization (Yin, 1994). Recall that analytical generalization refers to the generalization of a particular set of results to some broader theory. In the case of this study, the process of analytical generalization moves from specific examples of working partnerships to a higher-level generalization of partnerships as depicted in Figure 3. This generalization and its subordinate categories and hypotheses met the objectives of this study, that is, to gain a better understanding of the dynamics in buyer-seller partnerships.

However, the results should not be interpreted as implying statistical generalization, that is, the generalization of a sample to populations or universes (Yin, 1994). In other words, the results should not be generalized from the partnerships studied here to the universe of partnerships. In the future, a larger, quantitative study aimed at empirically testing the constructs and relationships presented here should be pursued.

The second limitation of the study is that the resulting conceptual model is cross-sectional in nature while the phenomenon that is being modeled is evolving over time. This situation is not atypical in partnership research; other researchers have encountered the same limitations (Anderson and Narus, 1990). The result of this situation is that, although many researchers agree on characteristics or dimensions of partnerships, there is less agreement on the direction of the relationships among these dimensions.

As stated previously, this researcher believes that the outcomes experienced in one time period might possibly influence the partnership enablers in a subsequent time period. It also makes intuitive sense to the researcher that the relationships between the partnership enablers, the partnership driver, and performance and relational outcomes are most likely two-way. That is, the partnership enablers influence the partnership driver, and the partnership driver in turn influences the partnership enablers. The analogous relationships would exist between the partnership driver and the outcomes. The data in this study shows aspects of these dynamic relationships but does not describe them the way a longitudinal data set would. A longitudinal study of working partnerships could enhance our understanding of how the constructs and the relationships amongst them change over time.

The third limitation stems from the fact that this research focuses on three, predominately successful, ongoing buyer-seller relationships. Would the constructs and proposed relationships explicated in this study be important in understanding the negative dynamics of a dysfunctional relationship? The study of dissolving and terminated relationships could answer this question and provide a more thorough understanding of partnerships.

SUMMARY

This research has provided new information that enhances our understanding of buyer-seller partnerships. In many instances, it supports the results of previous studies, but from the broader perspective of both sides of the partnering relationship. In other instances, it proposes important new categories and relationships. The results of this research provide a foundation upon which future theory-building and theory-testing research can be based.

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THE IMPACT OF SATISFACTION ON FUTURE CHOICES

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ABSTRACT

In recent years there has been disenchantment with the performance and relevance of customer satisfaction models in applied business contexts. An expected utility framework overcomes many of the weaknesses inherent in conventional customer satisfaction modelling and is introduced in the paper. The framework uses a three-stage designed choice experiment to assess the impact of disconfirmations and satisfaction on after experience choices. The impact of expectations, performance and satisfaction on future choices is estimated using summary statistics and binary logit models. Overall, satisfaction appears to have a significant impact on future choices although this impact does not appear to be linear. Updated expectations for the experienced brand also appear to be relevant in explaining post experience expected utility. The results provide insights for managers as to how product experiences and measured satisfaction can be used to provide essential input for decisions and to improve prediction of future key performance indicators.

INTRODUCTION

Customer Satisfaction/Dissatisfaction (CSD) studies in the marketing literature have evolved approximately in parallel with the development from the early 1960's of customer centric philosophies in marketing. These studies cover a broad range of topics in CSD (for a detailed overview see (Yi 1990)) with key papers using either single or multiple equation models to cover competing theories of satisfaction, relevant measurement concepts, issues regarding attribute expectations (both mean and variance), macro-level CSD and related post purchase behaviors (Anderson 1973; Anderson, Fornell and Lehmann 1994; Bearden and Teel 1983; Cardozo 1965; Churchill and Suprenant 1982; Hellier, Guersen, Carr and Rickard 2003; Inman, Dyer and Jia 1997; Olshavsky and Miller 1972; Oliver 1980, 1981, 1983; Oliver and Swan 1989; Rust, Inman, Jia and Zahorik 1999; Swan and Trawick 1981; Tse and Wilton 1988) Despite the large volume of academic papers exploring these satisfaction issues, application of the numerous CSD models in the literature to the business environment has been less than successful. There is an increasing body of research indicating management disgruntlement with the predictive ability of CSD metrics. Wilson (2002) cites evidence from various industries of high satisfaction scores accompanied by declining sales and low re-purchase rates. Further, predictions (derived from CSD models) of managerial key performance indicators (KPI's) such as future market shares and profits have not been, in general, accurate. (Reicheld 1995; Brandt 1997; Westbrook, 1987, 2000; Williams and Visser 2002). These inaccuracies have diminished the value of CSD models for management and arguably inhibited the application of CSD models in business.

Linking CSD to Profits and other KPI's

A number of researchers have attempted to link CSD metrics with profits and other relevant performance metrics. Typically, CSD metrics and stated future purchase probabilities or stated future purchase intentions are measured *concurrently* and correlated within the CSD model. (Bolton and Drew 1991; Hellier et al. 2003; Oliver and Swan 1989; Teas 1993;)

Other researchers employ a longitudinal approach and measure profits after a specified time interval (from measurement of the CSD metrics) and infer linkage by correlation or regression (Athanassopoulos, Gounaris and Stathakopoulos 2001; Babakus, Bienstock and van Scotter 2004; Cooil, Keiningham, Aksoy, and Hsu 2007; Sureshchandar, Rajendran and Ananatharaman 2002; van Der Wiele, Boselie and Hesselink 2002;) In a similar vein, another body of research examines the impact of CSD metrics on broader company performance metrics such as shareholder value or stock prices (Aksoy, Cooil, Groening, Keiningham and Yalçın 2008; Anderson and Mansi 2009; Fornell, Mithas, Morgenson and Krishnan 2006) However, conclusions about linkages between measured satisfaction and profits using this longitudinal approach may be questionable due to lack of experimental controls particularly with reference to independent variables. Changes in future period sales activity measured in these studies may be due to unmeasured and omitted variables such as competitor activity, market and/or environmental changes. This is likely to be a key reason explaining the poor predictive performance of models based on this approach.

In contrast to the aggregate satisfaction models discussed above, consumer level satisfaction models seek to explain how product experiences impact on key variables such as consumer expectations, attitudes, emotions and future purchase intentions. Typically, these impacts are modelled using a structural equations modelling (SEM) approach and are estimated with recursive regressions, LISREL, AMOS or similar software (Bell, Auh and Smalley 2005; Bitner and Hubert 1994; Cadotte, Woodruff and Jenkins 1987; Jones and Suh 2000; McQuitty, Fin and Wiley 2000; Oliver and Swan 1989; Wirtz and Bateson 1999; Yang and Peterson 2004). Estimation of these models enables prediction of future intentions and hence KPI's (such as sales and market share) to be derived from given product experiences and measured satisfaction. An alternative to micro level satisfaction modelling assumes rational decision making and is based on expected utility. (Abendroth 2001; Inman, Dyer and Jia 1997; Palan and Teas 2005; Rust et al. 1999) Generally, in expected utility models satisfaction is linked to sales, shares and profits through examination of post experience choices.

Of the two micro level approaches above, the SEM approach dominates (numerically) the CSD literature. A major criticism of expected utility based approaches has been the implied rationality of consumer judgments and decisions. Although measures for emotions, attitudes, trust etc. may be included, the basis for key decisions and judgments within these models is inherently systematic. This would appear to be incompatible with the body of research into biases and heuristics (Kahnemann and Tversky 2000; Koehler and Harvey 2004). This research suggests a number of biases when humans are presented with experimental decision problems broadly concluding that the assumption of rationality for human judgments and decisions is tenuous. These findings have led to decreased interest in expected utility based models for satisfaction and inclusion of more emotion based variables in structural equations models.

However, recently there has been research questioning the conclusions of the above decision bias and heuristics studies (Fiedler and Wänke 2009; Haselton et al 2009; Hertwig and Herzog 2009; Kenrick et al 2009: Kruger 2009; Kruglanski and Orehek 2009). This recent research provides evidence to support alternative explanations for the supposed biases in decisions and judgments. In some cases, repeating the initial experiments but changing some of the experimental characteristics eliminated the apparent decision biases. Changing experiments to reflect greater compatibility with real decision making environments reduced or eliminated the biases. In other

cases, apparent biases were shown to be explained by ecological factors influencing information input into decisions. Heuristics were also shown, in certain cases, to be compatible with rational decisions by considering search costs and context. Although this research does not suggest all decisions or judgments are rational, it broadly suggests that in certain contexts, after accounting for ecological and experimental factors, outcomes are consistent with rational decisions or judgments. This suggests satisfaction models based on micro level rational decision making (in particular expected utility models) cannot be dismissed and may warrant further investigation.

In light of the above, this paper re-introduces an expected utility approach to modelling CSD within a three stage choice framework based on the work of Korkofingas (2004a, 2004b). This framework analyses expected utility both before and after a *hypothetical* product experience. Within the framework, prior attribute expectations (predictive) are set initially and experimental manipulation of expectation disconfirmations are used to generate satisfaction scores. These satisfaction scores are used, together with observations on after experience choices, to estimate post experience expected utility. Analysis of the estimated expected utility function allows brand probabilities to be determined and hence potential market shares and volumes to be *directly* determined.

There are a number of advantages of the expected utility choice framework relative to SEM models of CSD. Firstly, choices provide a *direct* link between dis-confirmations, satisfaction and the managerially relevant KPI's such as market share and profits. This direct link is strengthened theoretically by reliance on an accepted decision rule to explain choice (utility maximization). Choices represent the final outcome of the relevant behavioral process involving satisfaction. Although an understanding of latent measures such as attitudes, expectations, etc. is worthwhile to an extent, the key outcome for managers is the impact of satisfaction on consumer expected utility, choice and hence market share. A single equation model for expected utility, estimated by logistic regression, represents a simpler, more parsimonious and direct model for measuring the impact of satisfaction than complex SEM's.

Secondly, the expected utility approach is likely to reduce measurement errors typically associated with SEM models. Given some of the key constructs in a CSD model are latent, there exists potential for large errors in measurement. This is exacerbated by the typical use of assumed ratings (really ordinal) based measures for many of the model constructs. Typical measurement biases include negatively skewed satisfaction response distributions (ceiling constraints, self selection bias), biases due to question form, context or timing and halo effects in measuring key constructs. (Drolet and Morrison 2001; Fisk, Brown, Cannizzaro and Naftal 1990; Oliver 1981; Peterson and Wilson 1992; Westbrook 1980; Wirtz and Bateson 1995; Wirtz 2001). These measurement errors, for both dependent and independent variables within the structural equations model, are likely to lead to biased and inefficient estimates and erroneous conclusions. The expected utility approach reduces measurement error because the focal measurement is choice (observable and minimal measurement error) rather than an array of latent constructs.

Thirdly, there are a number of issues that are likely to reduce the relative validity and/or reliability of SEM estimation. Ordinal based measures for constructs in CSD models are likely to violate typical error distribution assumptions especially when used as dependent variables within the structural equations. Given the ordinal nature of constructs within the SEM, the variance-covariance matrix is likely to be an invalid representation of the true association between constructs. The use of ordinal constructs throughout the structural equations model is

likely to lead to invalid estimation (typically confirmatory factor analysis, regression) with low power. This may lead to increased likelihood of erroneous conclusions about construct associations, significance of constructs and significance of pathways. In contrast, the expected utility approach needs fewer latent constructs thus decreasing the likelihood of error assumption violations and invalid estimates. Further, SEM significance tests of overall model fit and other key statistics are typically sample based (Cheung and Rensvold, 2001) reducing applicability of statistical inference procedures. Macdonald and Ho (2002), in presenting general recommendations for SEM models, highlight problems of identifiability, sampling, measurement, data, estimation and modelling that may make conclusions from SEM models erroneous.

Fourthly, the experimental stated choice framework allows for greater control of extraneous and internal variables (market and competitive environment, attributes, expectations, variability of expectations, disconfirmations, and switching costs) than in typical SEM models estimated from revealed preference data. This would suggest greater reliability for estimated response functions.

Fifthly, typical structural equation CSD models only collect measures about the focal brand or product and ignore measures relating to competitive brands. There is little or no consideration of the range of alternatives available to the consumer or even the alternatives within the consumer's consideration set. This would appear to be a fundamental flaw when trying to assess the impact of satisfaction on future indicators such as sales, market shares and profits. Measures of whether the consumer is more likely or less likely to consume the focal brand after a product experience (as measured typically) are likely to be erroneous if the alternatives available to the consumer change after measurement. The expected utility framework can assess after experience purchase intention for a number of different competitive scenarios. This allows for a potentially more general response function to be estimated using varied hypothetical disconfirmations, attribute levels and market environments.

Using stated choices (based on a designed experiment) overcomes many of the issues with SEM models explained above. The expected utility approach can incorporate expectation variability, information updating and switching costs, allows for control of extraneous variables and circumvents many SEM model data and estimation problems (collinearity, variable measurement issues, and inference issues). It also allows for observation of many diverse points (purposely selected) on the satisfaction/utility space compared to a limited number with traditional CSD models.

The next section describes the research objectives and the proposed theoretical model. A following section describes the specific experiment undertaken while in the section after that analysis and results are discussed. In the final section, conclusions, limitations and avenues for further research are presented.

RESEARCH OBJECTIVES AND THE PROPOSED MODEL

Given the evidence not rejecting rational decision making and the disadvantages of SEM models cited above, this research seeks to investigate the impacts of satisfaction on consumers' choices via an expected utility framework. In particular, the objective of the research is to determine if variations in consumers' expected utility evaluation for a product (measured by after experience choice decisions) is related to systematic variations in satisfaction. A related research question refers to the nature (linear, non-linear) of the relationship (if any exists). As a basic requirement of addressing the research objective, a model of expected utility is proposed below:

Expected Utility

Utility theory suggests rational decision makers will select an alternative which has the largest utility (U) over all alternatives given constraints. Alternative j will be chosen by individual i if $U_{ij} > U_{im}$ for all $j \neq m$. $U_{ij,t}$ of alternative j (for individual i at time t) is deemed a weighted sum of the levels of the k attributes of alternative j.

$$U_{ij,t} \mid I_{t-1} = w_{ij} + \Sigma_k (w_k * X_{ijk}) + v_{ij} \qquad (1)$$

where w_k is the weight attributed to attribute k and v_{ij} is a disturbance term.

X_{ijk} is the perceived level of attribute k for alternative j. Inclusion of the disturbance term v_{ij} allows for probabilistic choice behavior. I_{t-1} refers to the information set known by the consumer at time t-1.

In typical situations, some X_{ijk} are not known with certainty. Under these circumstances, the consumer may use *expected* utility of an alternative in pre-purchase evaluations. The consumer may use the mean expectation (μ_{ijk}) of attribute X_{ijk} to determine expected utility for a given alternative as in (2)

$$EU_{ij,t} \mid I_{t-1} = w_{ij} + \Sigma_k (w_k * \mu_{ijk}) + v_{ij,t} \qquad (2)$$

where μ_{ijk} is the mean of X_{ijk}.

The consumer considers the expected utility of all alternatives and chooses the alternative with the highest expected utility (say alternative "c"). Product experience with alternative "c" will allow for comparison of utility expected and utility received with an ensuing satisfaction judgment. The product experience and subsequent evaluations add to the information available to the consumer and *may* lead to adjustment of expected utility components in period t+1 (attribute expectations may be adjusted). Assume the change to expected utility between periods t and t+1 can be written as $\Delta EU_{ij,(t,t+1)}$. Expected utility at time t+1 (post experience) can be written as in (3)

$$EU_{ij,t+1} \mid I_t = EU_{ij,t} \mid I_{t-1} + \Delta EU_{ij,(t,t+1)} + v_{ij,t+1} \qquad (3)$$

We now hypothesize $\Delta EU_{ij,(t,t+1)}$ WILL be directly related to Satisfaction (S_{ij}) and to changes in attribute expectations ($\Delta\mu_{ijk}$) engendered by the product experience. Thus we can hypothesize (4) as below:

$$\Delta EU_{ij,(t,t+1)} = \Sigma_p (\delta_p * S_{pij}) + \Sigma_k (b_k * (\Delta\mu_{ijk}) \qquad (4)$$

where "p" is an index for P scale points of measured satisfaction (p = 1, 2,....P), S_p is a dummy variable representing the p^{th} satisfaction scale category, δ_p represents the coefficient on the relevant S_p dummy, b_k is the weight assigned to the change in expectation of attribute k.

Transforming measured satisfaction into suitable dummies (each dummy representing a category on the scale) allows for testing of general response functions.

Attribute weights are possibly invariant between the two choice periods (consistent with an established well known product category with relatively constant taste weights) but this proposition may be statistically tested by testing $w_k = b_k$ for all k.

Substitution of (4) into (3) yields an equation for post experience expected utility as in (5)

$$EU_{ij,t+1} \mid I_t = EU_{ij,t} \mid I_{t-1} + \Sigma_p (\delta_p * S_{pij}) + \Sigma_k (b_k * (\Delta\mu_{ijk})) + v_{ij,t+1} \qquad (5)$$

Substituting $EU_{ij,t} \mid I_{t-1}$ as in (2) yields (6)

$$EU_{ij,t+1} \mid I_t = w_{ij} + \Sigma_k (w_k * \mu_{ijk}) + \Sigma_p (\delta_p * S_{pij}) + \Sigma_k (b_k * (\Delta\mu_{ijk})) + v^*_{ij,t+1} \quad (6)$$

Estimation of equation (6) can be used to assess the significance of satisfaction in explaining estimated after experience expected utility. In particular, a joint significance test on δ_p (coefficients on the dummy variables representing satisfaction scale categories) can be used to assess whether satisfaction is a significant component in explaining after product experience expected utility. Thus we hypothesize **H1**;

$$\mathbf{H1_0}: \delta_p = 0 \text{ for all } p$$

$$\mathbf{H1_1}: \text{At least one } \delta_p \neq 0$$

Non-rejection of the null would imply that satisfaction measurements do not help to explain and/or predict post experience expected utility whereas rejection of the null would suggest that satisfaction scores can be a useful tool in explaining post experience expected utility. Rejection of the null would imply that variations in after experience expected utility are being, in part, explained by systematic variations in satisfaction scores. Since variations in expected utility are linked to variations in choices, this would imply satisfaction explains, in part, variations in after experience choices and hence market shares. This would provide evidence for the link between satisfaction and relevant KPI's.

Conditional on $H1_0$ being rejected we may conjecture on the type of pattern of the δ_p parameters. The type of pattern of the δ_p parameters dictates the nature of the systematic relationship between variations in satisfaction scores and variations in expected utility. Various response functions have been proposed which include the basic linear response function, linear but asymmetric (i.e. positive satisfaction does not have the same magnitude impact on choices and expected utility as the equivalent negative satisfaction), non-linear or any of the above with discontinuities at key scale points.

Hypotheses about the structure of δ_p parameters can be formulated to test linearity, non-linearity, asymmetry or discontinuities. For example to test for linearity of the satisfaction parameters we hypothesize **H2** as below:

$$\mathbf{H2_0}: \delta_p = \alpha_0 + \alpha_1 * p$$

$$\mathbf{H2_1}: \text{Not } H2_0$$

The assumption of linearity would imply that identical *incremental* changes (on the scale used) to satisfaction scores used would have a constant impact on expected utility. This would apply similarly for both the positive (satisfied) and the negative (dissatisfied) sections of the scale. Further it would imply that positive differences from a neutral satisfaction position would have the same absolute impact (but opposite in direction) on expected utility as negative differences.

Higher order polynomial structures for the δ_p parameters may also be tested sequentially using a similar approach to the linearity case of H_2 above. The use of limited points on the satisfaction scale (five) in this experiment limits the testing of higher order polynomial structures. We thus test if the impact of satisfaction is linear ($H2_0$) against the general alternative of a non-linear response function ($H2_1$)

To enable estimation of expected utility functions both before and after product experience, a three stage stated choice experiment framework is applied. These choices can then be used to analyse the impact of the hypothetical product experience and satisfaction on post experience expected utility. The details of the specific experiment which involves broadband network choices

and associated disconfirmations is described in the next section.

THE EXPERIMENT

The experiment was designed to provide evidence for hypotheses H1 and H2, through assessment of the impact of attribute disconfirmations and satisfaction on expected utility.

Method

The experiment was a three stage choice experiment where respondents were asked to make a number of choices between two branded (but not real) broadband services: *Leap* and *Dimension*. The first stage of the experiment elicited respondent choices over numerous designed choice sets. The second stage involved a hypothetical product experience with one of the brands. The final stage, following on from the hypothetical product experience, presented the same choice sets (and in the same order) as in the first stage. All stages were conducted sequentially using a survey booklet. More specific details about the design of each stage are presented below:

Design – Stage 1

The initial scenario information asked the respondent to assume he/she did not have broadband connection at their home and wanted to connect. Further, there were only two companies (Leap, Dimension) that were able to provide broadband service for their home area. It was also indicated that various scenarios, representing different broadband service packages/offers, were going to be presented over several choice sets with respondents required to choose a preferred broadband service in each choice set. Each of the eight choice sets involved a binary choice between Leap and Dimension with attribute expectation (predictive) information presented in table format. The eight choice sets were constructed from an orthogonal design enabling attribute level main effects to be determined for each alternative. The attributes used for both brands were download speed, download limit and price. Each of the attributes had two levels for each alternative. Contract length and installation costs were included as attributes in the attribute table but were kept constant (3 months, $0 respectively) for each alternative in each choice set. The attributes and their levels are summarized in **Table 1** below:

Table 1: Attributes and Attribute Levels used in the Experiment

	Leap	Dimension
Ave. Exp. Download Speed (Mb/sec) ***(Speed)***	**8 or 6**	**5 or 3**
Download Limit (Gb) ***(Dlim)***	**20 or 7**	**15 or 5**
Price per month ($) ***(Price)***	**50 or 40**	**30 or 20**

Design – Stage 2

The second stage of the experiment randomly presented each respondent with *one* of two choice sets similar to the choice sets of stage one. The two choice sets were selected (based on pilot studies) to represent varying initial conditions in terms of probability of brand choice. Two initial choice sets were selected to investigate if the impact of disconfirmations and satisfaction on choices depended on initial choice context. The attribute levels for these two initial choice sets are given in the appendix. Respondents were asked to indicate a choice of brand for the choice set scenario presented. No matter the

choice of brand, respondents were directed, eventually, to an outline of a hypothetical product experience with the Leap brand. For those that had chosen Dimension, information was presented suggesting Dimension would not be able to service their street for three months (contract duration of both services). This meant they would need to connect with Leap for at least the initial contract period of three months. Each respondent then received one of eight randomly selected hypothetical product experiences which manipulated average download speed received and service availability over the three month contract period.

Average download speed was designed as a confirmation /disconfirmation of (+2, 0, -2, -4) of download speed expectation (predictive) for Leap (in Megabytes) in the initially presented choice set. The service availability variable was designed as either "*Service always available*" or " *Service unavailable 1 time for 3 days, 4 other days unable to connect for 2-3 hours*" over the three month period of the contract. The hypothetical product experience information was presented in tabular format. In addition, the attribute table from the initially presented choice set was displayed for purpose of reference. Given the information on product experience and initial attribute predictive expectations shown, respondents were asked to indicate their Satisfaction with the Leap "experience" on a five point scale (Very Satisfied, Satisfied, Neither, Unsatisfied, Very Unsatisfied). Additionally, respondents were asked to indicate updated predictive expectations of average download speed for both brands (separately).

Finally, respondents were asked to indicate a choice of brand (under the assumption of identical advertised offerings as in the initial choice set presented in stage two) for a *future* three month contract.

Design – Stage 3

Stage three of the experiment consisted of presentation of the same eight choice sets (presented in the identical order) as in the first stage. Respondents were asked to reflect on their experience with Leap and to consider the choice sets presented as brand offers for the *next* three month contract. Following on from the eight choice sets, demographic questions relating to age, gender, income and broadband usage were asked. A schematic summarising the design of all three stages of the experiment appears in **Figure 1**: An example of the choice scenario information presented to respondents and the measures elicited appears in the Appendix at the end of this article.

Figure 1

Design Schematic for Three Stage Experiment

Stage	Purpose	Design
1	Experiment Introduction ⇩ Determine Pre-Experience Expected Utility function ⇩	Experiment Pre-amble Eight binary choice scenarios (Leap, Dimension)- Predictive attribute expectations presented in tabular format
2	1. Set Choice Context ⇩ 2. Actual Product Experience (Leap) ⇩ 3. Elicitation of Experience Measures ⇩ 4. Immediate Choice Impact of Product Experience ⇩	One initial binary choice scenario presented to individual respondents (2 possible) Hypothetical product experience with Leap – disconfirmation of download speed and service availability (8 possible disconfirmations, one for each respondent) Disconfirmation information and initial choice information from Stage 2 (1) presented a. Measurement of Satisfaction (5 point scale) b. Measurement of future download speed expectation (predictive) for Leap and Dimension Repeat binary choice from Stage 2 (1) above
3	Determine Post-Experience Expected Utility function	Eight binary choice scenarios (Leap, Dimension) identical to and in same order as in Stage 1.

Procedure

The experiment was undertaken by a convenience sample of university students using self contained booklets. There were sixteen experimental manipulations (eight hypothetical product experiences times two initial context sets) with 12 different students from a final year business course allocated randomly (prior to distribution the booklets were shuffled sufficiently to approximate random order) to each manipulation (192 respondents). The group had an approximately even split of males/females with a modal age of approximately 21- 22 years. Almost all of the group were regular broadband users but detailed prior experience or current satisfaction with broadband was not measured.

The use of a university student group, although a convenience sample, may be justified by research showing (for the USA) the 18-29 year age group (similar demographic to the student group) has by far the highest broadband adoption rate of all age groups (Pew, 2009). Students were given a non-monetary reward (small snack of choice) for successful completion of the booklet. Each booklet contained all three stages of the experiment with each stage sealed separately. The instructions indicated that each stage was to be opened only after the preceding stage had been completed. Average survey completion time was approximately eight minutes.

ANALYSIS and RESULTS

Preliminary investigation to explore relationships between key variables was undertaken using summary statistics and contingency tables. The results of these preliminary investigations indicated that the experimental manipulations (disconfirmations) impacted on measures such as satisfaction and post experience choices. More rigorous analysis of the key relationships was then undertaken using logistic regression on choices. All analysis was undertaken using SPSS 16.0. Results are presented stage by stage as described and discussed below.

1st stage Results

The first stage results examined pre experience choices over the eight scenarios presented to all 192 respondents (1536 choices overall). Over the eight scenarios, the percentage of respondents who selected Leap (in individual scenarios) varied from approximately 10% to 90% with an average of 58% over all 1536 choices. The higher average percentage for Leap is explained due to the attribute levels chosen for the experiment (see Table 1). These levels were not identical for both brands and were chosen to minimise some design issues inherent in developing choice scenarios.

A binary logistic regression was undertaken on the stage one choices to estimate the pre-experience utility function. Additionally, the logistic regression serves as a manipulation check on whether the attributes chosen and the levels of those attributes are significant in determining choices between the various scenarios. The estimated logistic regression results (focal choice = Leap) appear in **Table 2** below:

Table 2

Pre-Experience Logistic Regression (Leap = 1)

Variables	B	S.E.	Wald	Sig.	Exp(B)
Speed_L (Leap)	0.1428	0.0821	3.0262	0.0819	1.1535
Dlim_L	0.1743	0.0118	217.9814	0.0000	1.1904
Price_L	-0.0817	0.0164	24.8414	0.0000	0.9216
Speed_D (Dimension)	-0.5666	0.0846	44.8900	0.0000	0.5674
Dlim_D	-0.2198	0.0159	189.9313	0.0000	0.8027
Price_D	0.1595	0.0150	113.5702	0.0000	1.1729
Constant	1.0496	0.8426	1.5516	0.2129	2.8565

The binary logistic regression indicates all attributes are significant in explaining pre-experience choices and all coefficients have correct signs. The expected download speed of Leap (Speed_L) is marginally significant (p-value between 5 and 10%) which may be due to the closeness of the alternative attribute levels for the download speeds of Leap and Dimension. The Nagelkerke R^2 is 0.475 with an average correct category prediction rate of approximately 80%. The attributes, and in particular the attribute levels, are significant in explaining variations in choices between scenarios (p-value relevant $\chi 2 \approx 0$). Overall, the model seems reasonable in explaining pre-experience expected utility.

2nd stage Results

In stage two, each respondent (out of the 192 overall) received one of two possible initial choice scenarios (96 received initial choice scenario "A" and 96 received initial choice scenario "B"). The two choice scenarios were selected to represent different starting contexts from which the impact of the eight disconfirmations could be separately compared. Preliminary analysis however, revealed that the key measures (satisfaction scores, post experience choices etc) were not significantly different for each of the two starting context scenarios. It was thus decided to combine the two groups and the results presented below are for all 192 respondents.

Of the 192 respondents, 165 (86%) chose Leap for the initial choice scenarios presented After respondents were exposed to (within their booklet) the hypothetical experience (disconfirmation/confirmation of speed, service availability) with Leap they were asked to indicate (in the booklet) a choice for a future 3 month broadband contract (assuming identical brand offers to the initial choice scenarios presented to them in this stage). For this immediate post experience choice, only 113 respondents (59%) chose Leap. Of those that chose Leap initially, 36% switched to Dimension while 29% of those that initially chose Dimension, switched to Leap. The switching percentages are a preliminary indication of the impact of the hypothetical product experience on future choices.

Satisfaction with the hypothetical product experience was also measured using a five-point scale (Very Satisfied (1) – Very Unsatisfied (5)). The results are presented in **Table 3** below. Overall satisfaction scores are reasonably evenly spread with a proportionately larger amount of unsatisfied (Un_Sat, V_ Un_Sat) responses. This is to be expected given there were twice the number of negative disconfirmations relative to positive disconfirmations (spread across all respondents) in the experimental design. Overall, there were 47% of respondents who

were, at the very least, unsatisfied with their product experience with Leap.

Table 3

Satisfaction

	Count	%
1 (V_Sat)	21	10.94
2 (Sat)	51	26.56
3 (Neither)	29	15.10
4 Un_Sat	53	27.60
5 (V_Un_Sat)	38	19.79
	192	

The impact of Satisfaction on immediate post experience choice (*aftch*) is illustrated in **Table 4** below. Although there appears a clear inverse relationship between satisfaction level and post experience choice, it is noteworthy that even a satisfied ("Sat", category 2) respondent may switch to the alternative brand. Further, unsatisfied (Un_Sat) or very unsatisfied (V_Un_Sat) customers (i.e. categories 4 and 5) may not necessarily defect. In particular, almost 40% of respondents who were unsatisfied (Un_Sat) chose Leap again for the immediate post experience choice.

Table 4

Satisfaction and Post-Exp Choices (aftch)

				Count	Column N %
Satisfaction	1 (V_Sat)	aftch	Leap	20	95.24
			Dimension	1	4.76
	2 (Sat)	aftch	Leap	46	90.20
			Dimension	5	9.80
	3 (Neither)	aftch	Leap	20	68.97
			Dimension	9	31.03
	4 (Un_Sat)	aftch	Leap	21	39.62
			Dimension	32	60.38
	5 (V_Un_Sat)	aftch	Leap	6	15.79
			Dimension	32	84.21

When only those who initially chose Leap are considered (table not shown here), the % of respondents in categories 4 (Un_Sat) and 5 (V_Un_Sat) is 40.1%. However 31% of these unsatisfied or very unsatisfied respondents decided to remain with Leap for the future broadband choice. For unsatisfied respondents (Un_Sat) a little over half (53.5%) decided to switch to Dimension. This suggests dissatisfaction with Leap may not *necessarily* translate into loss of market share and may indicate satisfaction is not a totally reliable indicator of future revenues or profits.

To better analyse the relationship between satisfaction and post experience choice a suitable binary logistic regression was estimated. **Table 5** below presents estimation results for a binary logistic regression (Leap = focal brand) based on *stage two immediate* post experience choices and measured satisfaction (assuming identical offerings for both brands to those presented in the initial context scenarios in stage two).

Table 5

Logistic Regression Post Experience Choices (2nd stage)

	B	S.E.	Wald	Sig.	Exp(B)
SAT			50.57	0.00	
V_Sat	4.67	1.12	17.47	0.00	106.67
Sat	3.89	0.65	36.12	0.00	49.07
Neither	2.47	0.60	17.03	0.00	11.85
Un_Sat	1.25	0.53	5.67	0.02	3.50
Constant	-1.67	0.44	14.16	0.00	0.19

The Nagelkerke R^2 is 0.455 with an average correct category prediction rate of approximately 78%. Overall, it appears that Satisfaction (all categories combined) is significant in explaining immediate post experience choice (Wald = 50.57 for Satisfaction category overall, p-value $\approx$ 0). Relative to the omitted category "Very_Un Sat" (very unsatisfied), increasing satisfaction leads to an increasing likelihood of Leap being chosen. However, examining the coefficients on the individual satisfaction categories suggests the response function is not linear. The difference between estimated coefficients for successive satisfaction categories is not constant. In particular, the coefficient change from "Sat" (satisfied) to "V_Sat" (very satisfied) is dissimilar to the difference between other successive satisfaction category coefficients (the scale for the three lower satisfaction categories does appear to follow approximate linearity). However, the issue of linearity may require further examination and testing with alternative scales of satisfaction before any valid conclusions can be made. Additionally, the results may be influenced by the specific initial choice scenarios chosen for stage two of the experiment.

3rd stage Results

The results of the logistic regression discussed above (stage two results) apply to immediate post experience choice. This immediate post experience choice assumes initial brand offers remain the same as the initial choice scenarios presented at the beginning of stage two. What is likely to be more useful is to examine what impact satisfaction has on the general expected utility function. This is best examined over more and varied choice scenarios. Stage three of the experiment examined post experience choices over the same eight scenarios (and in the same order) as those presented in stage one (all 192 respondents - 1536 choices overall). Over the eight scenarios the percentage of respondents who selected Leap varied from approximately 10% to 83% (in individual scenarios) with an average of just under 50% over all 1536 choices. This result contrasts with the results of stage one where approximately 58% of overall choices were for Leap. There appears to be some preliminary evidence of switching away from Leap to Dimension. It would appear the hypothetical product experiences in the experiment (averaged over all respondents) have had an impact on the post-experience choices. To explore this more deeply, a binary logistic regression on stage three choices

(based on equation (6)) was undertaken to estimate the post experience utility function (the focal brand is Leap). Results are presented in Table 6 below:

Table 6

Logistic Regression Post Experience Choices (3rd stage)

	B	S.E.	Wald	Sig.	Exp(B)
Speed_L (Leap)	0.178	0.068	6.896	0.009	1.195
Dlim_L	0.146	0.011	189.818	0	1.157
Price_L	-0.057	0.013	18.126	0	0.944
Speed_D (Dimension)	-0.373	0.068	29.692	0	0.689
Dlim_D	-0.165	0.014	145.906	0	0.848
Price_D	0.106	0.013	64.758	0	1.112
Sat (Overall)			85.373	0	
V_Sat	1.612	0.25	41.421	0	5.014
Sat	1.641	0.2	67.567	0	5.158
Neither	1.106	0.21	27.83	0	3.023
Un_Sat	0.543	0.18	9.158	0.002	1.722
Change_Speed_L	0.077	0.042	3.371	0.066	1.08
Change_Speed_D	-0.082	0.074	1.234	0.267	0.921
Constant	-1.178	0.779	2.288	0.13	0.308

The Nagelkerke R^2 is 0.396 with an average correct category prediction rate of approximately 75%. Overall, the results indicate the pre experience attribute expectations (predictive) are significant (with correctly signed coefficients) in explaining post experience choices (coefficient p-values ≈ 0). The updated predictive expectation of speed for Leap (***Change_Speed_L***) is marginally significant while the updated predictive expectation for Dimension is not significant. This is to be expected since all respondents received a disconfirmation or confirmation of speed with Leap and not Dimension. Although, some respondents updated their expectations of speed of Dimension based on their experience with Leap (possible updating of product category expectations) this was not significant in explaining post experience choices.

From the results, Satisfaction (treated as a categorical set of variables) is significant (Wald of 85.373 (p-value ≈ 0)), in explaining after experience choices. Each of the coefficients of the satisfaction scale categories (V_Sat, Sat etc) is significantly different (p-values < 0.05)) (from the omitted satisfaction category (Very_Unsat). This suggests variation in satisfaction scores (relative to Very_Unsat) significantly impact on expected utility and future choice probabilities. This, in conjunction with a similar finding in stage two results, provides sufficient evidence to reject $H1_0$ in favor of $H1_1$. Additionally, the results suggest there is not a significant difference (in terms of impact on estimated choice probability) between very satisfied (V_Sat) and satisfied (Sat) respondents. There could be some argument to combine these two categories as a general "Satisfied" category. However, more testing based on different satisfaction scales needs to be undertaken before such conclusions can be generalised. This would also suggest that a test of linearity

for the satisfaction category parameters is likely to be rejected in favor of non-linearity. A test of linearity was undertaken (results not shown here) and imposing the relevant linear restrictions on the δ_p parameters resulted in an insignificant change to the log-likelihood. This finding is similar to the results of the logistic regression in stage two and provides evidence to reject $H2_0$ in favor of $H2_1$.

LIMITATIONS AND CONCLUSIONS

The research is a preliminary initial step and has a number of limitations. Product expectations (predictive) for some attributes are assumed to be equivalent to actual product performance. Variability of expectations was not considered and results may change significantly if variability is introduced. Further, product experiences may impact on the random error component in the post experience expected utility function. This may reflect greater or less uncertainty in attribute expectations and will impact on choices and estimation of the estimated expected utility function. The expected utility function and the responses to disconfirmations and satisfaction may also vary across respondents. In this work, a common expected utility function and common satisfaction response function was assumed. All of the above issues provide the basis for ongoing research using this experimental framework. The study was also conducted using a limited number of attributes although pre-testing suggested the attributes used were the main attributes considered by consumers for broadband services. The experiment itself may lack realism given the limited number of alternatives and forced choices. Measurement of satisfaction in this experiment was based on one common five-point satisfaction scale. Further testing of the model using other satisfaction scales would be welcome. Further hypotheses relating to the nature of the satisfaction response function could also be investigated by using more category points on the satisfaction scales used. Overall, more circumstances across a wider range of products and services are needed before the results can be generalised.

Given the limitations noted above, the research has provided a useful first step in introducing the experimental framework to assess the impact of satisfaction on post experience expected utility. The designed experiment is potentially a way of overcoming many of the issues/problems with traditional CSD models. For broadband services, all of the attributes used in this experiment appear to have had an impact on brand choices. Product experiences appear to influence measures of satisfaction although there does not appear to be a perfect correlation between satisfaction scores and switching to alternative brands. This may be due to inertia, switching costs or may be reflective of the brand chosen having superior expected utility even when respondents are dissatisfied with that brand. In this specific product category, it appears that satisfaction is significant in explaining post experience choices although the impact is not linear.

From a managerial perspective, the results suggest that disconfirmations influence satisfaction scores which in turn impact on post experience expected utility and choices. Using the estimated post experience utility function (as in Table 6) and Satisfaction scores, managers may be able to better predict brand probabilities and hence market shares. Further, they may assess the impact of different degrees of disconfirmation or confirmation and compare disconfirmations or confirmations of different attributes. For example, in this study a manager could compare the impact on brand purchase probabilities of a disconfirmation of service with various speed disconfirmations or confirmations. Additionally, a manager could assess the impact of a disconfirmation of an initially proposed high speed relative to a lower speed. Is it better, for example, to suggest a speed of 8Mb/s (possibly maximum speed) or the more typical average speed of

6Mb/s? Promotion of the higher speed while likely to attract more customers initially but may lead to higher incidence of expectancy disconfirmation. Will the probable initial gain in market share be negated by the possible loss of market share due to dissatisfaction when consumers have their expectations disconfirmed? The estimated expected utility function can be used to predict the outcome in terms of brand probability for both strategies and this provides valuable managerial decision support.

These results provide valuable insights for managers on the relationship between CSD, choices and ultimately profits. The model provides managers with a powerful tool to link attribute level predictive expectations, product experiences (including disconfirmation and satisfaction) with choice probabilities and hence market shares and profits). Managerial decisions regarding attribute levels can be evaluated by assessing the direct impact on profits in the context of a controlled experiment. Although this work is preliminary, analysis using the framework introduced here can be extremely useful as decision input for strategic marketing decisions and predictions of future consumer behavior and KPI's.

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Appendix

A: An example of a scenario from stage 1, 3 of the experiment

Scenario 1
(information about what Leap and Dimension are offering is indicated below)

	Leap	Dimension
Download Speed	8 Mb/sec	5 Mb/sec
Download Limit/month	20 GB	15 GB
Price	$ 50	$ 30

If you were to choose between these broadband providers, which would you be likely to choose (tick one)?

Leap ☐ **Dimension** ☐

B: An example of a product experience scenario from stage two of the experiment

Your Experience with Leap

Over the 3 months of the contract, your experience with Leap is as follows;

Average Download Speed: 6 MB/sec

Service Availability: Connection always available

Given your experience indicated above how would you rate your satisfaction with Leap broadband (tick one only)?

Very Satisfied ☐

Satisfied ☐

Neither ☐

Unsatisfied ☐

Very Unsatisfied ☐

Now suppose after the three month contract, Dimension and Leap are offering the same initial package as advertised 3 months ago *(the initial offers are on the opposite page)*. Which of the services would you choose?

Leap ☐ **Dimension** ☐

SERVICE ATTRIBUTES SATISFACTION AND ACTUAL REPURCHASE BEHAVIOR: THE MEDIATING INFLUENCE OF OVERALL SATISFACTION AND PURCHASE INTENTION

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ABSTRACT

The study proposes that the effect of service attributes satisfaction on actual repurchase behavior is mediated by overall satisfaction and purchase intention. Data collected through a survey questionnaire were used to test the proposed model. Findings support the mediation hypothesis and show that service attributes satisfaction has a positive and significant impact on overall satisfaction; overall satisfaction has a positive and significant impact on purchase intention; and purchase intention has a positive and significant impact on actual repurchase.

INTRODUCTION

A significant amount of research has been conducted to understand the antecedents and consequences of consumer satisfaction. Although the number of studies on the topic is impressive, Szymanski and Henard (2001) found in their meta-analysis that surprisingly very few outcomes of satisfaction have been investigated. The outcomes that have received significant scholarly attention include purchase intention, loyalty, word of mouth advertising, and complaining behavior. Some of the major findings from the body of research on satisfaction show that:

- Satisfaction has a positive influence on loyalty (Oliver 1997, Gustafson, Johnson, and Ross 2005), word-of-mouth communication (Brown et al. 2005), and patronage intentions (Babin and Griffin 1998).
- Severe dissatisfaction encourages negative word of mouth advertising (Szymanski and Henard 2001) and prompts complaining behavior when attribution is easy and the probability of redress is higher (Folkes 1984; Richins 1983; Ursic 1985).
- Satisfaction is positively related to purchase intentions (LaBarbera and Mazursky 1983; Yi 1990) and satisfied customers show less price sensitivity (Stock 2005) and are also willing to pay a higher price premium (Homburg, Koschate and Hoyer 2005).

One substantive outcome of consumer satisfaction that remains under-researched is *actual* repurchase behavior. Although the link between consumer satisfaction and actual repurchase behavior constitutes an integral part of the nomological network (Perkins 1993; Szymanski and Henard 2001), Mittal and Kamakura (2001) found that virtually all the published studies, with the exception of Bolton's (1998), used repurchase intention rather than actual repurchase behavior as the criterion variable. They concluded that the existing studies have used intention data because they are easier to collect through survey research or through other instruments, and they attributed the lack of empirical studies on actual repurchase behavior to data collection and data availability problems.

In Mittal and Kamakura's study (2001), demographic characteristics such as gender, age, marital status, and education moderated actual repurchase behavior. Their

findings showed that the functional form relating satisfaction to repurchase intention was different from the functional form relating satisfaction to repurchase behavior. They also found that in some groups satisfaction led to a higher repurchase rate, and in others satisfaction and repurchase behavior were completely uncorrelated. While their study found support for the moderating effects of customer characteristics on repurchase behavior, the study of the process through which satisfaction influences actual repurchase behavior will provide additional insights into the outcomes of satisfaction.

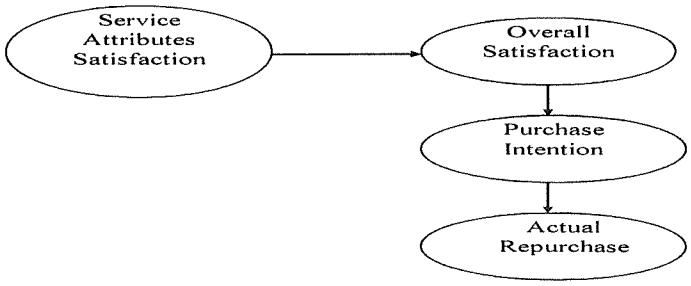
In a more recent study, Solvang (2007) examined the effect of service quality on repurchase behavior in a retail environment. The study found that service quality affected satisfaction, and satisfaction affected repurchase behavior indirectly through affective loyalty. The study also found that satisfaction had no significant direct effect on repurchase behavior. Considering the theoretical and strategic significance of the link between satisfaction and repurchase behavior and the obtained non-significant result in the study, it would be theoretically beneficial to reexamine the relation between satisfaction and actual repurchase behavior to better understand the process. Tse, Nicosia, and Wilton (1990) and others have also highlighted the importance of understanding the process that leads from satisfaction to repeat purchase behavior.

CONCEPTUAL MODEL

This paper addresses the above mentioned concerns by proposing a model that integrates the theories of reasoned action (Ajzen and Fishbein 1980) and planned behavior (Ajzen 1991) in social psychology with the satisfaction and intention literature in consumer psychology (see Szymanski and Henard 2001) to explain *actual* repurchase behavior. The satisfaction literature in marketing treats satisfaction as an antecedent of intention, and the intention literature in social psychology posits intention to be a reliable predictor of behavior. The model proposed and tested in this article adds to the literature in three meaningful ways: (1) by combining the satisfaction-intention link and the intention-action link into a satisfaction-to-intention-to-action sequence to explain repurchase behavior, (2) by examining the influence of attributes-based satisfaction on overall satisfaction, and (3) by proposing that the effect of service attributes satisfaction on actual repurchase behavior is mediated by overall satisfaction and purchase intention (see Figure 1).

Research on satisfaction has a long history in marketing. The construct is viewed as central to marketing because of its posited effects on outcomes that marketers value, such as consumer loyalty, word-of-mouth advertising, purchase intention, and repurchase behavior. Marketing offerings are developed to satisfy needs and wants of consumers, and, therefore, how consumers rate attributes of a product or service and how satisfaction influences behavior are issues of significant importance to marketers. Although the construct holds a coveted position in marketing, defining satisfaction has been a challenging endeavor because it can be viewed from different levels of abstraction (single event versus collective impression or level of satisfaction received) and from different perspectives (individual, firm, or society) (Taylor 2008).

Figure 1
Service Attributes Satisfaction and Actual Repurchase



In their review of the literature, Giese and Cote (2002) discussed the different perspectives in defining satisfaction, especially with respect to it being a process or an outcome (state) and whether the response is affective, cognitive, or conative. They noted that the debate helped define the domain of the construct as comprising of three essential elements. Satisfaction relates to an object (e.g., product or service), covers a time component (e.g., post purchase or post consumption), and involves a response (e.g., cognitive and/or affective). Combining the three elements, they delineated satisfaction as a summary affective response of varying intensity with a time-specific point of determination and directed toward focal aspects of product or consumption. The treatment of satisfaction as an affective summary response to a post-purchase or post-usage experience is supported in the literature.

Although satisfaction has been defined variously, the conceptualization that has received wide support is that it is a post-choice or post consumption evaluative judgment concerning a specific purchase selection (Day 1984). Tse and Wilton (1988) specify it as the consumer's response to the perceived performance, and Fornell (1992) describes satisfaction as an overall post-purchase evaluation. Oliver (1981) shows how purchase and post-purchase experience influence satisfaction. The view that overall satisfaction is a global evaluation resulting from a service experience forms the basis of our paper, in line with Olsen, Wilcox, and Olsson's (2005) and Oliver's (1999) conceptualization of satisfaction as a post usage evaluation of state or feelings toward a product or service.

Conceptualizing overall satisfaction as a post usage state brings into focus the consumer-service interface. When using a service, consumers rate the different attributes of the service, which then leads to a judgment of the level of overall satisfaction with the experience of using the service. The attributes based model places the evaluation of different attributes of a product or service as an antecedent of overall satisfaction (LaTour and Peat 1979; Oliver 1993). Singh (1991) suggests that there is sufficient and compelling evidence to hypothesize that consumer satisfaction can be understood as a collection of multiple satisfactions with various objects that constitute the service system. Satisfaction with service attributes thus results from the observations of attribute performance and strongly influences the rating of overall satisfaction (Oliver 1993). This conceptual representation, as Oliver (1993) notes, coincides with commercial surveys and other satisfaction surveys that ask consumers to rate their satisfaction with the

different attributes of a product or service. The focus on product or service attributes also provides higher specificity and diagnostic usefulness by making us ask specific questions about the antecedents of satisfaction (Mittal, Kumar, and Tsiros 1999).

The marketing literature also consistently identifies consumer satisfaction as a key antecedent to repurchase intention. In the satisfaction-intention link, satisfaction is shown to have a consistent and positive effect on purchase intentions (Cronin and Taylor 1992). LaBarbera and Mazursky (1983) found that satisfaction level provides a significant explanation of intention formation. The Howard and Sheth model (Howard 1974) explicitly recognizes that satisfaction experience influences future purchase intention. Empirical evidence also supports the posited link. In a survey of customers of a performing arts center, satisfaction and repurchase intention were found to be significantly correlated (Rust & Williams '94).

The influence of intention on subsequent behavior has also been studied in the literature. In the intention-action link, purchase intention has behavioral consequences, and a favorable intention is more likely to result in a repurchase than an unfavorable intention. Although intention is hypothesized to influence actual repurchase behavior, the link has not been adequately explored in the literature. Grounded in the theory of reasoned action and dissonance theory, the link shows that intentions have behavioral consequences, and that the execution of intended behavior reduces dissonance. In the case of consumer behavior, consumers who have expressed an intention to repurchase will be more likely to repurchase (Perugini and Bagozzi 2001).

HYPOTHESES

Service Attributes Satisfaction and Overall Consumer Satisfaction

The assimilation-contrast theory (Anderson 1973) provides the theoretical underpinnings for investigating consumer satisfaction. The theory deals with the outcome of the discrepancy between what one expects and what one experiences. If the discrepancy between what one expects and what one experiences is too large to be assimilated, contrast effect occurs. This effect has been incorporated in the expectation-disconfirmation theory (Oliver 1977, 1981), which treats satisfaction as a result of the discrepancy between expectations of product performance and perceptions (experience) of product performance. Drawing on the expectation-disconfirmation paradigm, marketing scholars view consumer satisfaction as an evaluative judgment that is based on personal experience with an object (Soderlund and Ohman 2003). Consumers express their level of satisfaction with a product or service after they have purchased and used the product or service. Their overall satisfaction indicates a global assessment and is affected by the level of satisfaction with different attributes of the product or service.

Anderson, Fornell, and Lehmann (1994) note that overall satisfaction is "based on the total purchase and consumption experience with a good or service" (p. 54). Unlike transaction-specific consumer satisfaction, which is based on the immediate evaluation of a transactional experience, overall satisfaction is determined by the "general level of satisfaction based on all experiences with the firm" (Garbarino and Johnson 1999, p. 71) and, as such, is most appropriately assessed after consumption has occurred (Ostrom and Iacobucci 1995). As an evaluative judgment (Cronin and Taylor 1994), overall satisfaction reflects consumers' satisfaction with various attributes of the firm and the product (Czepiel, Rosenberg, and Akerele 1974). Thus, overall satisfaction with a symphony will be a function of the evaluation of different attributes of a symphony such as musicians, conductor, musical selections, symphony hall acoustics, program book, and customer service. How consumers evaluate these different service

attributes will determine the level of overall satisfaction. Therefore, the following research hypothesis is tendered:

> **H1**: The higher the level of satisfaction with the different service attributes, the higher the level of overall satisfaction.

Overall Consumer Satisfaction and Purchase Intention

Overall satisfaction has been shown to influence behavioral intentions. LaBarbera and Mazursky (1983), for example, claim that purchase intentions are directly influenced by customer satisfaction. If overall satisfaction is high, consumers will be predisposed to express favorable repurchase intentions. Thus, for services that consumers can use repeatedly, such as attending a symphony, an increase in overall satisfaction will favorably influence purchase intentions. The positive link between overall satisfaction and purchase intention finds support in consumer behavior literature. Cronin and Taylor (1992) and Yi (1990), for example, found that satisfaction influences purchase intentions positively. Therefore, the following research hypothesis is put forward:

> **H2**: The higher the level of overall satisfaction, the more favorable the purchase intention.

Purchase Intention and Actual Repurchase Behavior

The link between purchase intention and actual repurchase behavior is grounded in the theory of reasoned action and the theory of planned behavior (Ajzen and Fishbein 1980; Ajzen 1991). Both theories assert that actual behavior is a function of behavioral intention. Consumers who express positive purchase intentions will be more likely to repurchase than those who express negative purchase intentions. The expression of an intention to engage in a specific behavior, such as buying a symphony ticket, mentally prepares consumers to perform the act. They would experience dissonance if they do not meet their commitment. The notion of self-concept also suggests that people's beliefs about themselves influence their behavior (Baumeister 1998). Thus, consumers are more likely to follow through with a repurchase to achieve congruency between intention and action. Therefore, the following research hypothesis is tendered:

> **H3**: The more favorable the purchase intention, the more likely the actual repurchase behavior.

Method

LISREL 8.8 was used to empirically test for the hypothesized relations between exogenous and endogenous constructs and the mediating effects (Joreskog and Sorbom 1996). The LISREL procedure used a correlations matrix and an asymptotic covariance matrix to test the proposed conceptual model in which one of the variables was dichotomous. One of the indicators of the exogenous construct and the indicator of each endogenous construct were set to 1. This ensures that the scales on which the concepts and indicators are measured have equally sized units (Hayduk 1988).

Questionnaire. A committee consisting of business consultants, marketing academics, and the symphony's marketing director and staff was involved in constructing a survey questionnaire. The committee met regularly to discuss the purpose and content of the questionnaire. The questionnaire went through several iterations before the final version was developed.

Sample. The final survey questionnaire was mailed in two waves to 5,349 customers of a

major symphony orchestra in the Midwest. A total of 3,087 responses was received. A list-wise deletion procedure, which selects only observations with complete data on all the variables, generated a sample of 2,509 observations, representing a response rate of 46.9%.

Exogenous Construct. While the number of service dimensions varies from study to study, there is agreement in the literature that service attributes relate to outcomes (core service), interactions (service delivery process), and physical environment (facilities or equipment) (Rust and Oliver 1994; Brady and Cronin 2001; Bitner 1990; Parasuraman, Zeithaml, and Berry 1985; Westbrook 1981). Based on existing research, consumer comments, internal symphony data, and management experience, the committee selected the following six attributes: musicians, conductor, musical selections, sound quality, program books, and customer service. These six attributes of a symphony experience cover the core service provider (musicians and the conductor), service offering (musical selections), service location (sound quality in the symphony hall), service information (program book), and service facilitation (customer service). Similar indicators have been used in existing research in the context of theatrical experience (Garbarino and Johnson 2001). Respondents were asked to rate their satisfaction with each indicator on a Likert scale, ranging from 1 to 9, with 1 indicating very dissatisfied and 9 very satisfied. The reliability for service attributes satisfaction was 0.81, which is above the recommended level of 0.70 (Hair, et. al., 2006).

Endogenous Constructs. The three endogenous constructs were overall satisfaction, purchase intention, and actual repurchase. Overall satisfaction is a global measure of satisfaction, which summarizes satisfaction with the experience of the service received. It answers the question, how satisfied the consumer is with the service experienced. Overall satisfaction was thus measured by a single indicator which asked respondents how satisfied they were with the *experience* of attending the symphony orchestra on a 9-point Likert scale, anchored by very dissatisfied and very satisfied. Rust and Williams (1994), in the context of a performing arts center, also used a single indicator as a direct measure of overall satisfaction.

Purchase intention is a measure of the likelihood of making a purchase in the future. Peter and Olson (2008) suggest that purchase intention should be measured specific to action, target, and time components of behavior. Purchase intention was measured by a single indicator which asked respondents to indicate how likely they were to purchase (action) tickets to the Symphony (target) for the next season (time). The response was obtained on a 5-point Likert scale, anchored by definitely would not and definitely would. Rust and Williams (1994) used a single indicator measure, asking respondents not how likely they were to repurchase a ticket, but what was the percentage chance of purchasing a season ticket next year.

Actual repurchase is a behavioral outcome. It addresses the question of whether or not the respondents actually repurchased the next season ticket to the symphony. Therefore, the 'yes' or 'no' outcome is a single indicator measure, noted as '0' if they did not repurchase and '1" if they did. After the completed questionnaires were received, the symphony noted whether or not the respondents repurchased the ticket.

ANALYSIS AND RESULTS

The Proposed Model Fit and Parameter Estimates

The proposed mediation model tested the paths from service attributes satisfaction to overall satisfaction, from overall satisfaction to purchase intention, and from purchase intention to actual repurchase (See Figure 1). For this model, the χ^2 value of

150.68 with 27 degrees of freedom was significant with p=0.00. However, as χ^2 is influenced by sample size, where for large samples even trivial discrepancies are significant, it is recommended that other fit indices be examined to judge the fit of the model (Klem 2000). These other fit indices, such as the Goodness of Fit Index (GFI) and Adjusted Goodness of Fit Index (AGFI) with values of 0.99 and 0.99, respectively, showed a very good fit. However, the Comparative Fit Index (CFI) with a value of 0.88 and the Normed Fit Index with a value of 0.86 showed a modest fit. These four indices thus vary from a very good fit to a modest fit for the proposed mediation model (Bentler and Bonett 1980). Furthermore, other fit indices, such as Root Mean Square Error of Approximation (RMSEA) and Root Mean Square Residual (RMR) with values of 0.043 and 0.11, respectively, also showed mixed results for the mediation model (see Table 1). Overall, the fit of the model can be considered acceptable. In terms of the path coefficients, the effect of service attributes satisfaction on overall satisfaction was positive and significant (Γ=1.15); the effect of overall satisfaction on purchase intention was positive and significant (β=0.09), and the effect of purchase intention on actual repurchase behavior was positive and significant (β=0.60). All parameters were in the hypothesized direction (see Table 1).

Table 1

Proposed Mediation Model
Structural Equation Coefficients

Predicted Sign	From	To	Parameters Estimate	t-value
(+)	SASAT (ξ_1)	→ OSAT (η_1)	1.15	29.88
(+)	OSAT (η_1)	→ PINT (η_2)	0.09	5.41
(+)	PINT (η_2)	→ AREP (η_3)	0.60	20.88

Goodness-of-Fit Statistics

Chi-Square	150.68 (p=0.00), 27 degrees of freedom
Goodness-of-Fit Index	0.99
Adjusted Goodness-of-Fit Index	0.99
Comparative Fit Index	0.88
Normed Fit Index	0.86
Root Mean Square Residual	0.11
RMSEA	0.043

Mediation Tests

Mediators in theoretical models account for the effects of independent variables on criterion variables, explaining why or how such effects occur (Baron and Kenny 1986). In the sequence of effects, the "independent variable causes the mediator which then causes the outcome" (Shadish and Sweeney 1991, p. 883). Baron and Kenny (1986) specify the following three conditions for variables to function as mediators, (1)

variations in the levels of independent variable should account for variations in mediators, (2) variations in the levels of mediators should account for variations in the criterion variable, and (3) when the paths from independent variable to the mediators and from the mediators to the criterion variable are controlled, a previously significant relation between the independent variable and the criterion variable should no longer be significant. This means that when the full model is estimated, the direct path from service attributes satisfaction to repurchase behavior should not be significant.

Mediation Test and Parameter Estimates

As recommended, two tests were conducted to meet the requirements of the mediation effect. In the first test, only one parameter is estimated, the direct effect of service attributes satisfaction on actual repurchase behavior. This effect should be significant (Baron and Kenny 1986). Empirical results show that the direct effect of service attributes satisfactions on actual repurchase (Γ=0.20) was positive and significant, as required for the mediation effect (see Table 2, Test 1).

Table 2

Test 1: Mediation Test (Significant Direct Effect)

Predicted Sign	From		To	Parameters Estimate	t-value
(+)	SASAT (ξ_1)	→	AREP (η_3)	0.20	6.74

Goodness-of-Fit Statistics

Chi-Square	214.04 (p=0.00), 14 degrees of freedom
Goodness-of-Fit Index	0.98
Adjusted Goodness-of-Fit Index	0.95
Comparative Fit Index	0.99
Normed Fit Index	0.98
Root Mean Square Residual	0.035
RMSEA	0.052

Test 2: Mediation Test (Full Model, Insignificant Direct Effect)

Predicted Sign	From	To	Parameters Estimate	t-value
(+)	SASAT (ξ_1)	→ OSAT (η_1)	1.15	29.77
(n.s.)	SASAT (ξ_1)	→ AREP (η_3)	0.02	0.81
(+)	OSAT (η_1)	→ PINT (η_2)	0.09	5.38
(+)	PINT (η_2)	→ AREP (η_3)	0.59	20.84

Goodness-of-Fit Statistics

Chi-Square	150.02 (p=0.00), 26 degrees of freedom
Goodness-of-Fit Index	0.99
Adjusted Goodness-of-Fit Index	0.99
Comparative Fit Index	0.88
Normed Fit Index	0.86
Root Mean Square Residual	0.11
RMSEA	0.044

Legends:
Service Attributes Satisfaction (SASAT)
Overall Satisfaction (OSAT)
Purchase Intention (PINT)
Actual Repurchase (AREP)
Not Significant (n.s.)

In the second test, the three paths of the proposed model (shown in Figure 1) and a direct path from service attributes satisfaction to actual repurchase were estimated. The critical requirement of this test is that the direct path from service attributes satisfaction to actual repurchase should become insignificant to support the mediation hypothesis (Baron and Kenny 1986; Hoyle and Smith 1994). Results of this test were as follows. The effects of service attributes satisfaction on overall satisfaction (Γ=1.15), of overall satisfaction on purchase intention (β=0.09), and of purchase intention on actual repurchase (β=0.59) were all significant and positive, as required by the mediation criterion. And the direct effect path from service attributes satisfaction to actual repurchase (Γ=0.02) was close to zero and non-significant (see Table 2, Test 2), satisfying the requirement of the mediation effect. This change of a previously significant path (Test 1) into a non-significant path (Test 2) validates the mediation hypothesis proposed in this study (Baron and Kenny 1986; Holmbeck 1997). Another test related to the χ^2 difference was also conducted to test for mediation effect. In this test, a non-significant difference between the proposed mediation model (Table 1) and the full model (the Table 2 Test 2) would show the validity of the mediation hypothesis. The χ^2 difference between the two models was 0.66 with 1 degree of freedom. This difference is not significant at the 0.05 level, which provides additional support for the proposed mediation hypothesis.

DISCUSSION AND IMPLICATIONS

This study examined the effects of attributes-based satisfaction on repurchase behavior through the mediating effects of overall satisfaction and purchase intention. The research provides a deeper understanding of the antecedents of overall satisfaction, which in the literature has been conceptualized as a cumulative evaluative response or as a global feeling or state (Oliver 1993; Gottlieb et al. 1994). The significant results support the hypotheses presented in the study and also confirm previous findings in the literature, providing valuable support to the significance of service attributes in influencing overall satisfaction. Service encounter is a multiattribute experience, and in the case of a symphony, it shows how satisfaction with the provider, offering, location, information, and facilitation together forms the basis for the feeling of overall satisfaction. Service attributes satisfaction identifies what the consumers are satisfied with and how they rate the different attributes of the service in terms of satisfaction. Overall satisfaction reflects an evaluation of the level of satisfaction with the overall service experience, a global evaluation of the customer-service interface.

The proposed model also addresses the philosophy of science debate about prediction versus explanation. If the interest is merely in predicting the probability of repurchase behavior, the model that would suffice is the direct path model that shows the effect of service attributes satisfaction on actual repurchase behavior. The positive and significant link shows that one can use service attributes satisfaction to predict the outcome of the repurchase behavior. The appeal of this direct path lies in its simplicity and predictive power. While this link is parsimonious, it suffers from a lack of satisfactory explanatory power. To be able to explain how service attributes satisfaction leads to repurchase behavior, the mediating effect of overall satisfaction and intention will need to be incorporated. Thus, the mediation model provides a richer explanation of both *how* and *why*.

Findings from this study have several strategic implications. Service providers need to seriously consider the impact of the different attributes of the service they provide, as it is the satisfaction ratings of these attributes that influence overall satisfaction, which then leads to repurchase behavior via intention. As service attributes satisfaction leads to repurchase behavior, it would benefit firms to deploy their scarce resources toward configuring and fine tuning these attributes to manage and enhance customer satisfaction. Mittal and Kamakura (2001) suggest that managing consumer satisfaction has emerged as a strategic imperative for most firms. From a strategic perspective, if the cost of acquiring new customers is generally higher than retaining existing customers, it would be competitively advantageous for firms to retain the existing pool of customers by focusing on the management of consumer satisfaction (Reichheld 1996; Spreng, Harrell and Mackoy 1995). For managers, this would mean increasing consumer satisfaction with different attributes that together form the value proposition. As service attributes satisfaction is enhanced, it sets into motion a process that encourages repeat purchase.

Several potential research areas emerge from this study. First, as satisfied customers tend to repurchase from the same service provider, it would thus be difficult for competitors to attract these customers to their offerings. If a firm regularly and consistently generates high levels of satisfaction among its customers, what strategic options are available to its competitors to attract these satisfied customers? This is an important research question for marketing scholars to address. Second, although this study did not address the question of how consumers weigh service attributes, research has shown that different customer groups weigh service attributes differently in determining overall satisfaction (Garbarino and Johnson 2001). Future research can explore this phenomenon by studying the value that consumers assign

to different service attributes and by examining how the evaluation of each attribute impacts the feeling of overall satisfaction.

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CONSUMER SATISFACTION AND REDRESS WITH A GOVERNMENT THIRD-PARTY COMPLAINTS AGENCY

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ABSTRACT

As governments around the world adopt a marketing orientation, the importance of consumer satisfaction to the effectiveness of the organization is being recognized. While some investigation of satisfaction with a government agencies' service has occurred, there is little examination of satisfaction with a government agency that acts as a third-party on the behalf of consumers to gain marketplace redress. Given the number of third-party complaints is increasing as a result of internet access to complaint channels, this research is a timely investigation. This study reports the findings of a survey of 454 complainants to an Australian Government agency: the Office of Fair Trading (OFT). The findings show that satisfaction with the service was subjectively experienced, based around individual expectations of the redress and satisfaction levels were higher when the redress sought was financial compared with non-financial forms of redress such as apology.

INTRODUCTION

In the past decade, many public sector organizations around the world have adopted a marketing orientation (Andreassen and Wallin 1994; Paarlberg 2007; Van Der Hart 1990). Implementing the marketing concept in the public sector has required a shift in focus from a traditional production orientation to a consumer needs orientation. In order to assess the extent to which consumer needs are being met, the public sector has had to consider the issue of consumer satisfaction (Dann and McMullan 2003). The difficulty in achieving this shift, however, is that there is limited research available on consumer satisfaction with government services. Consumer satisfaction is an important goal for the public sector; it enables the public sector to compare itself favorably with the service of private sector organizations, reduces complaints from taxpayers and improves the working environment of its employees.

In the event of consumer dissatisfaction, there are three types of consumer complaints: private (i.e., complaining to family/friends, which is not normally focused on resolving the complaint); voice (i.e., complaining to the supplier) and third-party (Singh 1990). Third-party complaints are 'behaviors that are directed toward one or more agencies that are not directly involved in the exchange relationship' (Singh 1989), p.333). These are considered the most effortful of all complaint behavior and are largely considered a last-resort action (Singh 1989). Third-party complaints are the main type of market feedback received by consumer protection agencies, and despite their lack of marketplace representativeness (Bearden 1983) they are a valuable measure of business performance.

In this article, we address this gap in knowledge and practice regarding consumer satisfaction with the services of a government third-party agency that handles consumer complaints. We present findings from a study of the Queensland Office of Fair Trading (OFT), which serves a function similar to that

of consumer protection agencies found in most developed countries: to resolve disputes and investigate consumer complaints relating to purchases from businesses in the Australian state of Queensland. Often, the outcome sought by consumers is some form of redress or compensation for a service or product failure that has been experienced. Redress is concerned with restoring the consumer to their prior state. This restoration can come in both financial (e.g., money or in-kind goods and services such as vouchers) and non-financial (e.g., apology or validation) forms.

Given this, the purpose of this research is to identify how attributes of the service process, redress and consumer characteristics relate to overall consumer satisfaction for a government agency that is acting as a third-party to resolve complaints with suppliers. Key contributions of this study include evidence of differences in satisfaction towards financial and non-financial redress, and evidence of the impact of different types of redress on satisfaction in a third-party complaints context.

Consumers tend to engage in a hierarchical process of actions following a dissatisfactory service experience. Private and voice complaints are classified as 'easy options'. These are usually the first strategy used by consumers to resolve a complaint. Third party complaints are considered 'hard' actions because they take more effort; consequently, these complaints are less frequent (Hogarth, English and Sharma 2001; Singh and Wilkes 1996). Consumers who complain to a government third-party have usually attempted at least one of the 'easier' strategies and are seeking assistance from a regulatory authority to gain resolution. There are, however, instances where consumers may bypass voice complaints and go straight to a third party. This may be due to the perceived frustration associated with trying to gain redress from the original party (Mason and Himes 1973).

An examination of the limited research on consumer service in the public sector (Singh 1990) highlights that most studies investigate service experiences that are under the control of the government agency (e.g., medical services, education or law enforcement). Some government agencies, however, do not directly control and/or supply a core service to consumers but rather act as an intermediary in the service-chain and as a third-party in dispute or complaint resolution. In these contexts, the benefit sought by the consumer cannot be directly supplied by the government agency; rather, it is negotiated with another org-anization on behalf of the consumer, complicating the management of consumer satisfaction. Examples of these types of agencies include the *Consumer and Governmental Affairs Bureau* of the Federal Communications Commission in the United States, state-based Offices of Fair Trading in Australia, and the *Medicines and Healthcare Products Regulatory Agency* in the United Kingdom.

There are a number of unique challenges that government third-party agencies face in satisfying their consumers. In many cases, consumers complain to government agencies when there is no legal breach and thus are unlikely to obtain legal recourse, which may lead to dissatisfaction. In such situations, it is difficult to satisfy the consumer even when every possible effort is made by the government agency.

Data for this research were obtained from the Queensland OFT in Australia. As part of its mission to ensure marketplace integrity for businesses and consumers (DTRFT 2003), a primary function of the OFT is to provide dispute resolution and to investigate consumer complaints relating to purchases. Consumers are able to lodge a formal complaint with the OFT regarding problems experienced with Queensland business where they perceive unfair trading occurred. As part of this process, the OFT requires consumers to attempt to resolve the problem directly with the business before they contact the OFT.

The impact of the OFT on Queensland society is significant. In 2006-07, approximately AU$5 million in redress and savings was obtained on behalf of consumers (with approximately 11,000 complaints received) (DTRFT 2007). The typical complaint involved product categories such as personal household items (i.e., appliances, mobile phones and computers), real estate and motor vehicles. Financial products are handled at a national level by other regulatory bodies.

As part of the OFT's commitment to consumer service, it has commenced measuring consumer satisfaction with its service delivery. The key attributes of OFT service delivery identified by the Queensland Government relate to the various dimensions of the service such as interaction with staff and timeliness of service.

The article is structured as follows. First, we review the theoretical background of satisfaction in order to derive its implications for a third-party context. Second, we introduce the literature on redress and complainant characteristics, linking it with research on satisfaction. From this discussion, we develop five hypotheses. Next, we outline the method of the study. Finally, the results are reported and implications discussed.

THEORETICAL BACKGROUND

The theoretical background comprises three sections. The first section reviews the literature on satisfaction and its relevance to a government third-party agency, and then poses the first hypothesis. The second section introduces literature on redress and poses three hypotheses. The final section discusses literature on complainant characteristics and satisfaction, and poses the final hypothesis.

Satisfaction and Government Third-Party Agencies

There are limited published studies on consumer satisfaction in the public sector. Further, most of these studies have focused on satisfaction with healthcare and medical services (Choi, Cho, Lee, Lee and Kim 2004; Jimmieson and Griffin 1998; Spicer 2002). There is little evidence of any marketing studies that investigate satisfaction with a government agency that acts as a third party to resolve consumer complaints. A differentiating feature of satisfaction with a third party compared to satisfaction with the supplier of the service is the potential lack of consumer ability to distinguish the objects of their satisfaction. They may confuse satisfaction with an outcome (i.e., redress obtained) with satisfaction pertaining to the service provided by the agency in obtaining this outcome. Thus, an agency may find its satisfaction ratings over- or under-inflated based on redress outcomes rather than on the actual service delivered. A number of government agencies have increased the ease of access to the complaint channel by using online complaint forms. Prior research has identified that ease of access to complaining influences the volume of complaints and the satisfaction with the outcome (Richins and Verhage 1985).

Given the financial benefit these agencies provide for consumers, the role they play in enforcing integrity in the marketplace, and their economic impact with respect to consumer and business confidence, it is important for government third-party agencies to understand the key service attributes that give rise to consumer satisfaction with the service delivered by the agency.

One of the few academic studies on satisfaction with a third-party complaints agency focuses on satisfaction with complaint management (Owens and Hausknecht 1999). This research investigated complaint handling processes within the Better Business Bureau (BBB) and found that the difficulty of complaining to a third party influenced satisfaction with the complaint process. While this research provides useful information regarding satisfaction with third-party complaint handling processes, the BBB is a private organization and has no regulatory authority to obtain redress for consumers

(Owens and Hausknecht 1999; Goodwin, Mahajan and Bhatt 1979).

In general, consumer satisfaction is an evaluation or cognitive appraisal of an object (Oliver 1997): either the entire service (i.e., overall satisfaction) or with attributes of the service (i.e., attribute-level satisfaction). Typically, both of these are used together with the overall satisfaction score providing a summative indicator and the attributes providing diagnostic information that can be used for marketing interventions. The attributes of the government service being investigated in this research are detailed in Table 1. These attributes were identified by the Office of Fair Trading as a result of experience and informal customer research.

Table 1

Attributes of Satisfaction with Office of Fair Trading Service Delivery

Attribute
With the number of staff you spoke to or dealt with before receiving the service you needed
The staff's knowledge of their subject
The helpfulness of the staff
The politeness of the staff
The length of time you waited before you spoke to or received contact from a staff member
The outcome received or achieved (if relevant)
The ease with which you could find the Fair Trading Office (if relevant)
The cleanliness and tidiness of the Fair Trading Office (if relevant)

Satisfaction can also be measured at either a cumulative level (i.e., satisfaction with all prior experiences of the service) or a transaction-specific level (i.e., satisfaction with a particular service encounter) (Jones and Suh 2000). While some authors posit that cumulative satisfaction is a more valuable indicator than transaction-specific satisfaction (see Anderson, Fornell and Lehmann 1994), it really depends on the nature of the service interaction. In the case of government third parties, unless the consumer is a prolific complainer, the interaction between the consumer and the agency is likely to be discrete and infrequent (Owens and Hausknecht 1999). Even where consumers have experienced prior interaction, there is likely to be a lengthy time period between contacts. Therefore, transaction-specific satisfaction is a more relevant measure in this context.

Government third parties need to be able to identify the relationship between satisfaction with the attributes they can control (e.g., the knowledge levels of staff) and satisfaction with the elements they cannot control. If satisfaction with service attributes influences overall satisfaction, then this poses opportunities for public sector managers to increase overall satisfaction. To date there has been limited investigation of this relationship (e.g. Bendall-Lyon and Powers 2004).

Attributes of satisfaction can be classified into two types: structure (i.e., tangible elements of the service such as the physical environment) or process (i.e., interpersonal elements of an interaction) (Gronroos 1995). Given that consumers interact remotely with the OFT service by registering their complaints using the telephone, written forms or the internet, the attributes relevant to investigation are process attributes. These included the politeness, helpfulness and knowledge levels of staff. Prior research in satisfaction with commercial services shows that attribute-level satisfaction is positively related to overall satisfaction (Bendall-Lyon and Powers 2004; Wu, DeSarbo, Chen and Fu 2006). We expect this to also be the case for a government service;

thus, we offer the following research hypothesis:

> **H1:** ***Satisfaction with service attributes will be positively associated with overall satisfaction with a government third-party service.***

Satisfaction with Redress

Satisfaction with complaint resolution has been an area of interest to consumer affairs practitioners for the past thirty years (see Bearden and Oliver 1985) with many early works focused on consumer affairs rather than marketing. The U.S. Department of Consumer Affairs conducted a landmark study in 1979 created the first major research project in this field (TARP 1979) along with research from the American Council on Consumer Interests (The American Council on Consumer Interests 2009).

There is little research that investigates the relationship between satisfaction with government agency's servicing of third-party complaints and key service outcomes such as redress. Even reviews of the field (c.f. Andreasen 1988; Singh and Howell 1985) summarize research that is drawn from voice complaints rather than from the third-party sector. When consumers make a complaint to a government third party, they are seeking assistance to gain compensation in some form in order to achieve redress (Bearden and Mason 1984; Davidow 2003). Redress is concerned with restoring the consumer to their prior state. Redress occurs in both financial and non-financial forms: financial redress includes money or in-kind goods and services such as vouchers, whereas non-financial redress includes an apology or some form of validation. As research shows that expectations are key to measuring consumer satisfaction (Oliver 1997), it is important to assess whether the redress sought and the redress gained by complainants through the third-party agency improves satisfaction.

Research into consumer complaint behavior has been conducted since the 1970s's when Hirschman first introduced his economic approach to complaint behavior. In a review of the literature up to the mid 80's, Singh and Howell (1985) summarize the two key perspectives in the field; economic and psychological. Traditionally, research on consumer complaints has adopted an economic (i.e., cost-benefit) approach that focuses on financial outcomes (Singh and Wilkes 1996). Specifically, consumers are assumed to be more likely to complain to suppliers, family or friends and third parties if the amount at stake/lost is high (Bearden and Mason 1984; Hogarth *et al.* 2001; Singh 1989; Singh and Wilkes 1996). However, given the social justice role often ascribed to government agencies, complaints to third parties may not always reflect this approach and thus consumers may complain for non-financial gain.

Motivations for consumers complaining to a government third party have been identified as both economic (Blodgett, Granbois and Walters 1993; Gronhaug and Gilly 1991; Kolodinsky 1995) and non-financial (Halstead 2002; Huefner and Hunt 2000). The non-financial motivations are often a desire to protect other consumers, a punishment for the offending business, a chance to vent frustrations, and an attempt to regain fairness (Frank 1988). Given this, it is possible that consumers engage in effort to complain even when there is minimal or no money at stake. In instances where non-financial redress is sought, consumers are seeking compensation in the form of an apology, an admission of liability or a validation of their position. This form of redress may be desirable when a consumer realizes that they have no recourse for the problem under law, but they still believe an injustice has occurred. If no laws have been broken, however, there is little that a government agency can do for the consumer because the agency has little power to enforce the outcome desired by the consumer. It is

thus likely that consumers will not be satisfied with the outcomes in such situations.

Conversely, if a consumer is willing to make the effort to complain to a government third party and seeks financial redress, it is likely that they will do so on the basis of a breach of law. If a legal breach has occurred, the government third party is able to enforce compensation from the business for the consumer, and the consumer is likely to be satisfied. We propose that there will be a positive relationship between the type of redress sought (i.e., financial or non-financial) and satisfaction. Financial redress is hypothesized to be related to higher levels of satisfaction than non-financial redress. We therefore tender the following research hypothesis:

> **H2***: When consumers seek financial redress, they are more likely to have higher satisfaction levels compared to consumers seeking non-financial redress.*

Prior research shows that consumers complain to third parties when the amount at stake (i.e., redress amount sought) is higher (Bearden and Mason 1984). Given the level of effort associated with complaining to a third party, it is expected that consumers will only engage in such action if they are confident that they are entitled to the redress. This is particularly the case for amounts that are of significant monetary value. For amounts of smaller value, it is expected that the confidence level may not be as high; however, consumers may 'have a go' anyway especially if they perceive an injustice has occurred.

Previous studies have identified a strong link between the amount of redress and consumer satisfaction for service recovery contexts other than a third-party complaint (Davidow and Leigh 1998; Spreng 1995; Garrett 1999; Blodgett, Hill and Tax 1997). In a review of studies on complaint outcomes, 21 of the 23 showed a positive relationship between redress and satisfaction. In an experimental study, Boshoff (1997) demonstrated that the higher the level of compensation, the higher the level of satisfaction. Davidow (2003) proposes a hierarchy of outcomes that affect consumer satisfaction: no redress is likely to result in dissatisfaction, partial redress is better than no redress and full redress is likely to result in high levels of satisfaction. In other words, when consumers are seeking financial redress it is likely that the difference between the amount they seek and the amount they receive will influence their overall satisfaction. This accords with the disconfirmation of expectations approach to satisfaction, which states that satisfaction results when actual and expected performances are the same (Oliver 1997).

The relationship between satisfaction and redress is also moderated by variables such as interactional justice and interpersonal factors. Blodgett, Hill and Tax (1997) found that if people were treated with respect they were more satisfied with a partial refund compared to people who received a full refund but were not treated with the same level of courtesy. Likewise Bechwati, Nasr and Morrin (2003) found that the interpersonal factors of the redress situation reduced the likelihood of dissatisfied customers taking revenge on the service provider.

When there is a lower-order outcome of nil or partial redress, it is likely that the consumer will experience lower satisfaction levels as they have not achieved the goal they were seeking. When there is a higher-order redress outcome, which is full compensation of the amount sought, it is likely the consumer will experience higher satisfaction levels. When considering the redress achieved, we the following research hypothesis is put forward:

> **H3***: Where redress achieved is nil or partial, satisfaction will be lower compared to receiving full redress.*

Complainant Characteristics and Satisfaction

Finally, this study also seeks to identify key consumer characteristics that may influence satisfaction, as previous research has identified certain demographic characteristics as an attribute of complainants (Bearden and Mason 1984; Reiboldt 2003; Warland, Hermann and Willits 1975). For example, Reiboldt (2003) investigated complainants' ratings of service from a third-party complaint handling agency and reported that gender, income and ethnicity significantly impacted evaluations.

Previous research indicates that differences in demographic characteristics will influence the level of satisfaction experienced by consumers. For example, older consumers are more likely to be satisfied compared to younger consumers (Westbrook 1980). Some researchers propose that this finding is due to deterioration in information-processing abilities. However, the difference may also be due to greater experience (Westbrook 1980). Thus, we propose the following research hypothesis:

H4a: ***Older consumers will have higher levels of overall satisfaction than younger consumers.***

Gender has also been found to influence an individual's level of satisfaction. For example, females tend to have higher expectations when judging the quality of services (Callan and Bowman 2000), which may lead to lower levels of satisfaction in comparison to males. Another study (Laroche, Saad, Cleveland and Browne 2000) revealed that males tend to consider less information when evaluating service cues and take 'shortcuts' in their information processing that may result in greater satisfaction than female counterparts. Thus, we propose the following hypothesis:

H4b: ***Males will have higher levels of overall satisfaction than females.***

Finally, a relationship between income level and satisfaction has also been observed (Scott and Shieff 1993). Researchers found that respondents with incomes in the upper range had lower expectations of interaction speed and accessibility compared to respondents in the lower income range, and therefore have higher levels of overall satisfaction than respondents with low income levels. Thus, we propose the following:

H4c: ***Higher income levels are associated with positive overall satisfaction compared with lower income levels.***

METHOD

A survey was conducted amongst complainants to the OFT using computer-assisted telephone interviewing (CATI). A random sample of 760 consumers was selected from a pool of 2786 consumers whose complaint had been finalized in the last twelve months and who had indicated that they would be available for follow-up by the OFT. After the removal of calls to disconnected numbers, answering machines and wrong numbers, a useable sample of 454 consumers was obtained, representing a response rate of 59.7%. Consumers were asked to consider their most recent contact with the OFT when answering questions, so a transaction-specific approach was adopted.

Transaction-specific satisfaction with the attributes was measured using eight items, with five items reflecting the process element of satisfaction (i.e., interaction with staff) and two reflecting the structural element (i.e.,

physical aspects) if it was relevant (see Table 1, repeated below for convenience). Most consumers interact remotely with the OFT by phone or the internet and thus the last two items had few responses and were not included in the analysis. Again, these items are detailed in **Table 1**.

Table 1

Attributes of Satisfaction with Office of Fair Trading Service Delivery

Attribute
With the number of staff you spoke to or dealt with before receiving the service you needed
The staff's knowledge of their subject
The helpfulness of the staff
The politeness of the staff
The length of time you waited before you spoke to or received contact from a staff member
The outcome received or achieved (if relevant)
The ease with which you could find the Fair Trading Office (if relevant)
The cleanliness and tidiness of the Fair Trading Office (if relevant)

Satisfaction with each attribute was calculated by multiplying the response on a Likert scale (from 1 to 5 for each item) by the level of importance of that attribute (1 being 'not very important' and 5 being 'very important'). Thus, for each item the maximum score was 25 and the minimum score was 1. *Overall satisfaction* was also measured using a five-point Likert scale multiplied by importance, using a single item: 'I'd like you to tell me how satisfied or dissatisfied you were with the overall quality of the service you received'. The satisfaction data were then matched with the OFT data pertaining to that particular complaint to obtain the data for the redress and demographic variables.

Redress type was a categorical variable with two categories: financial redress or non-financial redress. *Financial redress sought* was the amount of money stated on the complaint form as the desired outcome of the complaint. Three variables were used for *redress outcomes.* The first variable was the amount of money obtained as redress. The second variable was categorical data indicating whether the redress amount represented nil, partial or full redress. The third variable was also categorical and combined the nil and partial options in the previous variable into a single category with another category of full. This was to allow comparison between receiving the requested redress or less than requested. *Demographic information* was obtained from the OFT records of the complaint form. This included age, gender and income categories.

RESULTS

The demographic characteristics of the sample are detailed in **Table 2.** These results show that there were 16% more males in the sample than females and that 69% of the sample were aged between 20 and 50 years of age. Furthermore, 68% of the sample earned $50,000 or less a year. These demographics are similar to the demographics of the overall population of complainants to the OFT (e.g.,

55% of the population are males compared with 54% in the sample). Thus, the results may be generalized to the OFT population of complainants.

Table 2

Demographic Characteristics	
Age	
under 20yrs	2% (6)*
20 – 35yrs	33% (128)
36 – 50yrs	35% (135)
51 – 70yrs	25% (95)
71+	5% (18)
Total	100% (382)
Income	
<$20k p.a.	27% (91)
$21k - $50k p.a.	42% (144)
$51k - $75k p.a.	19% (65)
>$75k p.a.	12% (40)
Total	100% (340)
Gender	
Male	54% (212)
Female	46% (182)
Total	100% (394)

***counts (in parentheses) are given next to percentages**

As the measures were single-item, reliability tests were unnecessary. Validity tests were conducted on the attribute satisfaction items using factor analysis. The results of these tests, as well as the descriptive statistics of the independent and dependent variables, are shown in **Table 3**. *Overall satisfaction* was measured using a single-item measure. Attribute satisfaction formed a single factor solution and all items had loadings greater than .3. The Cronbach alpha was .84, explained variance was 58% and all item-to-total correlations exceeded the minimum threshold of .30. Overall satisfaction had a mean of 3.73 (out of 5).

Table 3
Descriptives of Variables

Part 3(a)

Measure	Factor loading	Range(min & max)	Mean	SD
Satisfaction with the number of staff you spoke to or dealt with before receiving the service needed	.749	1-5	4.17	.942
Satisfaction with staff's knowledge of their subject	.829	1-5	3.97	1.071
Satisfaction with the helpfulness of the staff	.853	1-5	4.09	1.125
Satisfaction with the politeness of the staff	.708	1-5	4.41	.788
Satisfaction with the length of time you waited before you spoke to or received contact from a staff member	.734	1-5	3.92	1.083
Satisfaction with the outcome received or achieved (if relevant)	.666	1-5	3.09	1.576

Part 3 (b)

Measure	Range (min and max)	Mean	SD
Redress amount sought	$0-$41,000	569.99	2746.28
Redress amount gained	$0-$2800	134.51	373.34

Part 3 (c)

Measure	Proportion
Redress sought- Financial	48%
Redress sought – non-financial	52%
Redress outcome type – nil	46%
Redress outcome type – partial	16%
Redress outcome type - full	38%
Redress – loss achieved	40%
Redress- gain achieved	60%

Multiple regression (OLS) was used to test the hypotheses. Age, income and gender (as dummy variables) were included as controls. Collinearity was examined and the results indicated a VIF <4, which falls below the recommended cut-off (Kennedy 2003). The results show support for H1, H2 and H3, but not for the demographic hypotheses (H4a, H4b or H4c).

Table 4

Relationship between Satisfaction Attributes and Overall Satisfaction (H1)

Independent Variables	Standardized Coefficients	Significance Level
Attribute Level Satisfaction Adjusted $R^2 = 0$ .72		
Age: 20-35 years	.099	.403
Age: 36-50 years	.143	.233
Age: 51-70 years	.032	.758
Age: 71+ years	-.008	.889
Gender – Male	-.041	.233
Gender – Female		
Income - $21K-$50K p.a.	-.053	.245
Income - $51K-$75K p.a.	-.122	.005
Income – more than $75K p.a.	-.080	.053
Satisfaction with the number of staff spoken to or dealt with before receiving the service	.076	.098
Satisfaction with the staff knowledge of their subject	.345	.000
Satisfaction with the helpfulness of the staff	.145	.008
Satisfaction with the politeness of the staff	-.016	.712
Satisfaction with the length of time before spoken to or received contact from a staff member	.109	.012
Satisfaction with the outcome received or achieved	.392	.000

First, **H1** *(Satisfaction with the service attributes will be positively associated with overall satisfaction of a government third-party service),* which identified the relationship between the independent variables of service attributes on the dependent variable of overall satisfaction, was supported by the data. The results showed a significant positive relationship between overall satisfaction and satisfaction with service attributes ($R^2 = .70$, $F_{14, 223} = 46.853$, $p < 0.001$). Specifically, a significant positive relationship was found between overall satisfaction and four of the attributes, namely staff knowledge ($\beta = .345$, $p<0.001$), helpfulness ($\beta = .145$, $p<0.05$), length of time ($\beta = .109$, $p<0.05$) and outcome achieved ($\beta = .392$, $p < 0.001$) **(detailed in Table 4)**. These variables explained 74% of the variance in satisfaction.

Second, **H2** *(When consumers seek financial redress, they are more likely to have higher satisfaction levels compared to consumers seeking non-financial redress (3.87 (SE=0.145) vs. 3.59 (SE=0.152)* which identified the relationship between the independent variable of financial redress on the dependent variable of overall satisfaction, was tested using regression where demographic variables were added as covariates. The results showed a significant difference in satisfaction based on the type of redress sought after covariate adjustment for demographics (age, income and gender) ($F_{1,312} = 3.944$, $\beta = .110$, $p =0.0479$).

Third, **H3** *(Where redress achieved is nil or partial, satisfaction will be lower compared to receiving full redress)* identified the relationship between the independent variable of type of redress outcome on the dependent variable of overall satisfaction, was tested using regression where demographic variables were added as covariates. This hypothesis was tested by regression using nil and partial dummy variables with demographics added as covariates. The results indicated that, compared to full redress, customers were less satisfied with nil and partial redress ($F_{2, 170} = 10.38$, $p<0.0001$), with $\beta =-0.207$ for nil redress and $\beta = -0.150$ for partial redress. There were no significant differences between nil and partial redress ($p=0.9971$), but the differences were significant between full and partial ($p=0.0068$) and between full and nil ($p<0.0001$). Post hoc tests revealed that the mean satisfaction levels for 'full redress gained' was 4.38 (SE=0.650) and the mean satisfaction level for 'redress which was less than the amount sought' of 3.50 (SE-0.676) whereas for NIL redress was 3.59 (SE=0.643). The data also showed a non-significant relationship between redress amount received and overall satisfaction, which indicates that it is not the amount gained or lost that influences satisfaction but rather whether the consumer achieved the amount they were seeking or not.

When 'satisfaction with outcome received' is added to the model, the relationship between overall satisfaction and redress type becomes non significant ($F_{2,126}=1.20$, $p=0.3034$) but 'satisfaction with outcome received' remains significant. 'Satisfaction with outcome received' is strongly related with 'type of redress' ($F_{2,202}=44.98$, $p<0.0001$) with full redress yielding a nearly perfect satisfaction with outcome score of 4.59, whereas Nil redress had predictably 'low satisfaction with outcome' mean score of 2.7. Thus the relationship of redress type with overall satisfaction is moderated by satisfaction with outcome.

The impact of the independent variables of demographic characteristics on the dependent variables of satisfaction with the entire service was tested using linear regression, with dummy variables for age, gender and income being regressed on overall satisfaction. The results of the analysis showed no support for Hypothesis 4a, 4b or 4c. However, there were significant gender differences in H4b but in the opposite direction to that hypothesized: females showed higher levels of satisfaction than males ($F_{1, 383} = 6.530$, $p<.05$, $R^2=.017$, $\beta= .129$). There were no significant gender differences in the mean amount of redress sought or received (see **Table 5**).

Table 5

Redress Sought and Obtained by Gender*

Redress	Gender	N	Mean	Min	Max
Redress amount sought					
	male	212	$ 666.56	$ -	$41,000.00
	female	182	$ 570.25	$ -	$37,841.36
Redress amount obtained					
	male	206	$ 145.51	$ -	$2,800
	female	179	$ 128.42	$ -	$2,109
Difference in amounts -negative means customer received less than requested - positive means customer received more than requested	male	206	-$ 540.46	-$ 41,000	$ 660
	female	179	-$ 451.39	-$ 37,841	$ 940

* no significant gender differences found

DISCUSSION

Despite the call for more research into consumer complaints by consumer affairs researchers (Bearden and Oliver 1985), there has been little recent activity in this field. In particular, there has been little research on satisfaction with the efforts of consumer affairs agencies. This research attempts to answer this call by examining how redress outcome, redress sought, and demographic characteristics relate to consumer satisfaction with a government third-party complaints agency: the Queensland OFT. Key findings show that satisfaction with the service was subjectively experienced and appears to be based around individual expectations of the redress. The overall satisfaction level of 3.73 out of 5 indicates a moderate level of satisfaction and indicates that there are areas for improvement. Further research is needed to identify the aspects of the service for this and in particular to determine if higher satisfaction levels are achievable given that not every customer can be given what they are seeking (redress and damages).

Satisfaction levels were higher when the redress sought was financial compared with non-financial. This has implications for organizations designing service recovery strategies for all types of complaints.

Satisfaction with attributes of the service provided was associated with greater overall satisfaction, thereby supporting hypothesis 1. Given the transactional nature of the interactions people have with the OFT, establishing the relationship between satisfaction with attributes of the service and perceptions of overall satisfaction increases the generalizability of the current attribute-level results. There were four satisfaction attributes that had significant impact on overall satisfaction: satisfaction with staff knowledge, satisfaction with helpfulness, satisfaction with length of time and satisfaction with the outcome received. While the first three attributes are within the control of the OFT, the last is not. It is expected that satisfaction with outcome would be predictive of overall satisfaction. What is of interest is that three factors that are within the control of the OFT contribute to overall satisfaction after adjustment for the effect of satisfaction with outcome received. This is an opportunity for the third-party agency in terms of managing overall satisfaction levels.

With regard to H2 and H3, the results of the current research provide important insights into consumer attitudes towards third-party complaint handling. It appears that customers who seek tangible compensation (i.e., money) may be easier to satisfy than customers seeking intangible compensation (e.g., an apology) as demonstrated in H2. The observation that money is a key factor for overall satisfaction is consistent with prior research (Davidow 2003), but the post hoc analysis for H3 shows that the dollar amount of redress sought was unrelated to satisfaction. This suggests that an objective focus on monetary outcomes is not an effective explanation for consumer satisfaction with complaint outcomes, which contrasts with the cost-benefit approach to complaint handling (Singh and Pandya 1991) that has been traditionally accepted.

The finding that partial redress is no better than nil redress has interesting implications for service recovery resulting from a complaint. This contrasts with previous research (see Davidow 2003) that suggests that consumers simply seek a solution to their problem and are satisfied with complementary outcomes even if they do not receive the money they originally requested. For instance, Kelly (1979) found that consumers were satisfied with receiving a clothing voucher rather than their money back for faulty clothes.

The support for H3 demonstrated that consumers are more satisfied when they received full redress compared to nil or partial redress. The actual amount obtained is not related to satisfaction; thus, it appears that a justice principle rather than an economic goal is being served. Simply put, what appeared to matter to complainants in the end of the process was whether or not they received what they wanted from their efforts rather than how much they sought. It may be that the redress represents a form of justice and thus it was more the principle of being validated rather than the actual amount being received that mattered. In particular the level of interpersonal justice received may play a role in the level of satisfaction. Prior research has identified that customers can be satisfied with lesser amounts of redress if they are treated with respect and courtesy (Blodgett, Tax and Hill 1997). The mean score for satisfaction with the helpfulness and politeness of OFT staff were the highest of all the service attributes and thus this may further explain the results.

There were mixed results with regard the influence of demographics on satisfaction. Overall, the tests of H4 did not provide support for a relationship between age, income and satisfaction. However, the results did indicate that gender was a significant factor, as females report higher level of satisfaction than males despite no significant difference in the amount sought or received. This observation is contrary to the research of Westbrook (1980) and Laroche *et al.* (2000), who found that males are more likely to be satisfied than females.

Anecdotal evidence from the OFT indicates that women use the third-party agency when they are confident of their claim (and thus the likelihood of resolution was higher), whereas men approach the OFT regardless of the justification for their claim (i.e., a 'worth a shot' approach). It is conceivable that because females have higher expectations of service (Callan and Bowman 2000) and consider more information in their processing than males, their complaints may present differently in terms of content (i.e., perhaps more complete owing to the information processed and reported to the third-party complaints agency) and may thus be viewed differently.

There are important managerial implications of these finding for government organizations. Given the findings in this research, it is imperative for third-party service agencies to manage customer expectations regarding the complaint process and especially complaint outcomes. Given that the OFT is not able to control the level of overall satisfaction, only influence this, it is important to manage consumer expectations to ensure that service delivery can either meet

these expectations or educate consumers to alter these expectations.

Staff working in complaint handling within third-party agencies must be informed and well-trained to resist the temptation to place more importance on higher financial claims for redress. No matter how small the amount at stake, complainants were more satisfied with the service from a government third-party complaints agency when the outcome was equivalent or better than what they sought and less satisfied when the outcome was less than what they sought. This observation further supports the argument that a simple cost-benefit approach to complaint behaviour does not capture the entire picture. Finally, government agencies should encourage consumers to include financial redress in their claims where possible. This provides an objective measure upon which both the agency and the consumer can focus.

LIMITATIONS AND FUTURE RESEARCH

There are a number of limitations of this research and opportunities for further research. First, the study involved a single organization and investigated transaction–specific satisfaction. Future research should examine other government agencies that resolve complaints (i.e., Health and Police) or contexts where the cumulative effect of satisfaction exists. The use of a real organization influenced the selection of attributes that were measured for satisfaction. Thus while they reflected government practice they did not reflect the wide range of theoretically available attributes. Further research could include other attributes such as overall/total time of complaint resolution or how the customer felt during the process.

Second, this study used a single-item measure to assess overall satisfaction. Although some scholars argue against the use of single-item measures (Bergkvist and Rossiter 2007), it should be noted that the measure of overall satisfaction was complemented by a multiple-item measure of satisfaction. We also acknowledge the danger that our ratings of satisfaction with the OFT were confounded in the respondent's mind with their satisfaction with the original seller.

A third limitation of the research is that selection bias cannot be ruled out when considering the finding that males were less satisfied with the complaints resolution service of a government third-party. We also acknowledge that the consumers participating in this study self-select in a number of ways, including when they approach the agency for assistance and then participate in this follow-up study.

A fourth limitation that needs acknowledgement relates to the findings regarding gender. As we did not measure the household status of the respondents or whether a consumer was complaining on behalf of the household, it is possible that the findings related to this factor rather than gender. Future research should address this possibility. We also did not measure cohort effects and therefore cannot determine their effects on satisfaction.

Fifth, we were unable to measure fairness in this research and thus call for future research to examine this important construct. Fourth, this research emphasizes the economic approach to complaints, which is the mandated area by this government department. It would be interesting to examine, the relationship between economic redress and social justice redress in further research. In particular Garrett's (1999) work on justice could be used to further develop the knowledge of third-party complaints further. It would be interesting to note the role perceived justice plays as a motive for third-party complaining.

Finally, the data were collected by a government third-party agency for transaction purposes, so further research should expand the items to include other variables that might explain the non-significant results between redress and satisfaction.

CONCLUSION

The research presented in this article contributes to research on satisfaction with the complaint handling by a government third-party agency. It identified that redress type has a more significant impact on overall satisfaction than does redress amount. Given that satisfaction with the outcome is strongly related to overall satisfaction, it is essential that consumer expectations regarding the complaint outcome are managed at the commencement of the process.

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MANAGING SATISFACTION IN THE AUTOMOTIVE INDUSTRY: THE ECONOMICS OF SAVING EXPECTED DEFECTORS

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ABSTRACT

This research was designed to empirically understand whether "intending" defectors (those who were *completely* dissatisfied with their product and *definitely* would not repurchase the brand when next in the market) could be regained as customers. Additionally, the variable "amount of time since the complete dissatisfaction was reported" was also tested. Three groups of automotive customers (200 subjects per group) took part in the study. All subjects had purchased or leased a new vehicle within the past 18-30 months. There were two experimental groups (Group 1 reported their dissatisfaction within the past 90 days; Group 2 reported their dissatisfaction 90-180 days previously) and one control group. Each subject in each Experimental Group was telephoned by the intervention team and an attempt was made to completely resolve their dissatisfaction. For Groups 1 and 2, 85.5% and 83% had their dissatisfaction resolved, respectively. For Groups 1 and 2, 47.4% and 29.5%, respectively, repurchased the brand at their next opportunity. In the Control Group, aside from 4 subjects who accidentally had their problems resolved, defection was 100%. The following general conclusions were reached: (1) unresolved complete dissatisfaction (addressed or not) leads to 100% defection; (2) timely resolution of dissatisfaction can lead to a regain rate of close to 50%; and (3) the longer the dissatisfaction is allowed to sit, the less chance of regaining the customer.

BACKGROUND

The study of customer satisfaction, loyalty, and defection has occupied marketing and customer relationship management (CRM) researchers for over 40 years. Cardozo (1964), Olshavsky and Miller (1972) and Anderson (1973) provided much of the original theory which established the foundation for all subsequent research.

The earliest satisfaction theories examined and tested some portion of the linkage of the disconfirmation paradigm, i.e., the discrepancy that arises when product performance fails to meet consumer expectation. In this theory, the size of the disconfirmation generates the degree of satisfaction or dissatisfaction. Prior to the early 1980s, no study had investigated <u>all</u> the interrelationships among expectations, performance, disconfirmation, and satisfaction. Churchill and Surprenant (1982) discovered that these interrelationships might differ for durable vs. non-durable products, in other words, the satisfaction process might differ across product groups. Day (1977) also suggested that the consumer satisfaction process might be different across products.

The disconfirmation paradigm was supported by the work of Cadotte, Woodruff, and Jenkins (1987) and expanded to include not only expectations as a standard for determining satisfaction but also (1) experienced based norms; and (2) the specific situation. The importance of this work was that it demonstrated that the explanation of the satisfaction process was not limited solely to a single standard.

As customer satisfaction research was expanding, customer/brand loyalty was beginning to emerge as a concept, Cunningham (1966) viewed brand loyalty as a "proportion of purchase" measure while Kahn, Kalwani, and Morrison (1986) saw it more as a "purchase sequence" metric. Later researchers like Cooil et. al. (2007) would describe customer loyalty in "share of wallet" terms. By the early 2000s, it was on everyone's mind. Bell (2002), surveying a composite of global CEOs, found customer loyalty and retention as the most important challenges that companies faced at that time.

The initial notion was, at least superficially, that customer satisfaction led to brand loyalty. Gradually this premise was deemed flawed. Deming (1986) articulated that it was not sufficient to merely have satisfied customers; Jones and Sasser (1995) stated that satisfying customers was not enough to keep them loyal; Reichheld (1996) noted that satisfaction, as a tool for predicting whether a customer will purchase more of the company's products and/or services, was grossly imperfect; and Oliver (1999) stated that satisfaction did not universally translate into loyalty. In earlier research, Oliver (1997) demonstrated that while there was a distinction between satisfaction and loyalty, they were also inextricably linked. As research was making clear, satisfaction was but a single element in the loyalty equation.

Equally important was Relationship Commitment. Morgan and Hunt (1994), Bendapudi and Berry (1997), and Fullerton (2003) identified and expanded upon two dimensions of relationship commitment that impact loyalty: (1) *affective commitment* is the emotional attachment/involvement that a customer has including a dimension of trust, while (2) *calculative commitment* is the rational cost/benefit analysis that accompanies brand switching. Gustafsson et.al. (2005) point out that satisfaction is a "backward looking element", i.e., a function of performance to date while the commitment dimensions are more "forward looking". The commitment factors really represent the strength of the relationship moving forward.

As the loyalty models expanded and became more complex, researchers began to focus their attention on the economics and intricacies of defection. Although customers can defect for a variety of reasons (e.g., in addition to being dissatisfied, they can be "conquested" by a competitor, change life stage or lifestyle, or just want variety), this analysis focuses solely on defection because of dissatisfaction. Defection can manifest itself in two separate ways – actual and intending. In actual defection, the customer, with or without warning, stops using the product or service, i.e., is lost. One of the most confounding elements of this action is that the customer may have expressed relative satisfaction with the product or service prior to the defection. Many explanations have been offered for actual defection. Jones and Sasser (1995) suggested that companies often attract the wrong customers and/or have an inadequate process for mitigating a bad product or service experience. Bell, Auh, and Smalley (2005) postulated that technical quality (quality of the service output) is a much stronger driver of defection than functional quality (the interaction between the service provider and customer. Chandrashekaran et. al (2007) believed "strength of satisfaction" was the key element in identifying customer vulnerability towards defection. In the second instance, intending defection, the customer has not actually defected but has provided some type of indication (usually through a satisfaction instrument or complaint mechanism) that he/she intends to defect when the opportunity next presents itself.

While there is considerable disagreement regarding the factors specifically driving defection, there is universal consensus that the economics of recapturing actual/intending defection customers is highly positive. Unfortunately, much of the knowledge we have about regaining lost customers comes from the telecommunications industry (and the

accompanying price wars) or is anecdotal. Reichheld (1993, 1996), drawing from his consulting experiences, concluded that reducing defection by as little as 5 points (e.g., from 15% to 10%) could double profits. He also cited MBNA as being able to increase profits by 60% within 5 years due to a 5% increase in the customer retention rate. Griffen and Lowenstein (2001) stated the average firm loses 20-40% of its customers per year and that a company was 2-4x more likely to make a sale to a lost customer as opposed to successfully closing a brand new customer. Stauss and Friege (1999) use the term "regain management" to define their conceptual process of winning back the two types of defecting customers -- **actual** (have already defected) or **intending** (who have given notice that they intend to terminate the relationship). While they identified five types of terminating customers (intentionally pushed-away customers, unintentionally pushed-away customers, pulled-away cus tomers, bought-away customers, and moved-away customers), their purpose, like ours, was to focus on customers defecting because of dissatisfaction. In this respect, the "intending" unintentionally pushed-away customers are the sole focus of this research effort since this is far and away the largest group and, also, because some of the other groups (pulled-away customers, bought-away customers, and moved-away customers) are not necessarily leaving for "dissatisfaction" reasons while the intentionally pushed-away customers are not desired customers. Unintentionally pushed-away customers are customers who intend to defect for any of the following reasons: (1) the company's product and/or performance fail to meet the customer's expectations; (2) the company is not responsive to the customer's desires; or (3) because the customer is treated badly.

Stauss and Friege's (1999) conceptual process consisted of three steps:

1. regain analysis (who has defected and why?);
2. regain actions (what is the appropriate regain offer?); and
3. regain controls (what is the profitability of the regain action?).

Stauss and Friege postulated that the value of regained customers often exceeds the value of newly acquired customers because of several reasons, namely: (1) the regained customer is typically already familiar with the products/services being offered; (2) the company will most probably have con-siderable data about the likes and dislikes of the regained customer and be able to make more targeted offers than they would with any first-time customer; and (3) the personal interaction and recognition that accompanies whatever action "regains" the customer will likely generate a higher sales performance than an anonymous first-time customer.

The complexity of the Stauss and Friege model makes it extremely difficult to test all aspects of the model simultaneously. Additionally, many important aspects of the customer regain process will vary by product category. For example, regain actions for one product category will be inappropriate, impractical, or cost prohibitive for another. As an example, product replacement as a regain action makes sense for many lower price products but not for higher priced products. In some industries, such as telecommunications, most regain strategies are price related. In the marine industry, most regain strategies center on resolution of service issues. Thomas et. al. (2004) addressed and tested the Stauss and Friege framework utilizing only price related regain actions. No other regain actions were tested. Critically lacking in the Stauss and Friege (1999) framework is:

1. an understanding of the percentage of customers who might be potentially "regained" ;
2. whether the timing of the intercession (regain action) is important; and
3. whether a financial model can be formulated that demonstrates the

profitability (or lack thereof) of interceding with dissatisfied customers.

This research will investigate the above questions and address the following hypotheses:

Hypothesis #1: Intended defectors cannot be regained; and

Hypothesis #2: The timing of intercession on intended defectors does not affect the regain rate.

The importance of understanding whether intended defectors can be regained, in what numbers, and the importance of the timing of intercession on intended defectors, has major implications for the entire customer satisfaction measurement industry.

RESEARCH METHODOLOGY

The measurement of satisfaction serves three (3) distinct purposes: first, it is a customer contact/touch point; second, it is an informational tool; and third, it's a diagnostic tool. Let's discuss each of these purposes briefly. During the ownership experience, manufacturers and/or dealers have several opportunities to have contact or "touch" their customers. It is well documented that: (1) consumers weigh (among other things) the positive cumulative value of these contacts/"touches" when deciding whether to repurchase a product; and (2) the fewer the contacts/"touches", the higher the likelihood of customer defection.

As an informational and diagnostic tool, satisfaction measurement is a window into the customer's mind and can provide significant insight into a customer's intent with regard to loyalty, retention, and defection. Customers satisfied with the "right things" (i.e., items that drive defection like "getting things fixed right the first time") are much more likely to repurchase, i.e., be retained as owners while *dissatisfied customers often defect* (for non-essential products, e.g., recreational products, customers may defect in two ways: one option is they can switch to another brand; or a second, more devastating option is they can elect to leave the entire category and spend their recreational dollars elsewhere). Defection (either type) represents a direct impact to the manufacturer/dealer in the form of lost revenue. However, in many ways just as detrimental to the manufacturer/dealer are customers' networks (everyone they know) representing a less thought about indirect impact, that is, customers inform some portion of their network of contacts about their experience(s) with the manufacturer/dealer (good or bad) – *the pass-along effect* (see, for example, Blackshaw (2008)) . Generally speaking, negative experiences will get more airtime than positive experiences. Again the potential is for gained (positive "pass-along") or lost (negative "pass-along") revenue. The pass-along effect has new meaning in the ever expanding internet world. There are complaint and gripe sites (company and product specific), Facebook, blogs, communities, etc. all designed to provide a wealth of information about practically any product to those who are interested.

In the automotive industry, customer satisfaction is typically measured at several intervals and across several topics. Besides assessing the initial quality of a vehicle, there are comprehensive sales, service, feature, and dependability surveys. Each of these surveys may entail a wide variety of questions but always contain a sequence of questions which inquire as to the following:

a) the consumer's overall satisfaction with the product
b) the consumer's repurchase intention with respect to the brand

Additionally, each of the above items has an open ended section with space to provide comments as to reason for the

selection made. Some auto manufacturers measure overall satisfaction and repurchase intention with 5 points Likert type scales ranging from completely satisfied/definitely will repurchase to completely dissatisfied/definitely will not repurchase.

For this research, the authors were provided with 1,500 individuals from a major automotive manufacturer who met the following conditions:

1. they had originally purchased/leased their vehicle new and had owned/leased their vehicle for between 18 and 30 months;

2. they had completed a service survey [covering service department, warranty, the service process, and maintenance and repair problems] within the past 180 days;

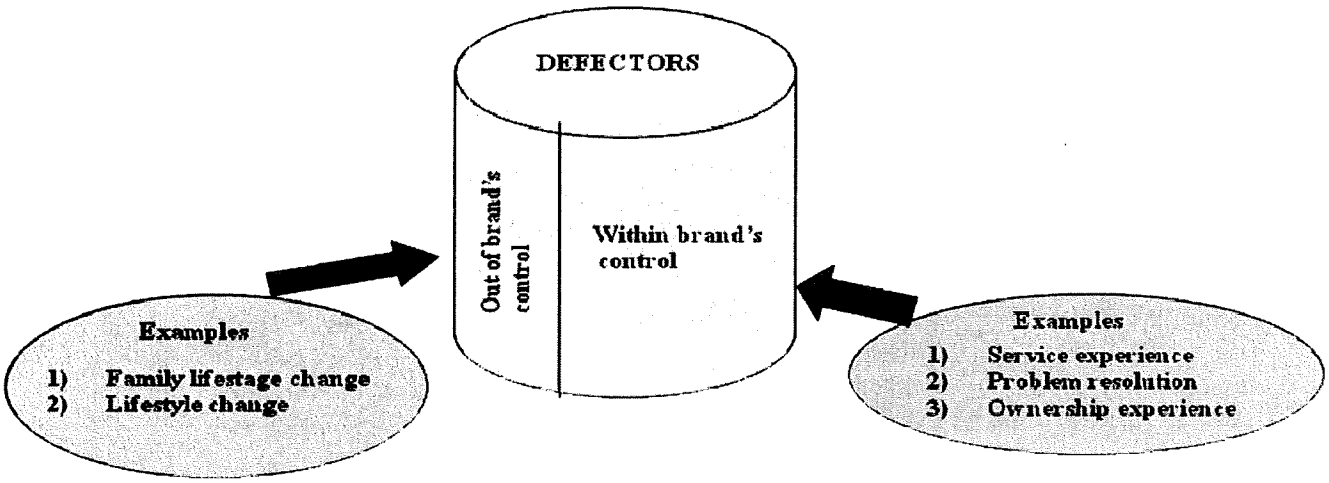
3. they were "expected" defectors (completely dissatisfied with the product and definitely would not repurchase the brand when next in the market);

4. their dissatisfaction was with a brand controllable attribute (see Figure 1).

Controllable and uncontrollable attributes have been referred to in marketing literature as situational and reactional triggers. Roos (1999, 2002) describes these triggers as follows: a situational trigger is based on something that happens outside of the control of the brand, e.g., a demographic change in the family, a job change, or a change in the economy. A reactional trigger is a critical incident that the brand controls – like fixing a product correctly the first time the problem is presented.

Figure 1

Controllable vs. Uncontrollable Brand Attributes



The 1500 individuals owned products which represented a good cross section of the models produced by the automotive manufacturer. The sample of 1500 was first broken down into those who had completed a survey in the past 90 days (841) and those who had completed a survey from 91-180 days previous (659). Three hundred (300) participants were selected randomly from each group. One hundred (100) were assigned to a control group and 200 were assigned to an experimental group. The 100 control participants from each group were combined to form a control group of size 200. Because of random selection and random assignment to groups, the control group "controlled" for geography and automobile model. Thus, the final sample consisted of three groups:

Experimental Group #1 – 200 "expected" defectors who had completed a service survey in the past 90 days

Experimental Group #2 – 200 "expected" defectors who had completed a service survey in the past 91-180 days

Control Group – 200 "expected" defectors - 100 each from the pool that formed each experimental group. (The control group was combined as a matter of convenience but members were tagged as being from one pool or the other in the event that it was necessary to match members of the control sample back to their original groups.)

CAUSES OF COMPLETE DISSATISFACTION

Automotive service surveys cover a wide range of topics and might include several hundred items to be rated. All the participants in this study were completely dissatisfied for one or more of the following specific reasons:

1) SERVICE PERSONNEL ISSUE

   a. Relationship with service advisor
   b. Knowledge of service personnel

2) SERVICE ISSUE

   a. Improper problem diagnosis
   b. Repair did not correct problem
   c. Repair parts not readily available
   d. Magnitude of problem/type of problem
   e. Number of problems

3) WARRANTY ISSUE

   a. Problem/work not covered by warranty
   b. Cost of non-warranty service

With the Experimental Groups, an attempt was made to intervene in their situation and satisfactorily resolve the "problem" with which they had expressed complete dissatisfaction. As is evident in

Table 1

Saving Expected* Defectors: The Evidence From Automotive

	Control Group	Experimental Group #1	Experimental Group #2
Original Size	200	200	200
Number Intervened	0	200	200
Problem Resolved Satisfactorily	4	171	166
Defector Total	197	119	151
Repurchase Total	3	81	49

*** Dissatisfied with a controllable brand attribute, and, further, when next in the market, definitely would not purchase the brand again.**

Table 1, a large proportion of each Experimental Group was intervened successfully, that is, their problems were resolved to their satisfaction (85.5% of Group 1 and 83% of Group 2). Twenty-nine individuals in Group 1 and 34 in Group 2 were intervened but did not have their problems resolved satisfactorily; Eighty-one of the 171 (47.4%) in Group 1 and 49 of the 166 (29.5%) in Group 2 whose problems were resolved went on to repurchase the brand. Participants were tracked for two years after the intervention and repurchase was actual repurchase of the brand. To be credited as a brand repurchase, the purchaser was not required to purchase from the same dealer as he/she had originally.

No attempt was made to resolve dissatisfaction in the control group. Quite by accident, four members of the Control Group had their problems resolved by dealers outside of the context of the experiment (even though dealers were instructed to refer any members of the Control Group to the intervention group without any intervention, four Control Group members got their problems resolved). Three of these four individuals ended up repurchasing the brand.

Two final notes regarding intercession and resolution: 1) although resolution was on an individual by individual basis, most resolutions took one of two forms: a) service personnel issues were addressed by a joint apology letter from both the manufacturer and dealer, a change to a different service person, an introductory call from that person, and a discount coupon for future service; and b) service and warranty issues were generally handled by cash back to the customer either for money out of pocket and/or compensation for the inconvenience of whatever incident occurred; and 2) 29 members of Group 1 and 34 members of Group 2 requested what the manufacturer considered an exorbitant amount to resolve their problems satisfactorily (most wanted new vehicles); as a result, the automotive manufacturer declined to do anything further for them at all.

Dealers willingly participated in the program because the entire cost was borne by the manufacturer and they had an opportunity to regain customers deemed likely to defect.

TESTS OF HYPOTHESES

The 'defect vs. regained' results of the three groups can be visualized as follows:

	Control Group	Experimental Group #1	Experimental Group #2
Defected	197	119	151
Regained after Intercession	3	81	49
Total	200	200	200

Hypothesis #1 is tested by comparing the Control Group with each of the Experimental Groups yielding $X^2 = 89.35$ ($p<.0001$) for Control Group/Experimental Group 1 and $X^2 = 44.76$ ($p<.0001$) for Control Group/Experimental Group 2. Thus, the hypothesis that intended defectors cannot be regained is rejected.

Hypothesis #2 is tested by comparing Experimental Group1/Experimental Group 2 yielding $X^2 = 11.67$ ($p<.001$). Thus, the hypothesis that the timing of intercession on intended defectors does not affect the regain rate is also rejected.

Additional Findings

There are several addenda to the tests of hypotheses above, namely:

- **If customer dissatisfaction is ignored, expect nearly unanimous defection** from customers who tell you they: a) are completely dissatisfied with an attribute you control; and b) definitely wouldn't purchase the brand again.

- **If customer dissatisfaction is addressed/acknowledged but not resolved, expect nearly unanimous defection** from customers who tell you they: a) are completely dissatisfied with an attribute you control; and b) definitely wouldn't purchase the brand again, i.e., intervention without resolution creates no value (all 29 in Group 1 and 34 in Group 2 who were intervened but not resolved ended up defecting).

- **For those whose dissatisfaction is positively resolved *in a timely manner*, expect a "regained/saved defector" rate of approximately 50%.** In the experiment, 47.4% (81/171) of Group 1 and 29.5% (49/166) of Group 2 whose problems were resolved satisfactorily repurchased the brand. Overall, the "regained/saved defector" rate for Group 1 was 40.5% (81/200) while Group 2 was 24.5% (49/200) [see item 4 directly below].

- **The longer dissatisfaction remains unresolved, the less chance you have to "regain/save the defector"**. In the experiment, 29.5% (49/166) of Group 2 whose problems were resolved satisfactorily repurchased the brand. However, this is a 37.8% decline from Group 1 whose dissatisfaction was addressed sooner, and as pointed out above is significantly less than the regain rate for Experimental Group 1.

- **There was no significant difference in the type of issue for which consumers were regained**. In the experiment, the three types of problems for which consumers expressed complete dissatisfaction were service personnel issues, service issue, and warranty issues. Proportionately, a regained customer

was as likely to come from one group as any other. This suggests that there are no "unregainable" issues only unregainable customers (whose expectations for satisfaction are deemed unreasonable).

DISCUSSION

In summary, ignoring completely dissatisfied customers leads to defection; addressing customer dissatisfaction and resolving it in a timely manner regains nearly half of the completely dissatisfied customers. Unfortunately, many companies outside of the automotive industry regard customer satisfaction expenditures as strictly an expense and have not developed an holistic view of customer satisfaction. For many companies, it is deemed "too expensive" to have owner contact after the first year of ownership. But given these research findings, can a case be made for comprehensive satisfaction measurement throughout the ownership cycle? Below is a fairly simple way to compare the defector savings versus cost of a CSI program for your business.

Look at your most recent customer satisfaction scores for sales, service, and/or ownership experience and note the percentage of "overall" completely dissatisfied responses. Based on the authors' experience, it's probably in the 3-10% range. Multiply your annual unit sales by this percentage. This number represents your minimum number of highly probable defectors. Take 40% of this number (this is the number you will likely regain/retain by solving their dissatisfaction in a timely manner [see % regained from Experimental Group 1]) and multiply by your average profit per unit (forget that this customer might buy multiple units in the future and/or might "pass along" his negative experience to a potential customer(s) that would end up buying a competitive product;

Table 2

Sample Firm: CSI Cost versus Defector Savings

Annual Sales (Units)	Completely % Dissatisfied (Sales)*	Completely % Dissatisfied (Service)*	# Defecting Customers (Sales)	# Defecting Customers (Service)	"Regainable" Defectors (Sales) - 40%	"Regainable" Defectors (Service) - 40%	Average Profit per Sales Unit	Combined Regained Defectors Savings	CSI Program Cost
1807	4.30%	6.65%	78	120	31	48	$9,600	$758,400	$10,840

*Customers dissatisfied in both areas were only counted once

that is, create a "best case" not "worst case" scenario). Compare this number to your current customer satisfaction expenditure. Table 2 above presents a sample calculation for a firm currently conducting both sales and service satisfaction surveys (customers who indicated complete dissatisfaction in both the sales experience and service experience were counted as a single defection). The percent sales and service dissatisfaction percentages are very typical (service dissatisfaction is usually 30-80% higher than sales dissatisfaction). Note that the positive effect of "regaining defectors" is nearly $750,000. This can easily be compared to the costs associated with saving the defectors. With 198 likely defectors (78+120), this company would likely be exercising unbelievably bad judgment not to have a comprehensive customer satisfaction program, one that maintains contact with every one of its customers throughout the ownership cycle. Keep in mind that the above scenario is just an example based on hypothetical numbers. The only number drawn from the findings of this research is the 40% regain rate.

One additional comment to conclude this discussion – many customer satisfaction programs have a "hot alert" component, that is, when a dissatisfied sales or service survey is received, an **immediate** message ("hot alert") is sent to the dealer and the

manufacturer letting them know of the situation. At the same time, many programs also send a postcard or e-mail to the customer acknowledging the dissatisfaction and letting the customer know that the dealer will be contacting them to address their problem. The final feedback loop in most "hot alert" programs is a follow-up phone call to the customer at some specified time interval (usually 21-35 days after the initial "hot alert") to see if the problem has been resolved to the customer's complete satisfaction and, if not, why not.

Lastly, while many expenditures to resolve dissatisfaction are costs a firm will incur anyway, there will occasionally be situations where the firm has to make a decision about the cost to satisfy versus ultimate value. This research had several individuals who were intervened but did not have their problems resolved satisfactorily (all wanted new vehicles). The manufacturer concluded that this was not a reasonable solution to their problem(s) and declined to replace the vehicles. Also understand that some customers will remain dissatisfied regardless of what you do for them. The high value for customer satisfaction programs comes with those customers who, although dissatisfied, can have their dissatisfaction turned around by a timely and satisfying intervention.

If you haven't evaluated whether a comprehensive customer satisfaction program is justified, use the methodology outlined in **Table 2** to do so. If your current customer satisfaction program doesn't have a "hot alert" component, consider adding it. In these tough times, it will be some of the most efficient/effective money you can spend.

FUTURE RESEARCH

It should be carefully noted that this study has examined "expected" defectors in just a single industry (automotive)with fairly specific types of problems (service personnel, service, and warranty) in arbitrary time frames (90 and 180 days). While there is some anecdotal support that regaining 40+% of "expected" defectors is attainable [see, e.g., Griffen and Lowenstein (2001), p. 12 where they report a 60% regain rate], there is, to our knowledge, no other empirical evidence of either regain rates or whether timing of the regain offer is significant. Each of these concepts needs to be validated in industries outside of automotive.

Further, the regain strategy for each customer in the study was simply, "What action could be taken with respect to your vehicle to change your dissatisfaction to satisfaction?" This left it to the consumer to determine the regain action. It would have significant value to understand if specific regain offers had specific expected results.

Lastly, this research has focused entirely on "expected" defectors. This type of research needs to be conducted with actual defectors to understand to what extent this group is regainable.

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THE EFFECT OF RETAILER COMMUNICATION ON CUSTOMER ADVOCACY: THE MODERATING ROLE OF TRUST

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ABSTRACT

How can services create more engaged customers? Recent efforts to identify service research priorities have affirmed the need to examine this question. It can be argued that advocacy, or the promotion or defense of a company, product, or brand by a customer to another, is one of the most important outcomes of building customer engagement. Communication has been positioned as one of the most effective firm strategies in building relationships, while the level of trust customers ascribe to the firm also can potentially influence relational outcomes, such as advocacy. Most studies only consider the direct or mediating effect that trust plays in relationships though some literature points to the appropriateness of trust as a moderator. We expect that trust in the retailer will moderate the relationship between the perceived quality of retailer communication and a customer's advocacy, such that increasing communication quality will be strongly related to advocacy behavior for customers who trust the retailer. We examine the direct effect of communication quality on advocacy as well as both mediating and moderating effects of trust on the communication quality-advocacy relationship. The hypotheses were tested with hierarchical regression analysis using survey data from 1068 customers of a regional coffee house chain. Results support the predictions of moderation. Findings hold implications for future research as well as for managerial practice.

INTRODUCTION

How can service providers create more engaged customers? This question is highly relevant in the context of ever blurring commercial and psychological boundaries as organizations and customers co-create experiences. The need for theory and research related to this question has been affirmed and expanded on in a recent effort to identify service research priorities (Ostrom, Bitner, Brown, Burhard, Goul, Smith-Daniels, Demirkan, and Rabinovich 2010). It can be argued that advocacy, or the promotion or defense of a company, product, or brand by a customer to another, is one of the most important outcomes of building customer engagement (Christopher, Payne, and Ballantyne 1991). Cheung, Antisal, and Antisal (2007) point to the need for marketer proactivity in managing the positive word-of-mouth (WOM) process, a concept similar to advocacy. This notion is further developed by Jaffe (2010) who proposes that marketers are wasting valuable funds trying to acquire new customers through traditional marketing methods, when instead focus should be on engaging committed customers whom then will communicate the benefits of the product or service more efficiently through advocacy behaviors. Empirical research has shown that positive WOM is nine times more effective at changing attitudes than advertising (Day 1971) and has a direct positive effect on retail sales (e.g., Liu 2006). Furthermore, WOM communications can be even more influential in a services context where the offering is intangible and cannot be experienced before purchase.

Researchers and practitioners have long realized the value of positive WOM to firms. Of those studies that have tested models of positive WOM, most have primarily looked at the role that satisfaction and other relational mediators play in impacting the behavior (e.g., Mittal, Kumar,

and Tsiros 1999). Very little research has given WOM communications the focus it deserves (e.g., Mazzarol, Sweeney, and Soutar 2007), and practically no empirical work has examined the drivers of consumer advocacy behaviors. Thus, owing to advocacy's identified importance as well as gaps in our understanding of the concept, we place it as one of the focal constructs of this research.

Two particular constructs have emerged in the B2B relationship literature with the potential to contribute to understanding when and how desired relational outcomes will result in business-to-consumer (B2C) relationships. The first construct, communication, has long been noted as a key enabler of relational exchanges in the B2B literature, but to the best of our knowledge, no study has addressed the effect that retailer communication quality has on a customer's communication with individuals outside the firm (i.e., advocacy behavior in the B2C context). The second construct, trust, has received significant attention in organizational settings, but there has been significantly less empirical exploration of exactly what role trust plays, particularly in communication processes that lead to subsequent positive gains in relational outcomes. Evidence suggests that trust may act as a filter through which interactions are assessed (Dirks and Ferrin 2001) and as such may interact with communication processes. In addition, most studies only consider the mediating effect that trust plays in relationships. Dirks and Ferrin (2001) raise theoretical considerations that point to the appropriateness of examining the role of trust as a moderator of variables influencing individual behavior. The question of how the degree of trust might impact the B2C communication process remains unanswered.

This study addresses this question through an integration of B2C and B2B literature. Specifically, the purpose of this study is to contribute to research in the area by looking at how trust in the retailer moderates the relationship between one of the most effective relationship marketing tools (i.e., retailer communication) and one of the most important relational behaviors (i.e., customer advocacy). The following sections of the paper include a review of relevant literature that develops reasoning and provides theoretical support for the posited moderated relationship between retailer communication quality and customer advocacy. Next follow descriptions of the methodology, analytic procedures, and results of the test of proposed relationships. The final section includes a discussion of the findings and implications for future research as well as for managerial practice.

Customer Advocacy

Customer advocacy behavior refers to the promotion or defense of a company, product, or brand by a customer to another (Bendapudi and Berry 1997) and is arguably the ultimate test of a customer's relationship with a commercial entity (Cross and Smith 1995; Reicheld 2003). Empirical investigations of customer advocacy behavior are relatively few, as most studies have utilized the more global construct of WOM communications. WOM is defined as "informal communications directed at other consumers about the ownership, usage, or characteristics of particular goods and services and/or their sellers" (Westbrook 1987, p. 261). Advocacy, on the other hand, is more specific than WOM in that it deals only with positively valenced promotion. Advocacy includes positive WOM but is seen as an outcome of a stronger relationship, in that the customer is also willing to defend the company or brand against critics. While recent research studying B2B relationships has portrayed customer advocacy behavior as a broader construct that includes marketing research activities, WOM referrals, sharing customer information, and increasing levels and proportions of purchasing activities (Lacey and Morgan 2009), we utilize Bendapudi and Berry's (1997) original

conceptualization of customer advocacy given its appropriateness for a retail context.

While customer advocacy has received limited empirical attention, studies have examined the benefits of positive WOM communications, giving us some insight into customer advocacy's potential. WOM has long been recognized as more influential than traditional advertising, as recipients view information from peers or even strangers as more unbiased and reliable than that from an economic entity (e.g., Brown and Reingen 1987). Recipients especially appreciate this information in a services context, in which assessing quality is much more difficult due to the intangible nature of services (Zeithaml, Berry, and Parasurman 1993). When compared to other relational outcomes, the unique aspect of positive WOM is its ability to acquire new customers for the firm, growing the firm's customer relationship portfolio. Researchers have recently incorporated word-of-mouth's acquisition ability into customer lifetime value models and have shown that WOM has more long-term value-creating ability than traditional methods of marketing communication (e.g., advertising) (Villaneuva, Yoo, and Hanssens 2008). In addition, the Internet and social media have exponentially increased the effect that advocacy behaviors can have as potential consumers have virtually unlimited access to sharing, receiving, storing, and retrieving information related to companies or their products. Because of its importance, firms have started to proactively and strategically encourage WOM behavior through a process known as WOM marketing (Kozinets, de Valck, Wojnicki, and Wilner 2010).

However, very few studies have given positive WOM the focus it deserves, nonetheless advocacy behavior. Many studies do not even include WOM as its own construct, and rather make it part of a diverse set of measures of loyalty behavior (e.g., Sirdeshmukh, Singh, and Sabol 2002; Chaudhuri and Holbrook 2001). Most of those studies focus on relational constructs, such as satisfaction, and, "little research ... has addressed antecedents of WOM when considering WOM as a focal construct," (Mazzarol et al. 2007, p. 1478). In addition, to the best of the authors' knowledge, no empirical research has been performed on end-consumer advocacy behavior, which is a potentially more influential form of communication than positive WOM.

A key objective of this research is to utilize core relationship theory constructs to understand what drives the advocacy behaviors of retail customers. A recent meta-analysis by Palmatier and colleagues (2006) reports that communication is one of most effective relationship marketing enablers that a firm can employ across all relationship contexts (Palmatier, Dant, Grewal, and Evans 2006). Further, trust has long been recognized as a key relational construct (e.g., Morgan and Hunt 1994). Therefore, we utilize two of the most important relational constructs to provide theoretical grounding in understanding how communication from a company to a customer affects communication from a customer to potential customers.

Communication Quality

Palmatier (2008, p. 62) states that, "communication appears to be the most universally positive antecedent in terms of strengthening initial levels of trust and commitment, as well as relating to positive growth rates in the future." Communication has been found to be positively related to satisfaction (e.g., Mohr and Spekman 1994), trust (e.g., Anderson and Narus 1990), commitment (e.g., Palmatier et al. 2006), and co-production (Auh, Bell, McLeod, and Shih 2007). The construct has been conceptualized with a variety of dimensions: amount, frequency, formality, and quality of information shared (e.g., Mohr, Fisher, and Nevin 1996; Morgan and Hunt 1994). We focus on the quality of communication, as opposed to amount or frequency, as it has received support for being instrumental in partnership success (e.g., Mohr and Spekman

1994; Bantham, Celuch , and Kasouf 2003), and define it as the customer's perception of the quality of the information received from the seller regarding its products and services (Mohr and Spekman 1994).

Even though communication quality is noted as an instrumental part of building and managing relationships, most of the relevant research is in the B2B realm which reveals a gap for empirical work on the topic in the retailer-customer context. In one of the few studies conducted in this context, Guenzi and colleagues found that retailer quality communication was the only relationship building strategy in their model of four managerially controlled variables that positively affected all of the following mediators: trust in salesperson, brand, and the store (Guenzi, Johnson, and Castaldo 2009). Therefore, we contribute to the literature by further examining the role that communication quality plays in driving advocacy behavior in the retailing context.

More specifically, no research to the best of the authors' knowledge has assessed the relationship between communication quality and advocacy behaviors. Though, several studies have shown that communication indirectly leads to WOM behavior through various relational mediators (e.g., Palmatier et al. 2006; Guenzi et al. 2009). For example, when customers are provided with clear instructions for healthcare insurance, they are more likely to provide positive WOM to family and friends (Jones, Taylor, Becherer, and Halstead 2003). Clearly, there is some related support for the notion that the quality of retailer communication might be implicated in customer advocacy behavior. Exactly how might trust affect the retailer communication-customer advocacy process?

Trust as a Moderator of Retailer Communication and Customer Advocacy

Trust is an integral component of relational exchange models and is conceptualized many different ways in the literature with most conceptualizations representing trust as a belief that a partner has in the reliability (Sirdeshmukh et al. 2002), integrity (Morgan and Hunt 1994), or benevolence of the other partner (e.g., Anderson and Narus 1990). Because communication quality closely relates to reliability of the retailer in that it assesses the accuracy and completeness of the information provided by the retailer, we focus on the other aspects of trust and define trust as the perceived benevolence and integrity of the retailer.

Some work exists linking trust to WOM communications. Interpersonal trust between a customer and employee has been found to play a role in influencing customers' WOM communications about the organization (Gremler, Gwinner, and Brown 2001), whereas trust in the company was also found to have strong associations with positive WOM and personal referrals (e.g., Ranaweera and Prabhu 2003; Sichtmann 2007; Verhoef, Franses, and Hoekstra 2002).

As noted earlier, while trust has received significant attention in organizational settings, the vast majority of empirical studies have examined main effects of the construct, with inconsistent results associated with the influence of trust on communication and information sharing (akin to advocacy behavior) (Dirks and Ferrin 2001). Further, with respect to the direct impact of trust on other behavioral outcomes, when significant effects have been found, effect sizes have tended to be modest (Dirks and Ferrin 2001). In addition, some evidence suggests that trust is implicated in interpretation processes and, as such, may moderate some aspects of communication processes (e.g., Schurr and Ozanne 1985; Parayitam and Dooley 2009). For example, in the B2B context, Izquierdo and Cillán (2004) find that trust moderates the relationship between dependence and relational orientation, and in another study, the effect of efficient consumer response adoption on supplier

outcomes was found to be affected by the level of supplier trust in the retailer (Corsten and Kumar 2005).

With respect to a B2C context, brand trust has been found to moderate consumers' attitudes with a website and their perceptions of website quality and intention to use the website (Kim and Jones 2009). Furthermore, some studies have shown that treating traditional relational mediators (e.g., commitment) as moderators increases our understanding of WOM communication (e.g., Brown, Barry, Dacin, and Gunst 2005). Given that the mediating effect of trust on WOM communications has been shown to exist (e.g., de Matos and Rossi 2008), contribution to the literature can be gained by assessing trust's role as a moderator in relational models involving WOM or advocacy behaviors.

Extending this thinking to the customer-retailer communication process we expect that increasing retailer communication quality will be strongly related to advocacy behavior for customers who trust the retailer. When consumers perceive information provided about the retailer's products and services to be accurate and complete, they are more likely to engage in advocacy behaviors if they feel the retailer will follow through on its promises and cares about them. We do not expect this effect for low trust consumers. In summary, an understanding of the joint influence of communication quality and trust is posited to be important in understanding customer advocacy in the retail context. Based on the preceding discussion, we examine the direct effect of communication quality on advocacy as well as both mediating and moderating effects of trust on the communication quality-advocacy relationship. Prior research has found inconsistent and modest effects associated with the direct influence of trust on behavioral outcomes; therefore, we expect mediation to be weak or partial at best. Therefore, we formally offer the following three research hypotheses:

H1: The perceived quality of retailer communication will positively influence customer advocacy.

H2: Trust in the retailer will partially mediate the relationship between the perceived quality of retailer communication and a customer's advocacy.

H3: Trust in the retailer will moderate the relationship between the perceived quality of retailer communication and a customer's advocacy.

METHOD

Based on the purpose of this research, this study employs a cross-sectional, single retailer approach that provides control over contextual effects. The approach has been used by the majority of studies in the relationship literature (e.g., Garbarino and Johnson 1999; Liu 2007). Even though the relationships are constrained to a single retailer, an acceptable amount of variance can be expected if the retailer is represented by multiple retail locations where customer experiences could differ.

Responses from customers of a large regional coffee house were used to test proposed relationships. A coffee house was deemed a good context for the investigation of the retailer-customer relationship for several reasons. First, coffee houses are a type of business in which both a product and service component exist. Second, the very nature of customers' behavior related to coffee shops makes them a good context for studying relationship issues. For example, the frequency and duration of visits vary substantially across customers, with some customers visiting coffee shops once every three months and others three times a day. Similarly, some customers use drive-thrus while others visit the store for extended periods of time. Finally, coffee houses

currently serve as an interesting and important context of study due to the market's attraction to national coffee retailers (Starbucks) and the increased competition from fast-food restaurants (McDonald's).

A large regional coffee house was chosen as the specific context for studying aspects of retailer-customer relations because of some unique characteristics. First, it is an extension of the nation's largest family-owned coffee brand and serves four geographic markets with over 30 locations. The coffee brand has been serving the local markets for 90 years, with the potential for some strong customer relationships. Furthermore, the coffee house holds a substantial percentage of the market share in the areas that it serves. However, the coffee house also has at least three major competitors in its markets, increasing the likelihood that not all customer relationships are completely committed.

Sample and Procedure

To assure variability across retailer-customer relationships and that the sample size was large enough to detect the effect of moderation, a purposive sampling plan was implemented. Customers of the coffee house were sampled to reach those at "active stages" of the relationship. In addition, members of a community organization were also utilized to expand the representativeness of consumers that held varying levels of relationships with the coffee house.

Both paper and online versions of the questionnaire were distributed, and all respondents were informed that this was a joint research project between the university and coffee house to examine aspects of customer perceptions and behavior and that their responses would be anonymous. Over six hundred store intercept surveys were conducted in five stores over a four-week period. An online survey was emailed to members of a local community organization requesting their participation in the study with over 400 adults completing the survey. This procedure resulted in a total of 1068 usable surveys for individuals identified as ongoing customers (i.e., usually go, but might go to other coffee houses or always go to the coffee house).

To ensure comparability of in-store and community respondents, we examined age, gender, occupation, education, and ethnicity variables for samples of these respective participants. There were no significant differences between in-store and community respondents for any of these variables (*p-values* > .10). Accordingly, in-store and community respondents were combined for subsequent analyses.

The average age of the respondents was 34 (with a range of 18-90). Sixty-two percent of the respondents were female. Thirty-two per cent of respondents had some college, and 35% held a bachelor's degree. Managers/professionals and full-time students accounted for 38% and 37% of respondents, respectively. Eighty-six per cent of respondents reported Caucasian ethnicity. A majority of the sample (51%) had been a customer of the coffee house between one and five years. The average number of visits per month to the coffee house for a respondent was nine. Discussions with company executives supported the representativeness of the obtained sample to the retailer's customer base. Executives confirmed that their customers skew more heavily toward females, higher education levels, professional occupations, and Caucasian in comparison to the general population statistics reported by the area Chamber of Commerce.

Measures

The questionnaire included measures of respondent perceptions appearing in the following order: items relating to trust in the retailer, items relating to the communication quality of the retailer interspersed with items relating to their advocacy behavior, and finally, items relating to demographic descriptors. **Table 1** includes a complete description of construct items.

Perceived communication quality of the retailer.

Following previous research, communication quality broadly assessed the customer's perception of the quality of communication they have received from the coffee house (e.g., Mohr and Spekman 1994; Guenzi et al. 2009), rather than focusing on communication from specific channels (e.g., website, in-store signage). The measure consisted of two, five-point items relating to the accuracy and completeness of product and service information. Communication quality was included as a construct because of its pivotal role in relationship creation and evolution (e.g., Palmatier 2008).

Trust in the retailer.

Two aspects of retailer trustworthiness were captured from respondents and combined to form the trust construct. Benevolence was appraised with two, five-point items assessing respondents' belief that the coffee house acts in the best interest of the customer and values the relationship (Ganesan 1994; Kumar, Scheer, and Steenkamp 1995). Integrity was measured with two, five-point items assessing respondents' belief that the coffee house can be characterized as an organization that upholds ethical standards (e.g., "keeps its promises") (Verhoef et al. 2002).

Customer advocacy behavior.

This construct assessed the promotion and defense of the retailer by the customer. Four, five-point items assessed respondents' behavior with respect to communication targeted to friends and relatives, acquaintances, and others. Items were adapted from positive WOM scales or customer referral scales (e.g., Verhoef et al. 2002) by adding an item related to the customer's defense of the retailer (Bendapudi and Berry 1997; Bhattacharya and Sen 2003).

RESULTS

The purpose of this study was to test for moderation, that is, that the effect of perceived quality of retailer communication on customer advocacy behavior varies across levels of trust in the retailer. As a precursor to analyses, confirmatory factor analysis was used to assess the convergent and discriminant validity of measures before testing hypotheses. With respect to the measurement models, observed indicators were all statistically significant (p <.05) for their corresponding factors. Fit statistics of the measurement model (χ^2 (32) = 125.10, p = .000, GFI = .97, AGFI = .96, RMSEA = .05, CFI =.98) suggested that the observed indicators are representative of constructs. **Table 1** presents items and loadings for the measures used in this study.

A series of pair-wise confirmatory factor analyses was conducted to assess the discriminant validity of the measures for each model. For each pair of measures, the chi-square was significantly smaller for the model representing two separate constructs in comparison to the alternative model uniting the constructs as one. Therefore, trying to force measures of different constructs into a single underlying factor led to a significant deterioration of model fit in comparison to the two-factor model. These results provide support for the discriminant validity of the measures (Anderson and Gerbing 1988). Summated scores of the multi-item scales were used to address the research hypotheses. **Table 2** provides the means, standard deviations, correlations, and reliabilities of measures.

Table 1
Results of Confirmatory Factor Analysis

Constructs and Items	Standardized Coefficient
Communication Quality *(scaled: strongly disagree/strongly agree)*	
My perception of_____ is that it …	
Provides accurate information about its products and services.	.74
Gives complete information about its products and services.	.79
Trust *(scaled: strongly disagree/strongly agree)*	
My perception of_____ is that it …	
Has customers' best interest at heart.	.68
Goes out of its way for customers.	.76
Won't take advantage of its customers.	.82
Keeps its promises.	.79
Advocacy *(scaled: not at all/extremely well)*	
How well do these statements describe what you actually do?	
Say positive things about _____ to people you know.	.79
Defend _____ when someone says something negative.	.72
Encourage friends and relatives to go to _____.	.81
Recommend _____ to people if they want advice on a good coffee house.	.80

Note: All standardized coefficients are significant at $p<.05$.

Table 2
Descriptive Statistics and Correlations for Perceived Communication Quality of Retailer, Trust in Retailer, and Customer Advocacy Behavior

	Mean	Standard Deviation	X1	X2	X3
X1 Communication Quality	4.08	0.63	.74		
X2 Trust	3.97	0.59	.61**	.85	
X3 Advocacy	3.43	0.77	.36**	.49**	.88

** Correlation is significant at $p<.01$.
Reliabilities are shown on the diagonal.

Hierarchical regression analysis, involving a series of models increasing in complexity, was used as a means of testing the hypothesized mediating and moderating relationships (Cohen and Cohen 1983; Baron and Kenny 1986). First, H1, which proposed that the perceived quality of retailer communication will positively influence customer advocacy, received support. Note that this hypothesis is inherent in testing mediating and moderating relationships and is represented in both tests in **Table 3.**

Table 3

Hierarchical Regression Analyses Testing the Mediating and Moderating Effect of Trust in Retailer on Perceived Communication Quality of Retailer and Customer Advocacy Behavior

	Model Results R^2	F value (df)
Mediation Test		
Trust = (.61**) Communication Quality	.38	652.52** (1, 1067)
Advocacy = (.37**) Communication Quality	.14	168.42** (1, 1067)
Advocacy = (.10**) Communication Quality + (.43**) Trust	.25	181.01** (2, 1066)
Moderation Test		
Advocacy = (.37**) Communication Quality	.14	168.42** (1, 1067)
Advocacy = (.10**) Communication Quality + (.43**) Trust	.25	181.01** (2, 1066)
Advocacy = (-.58**) Communication Quality + (-.26*) Trust + (1.25**) Comm. Quality X Trust	.27	134.15** (3, 1065)

Note: Standardized coefficients appear in parentheses.
* $p < .05$.
** $p < .01$.

In order to test whether trust mediates the effect of communication quality on advocacy, three conditions must be met. 1. Communication quality should have a significant effect on trust. 2. Communication quality should also have a significant effect on advocacy. 3. As compared to condition #2, the impact of communication quality on advocacy should significantly diminish when trust is included in a regression model with communication predicting advocacy (Baron and Kenny, 1986).

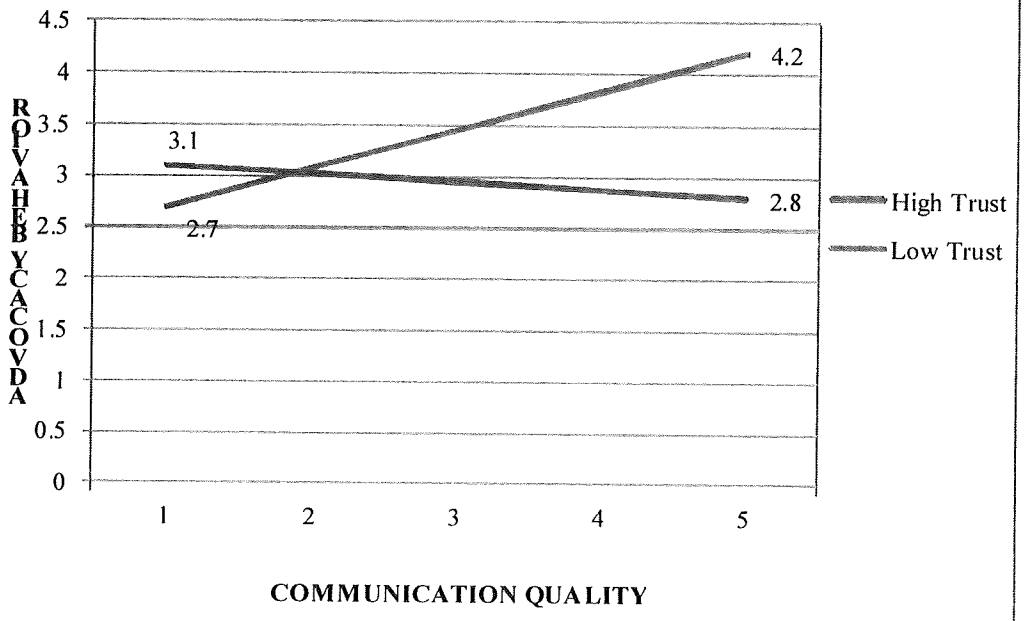
With respect to H2, communication quality has a significant effect on trust, thus, condition #1 is met (please refer to **Table 3**). Further, as noted earlier, communication quality also has a significant influence on advocacy; thus, condition #2 is met. Lastly, the influence of communication quality is diminished when trust is included in the regression model predicting advocacy; however, the effect of communication quality is still highly significant. Therefore, condition #3 is not met. Thus, we do not have support for full mediation only partial mediation.

With respect to H3, trust was added to the model with communication quality as a predictor of advocacy. Results of these analyses are presented in **Table 3**. In this

step, communication quality and trust explained 25% of the variability in customer advocacy. As a precaution, the variance inflation factor (VIF) was examined to assess the effects of collinearity among the independent variables. The observed VIF was below 1.7 indicating that the impact of collinearity was relatively small.

In the next step, to test the moderating effect of trust, the interaction term (communication quality x trust) was added to the prior model. Given that the interaction term will correlate with the variables from which it was created (and can cause observed sign changes among coefficients), past convention advocated mean centering to address this issue (e.g., Aiken and West 1991). However, we did not employ this option as recent evidence suggests that there is no advantage to mean centering in terms of addressing collinearity issues or stability of estimates (Echambadi and Hess 2007). In this step, predictions are supported by the data given that the communication quality x trust interaction significantly explained an additional amount of variance in advocacy (R^2 change = .02, significant at $p < .01$ level) after controlling for the direct effects of communication quality and trust. Such effects are consistent with common ranges (R^2 changes .02-.03) reported for moderator effects in non-experimental studies (Champoux and Peters 1987). Results support the predictions of moderation, that is, that the effect of communication quality on advocacy varies across levels of trust.

Figure 1
The Moderating Effect of Trust in Retailer on Perceived Retailer Communication Quality and Customer Advocacy Behavior



As recommended by Cohen and Cohen (1983) and others (e.g., Aiken and West 1991), to identify the nature of the interaction, slopes were plotted for individuals one standard deviation above the mean (Group Mean = 4.86) and one standard deviation below the mean (Group Mean =

3.15) for trust in retailer. Figure 1 displays the interaction effect on advocacy. The impact of increasing quality of retailer communication on customer advocacy was strongly positive and significant under conditions of higher trust in retailer ($F=13.11$ $(1, 207)$, $p < .01$). In contrast, the impact of increasing quality of retailer communication on customer advocacy was slightly negative and nonsignificant under conditions of lower trust in retailer ($F=1.34$ $(1, 203)$, $p > .10$).

In summary, consistent with predictions, communication quality was a significant predictor of customer advocacy. Further, although often espoused theoretically as a significant mediator, trust was not found to fully mediate the relationship between communication quality and advocacy as the communication construct was still significant after adding trust to the model predicting advocacy thereby supporting partial mediation. Finally, consistent with predictions, trust in the retailer was found to moderate the relationship between communication quality and customer advocacy behavior. Specifically, for customers having stronger trust in the retailer, communication quality positively affected their advocacy. In contrast, for customers having weaker trust in the retailer, communication quality negatively affected customer advocacy, albeit the effect was nonsignificant.

DISCUSSION

While the need to proactively manage customer advocacy has been increasingly recognized within marketing, its antecedents are not well understood. The present study merges work in the B2C and B2B literature to address how trust moderates the relationship between communication quality and customer advocacy in a retail context. To the authors' knowledge, this study is the first time these constructs have been examined in an integrated approach. Understanding this process is important given that communication is central to relational exchange and that advocacy can greatly extend the effectiveness and efficiency of an organization's marketing efforts. Results of the present research suggest that it is the combined influence of retailer communication quality and trust that is important in understanding customer advocacy.

These findings contribute to the extant literature in several ways. First, the research extends thinking from the B2B to a B2C service (i.e., retail) setting as a means of deepening understanding of relational dynamics. This study shows that the role communication plays in developing B2C relationships has not been given enough attention. Given its impact on advocacy, quality communication from the retailer should enhance episodic value in relationships (the benefits to sacrifice ratio) for the customer which is implicated in relational satisfaction (Selnes 1998). Future research could examine other aspects of retailer communication beyond the accuracy and completeness of information, such as frequency, content, or channel that might contribute relational-enhancing (or inhibiting) effects. For example, what difference does interpersonal versus mass communication have on relationship creation and enhancement.

A second contribution of the research relates to the exploration of trust as moderator in the communication process. Recall that while trust has received significant attention in organizational settings, the vast majority of empirical studies examine main effects of the construct (i.e., trust as a mediator) with mixed effects observed for outcomes associated with communication (Dirks and Ferrin 2001). The notion that trust is implicated in interpretation processes receives support given stronger effects observed for trust as a moderator rather than as a mediator with communication quality positively influencing advocacy only for high trust customers. The finding of partial mediation also supports prior research which found modest effects associated with the direct influence of trust on behavioral outcomes. With respect to moderation, given

that advocacy was positively influenced by communication quality for high trust customers, an interesting issue relates to the possibility of trust transference from advocates to potential customers. Ferrin and colleagues (2006) suggest that, in organizational contexts, communication may facilitate the transference of trust via third parties. Might committed customers through advocacy initiate the development of trust for new customers?

Future research could also explore if trust moderates extant relationships in the literature. Might trust moderate identified relationships among product/service perceptions and satisfaction, loyalty, and commitment? Further, might low trust help explain why the majority of dissatisfied customers do not complain directly to retailers/companies? If so, this finding would argue for trust as a very substantial construct as it would contribute to a more nuanced understanding of appraisal processes in B2C service contexts. In addition, trust has been implicated in organizational citizenship behaviors (Podsakoff, MacKenzie, and Bommer 1990). Trust engenders a sense of obligation that translates to extra-role behaviors (Pillai, Schriesheim, and Williams 1999). Within a retail context, what extra-role customer behaviors might trust engender? For example, might high trust customers be more likely to contribute to a cause advocated by the retailer? Future research could also incorporate the moderating influence of various types of trust such as competence-based (cognitive) versus relationship-based (affective) dimensions (Parayitam and Dooley 2009).

A final contribution relates to advocacy as a focal construct. Future research could extend this emphasis in exploring how advocacy could contribute to network effects for products and services. Network theory understands customer value as stemming from network value, that is, interdependence in consumer demand (McIntyre and Subramaniam 2009). Customer advocacy behaviors clearly contribute to interdependent demand. As we continue to deepen our understanding of advocacy as a component of relational theory we might also facilitate the continued development of network theory, specifically, how relational dynamics contribute to the intensity of network effects.

Findings of this study hold practical implications for the management of retailer-customer relationships. First, the results clearly speak to the importance of customer trust in the retailer. Given that, in a competitive environment, retail management will engage in quality improvement efforts, realized benefits from such actions may be minimal (or negative) for customers who do not have sufficient trust in the retailer. Even with increasing communication quality, a lack of trust in the relationship appears to inoculate the retail customer from experiencing perceived benefits perhaps by activating "lack of respect" and "intent to act opportunistically" interpretations. This possibility highlights the importance of retailers attempting to establish trust early in relationships and actively maintaining the trust in ongoing relationships (e.g., Selnes 1998).

Thus, an important implication relates to how retailers can manage trust development and maintenance? The organizational literature links trans-formational leader/supervisory behaviors to trust. Intellectual stimulation, inspiration, sharing common values, and individualized consideration/concern for followers by leaders have been found to engender benevolence trust in followers (Bass 1999; Gillespie and Mann 2004). Further, creation of reciprocity norms with respect to information sharing and soliciting opinions and providing feedback has been found to contribute to integrity trust (Whitener 1997). By extension, an understanding of how these behaviors manifest themselves at various levels of dyadic interaction (e.g., retail management-service employee, retail management-customer, and service em-ployee-customer), would prove illuminating.

Presumably, mindfulness and learning in this area could offer huge potential returns to retailers in leveraging improvement efforts that are positively perceived and acted upon by customers.

Furthermore, the results support the notion that more value might be gained by investing in quality informative communication targeted at current customers rather than persuasive communication targeted at potential customers (e.g., Jaffe 2010; Villaneuva et al. 2008). By providing customers with accurate and complete information, customers are more likely to become advocates for the firm, in turn recruiting other customers. Therefore, an adequate amount of a promotional budget should be geared towards in-store signage and employee training to ensure that customers are receiving quality information about the retailer's products and services.

The present research employs cross-sectional, single source measures of respondent perceptions of constructs. Future research could certainly address design and measurement issues. For example, the authors recognize that communication quality, globally operationalized in the present research (as well as in prior research) as accuracy and completeness of retailer information, can certainly be extended to include more fine-grained measures specifying various channels such as Websites, in-store personnel, advertising, etc. As with all research, additional construct measures could be included. Further, because the study of advocacy is in its infancy, it is important for future research to expand the current model with the inclusion of other relational constructs. For example, many studies have found a strong linkage between satisfaction and WOM communications (e.g., Anderson 1998). Therefore, it is likely that future research related to advocacy would benefit greatly by determining the role that satisfaction plays in driving this relational outcome. Limitations notwithstanding, it is important to note that common methods variance is not likely to account for interaction effects, the focus of this study, as method variance should increase correlations consistently between construct measures (Aiken and West 1991). Also, longitudinal designs exploring relationships among study constructs across relational stages could prove useful in understanding relationship adaptation and evolution (Welch and Wilkinson 2005; Schurr, Heda, and Geersbro 2008) in B2C contexts.

In conclusion, while there is still much to be learned about how services can create more engaged customers, communication quality and trust appear to play important roles in the process. The present study, which considers retailer communication, trust, and customer advocacy constructs, hopes to contribute to future research that explores processes critical to high quality retailer-customer relationships.

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A GLIMPSE INTO THE CONSUMER COMPLAINING BEHAVIOR OF IMMIGRANTS

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ABSTRACT

Previous studies found that international consumers exhibit different complaint behavior to product or service disappointments, often explained in terms of underlying cultural values or norms. However, this could be attributed to other factors as well. This study re-examines the cultural impact on consumer complaint behavior (CCB) by investigating differences between first-generation immigrants. A 2X2X2 between-subject scenario-based experiment was administered with 250 Mexican and 165 Chinese, first generation immigrants. Although the two groups now reside in the same market environment, our study documented the existence of their CCB differences. The proposed underlying mechanisms for such differences are largely supported by our data. Implications for theory and managerial practices are highlighted.

INTRODUCTION

Immigration undoubtedly represents one of the most significant social phenomena of our time. In fact, today we are witnessing the single largest tide of population movements in history. Immigrants and their U.S.-born children account for 55 percent of that growth between 1998 to 2006 (Pew Hispanic Center 2007) and immigrants are projected to continue coming to the United States at a steady rate. Between 2020 and 2025, the proportion of foreign-born in the United States is projected to surpass the previous century's peak of 14 percent, and by 2050, the foreign-born population is projected to reach 19 percent (Passel and Cohn 2008). In particular, the U.S. government estimates that some fifteen million Hispanics living in the United States are foreign born with more than half arriving in the last fifteen years (Ramirez and de la Cruz 2003), and another twelve million are estimated to be living in the United States illegally (Orrenius 2006). The Hispanic market in the U.S. consists of 40.4 million consumers (U.S. Census Bureau 2004). Another fast growing immigrant group is from Asia. Since 2000, the Asian-American population has increased nine percent, the highest growth rate of any ethnic group. The Asian-American population, which currently exceeds eleven million, is expected to more than triple to 34 million in the next 50 years (U.S. Census Bureau 2004). Immigrants are generally found in highly concentrated enclaves and in urban areas. The geographic concentration of ethnicities make reaching them very practical and economical (Guzman 2001). Retailers spend about two billion dollars a year to better serve these growing demographic markets.

Consumer scientists have long recognized the importance of cultural differences in consumer behavior. In the service marketing literature, there is an emerging research stream inquiring into cultural differences in consumer service expectations, service evaluations, and consumer reactions to service failure and recovery (e.g., Schoefer 2010; Patterson, Cowley, and Prasongsukarn 2006; Donthu and Yoo 1998; Liu, Furrer, and Sudharshan 2001). In particular, consumers were found to react differently to a dissatisfied service

experience by demonstrating different consumer complaint behavior (CCB). Such CCB differences are typically explained in terms of underlying cultural values or norms such as individualism vs. collectivism (Watkins and Liu 1996; Liu, Furrer, and Sudharshan 2001); uncertainty avoidance (Hernandez et al. 1991; Schoefer 2010); or Confucian Dynamism also known as Saving Face (Nakata and Sivakumar 1996).

Although previous studies have documented cross-cultural (cross-national) differences of consumer complaint behavior, there are at least two important unanswered questions regarding the cross-cultural CCB differences: (1) can these cross-cultural differences be observed even when consumers reside in the same market environment; and (2) if cross-cultural CCB differences exist, what kind of mechanisms exist through which consumers' cultural orientations influence their complaint behavior? A study by Blodgett, Hill, and Bakir (2006) challenges the commonly-cited cultural explanation (i.e., CCB difference is caused by consumers' cultural differences); they found that the observed cross-national CCB differences can be attributed to the prevailing return policies, which ultimately are determined by competitive forces within each country. Similarly, Hernandez and Fugate (2004) have also posited that unique market environment in Mexico such as the existence of large number of monopolies (e.g., Telmex, Pemex, and Bimbo) and the scarcity of the economy could, along with cultural differences, partially contribute to the lower voice rate among Mexican consumers.

Thus, this paper attempts to answer these two questions by studying the CCB differences between two groups of first-generation immigrants (i.e., The generation of people born in a foreign country who later immigrated to the U.S.) in Southern California. Using first-generation immigrants from two ethnic groups located within the same geographic region enables us to re-examine previous findings on cultural difference of CCB. We chose to study Mexican and Chinese first-generation immigrants because these two groups represent the fastest growing immigrant population in the nation as well as in the region (Pew Hispanic Center 2007). In addition, these two groups' home cultures vary along all five dimensions of Hofstede's (2001) cultural framework. Given the fact that both groups live in the same region, and presumably similar market environment, the observed CCB differences could more readily be attributed to their parent country's cultural orientations.

Further, previous studies on cultural difference of CCB have yet to offer an integrated theoretical framework explaining the observed difference (Watkins and Liu 1996). Conceptually, CCB difference could be explained by the cultural influence in consumer perceptions and attitudes such as perceived utility of complaint; self-perception; and different attitudes toward complaining. In addition, CCB differences could also be explained by the moderating roles of culture in consumers' reactions to various situational factors of service failures. For example, individualistic consumers tend to have higher expectations (Donthu and Yoo 1998). Thus, consumers from a more individualistic culture could react more strongly to the same service failure than those from a more collectivist culture. This study seeks to empirically investigate these mechanisms through which culture orientations influence CCB.

The remainder of this paper is organized as follows. First, we provide a brief overview of the literature relevant to the study with a focus on studies on various CCB antecedents and the role of consumer cultural background. Next, the mechanisms through which consumers' cultural background influence their CCB choices are presented, and the related hypotheses are developed. The research methods and results are then discussed. We conclude with managerial

implications and suggestions for future research.

LITERATURE REVIEW AND DEVELOPMENT OF HYPOTHESES

Antecedents of CCB: Scenario-Based versus Non-Scenario-Based Factors

Great attention has been given to consumer complaining behavior. Researchers have systematically examined why and how consumers respond to perceived dissatisfaction. Several researchers have offered taxonomies of CCB (Day and Landon 1977; Singh 1988, 1989; Richins 1987) and developed and tested theories of the antecedents leading to various CCB choices. In particular, Singh (1988) empirically investigated the distinct dimensions that underlie consumers' intentions to engage in various complaint behaviors, including voice CCB, actions directed at the seller /manufacturer; private CCB, informal complaint actions involving friends and relatives and exit; and third party CCB, formal complaints directed toward agencies not directly involved in the exchange relationship.

In deciding on the three types of CCB, consumers may experience different cognitive and emotional evaluation process (Singh 1990a; Stephens and Gwinner 1998). In this study, we only focus on voice CCB because understanding voice CCB has more managerial implications to service providers. "Maximizing the number of verbal complaints from dissatisfied customers" has been prescribed as a viable marketing strategy to achieve the lowest possible level of consumer turnover (Fornell and Wernerfelt 1987; p.338), and to enhance brand loyalty and increase repurchase intentions (c.f., Oliver 1980; Richins 1983).

The first systematic study concerning attitudinal antecedents of complaint behavior was carried out by Richins (1983), who reported that a consumer's complaint action is determined by (a) the cost of complaining; (b) his or her norms of complaining or whether he or she should complain; and (c) his or her perception of societal benefits likely to result from complaining. Later, researchers have studied a large number of CCB antecedents as listed in the Appendix A. Broadly speaking, these CCB antecedents can be classified into service/product failure *scenario-specific factors* (e.g., type and magnitude of the failure), and *non-scenario-specific factors* including personal characteristics (e.g., consumer demographic and psychographic features) and industry characteristics, and interactions among personal, industrial and situation-specific factors.

The large number of CCB antecedents makes it impossible to include all the antecedents in one study. Further, findings of some CCB antecedents were inconclusive in the literature. For example, Richins and Verhage (1985) found that the general attitude toward complaints is a poor predictor for CCB. Yet, other studies found it a strong predictor for CCB (e.g., Bearden and Oliver 1985; Singh 1990b) while Singh and Wilkes (1996) found its predictive power varies by industry. We have chosen to examine three scenario-specific factors and four non-scenario-specific CCB antecedents based on a review of the literature. The following two selection criteria were adopted: (1) the chosen CCB antecedents are more likely to be influenced by consumer cultural differences, and (2) the antecedents have been consistently found to be strong predictors for voice CCB in previous studies. Each of them will be elaborated on in the following sections.

Before offering hypotheses regarding the differences between these CCB antecedents, an overview of Mexican and Chinese immigrants' home cultures is warranted.

Overview of Mexican and Chinese Cultures: Hofstede's Perspective

Hofstede's framework (Hofstede and Bond 1988; Hofstede 2001) has been

accepted as a basis for numerous cross-cultural studies. This framework suggests the following five pertinent dimensions that distinguish different cultures: (1) power distance; (2) individualism/collectivism; (3) masculinity/femininity; (4) uncertainty avoidance; and (5) long-term orientation. **Table 1** summarizes a comparison of the five dimensions of Hofstede's (2001) cultural framework between Mexicans, Chinese (Taiwan), and Americans (used here as a reference point).

Table 1

Relative Ranking of Mexico, China, and U.S. on Hofstede's Cultural Dimensions

Country	Power distance		Individualism		Masculinity		Uncertainty avoidance		Long-term orientation*	
	Rank	Score	Rank	Score	Rank	Score	Rank	Score	Rank	Score
Mexico	5/6	81	32	30	6	69	18	82		
China	29/30	58	44	17	32/33	45	26	69	3	118
US	38	40	1	91	15	62	43	46	27	*29*

***Mexico has no long-term orientation score because it was not among the 23 countries in the study.**
Source: Hofstede (2001)

Mexicans score much higher in power distance, individualism, masculinity, and uncertainty avoidance than Chinese. In addition, influenced by Confucian doctrines, as compared with people from other nations, Chinese have been recognized for possessing a long-term orientation (Markus and Kitayama 1990).

Power distance is characterized as the extent to which members of a society accept the fact that power in organizations and families is distributed unequally (Hofstede and Bond 1988; Hofstede 1985; Lu et al. 1999). Previous studies have suggested that individuals from higher power distance cultures have higher expectations of service quality (e.g., Donthu and Yoo 1998) and less likely to give positive word of mouth even upon experiencing positive service quality (Liu, Furrer, and Sudharshan 2001).

Individualism, which is opposite to collectivism, is defined as the extent to which an individual pursues self interests rather than their membership groups, individual expressions, and loose ties between individuals (e.g., Hofstede 2001). Previous studies have reported that consumers from a more individualistic culture tend to have higher overall service quality expectations (Donthu and Yoo 1998).

Uncertainty avoidance represents a measure of intolerance for risk and refers to the degree to which members of a society feel uncomfortable in unstructured situations (Hofstede and Bond 1988). It has been shown to be negatively associated with post-failure negative WOM (Hernandez et al. 1991). Not surprisingly, previous studies have demonstrated that consumers with different cultural backgrounds often have different reactions after service failures (e.g., Cornwell et al. 1991; Keng and Liu 1997; Liu and McClure 2001; Hernandez et al. 1991).

Masculinity, which is opposite of femininity, refers to a preference for achievement, heroism, assertiveness, and

material success (Hofstede and Bond 1988). To our knowledge, it has not been empirically tied to CCB or service quality expectations.

Individuals with *long-term orientations* tend to focus on the future, and they are usually more dynamic. Consumers with long-term orientations tend to have lower service quality expectations (Donthu and Yoo 1998).

As discussed above, scholars have not yet explicitly tested the underlying mechanisms through which consumers with different cultural orientations react differently to service failures. The following sections will first discuss the cultural impact on antecedents pertinent to consumers' attitude toward complaining and personality tendency. Recall that we labeled such antecedents as non-scenario-specific antecedents. We then explore how consumers' cultural difference moderates the impacts of scenario-specific factors on their complaining behavior. Three commonly studied scenario-specific factors are type of the failure (outcome versus process), severity of the loss (high versus low), and the group membership of the service provider (in-group versus out-group).

Cultural Impact on Non-Scenario-Specific Antecedents

Recall that we chose to study the following non-scenario-specific factors: perceived likelihood of success; perceived complaint costs (to represent the cognitive reactions to the service failure scenario); negative emotional reactions to the failure; and self-confidence (to represent personal characteristics). The impact of consumers' cultural orientations on these attitudinal and perceptual CCB antecedents is still unexplored. Building upon primary differences along the above-mentioned dimensions between Mexican and Chinese immigrants' home cultures, the following hypotheses will address the cultural impact on these attitudinal and perceptual CCB antecedents.

Perceived Utility of Complaining

Building upon an economic theoretical framework, several CCB researchers have found that before proceeding consumers tend to consider their CCB options. Specifically, when a consumer believes that a service provider is more responsive or more likely to redress the problem, the consumer is more likely to speak to the provider and less likely to take private action or complain to a third-party (see **Appendix A**). The probability of complaint success consistently has been found to be a strong predictor for CCB. On the other hand, from the consumer's perspective, complaining takes effort and is an investment (Richins 1983, 1987). Therefore, when consumers perceive a higher cost of complaining than benefit, they are less likely to engage in voice behavior or complaining to a third-party. Instead, they are more likely to take private action (e.g., Richins 1983, 1987; Bearden 1983; Day 1984; Bolfing 1989).

In summary, consumers assess the overall utility of complaining based on the probability of complaint success (gain/benefit) and then factor in the perceived costs of complaining. Consumers who perceive higher overall utility will be more likely to engage in public actions (i.e., voice and third-party), and less likely to engage in private actions.

Coming from a more collective cultural background, Chinese immigrant consumers will be more passive in predicting a service provider's actions than their Mexican counterparts. In a collective culture, a service provider will be perceived as part of a larger group, and with such low controllability of the environment, the consumer has a lower expectation for complaint success (Kim et al. 2003). Therefore, given the same service failure scenario, Chinese consumers (*more collectivistic*) may perceive a lower likelihood

of success as compared to Mexican immigrants (*more individualistic*).

Furthermore, Chinese consumers have long been recognized to value harmony and avoid conflict because confrontational situations tend to cause higher social and psychological costs for group-oriented cultures than it does for individualistic cultures (Markus and Kitayama 1990).

Given the information summarized above, we offer the following research hypotheses:

H1: Under the same service failure scenarios, Mexican immigrant consumers will perceive higher likelihood of success of complaining than Chinese immigrant consumers.

H2: Under the same service failure scenarios, Mexican immigrant consumers will perceive lower costs of complaining than Chinese immigrant consumers.

Negative Emotional Reactions to the Failure

CCB researchers have long recognized the dual-appraisal process that consumers use for assessing their (dis)satisfaction of consumer experiences (Oliver 1993). Through cognitive processes, consumers form their (dis)satisfaction judgment based on the confirmation or disconfirmation of perceived performance and the expected performance of product/service. Meanwhile, consumption-based emotions complement cognitive appraisals in predicting satisfaction (Mano and Oliver 1993; Westbrook 1987; Westbrook and Oliver 1991; Blodgett and Granbois 1992). In addition to assessing the role of consumer emotions in predicting consumer (dis)satisfaction, researchers have also found that consumer emotions from a service failure could be influential in the service recovery process (e.g., Smith and Bolton 2002).

The predictive power of negative emotional reactions evoked by an experience eliciting dissatisfaction has been largely ignored by CCB researchers. Stephens and Gwinner (1998) proposed a cognitive-emotional process model of CCB but did not empirically test it. Earlier studies on cultural differences suggest that collectivism encourages the suppression of emotional expressions for the sake of group harmony while the value system of individualism actively encourages the exploration and expression of emotion (Oyserman, Coon and Kemmellmeier 2002). Individuals from a collectivist culture could also gain respect and self-esteem by adjusting and restraining themselves in public while individualist cultures encourage self expression, including emotional expression (Oyserman, Coon and Kemmellmeier 2002; Watkins and Liu 1996).

Therefore, we would expect that Chinese immigrants would be more reticent about expressing their feelings than their Mexican counterparts. Through such emotional controls, individuals from a collectivist culture (in contrast with an individualist culture) will be more likely to also regulate their actions based on their suppressed emotions, which then further lessen their emotional reactions to a dissatisfied experience to minimize the behavior and feeling contradiction (Festinger 1957). Given this overview, we offer the following research hypothesis:

H3: Under the same service failure scenarios, Mexican immigrant consumers will report stronger negative emotions than Chinese immigrant consumers.

Self Confidence

A wide range of personal factors have been found to have a direct impact on CCB, including personal traits such as aggressiveness; assertiveness; self-confidence; locus of control; dogmatism; self-monitoring; self-consciousness and consumer

sophistication (e.g., Bolfing 1989; Fornell and Westbrook 1979; Singh and Wilkes 1996; Singh 1990b; Marquis and Filliatrault 2002). In particular, self-confidence or personal competence has been found to have a positive impact on consumer voice actions (e.g., Bearden and Teel 1980). In our study, consumer self-confidence was chosen to represent an important personal difference variable. Previous studies suggest that individualist cultures tend to grant individuals higher self-confidence because the self-definition and self-esteem among individualists is relatively independent of social context and encouraged (Markus and Kitayama 1990; Watkins and Liu 1996). Further, a more masculine culture tends to emphasize competitiveness and assertiveness (Hostede and Bond 1988). Therefore, we expect that the Mexican immigrant consumers will have higher self-confidence than Chinese immigrants.

H4: Mexican immigrant consumers have higher self-confidence than Chinese immigrant consumers.

The four research hypotheses stipulated above suggest that home cultural distinctions of Mexican and Chinese immigrants' could lead to differences in perceptions and attitudes toward CCB. Given the fact that all these CCB antecedents have been frequently found to positively relate to voice actions (See **Appendix A** for a table summarizing a sample of the research published in this area), we further expect that Mexican immigrant consumers will have higher intentions to complain than the Chinese immigrant consumers. If Mexican immigrant consumers place higher utility of complaining (e.g., higher likelihood of success of voice behavior and lower complaint costs), experience stronger negative emotions, and feel more confident about themselves, they should be more likely to engage in voice actions (i.e., complain directly to the service provider) when facing same service failures. Given the context of our study, we adopted *voice intention* to capture consumers' complaint behavior tendency and offer the following research hypothesis:

H5: Under the same service failure scenarios, Mexican immigrant consumers will havehigher voice intention than Chinese immigrant consumers.

Cultural Moderation on the Associations between Scenario-Specific Antecedents and Consumer Complaining Behavior

Previous studies have found that consumers from different cultural backgrounds could react to the same scenario differently, not only because of the above mentioned CCB antecedents, but also because of different attribution and evaluation processes (e.g., Cornwell et al. 1991; Keng and Liu 1997; Liu and McClure 2001; Hernandez et al. 1991). The following section of this article will examine different reactions to scenario-specific factors. Building upon social exchange and equity theories, Smith et al (1999) proposed that a service failure could result in the loss of economic (e.g., money, time) and/or social (e.g., status, esteem) resources for customers. Therefore, the amount and nature of the loss of resources will be determined by the *type* and *magnitude (severity)* of the failure that occurs.

Furthermore, some researchers have also classified service failures along outcome or process dimensions to examine customer responses (Bitner, Booms, and Tetreault 1990; Smith, Bolton, and Wagner 1999; Hoffman, Kelley, and Rotalsky 1995; Keaveney 1995; Smith and Bolton 2002). *Outcome failures* relate to the core service offering, while *process failures* relate to the manner in which the service is delivered. In addition, various researchers (Sinha 1982; Triandis et al. 1988) found that compared with individualistic cultures, cooperation in

collectivist cultures is higher with in-group members, but lower with out-group members. Therefore, the group-membership (in-group vs. out-group) of the service providers will also be examined below.

The values of collectivism and individualism create very different symbolic-subjective cultures. When making judgments, individualism encourages a direct focus on internal responses to the context (Choi, Nisbett, and Norenzayan 1999; Fletcher and Ward 1988). Therefore, the symbolic-subjective culture of individualism tends to place less importance on the context and the cues it contains and is more attuned to an individual's responses to context (representing a low context culture). Collectivism places greater importance upon causal reasoning and forming perceptions of the individual's social context, situational constraints, and social roles (Watkins and Liu 1996; Morris and Peng 1994; Oyserman, Coon and Kemmelmeir 2002; Triandis 1995). In a service failure context, the core-service failure (outcome failure) should be more influential for Mexican immigrants than for Chinese immigrants because process failures are social/role-related. Therefore, the difference between outcome versus process failures should be smaller among Chinese immigrants than Mexican immigrants. Accordingly, we expect the following:

H6: The difference of voice intention for an outcome versus process failure will be larger for Mexican immigrant consumers than for Chinese immigrant consumers.

On the other hand, individuals from a higher power distance and a more masculine culture tend to react more strongly given the same degree of severity of service failures. High power distance would increase the social position between the customer and service provider. This will in turn increase the service expectation of the customers (Donthu and Yoo 1998). Further, in a masculine society, people tend to have higher expectations of service and attach great value to good service. Masculinity is likely to enhance the role distinction between customer and server, thus increasing the "disconfirmation" gap. Therefore, we expect that the more serious the failure the more strongly Mexican immigrants will react than Chinese immigrants.

Indeed, previous research shows that Mexican consumers are very concerned with the value they get for their money (Yankelovich, Skelly and White, Inc. 1984). About 80 percent of Hispanics indicated that they pay close attention to ensure quality for price paid (Yankelovich, Skelly and White, Inc. 1984). A more recent study by Cultural Access Group (AC Nielson) echoes this point. That study reports that key influencers among Hispanic consumers are price, promotions, and special displays. Therefore, the severity of the service failure will have larger impact on Mexican immigrants' reactions to a failed service encounter. Thus, we expect the following:

H7: The difference of voice intention between service failures of high severity versus those of low severity will be bigger for Mexican immigrant consumers than for Chinese immigrant consumers.

Social interactions between individuals in a collectivist culture depend heavily on whether they belong to the same in-group. Competition with and manipulation and exploitation of out-groups is more extensive in collectivist cultures than individualistic cultures (Espinoza and Garza 1985). Collectivists are more likely to treat in-group service providers as partners by showing concerns for the service provider's well-being (Watkins and Liu 1996).

In contrast, in individualist cultures, people have membership in many in-groups (e.g., family, peer-groups, coworkers, and clubs) where much of their behaviors are more likely to concern goals of the individual since the demands from various in-groups are

more diffused. As a result, distinction between in- and out- groups is blurred. Therefore, with a more collectivist culture, Chinese immigrants are more likely to complain to in-group service providers than to out-group providers because complaining directly to a service provider signals helping behavior to the benefit of the service provider (Fornell and Wernerfelt 1987). Such in- vs. out-group difference should be less significant among Mexican immigrants given the fact that its cultural origin is more individualistic. Given this perspective, we expect:

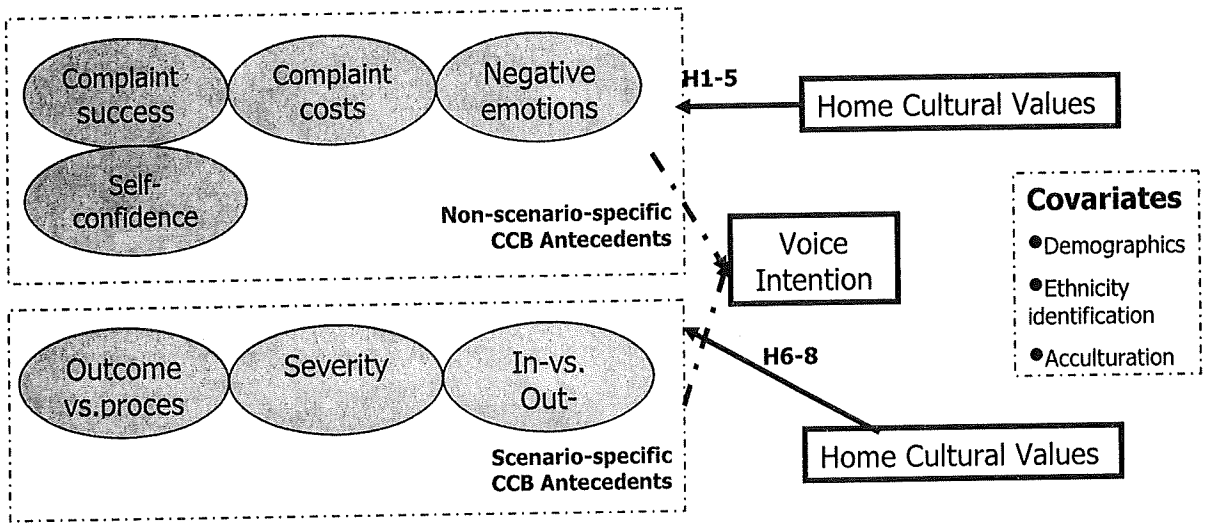
H8: Chinese immigrant consumers will show higher voice intention when service providers are Chinese (i.e., in-group) than when service providers are non-Chinese (i.e., out-group). However, such difference will be smaller for Mexican immigrant consumers.

Covariates

Besides the above-mentioned CCB antecedents, a large number of other factors could influence immigrant CCB. For example, many studies have demonstrated the influential roles of demographic features, including age, gender, education, income and social class (e.g., Bernhardt 1981; Kowalski 1993; Zaichowsky and Liefeld 1977; Moyer 1984). Additionally, previous studies in the sub-cultural consumer behavior literature have long recognized the impact of ethnicity, ethnic pride, acculturation and assimilation on consumption practices (e.g., Deshpande, Hoyer, and Donthu 1986; Laroche et al. 1996;

Figure 1

A Conceptual Model



Chung and Fischer 1999). In particular, ethnic identification has been shown to influence immigrants' values and shopping behavior (Shim and Eastlick 1998). Accordingly, we will consider both ethnicity identification and the degree of acculturation, along with demographic factors, when examining immigrant consumer CCB.

A summary of the above-detailed is offered in diagrammatic form as **Figure 1.**

METHOD

Research Design

Using a snowball sampling technique, common in sub-cultural studies (e.g., Quester and Chong 2001), our study is conducted among a convenience sample of Mexican and Chinese non-student adult immigrant consumers in the Southern California area (250 Mexican and 165 Chinese). So. Cal. is an ideal field laboratory for our study because a large number of first-generation immigrants reside in great proximity (often in ethnic communities) while speaking their own languages and keeping their cultural traditions (Ackerman and Tellis 2001).

Respondents were initially recruited from some immigrant neighborhoods. Upon completing their surveys, they were asked to refer more friends and relatives to this study. We then contacted the referred immigrants for cooperation and repeated the same snow-balling procedure until we achievedsufficient sample size. All respondents were given choices for the English version or their mother language version (Chinese and Spanish) of the survey. ***Notably, all of our respondents chose their mother language version.*** Both the Chinese and Spanish questionnaires were developed from English using the back-translation method, involving bilingual research assistants (Hui and Triandis 1985).

Our study employed a scenario-based methodology in which respondents were asked to imagine themselves in the role of a customer experiencing a hypothetical service failure scenario. Each respondent was first presented with one of the 8 scenarios (see **Appendix B** for sample scenarios) in a car repair setting where each of three scenario-specific factors were manipulated at 2 levels: *type of failure* (outcome versus process failure), *severity of the failure* (high versus low magnitude of the failure), and *group-membership of service provider* (in-group versus out-group service provider). **Appendix C** shows the distribution of respondents by scenarios.

Table 2 provides various demographic characteristics and measures of our sample respondents. We see that there is a fairly good distribution of gender, education and income for the two samples. The Mexican sample tends to be less affluent, less educated, and has longer immigrant experience (median immigration years for Mexican is 18 while 10 for Chinese), roughly corresponding to the census data (www.census.org). Majority of our respondents use their mother languages as their primary communication.

Table 2
Respondent Profiles

Demographic Variables (%)		Mexican Immigrants (N=250)	Chinese Immigrants (N=165)
Gender	Male	49.6	49.1
	Female	50.4	50.9
Age	Mean (years)	32.54	34.77
How many years of immigration	Mean (in years)	18.63	13.42
	Median (in years)	18.0	10.0
Education	Less than High School	24.9	6.0
	High School	25.8	11.3
	Some College	31.7	14.0
	College Graduate or Above	17.6	68.7
Visa Status	Visiting visa (e.g., F-1)	7.4	23.5
	Green Card	29.5	17.4
	Citizenship	52.6	45.0
	Others	10.5	14.1
Income (family)	Below $25K	30.7	20.8
	$25K-$50K	36.4	26.8
	$50K-$75K	13.6	27.5
	$75K-$100K	11.0	12.8
	Above $100K	8.3	12.1

Manipulation checks

Manipulation checks can be conducted in a pilot study or in the main study. While each way of conducting manipulation checks has its own pros and cons, the pilot study option was recommended by Hogg and cooper (2003) when manipulation in the main study could endanger the validity of the study design. Following recommendations by Hogg and Cooper (2003), we conducted a pilot paper and pencil pretest for manipulation checks in order to alleviate the potential confounding effects of manipulation checks in the main study. The pretest was conducted with 90 undergraduate business students at a western U.S. university in order to assess the effectiveness of the manipulations, as well as to check if the scenarios are perceived to be realistic. Half of these students were assigned to a car repair and a restaurant scenario, each reflecting a outcome failure with high severity and caused by in-group (i.e., same ethnicity as the respondent's) service employees while the other half were exposed to a scenario, reflecting process failure with low severity and caused by out-group (i.e., different ethnicity from the respondent's) service employees. Items used for the manipulation checks are reported in **Table 3** along with their Cronbach's alphas and correlation coefficients (where relevant). All three factors (outcome versus process failure, severity of failure, and service provider's group membership) were successfully manipulated as desired. Subjects receiving the outcome failure manipulation reported that service outcome was very disappointed and lousily done than those receiving the process failure manipulation ($\overline{X}_{Outcome}$=6.40 vs. $\overline{X}_{Process}$ =3.36; p<.001). On the other hand, subjects receiving the process failure manipulation considered employee attitudes more unacceptable than those receiving the outcome failure manipulation ($\overline{X}_{Outcome}$=2.74 vs. $\overline{X}_{Process}$ =5.80; p<.001). Those subjects who received the high level of service failure severity, as a manipulation, perceived that the

service provider failed them more than those receiving lower level of severity ($\overline{X}_{highseverty}$=6.22 vs. $\overline{X}_{lowseverity}$ =3.65; p<.001). Almost every respondent could identify the race of service provider correctly. Further, in order to check whether the hypothetical scenario was perceived as "realistic" to the respondents, we included one question to assess how realistic each scenario seemed for the respondents to imagine themselves as the customer in the scenario. The mean rating was 5.29 on a seven-point scale (with seven indicating most realistic/believable), and the realistic rating does not differ by scenario (P>.10).

Table 3

Measures used in the study *

	Mexican Immigrants	Chinese Immigrants
Voice Intention (Adopted from Day 1984)		
If this problem had really happened to me, I would contact the repair shop (the restaurant manager) to complain.		
Negative Emotions (adopted from Stephens and Gwinner 1998)		
If this problem had really happened to me, I would feel...	.70	.81
angry		
sad		
upset		
ashamed		
scared		
Annoyed		
Perceived likelihood of success of complaint (Adopted from Singh 1990b)		
Assume you reported the incident to the repair shop (the restaurant) how likely is it that the shop (the restaurant) would...	.80	.78
1. take appropriate action to take care of your problem.		
2. solve your problem and give better service to you in the future.		
3. be more careful in the future and everyone would benefit.		
Perceived costs of complaint (Adopted from Day 1984)		
1. complaining may take a lot of my time and effort.	.77	.71
2. complaining may disrupt my daily routine.		
3. complaining may require a substantial amount of out-of-pocket expenses.		
4. complaining may be a hassle I really don't need.		
5. complaining may cause me embarrassment.		
Self-confidence (adopted from Bearden, Hardesty and Rose 2001)		
1. I am afraid to "ask to speak to the manager."	.85	.79
2. I don't like to tell a salesperson something is wrong in the store.		
3. I have a hard time saying "no" to a salesperson.		
4. I am too timid when problems arise while shopping.		
5. I am hesitant to complain when shopping.		
Attractiveness of Alternatives (Adopted from Jones, Mothersbaugh, and Beatty 2000)		
If I needed to change auto repair shops, there are other good shops to choose from.		
Subjective Acculturation (self-developed)		
1. I believe I have accepted most of American culture.	.79	.85
2. I believe that I am already Americanized.		
3. I believe that I have adopted most of American cultural values.		

Objective Acculturation (adopted from Ownbey and Horridge 1997)

1. years of immigration
2. What language do you speak most often when you are
   - At home
   - At work
   - Among friends
   - At school

List the ethnicities of the following important people in your life.

- Your mother
- Your father
- Your spouse (partner)
- Your first best friend
- Your second best friend
- Your third best friend

How often do you travel back to your home town

What is your residential status?

****Note: The subjective acculturation and objective acculturation was correlated (coefficient =.20, p<.001). For the rest of the study, we adopted the subjective acculturation for data analyses.*

Ethnicity Identification (Adopted from Appiah 2001)

1. I am happy that I am a member of the ethnic group I belong to.	.71	.91
2. I have a lot of pride in my ethnic group and its accomplishments.		
3. I feel a strong attachment to my ethnic group.		
4. I feel good about my cultural or ethnic background.		

Individualist / Collectivist Value (Horizontal) (Adopted from Gurhan-Canli and Maheswaran 2000)

1. I often do "my own thing."	80	.73
2. One should live one's life independently of others.		
3. I like my privacy.		
4. I prefer to be direct and forthright when discussing with people.		
5. I am a unique individual.		
6. What happens to me is my own doing.		
7. When I succeed, it is usually because of my abilities.		
8. I enjoy being unique and different from others in many ways.		

Outcome Failure Manipulation Checking Questions (γ =.73)

I would think the repair job was lousily done.
I would be very disappointed by their repair job.

Process Failure Manipulation Checking Questions (γ =.74)

I would think the employees at the repair shop had treated me impolitely.
I would be very disappointed by their employees' attitudes.

Severity Manipulation Checking Question

I would think the auto repair shop severely failed me.

Realistic Evaluation of Scenarios

I think the situation described in this scenario could really happen to some one.

***All items were measured with a 7-point Likert scale unless it was stated otherwise.**

Measurement Equivalence

The scale items and reliabilities, as well as the sources, are shown in **Table 3**. Following Steenkamp and Baumgartner (1998), the measurement equivalence of the key measurement variables was tested using confirmatory factor analysis. **Table 4** shows no chi-square difference between the full metric invariance model and the configural invariance model, which also has no chi-square increase from the baseline model (i.e., with no constraints). This confirms that our measurements for all the constructs of interest were valid across the 2 samples and achieved full scalar invariance. Further, full factor variance invariance model and partial error variance invariance model (out of 37 error variance terms, 5 were set free for the two samples) were also supported by our data. Thus, the observed differences were comparable.

We have verified the collectivism/individualism values of our participants using Hofstede's (1980) Collectivism/Individualism Scale. The scale was found to be reliable across the Chinese and Mexican samples (α = .73 and .80, respectively) and a t-test confirmed that the Chinese sample was significantly lower in individualist cultural values than the Mexican sample ($\overline{X}_{Mexican}$=5.47 vs. $\overline{X}_{Chinese}$ =4.90, p<.001).

Table 4

Measurement equivalence across the Mexican and Chinese Immigrant samples

	χ^2	df	RMSEA	CAIC	CFI	SRMR	$\Delta\chi^2$	$\Delta\chi^2$/df	P-value
Configural invariance model	2393	1202	.060	3887	.94	.069			
Full metric invariance model	2455	1230	.060	3743	.94	.089	62	2.21	.14
Full Factor variance invariance model	2525	1265	.060	3558	.93	.124	70	2.00	.16
Full error variance invariance model	3209	1302	.073	3971	.90	.139	684	18.5	<.001
Partial error variance invariance model	2609	1293	.061	3436	.93	.126	84	3.00	.08

Table 5

Testing Hypotheses H 1 - 5

	Chinese immigrants	Mexican immigrants
	Car Repair	Car Repair
Perceived likelihood of success (H1)	4.17	4.70
Perceived cost of complaint(H2)	4.05	3.77
Negative emotions (H3)	3.21	3.98
Self confidence(H4)	3.17	2.99
Voice intention (H5)	5.00	5.80
Individualist value	4.90	5.47

Addressing the Research Hypotheses

Table 5 shows the mean difference of the non-scenario-specific CCB antecedents and voice intention across the two immigrant groups. All the mean comparisons were conducted with all three scenario-specific factors, demographic factors, ethnicity identification, and acculturation being controlled as covariates. Hypothesis 1 (*predicting Mexican immigrant consumers to perceive higher likelihood of success if they let the service provider know the problem*) was supported ($\overline{X}_{Mexican}$=4.70 vs. $\overline{X}_{Chinese}$ =4.17, p=.005). In contrast, Mexican immigrant consumers reported lower perceived costs of complaint than Chinese immigrant consumers ($\overline{X}_{Mexican}$=3.77 vs. $\overline{X}_{Chinese}$ =4.05, p<.001), providing support for hypothesis 2. Hypothesis 3 (*predicting stronger negative emotional reactions among our Mexican immigrant consumers than the Chinese immigrants sampled*), was also supported by our data ($\overline{X}_{Mexican}$=3.98 vs. $\overline{X}_{Chinese}$ =3.21, p=.003). Hypothesis 4, predicting higher self-confidence among Mexican immigrants than their Chinese counterparts, was not supported (p>.10). Hypothesis 5 predicted Mexican immigrant consumers to have higher voice intention. It was supported ($\overline{X}_{Mexican}$=5.80 vs. $\overline{X}_{Chinese}$ =5.00, p<.001).

Table 6

ANCOVA Results

Independent variables	***Car Repair (Voice Intention)***				
	Mexican		Chinese		**Hypotheses**
Main Effects	**F**	***P*-value**	**F**	***P*-value**	
Outcome vs. process (A)	1.61	.21	2.21	.14	H7 not supported
severity (B)	3.48	**.06**	2.05	.16	H8 Supported
In-vs. out-group (C)	.00	.99	5.85	**.017**	H9 Supported
Two-Way Interactions					
AB	4.03	.05	2.46	.12	
AC	.004	.95	.13	.72	
BC	.007	.93	2.70	.10	
Covariates					
Subjective Acculturation	1.96	.16	7.02	**.009**	
Ethnicity Identification	11.41	.001	2.41	.12	
Gender	4.21	.042	1.49	.22	
Age	2.83	.094	2.65	.11	
Income	.55	.46	.50	.48	
Education	.033	.86	6.45	.012	
R^2	17%		26.9%		

To address Hypotheses 6, 7 and 8, ANCOVA was conducted with voice intention as the dependent variable, the three scenario-specific factors (type of service failure, severity of the failure, and group membership of the service provider) as the fixed independent variables while demo-graphic variable and immigrant's ethnicity identification and their degree of acculturation served as covariates. **Table 6** shows the ANCOVA results for the two samples.

Hypothesis 6 predicted smaller difference of voice intention for Chinese immigrants than for Mexican immigrants when facing outcome versus process failures. It was not supported by our data as no main effects were significant for either sample. Hypothesis 7, predicting that there is smaller difference of voice intention for Chinese immigrants than for Mexican immigrants when facing high severity failures versus low severity failures, was supported; Mexican immigrants were found to react more strongly to high severity failures than Chinese immigrants as the influence of severity on voice intention was significant only for Mexican sample at .10 significance level, but not at .05 significance level ($\overline{X}_{highseverity}$=6.00 vs. $\overline{X}_{lowseverity}$ =5.51, p=.064). Hypothesis 8, predicting that Chinese immigrants would be more likely to voice to in-group service providers than out-group providers, was supported. We found that Chinese immigrants demonstrated higher voice intention ($\overline{X}_{ingroup}$=5.25 vs. $\overline{X}_{outgroup}$ =4.54, p=.017) while no such group differentiation was found among Mexican immigrants.

In addition, the ANCOVA also revealed some interesting findings in regards to covariates besides our focal constructs. First, we found that income and age did not impact CCB across both immigrant groups. However, we found subjective acculturation and education level significantly increase Chinese immigrants' CCB while such effects did not show in the Mexican sample. Additionally, ethnicity identification was found to decrease Mexican immigrants' CCB and Mexican females are more actively involved in CCB than Mexican males. Such gender difference did not show in our Chinese sample.

DISCUSSION

Findings

Our primary goal was to explore the impact of immigrants' home cultures on their CCB decisions. We not only observed significant differences among Mexican and Chinese immigrant consumers in their voice intentions when facing same service failures but also proposed and tested the two mechanisms through which immigrants' home cultures exert strong influence in their voice intentions.

Results from our study suggest that consumers' value orientations (e.g., indiv-idualist vs. collectivist; power distance; masculine vs. feminine; uncertainty avoidance; long-term vs. short-term orientations) can directly influence consumers' perceptions, reactions, and attitude toward complaining. All of these non-scenario-specific CCB antecedents have been shown in other studies to be strong predictors for consumer complaining choices, but the *cultural influence* of these antecedents has not been empirically studied before (Watkins and Liu 1996). Thus, our study provides new insight into the observed cultural CCB differences as reported in previous studies (Watkins and Liu 1996; Hernandez et al. 1991).

We further found that immigrants with different home cultures react differently to service failure scenarios based on the type and severity of failures, and service providers' group memberships. In our study, Mexican immigrant consumers react more strongly than Chinese immigrants when the service failure is severe. On the other hand, Chinese immigrants will be more likely to voice to in-

group service providers than to out-group service providers while no such group membership distinction was found among Mexican immigrants.

Another contribution of this study to the literature is to validate previous findings about cultural difference in CCB with an experiment design. Previous CCB studies typically rely on surveys of consumers' self-reported recall of past dissatisfying experiences (e.g., Richins 1987; Brady, et al. 2005; Landon 1980). However, such survey-based recall designs may result in several undesirable biases, such as consistency factors and memory lapses, and may be less likely to represent the full range of problems that might arise.

Although researchers have recognized the importance of episode-specific measures in predicting CCB (Landon 1977; Day 1980; Richins and Verhage 1985; Didow and Barksdale 1982), few actually empirically test using episode-inducing methods. Our experimental design using scenarios offers the advantages of manipulating episode specific factors and allows for the control of as many variables as possible in order to isolate the effects of interest.

Previous sub-cultural studies largely emphasized acculturation and ethnicity identification. Our study provides some supportive evidence for the importance of these two constructs by examining them as covariates. More importantly, we were able to show significant group differences in terms of both the ending complaint intention and cognitive and emotional reactions to same service failures even after controlling for these two sub-cultural variables (again, see **Tables 5 and 6**). Therefore, future sub-cultural research, especially involving immigrant consumers, should incorporate immigrants' home culture orientations into their studies.

MANAGERIAL IMPLICATIONS

The encouragement of complaints has been prescribed as a vital marketing strategy (e.g., Fornell and Wernerfelt 1987). In today's multi-cultural marketplace, how to encourage CCB adds challenging complexity to marketers. Our study may offer the following managerial implications.

First, based on our findings that Chinese immigrants are less likely to let service providers know their dissatisfaction, especially when the service providers are non-Chinese, we encouraget service providers to provide more indirect, less demanding CCB choices in order to lower the perceived complaint costs (social and time costs). For example, service providers may consider providing non face-to-face complaint channels such as Internet and complaint letters or more frequently soliciting Chinese consumers' feedbacks. We also encourage service provides to put extra effort in encouraging less educated and less acculturated Chinese consumers to engage in voice behavior. Policy makers and immigrant advocacy groups may also need to communicate more with Chinese immigrants about their rights for voicing their complaints, as Chinese immigrants tend to feel that there are higher complaint costs and less likelihood of success.

In dealing with Mexican immigrant consumers, all providers should be aware of the more expressive, negative emotions among this group and take this factor into their service recovery strategies. Service employees should be trained to "read" their emotional reactions in service failure /recovery encounters. Since Mexican immigrant consumers may only complain about serious failures and remain silent for minor ones, actions should be taken to encourage direct communications with service providers even though some failures

may be minor: such failures could be equally detrimental to businesses in the long- run. Service providers should also encourage Mexican male consumers to voice their dissatisfaction.

LIMITATIONS, SPECULATIONS, AND IDEAS FOR FUTURE RESEARCH

Despite the interesting insights achieved here, we must note a number of limitations and potential new research directions. Our study was limited to one area of the U.S. and the two samples also represented a narrow region. Subsequent research should compare different immigrant groups across a broader range of regions and home cultural backgrounds in order to rule out other explanations. More importantly, we did not compare our immigrant consumers with non-immigrant consumers. Our snowballing sampling method may be effective in gathering representative minority sample respondents, but not useful to sample a large non-immigrant population because snowballing will not guarantee representativeness of respondents. In the future, scholars are encouraged to conduct random sampling research to survey both immigrant and non-immigrant consumers.

Another limitation of our study was the failure to measure the various value orientation dimensions and to examine the hypothesized cultural impacts. We only measured collectivism and individualism because it is (arguably) one of the most important aspects of cultures. However, it would also be interesting and useful to understand how complaining behavior is impacted by other dimensions such as masculinity, uncertainty avoidance, power distance, and long-term orientation.

Although most of our research hypotheses were supported by our data, some surprising findings merit additional research. First, we failed to find support for higher self-confidence among the Mexican immigrants in the database compared to the Chinese immigrants in the database. Self-confidence measures consumers' self-reported comfort level of directing voices to services providers. The lack of cultural difference on this variable could be attributed to immigrant consumers' language fluency and their excellent knowledge about American rules and regulations relevant to consumer protection. Unfortunately, we did not gather such information from respondents, so we do not know what might account for this outcome. Additional research is warranted to reexamine this reported finding so as to examine alternative explanations.

In addition, we failed to find significant CCB differences between outcome and process failures in either sample. It is possible that our study context—car repair—represents a unique service industry where consumers are concerned equally with service outcome and process. Future research is encouraged to see if our findings hold in different service industries.

Finally, while CCB researchers have identified three categories of CCB actions (voice, private and third-party complaints), our research focused solely on voice intention. Additional research is needed to examine the cultural roles in the other CCB action categories.

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Appendix A Antecedents for Consumer Complaint Behavior Reported in Previous Studies

CCB Antecedents	Studies & Authors	Major Findings
Failure Scenario-Specific Antecedents		
Outcome vs. Process failure	Levesque and McDougall 1996	Outcome leads to greater exit
Severity of failure	Johnson 1988, Andreasen 1988; Tax et al. 1993; Gilly and Gelb 1982; Richins and Verhage 1985; Singh 1991; Day 1984	Severity is positively related to voice and negative WOM
Price (level of importance, social risk)	Bloch & Richins 1983; Bearden and Oliver 1985; Bolfing 1989; Day 1984; Gilly and Gelb 1982; Jacoby and Jaccard 1981; Didow and Barksdale 1982; Richins and Verhage 1985; Levesque and McDougall 1996	Price is positively related to voice, private, and third-party actions
Perceived industry/market structure (market concentration; Availability of Alternatives)	Singh 1990; Fornell and Didwo 1980; Hirschman 1970; Singh 1991	More concentrated market, less voice and private actions.
Personal Characteristics		
Demographics	Bearden and Oliver 1985; Singh 1990; Warland et al. 1975; Zaltman et al., 1978;	Varied influences were found.
Social class	Bearden and Oliver 1985 Warland et al. 1975	Higher social class are more likely to engage in CCB.
Personal values	Bearden and Teel 1980	personal values influence voice action.
Personality factors (e.g., alienation, aggressiveness, assertiveness, self-confidence, locus of control, dogmatism, self-monitoring, self-consciousness)	Bolfing 1989; Fornell and Westbrook 1979; Singh and Wilkes 1996; Robinson 1979; Singh and Howell 1985; Singh 1989; Marquis and Filliatrault 2002	Varied influences were found.
Consumer sophistication	Singh 1990	Positively relate to three types of CCB.
Attitude toward complaint	Bearden and Oliver 1985; Day 1984; Richins 1982; Singh 1989; Bearden and Mason 1984; Singh and Wilkes 1996; Jacoby and Jaccard 1981; Singh 1990; Sorensen and Strahle 1990; Zaltman et al., 1978; Bearden and Crockett 1981	Inconclusive results
Prior experience (previous service failure/recovery encounters)	Singh and Wilkes 1996; Voorhees and Brady 2005;Singh 1989; Ursic 1985	More experiences lead to more voice and third-party actions, not for private actions.
Personal competence	Bearden and Teel 1980	Positively related to voice action.
Interactions among scenario-, personal and industrial factors		
Perceived likelihood of complaint success (perceived provider responsiveness, expectancy value)	Bolfing 1989; Brown and Beltramini 1989; Gilly and Gelb 1982; Jacoby and Jaccard 1981; Richins 1983;Singh 1990; Richins 1983, 1987; Bearden & Teel 1983; Singh & Wilks 1996; Andreason 1985;	Positively related to voice and third-party actions, negatively related to private actions.

	Singh 1991; Fornel and Didow 1980; Blodgett et al., 1995; Day 1984; Ursic 1985	
Perceived costs of complaint (perceived difficulty of complaint)	Richins 1983,1987; Bearden 1983; Day 1984; Bolfing 1989)	Negatively related to voice actions.
Perceived value of complaint (cost-benefit evaluation, pay off, worthwhileness of complaint)	Andreasen 1985; Fornell and Didow 1980; Landon 1977; Singh 1990	Positively related to voice and third-party actions, negatively related to private actions.
Attribution of blame (external attribution)	Folkes 1984; Folkes et al., 1987; Krishnan and Valle 1979; Richins 1983; Blodgett et al., 1995; Kirshnan and Valle 1979; Singh 1989	Positively related to voice and third-party actions, negatively related to private actions.
Negative emotions toward provider	Westbrook 1987; Singh 1989b; Folkes et al. 1987; Day 1984; Blodgett and Granbois 1992; Oliver 1993	Positively related to voice and private actions.

Appendix B

Sample scenario used for car repair setting (Scenario 3 in Appendix C)

You were involved in a car accident recently. Fortunately no severe damage occurred to either driver. According to the police it was your fault, so your insurance company will pay for the damage that occurred to the other driver's car. Since your insurance did not cover the damage for your own car, you need to fix a number of problems caused by the accident: your car makes noise, shakes when you drive over 60 mph, and part of the body paint needs to be repaired. One of your friends recommended one Chinese auto repair shop to you. So you asked them to estimate the cost and were told it would cost $900 to fix all the problems. You agreed and sent your car to the shop one week ago. Today is the day that you were told to pick up the car. You looked over the car and found out that the paint job was perfect. You paid the bill, which is now $1,800 (double the estimate!), because you were told that the noise and shaking problems were more severe than they had originally thought. The employees seemed to be very polite and friendly to you. On your way home, as you are driving the car, you found out that the noise did not go away and the car still shook. As matter of fact, the car was making an even louder noise and shook more frequently than it did before the repair.

Appendix C

Distribution of Respondents by Scenarios

	Mexican Respondents				Chinese Respondents			
Scenarios	**Type (process/ outcome)**	**Severity (high/low)**	**Group membership (in- vs. out- group)**	**Cell size**	**Type (process/ outcome)**	**Severity (high/low)**	**Group membership (in- vs. out- group)**	**Cell size**
1	Outcome	High	In	24	Outcome	High	In	21
2	Process	High	In	36	Outcome	Low	In	19
3	Outcome	Low	In	29	Outcome	High	Out	20
4	Process	Low	Out	32	Process	High	Out	23
5	Process	High	Out	33	Process	High	In	18
6	Outcome	Low	Out	26	Process	Low	In	16
7	Process	Low	In	34	Outcome	Low	Out	25
8	Outcome	High	Out	36	Process	Low	Out	23

DIFFERENT ENGLISHES? INVESTIGATING EQUIVALENCY OF THE AFFECTIVE-RESPONSE-TO CONSUMPTION SCALE AMONGST GEOGRAPHICALLY DISPARATE GROUPS OF ENGLISH SPEAKERS

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ABSTRACT

Satisfaction surveys conducted in global industries frequently have respondents fill in questionnaires in English, even though respondents are a mix of native and non-native English speakers. Using Kachru's (1985) concentric circles representing the cultural embeddedness of the English language, this study investigates whether such a mix of respondents consistently interpret emotional terms used to describe evaluations of their consumption experience. Affective-Response -to -Consumption (ARC) includes a variety of terms that can be used to describe feelings about the favorable/unfavorable evaluation of a consumption experience. The concept is applied to examine whether different groups of respondents, ranging from native English speakers of different origin (e.g. U.S.A. or UK) to those from countries where English is a foreign language, assign consistent meaning to emotional terms included in the ARC. Rasch Modeling, particularly useful and convenient when investigating sub-groups within a dataset, is used to examine whether results from subjects with different English backgrounds can be meaningfully integrated. The investigation finds that there are differences in the meaning of emotional terms between different English speaking groups, emphasizing the importance of investigating data equivalence when administering surveys in an international setting.

INTRODUCTION

Consumer satisfaction, long regarded as one of the cornerstones of marketing (Babin and Griffin 1998; Churchill and Suprenant 1982, Peterson and Wilson 1992, Taylor 2008, Yi 1990), has been the topic of numerous studies with many investigating antecedents or consequences of the concept (e.g. Anderson and Fornell 1994, Fornell 1992, Halstead, Hartman and Schmidt 1994, Halstead, Jones, and Cox 2007, Nyer 1998, Parker and Mathews 2001). However, with a few exceptions (e.g. Oliver 1980; 1981, Westbrook 1980, Westbrook and Oliver 1991), the measurement of the concept has received comparably less attention (Babin and Griffin 1998) although calls for its advancement have been made at regular intervals (Hunt 1977, Peterson and Wilson 1992, Diener and Fujita 1995). Affective - Response -to -Consumption (ARC) (Ganglmair-Wooliscroft 2007, Ganglmair and Lawson 2003a, 2003b) has been developed in light of these calls for further research.

ARC builds on a stream of research acknowledging the role of emotions in consumption research and views satisfaction as one of many possible responses to an experience (Bagozzi, Gopinath, and Nyer 1999; Fournier and Mick 1999; Giese and Cote 2000, Hicks, et al. 2005, O'Shaughnessy and O'Shaughnessy 2003, Soderlund and Rosengren 2004). The concept includes a multitude of favorable/unfavorable emotional

terms covering different intensity levels. ARC extends satisfaction measurement towards a more inclusive view of post-consumption emotion measurement). The concept captures the entire continuum of unfavorable/favorable emotional responses to consumption experiences ranging from highly negative emotional responses like "terrible," to extremely positive consumption responses like "fabulous" and "overjoyed;" covering a range of nuances between these extremes. It thereby offsets the common problem of highly skewed results in conventional satisfaction measurement (Diener and Fujita 1995, Fornell et al. 1996, Peterson and Wilson 1992).

In global industries or within multinational companies, measures of satisfaction must deal with another challenge, as respondents frequently possess different cultural backgrounds. Previous research has investigated the suitability of different measurement approaches when investigating data equivalence in multi-lingual datasets using Structural Equation Modeling (e.g. Steenkamp and Baumgartner 1998) or Rasch Modeling (Ewing, Salzberger, and Sinkovics 2005; Salzberger and Sinkovics 2006). However, data equivalence is not only an issue in multi-lingual surveys but also in surveys conducted in one language, often English, with different groups of native speakers who use their own form of colloquial English as well as non-native speakers.

English native speakers from distinctive geographic regions (e.g. the U.S.A. and the UK) might use different emotional terms to express the same emotional state; or the same emotional term might be used by culturally distinct groups of English speakers to express different emotional intensities. Additionally, in survey research conducted in a multinational setting (e.g. in multinational companies or in global industries like tourism), non-native speakers are frequently asked to fill in questionnaires in English, bringing in their own culturally influenced interpretation of words expressing emotional states. This poses a psychometrical as well as a managerial challenge in post-consumption emotion research.

Usiing Rasch Modeling (Rasch 1960/80), a measurement approach that is particularly suitable when investigating equivalence between different groups in a dataset (Salzberger 2009, Salzberger and Sinkovics 2006), this study seeks to establish to what extent survey results from different English speaking groups can be meaningfully combined. It examines the equivalence of meaning and intensity of ARC's favorable/unfavorable consumption emotions for different English speakers using English language data collected from U.S. Americans, British, Indians, Northern Europeans and other European citizens.

Previously, the concept has been successfully applied when investigating experiences with an excursion train (Ganglmair and Lawson 2003a, 2003b) and cell-phone U.S.A.ge (Ganglmair-Wooliscroft 2007). Extending ARC to another context; experiences with long-haul flights, is a secondary goal of this study.

Affective -Response -to -Consumption

Affective -Response -to -Consumption (ARC) emphasizes the role of affect and emotional responses to consumption (Bagozzi, et al. 1999; Fournier and Mick 1999; Gardial, et al. 1994; Giese and Cote 2000; Hicks, et al. 2005, O'Shaughnessy and O'Shaughnessy 2003). Starting from the term *satisfaction* the concept includes emotional terms that are more or less favorable responses to an experience. ARC thereby does not consider these emotional terms as predecessors of satisfaction as advocated by an important research stream in marketing (Mano and Oliver 1993; Oliver 1997; Westbrook and Oliver 1991), but regards satisfaction as one of a large number of emotional responses to an experience. This is in line with studies that struggled to discriminate between satisfaction and other

closely related constructs (Gardial, et al. 1994; Giese and Cote 2000, Sonderlund and Rosengren 2004) which lead Bagozzi and his colleagues (1999, p.201) to conclude that ".. it is unclear whether satisfaction is phenomenologically distinct from many other positive emotions" and to question whether it is a "unique, fundamental construct in and of itself."

Usiing ARC, the emphasis shifts from one term - *satisfaction* - towards a multitude of terms, many of them highly positive. The inclusion of these terms helps to overcome the high positive skewness and limited discrimination observed in many satisfaction studies (Fornell, et al. 1996, Peterson and Wilson 1992).

Viewing satisfaction as a consumption emotion is also consistent with the psychology literature where satisfaction, although not a basic (Ortony and Turner 1990) or higher order emotion (Shaver, et al. 1987; Storm and Storm 1987), is described as an affective concept[1], very similar to pleasure, joy and happiness (Lewis, Haviland-Jones, and Barrett 2008) and is included in seminal classification studies of emotions by Shaver, et al. (1987) and Storm and Storm (1987).

In addition, the majority of psychology (and marketing) research conducted relies on questionnaires and self-reports of emotions, where it is inevitable that respondents use analytical thought which is necessary for introspection as well as for formulating the required written or verbal answer (Buck and Georgson 1997). Neuro-psychological findings further question a strict distinction between cognitive and emotional/affective constructs as they consider emotional feelings and cognitive judgments to be heavily intertwined and interdependent processes (Damasio 1994; Forgas 1995, Goleman 1996; LeDoux 1996, Pham, Cohen, Pracejus, and Hughes 2001, Slovic, Finuncane, Peters and MacGregor 2007, Zajonc 1980).

The dimensionality of emotions is another ongoing discussion in psychology (Russell and Carroll 1999) and marketing (Babin and Griffin 1998, Maddox 1981, Westbrook and Oliver 1991). While there is evidence that satisfaction and dissatisfaction or happiness and sadness are independent emotions that can be experienced simultaneously (Dube, Belanger and Tudeau 1996, Herzberg, Mausner and Synderman 1959, Maddox 1981; Swan and Combs 1976), some studies suggest that the experience of complex simultaneous emotions is the exception rather than the norm (Green, Goldman and Salovey 1993, Kahneman 1999, Russell and Carroll 1999) and that people are "either happy *or* sad a lot of the time" (Larsen, McGraw, and Cacioppo 2001, p.684, emphasis added). Russell and Carroll (1999, p.25) therefore conclude that "for theories about affective feelings, bipolarity is a reasonable assumption".

Compared to other scales used to investigate affect like the Differential Emotions Scale (DES) (Izard 1977) or Pleasure Arousal Dominance (PAD) Scale (Mehrabian and Russel 1974), ARC (Ganglmair and Lawson 2003a, Ganglmair-Wooliscroft 2007) specifically includes items relevant for investigating consumption experiences rather than the entire range of human emotions (DES) or responses to environmental stimuli (PAD) and it has more positive emotional terms.

In order to provide a full set of emotions that are experienced in a consumption situation, Richins (1997) developed the Consumption Emotion Set (CES). CES covers the entire spectrum of emotions that "serve as antecedents, consequences, or moderating variables" in a consumption context (Bagozzi, et al. 1999, p.190), including items like loneliness and guilt that emphasize the state of the individual rather than the evaluation of the consumption experience itself.

[1] While brain activities during an emotion generally remain outside consciousness, the conscious experience or awareness of emotions is frequently referred to as *emotional feeling* or *affect* (Cacioppo and Bernston 1999, LeDoux 1996)

Acknowledging the historic importance of satisfaction in marketing research, ARC builds on and extends satisfaction research by providing detailed information about the favorable/unfavorable outcome of an experience. ARC thereby shifts the focus from one, (arguably a) mildly positive term, satisfaction, towards the inclusion of many often highly favorable assessments, reducing the positive skewness frequently found in satisfaction studies (Fornell et al. 1996, Peterson and Wilson 1992).

English Language Cross-National Studies

Cross-national surveys generally include sub-samples containing respondents from different countries with nationality often taken as a not ideal, but acceptable approximation of cultural affiliation (Salzberger and Sinkovics 2006). Multi-lingual datasets have to be investigated in terms of qualitative and quantitative data equivalence in order to draw meaningful comparisons and conclusions from the results (Salzberger, Sinkovics and Schlegelmilch 1999; Singh 1995; van de Vijver and Tanzer 2004).

Since the mid-1950s, English has become a truly global language (Crystal 1999). It is spoken by more people than any other language and has been referred to as the most desirable *lingua franca* of our time (Crystal 1998; Qiong 2004). Although figures are vague, experts estimate that more than 400 million people speak it as their native language, out of which about 320 million live in the U.S.A. and 56 million in Great Britain (Qiong 2004). However, more people speak English as a foreign or second language than those speaking it as their native language (Mondiano 1999).

In the 1980s Kachru (e.g. 1985, 1986) proposed a model of three concentric circles representing the historical and political spread of the English language. The *Inner Circle* contains countries where English is the mother tongue (e.g. Australia, Ireland, New Zealand UK, and U.S.A.). Within countries of the *Inner Circle*, the English language reflects the country's history and culture and although similarities are overwhelming, differences in pronunciation, style, grammar or choice of vocabulary do exist (Ilson 1985). The *Outer Circle* refers to countries that were typically British or U.S. colonies and retained English as a second, institutionalized or official language (e.g. India, Kenya, Singapore). Finally, the *Extended Circle* consists of countries where English is spoken as a foreign language (Bruthiaux 2003, Kachru 1985, Qiong 2004). The distinction between *Outer* and *Extended Circle* is sometimes seen as problematic (Bruthiaux 2003, Lowenberg 2002); e.g. in Scandinavia, according to Kachru's original model a country of the *Extended Circle,* English is spoken fluently by a large portion of the population. Some researchers are therefore suggesting tha these countries be classified as between the *Outer* and *Extended Circle* (Bruthiaux 2003; Qiong 2004).

Kachru's (1985) model was also criticized for relying too much on historical, political and geographical boundaries (Bruthiaux 2003; Lowenberg 2002). However, in the opinion of many it is still a reasonable starting point for investigating the spread of the English language (Bruthiaux 2003, Mondiano 1999) as it emphasizes the broad cultural background of English speakers all over the world (Kirkpatrick 2007).

Survey research in global industries or within multinational companies frequently encounters respondents that are a mix of native and non-native English speakers. Many of these customers are happy to fill in a questionnaire in English, although their cultural and/or linguistic background is very different as they might belong to any of Kachru's (1985) circles. It is important for academics, interested in advancing the quality of global satisfaction measures, and for practitioners, who might use results from

these surveys as benchmarks or as dependent variables in subsequent model building, to establish whether for example U.S. Americans and Europeans, for whom English is a second language, describe the same underlying emotional intensity when they claim to be *happy*, *delighted* or *dissatisfied*.

The main aim of this study is to investigate to what extent combining English survey responses, gained from diverse nationalities with different English language backgrounds, provide psychometrically sound and managerially useful results. A pre-requisite of the main aim of this study, and a secondary goal, is the extension of ARC towards a new context: investigating experiences on long-haul flights. Testing ARC in another setting represents a step in working towards developing a generalizable base of ARC items that are applicable in many different contexts.

METHODOLOGY

Satisfied passengers are considered a key competitive advantage in the tourism industry and many airlines assess the concept on a regular basis (Chen, 2008; Oyewole 2001). Due to the characteristics of this industry, a multi-national customer mix is frequently found. The current study is based on 578 questionnaires collected by a European airline on long-haul flights between Europe and the United States and Europe and India.

This particular airline collects questionnaires on approximately ten pre-determined seats per aircraft to allow an efficient and non-interruptive collection process of the questionnaires. In the current sample, this resulted in 317 responses from U.S. citizens and 261 questionnaires collected from other nationalities, a sample split that, according to the airline, is typical of the proportion of passenger responses generally received on their English surveys.

The U.S.A.. is part of Kachru's (1985) *Inner Circle*, but due to the size of the group, U.S. citizens were retained as a separate group. Amongst non-U.S. citizens, 22 respondents come from the United Kingdom, Australia, and New Zealand, countries of Kachru's (1985) *Inner Circle*, and 87 respondents come from India, a country of the *Outer Circle* and the third largest English speaking nation after the U.S. and the UK (Kachru 1986). Thirty questionnaires were filled in by Scandinavians, classified between the *Outer* and *Extended Circle* in order to acknowledge their high English proficiency (Bruthiaux 2003). The remaining 122 passengers, labeled *Combined English Speakers*, are citizens of an array of mostly European countries with various linguistic and cultural backgrounds, representing a very heterogeneous customer group.

For this study the original ARC items, previously applied to an excursion train (Ganglmair and Lawson 2003a, 2003b) and adapted to investigate ARC with cell-phones (Ganglmair-Wooliscroft 2007), were further modified and refined to suit the current investigation of ARC with long-haul flights. In order to acknowledge the different linguistic backgrounds of airline passengers, three experts were called upon (Rossiter 2002), including a U.S. native speaker and two Europeans who have lived in a country of the *Inner Circle* for several years and have an interest in emotion research. In a collaborative, iterative process (Douglas and Craig 2007), the team went over the original ARC item list and evaluated the suitability of items when investigating passengers' emotional responses about a long-haul flight. Although it is acknowledged that the final ARC list includes some terms (e.g. *over the moon*) that might not be commonly used in particular English speaking regions, the experts agreed that a majority of people would still understand the general meaning of those items. Rasch Modeling, the statistical process used to investigate the equivalence of items across different English speakers in this study, is also able to detect if the meaning of an item is inconsistent between groups of English speakers. The statistical technique will be discussed in the following paragraphs.

Table 1 shows the ARC question and the 26 dichotomous emotional terms that are included in the scale for long-haul flights. The 17 positive and 9 negative emotional terms were presented to passengers in randomized order.

ARC for long-haul flights was investigated using Rasch Modeling (Rasch 1960/80) an alternative measurement approach that has been used extensively in several social science disciplines, particularly education and psychology (Bond and Fox 2007) but has only gained recent attention in marketing (Ewing, et al. 2005; Salzberger 2009; Salzberger and Sinkovics 2006; Singh 2004; Soutar and Cornish-Ward 1997). The Rasch Model is a mathematically elegant model that is believed to represent an ideal form of measurement (Bond and Fox 2007; Fischer and Molenaar 1995; Linacre 1992; Rost 2001).

TABLE 1

Items Included in ARC on Long –Haul Flights

How do you feel about this flight? Please consider every word and tick all those that describe your feelings about this flight.			
average	dreadful	great	over the moon
contented	ecstatic	happy	pleased
delighted	euphoric	horrible	satisfied
disappointed	excellent	in seventh heaven	superb
discontented	fabuloU.S.	magnificent	terrible
displeased	fantastic	overjoyed	unhappy
dissatisfied	good		

Note: Items are presented to each respondent in randomized order.

Rasch Modeling has been referred to as a probabilistic alternative to the deterministic Guttman Scaling (Wright 1997) and belongs to the family of logit models. The Rasch Measurement Model provides a mathematical model for measurement, as follows:

$$P_{ni}(x_{ni}=1)=\frac{e^{\beta_n-\delta_i}}{\left(1+e^{\beta_n-\delta_i}\right)}$$

In the original binary Rasch Model depicted here, the probability of a positive response (agreeing to an item, in comparison with disagreeing) depends on the endorsability of that item, referred to as item characteristic and represented by the item location parameter δ_i, and the person characteristic, operationalized by the person parameter β_n (Andrich 1988; Bond and Fox 2007; Wright and Stone 2004).

The model is theory centered and derived a-priori to define measurement (Wright 1992). Empirical data will always diverge from this ideal form to a certain degree (Salzberger, et al. 1999; Wright 1997) and researchers are encouraged to learn from ill-fitting data (Wright 1997) and work

towards a better fit of the data to this ideal mathematical measurement model (Bond and Fox 2007; Linacre 1999).

In other words, and contrary to Classical Test Theory where additional parameters can be added so a model explains the data better, by applying the Rasch Model, a theoretically driven measurement approach is taken where the model is considered an ideal form of measurement and the characteristic and quality of the data need to be examined in order to determine if measurement is actually achieved. If the Rasch Model does not provide satisfactory results, it is the researcher's task to investigate the quality of the data, rather than to adapt the model to better suit the current purpose.

When investigating the fit of the data to the Rasch Model, several fit statistics and visual displays need to be investigated. Contrary to approaches based in Classical Test Theory that refer to aggregate statistics like variances, co-variances and means, the Rasch Model emphasizes the fit of individual items (Salzberger and Sinkovics 2006) examined using Chi-square tests that compare the actual scores based on proportions in a certain number of groups to the expected scores based on probabilities (*a non-significant result is preferable*) (Andrich, Sheridan, and Lou 2003a). In addition, as these tests uncover any divergence from the model, a special fit residual is provided, revealing items that systematically under- or over-discriminate when compared to the theoretical model (*fit residuals smaller than ± 2.5 are acceptable*) (Andrich, et al. 2003a; Salzberger 2009)).

An overall fit statistic is provided by summing the result of individual Chi-square statistics over all items (Andrich, et al. 2003a). Additionally, a Person-Separation-Index, interpreted similarly to classical reliability statistics (Salzberger 2009), and an overall Power-of-Test-of-Fit (Andrich et al. 2003a) is provided. The software program, RUMM2020 (Andrich et al. 2003b), further offers a number of graphical displays to visually inspect the fit of the data to the model.

When dealing with a broad concept like ARC, Rasch Modeling provides advantages over conventional approaches based in Classical Test Theory as the model works best when items differ in intensity and are spread over the dimension under investigation (Embretson and Reise 1999, Singh 2004). As ARC sets out to capture the entire favorable–unfavorable evaluation of an experience, we are of the opinion that Rasch Modeling is particularly suitable.

Additionally, the model can be applied to all possible scale formats and deals readily with dichotomous data. The use of dichotomous (yes/no) answer categories is considered beneficial as it reduces the impact of culturally and/or linguistically influenced interpretation of answer categories and reduces the cognitive demand on respondents, particularly with groups of respondents in this study having different English language proficiency.

Salzberger and his colleagues provide extensive investigations of the Rasch Model and other, more conventional approaches based in Classical Test Theory (CTT) most notably Steenkamp and Baumgartner's (1998) Multi-Group Confirmatory Factor Analysis (MG-CFA) approach when dealing with cross-national/cultural datasets. They come to the conclusion that the Rasch Model is particularly useful and convenient when investigating data equivalence in cross-cultural research (Ewing, et al. 2005, Salzberger and Sinkovics 2006, Salzberger 2009).

The most important aspect of the Rasch Model is *Specific Objectivity* (Rasch 1977). It says that if the data fits the model, item parameters and person parameter are independent from one another (Fischer and Molenaar 1995) and that the model has to be "invariant against all possible groupings of respondents" (Salzberger and Sinkovics 2006, p.395). *Specific Objectivity* explains why the Rasch Model is particularly useful and efficient when investigating cross-cultural

datasets: *Testing whether items are interpreted in the same way by different groups within the dataset, e.g. airline passengers with different English-speaking backgrounds, and therefore testing whether the model is invariant for different national/cultural groupings in the dataset is merely a special case for testing if the data fits the model* (Salzberger and Sinkovics 2006).

Non-invariance is indicated by Differential Item Functioning (DIF). DIF is found if an item has different meaning and therefore takes a different position for respondents from different groups, or when an item does not fit the model at all for one or more groups in the dataset. DIF is tested using a two-way ANOVA (Andrich, et al. 2003a, 2003b) and can also be investigated visually. If an item functions differently for groups in the data set (DIF occurs), the item is split and investigated separately for each respective sub-group, a feature conveniently enabled in the software program (Andrich, Sheridan, and Lou 2003b). This investigation will show whether the item is used inconsistently between sub-groups, but consistently within the group, in which case the item is split and retained as a separate item for each group. If it is used inconsistently within the group, the item is eliminated for the respective sub-group in the dataset. If an item is not used consistently within any sub-group, it is removed completely from further analysis.

The following analysis section is split into two parts. In the first part, the psychometric properties of ARC are examined and the concept's general suitability when measuring emotional responses in the context of long-haul flights is confirmed. Having established the suitability of ARC to measure subjects' experiences with long-haul flights, the second part will explore the perceived meaning and intensity of favorable/unfavorable ARC consumption emotions for different English speakers.

Investigation of Psychometric Properties of ARC in the Context of Long-Haul Flights

For the analysis, all 578 cases were entered into the Rasch Modeling software RUMM2020 (Andrich, et al. 2003b). A Rasch Analysis consists of an iterative process where at each step the individual items are investigated using fit statistics and graphics provided and the overall fit statistics are examined. Taking all fit indices as well as visual displays into account, items that do not fit the model to a satisfactory extent are removed one at a time.

When all 578 cases were included in the analysis, initial Rasch Model results were poor with individual item and summary statistics showing unacceptable results. As required by the Rasch Model and discussed above, the quality and suitability of the data to measure ARC had to be further investigated. DIF analysis suggested that the inadequate results were driven by the *Combined English Speakers,* a highly heterogeneous sub-group representing Kachru's (1985) *Extended Circle.* The group consists of respondents from a variety of European countries who speak English as a second language. As expected, these respondents incorporate their various culturally influenced interpretations of emotional terms included in ARC, leading to inconsistent results within that group. This subgroup of 122 respondents was subsequently removed from further analysis (see discussion in the next section).

The reduced dataset fit the Rasch Model much better. During the following iterative process investigating the fit of individual items to the Rasch Model, a number of ARC items were highlighted that did not fit to a satisfactory extent. Each item was investigated following the process outlined above examining overall numerical and graphical fit indicators provided by the software program and checking for DIF. If DIF occurred the item was split and re-investigated. Only after the described process suggested that the item was used

inconsistently within all subgroups it was removed from further analysis.

This led to the elimination of *good, satisfied, contented, excellent, fantastic, disappointed, discontented* and *dissatisfied.* All remaining items fit the Rasch Model to a satisfactory extent, showing fit residuals within ±2.5 and non-significant Chi-square probabilities after Bonferroni adjustment (Andrich, et al. 2003a). At the end of this process, every item was also checked for item bias (Differential Item Functioning) between different English speaking groups (Salzberger 2009, Salzberger and Sinkovics 2006) with *happy* showing some Differential Item Functioning (DIF) between groups and the item was split into two groups for U.S. versus other English speakers (to be discussed in detail in the next section).

The final ARC scale for long-haul flights, with all fit statistics at an acceptable level (Andrich, et al. 2003a), shows results largely consistent with previous applications of ARC evaluating the unfavorability/favorability of an experience with an excursion train (Ganglmair and Lawson 2003a, 2003b) or with a cell-phone (Ganglmair-Wooliscroft 2007). **Table 2** shows the overall fit statistics of the ARC Scale for long-haul flights for respondents with different English backgrounds. The overall Chi square value is not significant, which is preferred, and the overall Test of Fit based on the Person Separation Index is *Good* (categories range from *Too Low/Low/Reasonable/Good* to *Excellent*).

Table 2

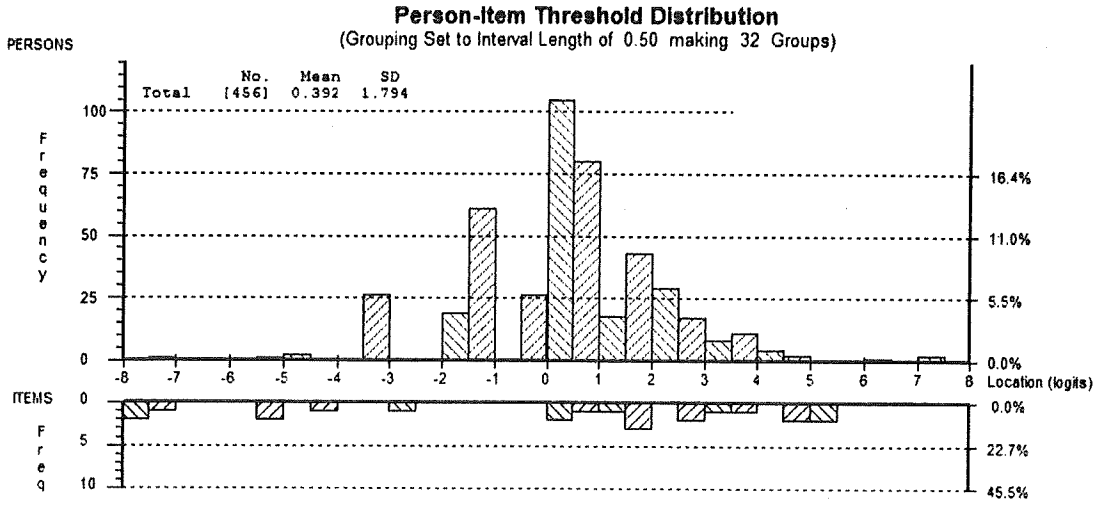
Summary Statistics for ARC Long-haul Flight

Item Trait Interaction		Reliability Indices	
Total Item Chi Square	183.9	Separation Index	0.69
Total Deg of Freedom	166	Power of Test-of-Fit	GOOD
Total Chi Square Prob.	0.16		

The order of items, and implied intensity of emotional terms included in ARC, also agrees with previous applications of the concept (Ganglmair and Lawson 2003a, Ganglmair-Wooliscroft 2007). **Figure 1** shows the distribution of items (bottom half of the graph) and the distribution of persons (top half of the graph) on the ARC continuum for long-haul flights. As can be seen, items spread across the entire ARC dimension and respondents are normally distributed along the continuum. ARC therefore provides more detailed information about consumers' evaluations of long-haul flights and stronger discrimination among respondents than traditional satisfaction scales that are frequently heavily skewed (Peterson and Wilson 1992). A discussion of specific items in the ARC continuum follows.

The statistics confirm the applicability of ARC when investigating experiences with long-haul flights and indicate that the items fit the theoretical Rasch Model well. The following section will examine the interpretation and meaning of ARC items for different English speaking groups in greater detail.

Figure 1
Item/Person Location for ARC with Long-haul Flights



PERCEIVED INTENSITY OF FAVORABLE/UNFAVORABLE ARC ITEMS FOR CONSUMERS WITH DIFFERENT ENGLISH LANGUAGE SKILLS

As discussed, the dataset contained five groups of English speaking respondents who differ regarding their geographical origin and their level of English proficiency: a group of respondents from the U.S.A. (part of Kachru's *Inner Circle*); respondents from other countries with English as their first language (UK, Australia and New Zealand – also part of Kachru's *Inner Circle*); respondents from India, a country where English is considered an official second language (Kachru's *Outer Cirlce*); respondents from Scandinavia, countries who are well known for their high English proficiency (placed in between *Outer* and *Extended Circle* (Bruthiaux 2003, Lowenberg 2002) and other respondents of various nationalities (Kachru's *Extended Circle*) who were nevertheless prepared to fill in a questionnaire in English, called *Combined English Speakers*.

The fifth group of *Combined English Speakers* consisted of mainly European respondents (e.g. Albanians, Lithuanians, and Spanish) with no more than seven respondents from each country, making additional groupings impossible due to insufficient sizes for analysis. Airline passengers from these countries were happy to fill in a questionnaire in English but interpreted the emotional terms included in the ARC scale inconsistently and ascribed different meaning to the emotional items included. As a consequence, English speakers from countries in the *Extended Circle* – where English is truly a foreign language – cannot be included in the same analysis with other English speaking groups and had to be removed from the following analysis[2]. Exploring emotional experiences on a detailed level therefore provides a challenge for quantitative survey research on long-haul flights that will need further investigation.

[2] As previously discussed, the Rasch Model provides an ideal form of measurement. If data does not fit the model, it is the quality of the data that has to be questioned – in this case the inconsistent interpretation of the meaning of an emotional term – rather than the model that needs to be adjusted by adding another parameter, etc.

After deletion of that sub-group, the remaining analysis consisted of U.S. citizens, the group of the *Inner Circle* (UK, Australia, and New Zealand), *Outer Circle* (India) and Scandinavia – countries situated between the *Outer* and *Extended Circle*. **Table 3** shows the item location for the final ARC (long-haul flights) for different English speaking groups. The location is measured in logits and can be interpreted as an interval scale (Peck 2000, Soutar and Cornish-Ward 1997).

Items representing the feelings attached to a most negative experience are *terrible, horrible* and *dreadful*, followed by *unhappy, displeased, disappointed* and *average*, with the last term still indicating anegative evaluation of the experience. This evaluation is followed by *happy* in its variations (to be discussed in more detail in the following section), *pleased, great* and *delighted.* This weaker positive area of the ARC continuum contains terms that generally form the most positive emotional states incorporated in traditional satisfaction measurement (Oliver 1997) including items included in the frequently used Delighted–Terrible Scale (Westbrook 1980, Westbrook and Oliver 1991, Danaher and Haddrell 1996). Additionally, ARC provides the opportunity for respondents to express truly outstanding experiences, described by feelings such as *superb, fabulous., overjoyed* or *euphoric.*

Table 3
Item Location for Different English-Speaking Groups: ARC with Long-Haul Flights

Item	Location
Horrible	-7.79
Terrible	-7.79
Dreadful	-7.08
Unhappy	-5.34
Displeased	-5.31
Disappointed	-4.44
Average	-2.98
Happy: India *(Outer Circle)*	**0.20**
Pleased	0.50
Happy: UK, Australia, New Zealand *(Inner Circle)*	**0.79**
Happy: U.S.A.	**1.25**
Happy *Scandinavia (between Outer & Extended Circle)*	**1.67**
Delighted	1.68
Great	1.71
Superb	2.56
FabuloU.S.	2.84
Magnificent	3.42
Overjoyed	3.97
In 7th heaven	4.75
Ecstatic	4.90
Over the moon	5.14
Euphoric	5.36

As has been found in previous applications (Ganglmair-Wooliscroft 2007, Ganglmair and Lawson 2003a), items like *satisfied, good,* or *contented* do not fit the Rasch Model leading to an item-gap at the weakly positive area of ARC. This is probably due to respondents unsystematically using items like *satisfied* interpreting it as either positive – 'I am at least satisfied' – or mildly negative – 'I am just satisfied'. Further study will be required to explain this phenomenon.

During the scale development process, every item was checked for DIF between different English speaking groups as suggested by Salzberger (2009) and Salzberger and Sinkovics (2006). The uneven group size between U.S. citizens and other English speakers has thereby been taken into account when interpreting results with a conservative interpretation of the Two-Way Anova and an emphasis on the graphical display provided by the software (Andrich, et al. 2003b).

The term *happy* showed some DIF between the included English speaking groups – indicating that the term is assigned different emotional intensity depending on the geographic and cultural background of the linguistic group. *Happy* was therefore first split into two groups: U.S. Americans and other English speakers. This resulted in *happy* fitting well for the U.S. sample, but not well for the remaining respondents as can be seen in **Figure 2 and 3** with the group means following the Item Characteristic Curve (ICC) closely for the U.S. sample (Figure 2) while they diverge considerably from the ideal curve in **Figure 3**. An ICC curve represents the ideal position of an item determined by the Rasch Model; group means are represented by dots.

When the item was split further to account for *Inner, Outer,* and *Extended Circle* the item-fit was improved considerably with all fit statistics within acceptable limits. The term *happy* is therefore interpreted substantially different between English speaking groups, while its assigned meaning is consistent within these groups. Respondents from India interpret it as the least positive emotional evaluation of an experience, followed by respondents from the U.S.A. who interpret the term *happy* slightly more favorable than UK, Australian and New Zealand citizens. Scandinavians ascribe the most positive emotional intensity to the term *happy.*

Figure 2
***U.S.* sample: ICC and Observed Group Means for Happy**

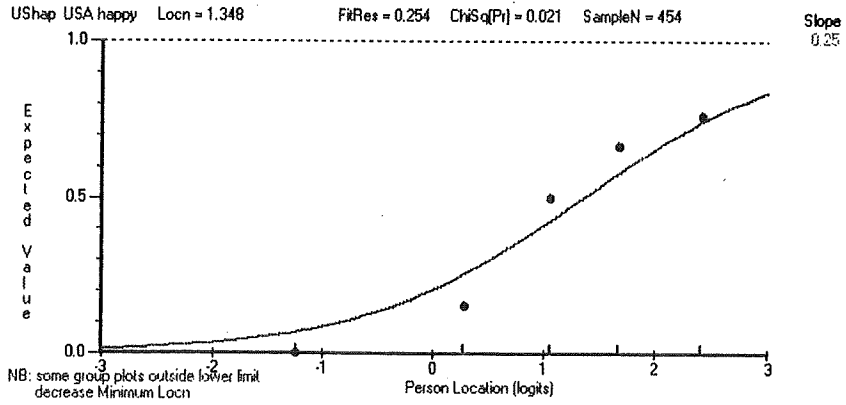
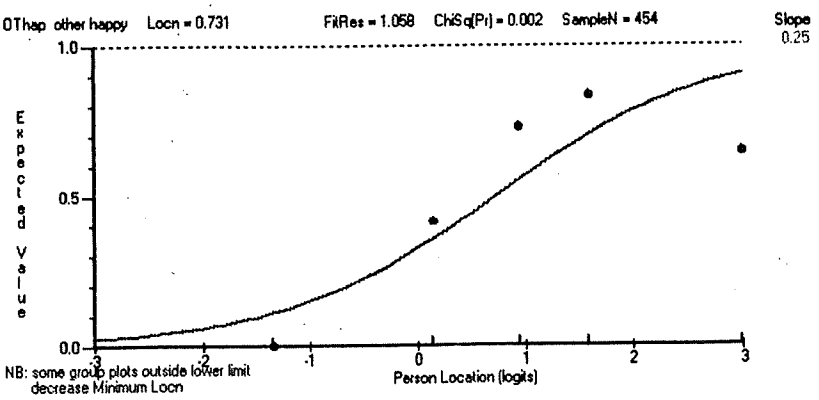


Figure 3

***Other English Speakers* sample: ICC and Observed Group Means for Happy**



All other emotional terms included in the ARC scale for long-haul flights are used consistently within and between the investigated English speaking groups, showing that the terms carry the same meaning and emotional intensity.

DISCUSSION AND CONCLUSION

This study investigated to what extent English survey responses completed by diverse nationalities with different English language backgrounds provide psychometrically sound and managerially useful results and, as a pre-requisite of that main aim, to examine whether Affective Response to Consumption (ARC) can be applied in the context of measuring experiences with long-haul flights.

ARC extends global satisfaction measures by including a range of emotional terms that can be used to describe an experience. The high number of positive and highly positive emotional terms reduces the skewed answer pattern frequently found in traditional satisfaction measures. The airline traditionally includes an overall satisfaction question in its questionnaires asking respondents to indicate their agreement to *Overall I feel at ease on this flight today* on a 5-point scale. Compared to that traditional question, ARC provides substantially less skewed results (skewness ARC: -0.23; Overall I feel at ease: 1.17). Previous studies, applying ARC when investigating experiences with an excursion train (Ganglmair and Lawson 2003) and with cell-phones (Ganglmair-Wooliscroft 2007) included the Delighted-Terrible Scale (Andrews and Withey 1976) and came to very similar results. Based on this series of findings, we believe that ARC provides a psychometrically superior alternative to traditional overall satisfaction measures.

Extending ARC to investigate experiences with long-haul flights confirms the applicability and suitability of the outlined scale development process to measure Affective Response to Consumption in different industries. It is expected that after further extension of ARC to measure favorable/unfavorable consumption experiences in a variety of other industries, a set of items will emerge that builds the transferable base for measurement of the ARC concept, while the outlined scale development process enables the addition of industry specific items providing context specific richness and detail.

To arrive at a psychometrically sound ARC scale capturing experiences with long haul flights, the terms *good, satisfied, contented, excellent, fantastic, disappointed,*

discontented and *dissatisfied* had to be removed as they did not fit the Rasch Model to an acceptable extent. The elimination of weakly positive items like *good* and *satisfied* has also been seen in a previous application of ARC with excursion trains (Ganglmair and Lawson, 2003b). The Rasch Model highlights that these items are used inconsistently across and within groups. As is common in quantitative approaches, while it is possible to detect that items do not perform as expected, it is not possible to conclude why. It is speculated that people might variously consider these items as mildly positive ('at least satisfied') or mildly negative ('just satisfied') but further qualitative analysis has to be carried out to establish less tentative explanations. The elimination of the term *satisfied* in ARC applications is in line with previous research that questions the extraordinary role of satisfaction in marketing as customers generally do not use the term to describe an experience (Fournier and Mick 1999; Giese and Cote 2000).

A reviewer pointed out that the eliminated items *contented, satisfied, discontented* and *dissatisfied* might be an indication of satisfaction being an empirically different construct from ARC. Indicators regarding residual statistics provided by the Rasch software do not support this conclusion. Additionally, neither a separate Rasch Analysis carried out on the eliminated items, nor the inclusion of various super-items (consisting of combinations of *contented, satisfied, discontented,* and *dissatisfied*) provided acceptable results. Additional research will have to investigate if satisfaction and ARC are indeed empirically separate dimensions.

The main aim of this study is to investigate to what extent survey results from different English speaking groups provide psychometrically sound and subsequently managerially useful results. Overall, this study shows that exploring potential differences in answer behavior of sub-groups is important when English surveys are filled in by respondents with different cultural backgrounds. The results suggest that native English speakers or respondents from countries that have an established, strong relationship with the English language (e.g. Northern Europe) use emotional terms associated with the favorability/ unfavorability of an experience consistently.

However, respondents from Kachru's (1985) Extended Circle, who have very different cultural and linguistic backgrounds, prescribe inconsistent meaning to emotional terms included in ARC. This unpredictable interpretation and assignment of different emotional intensity to individual words provides a challenge for quantitative survey research in an international context. Even if respondents are happy to fill in a questionnaire in their second-language, the results may not be comparable with native English speakers' responses.

The results suggest that the inclusion of non-native English speakers in survey results should be treated with caution and other options might have to be considered. For example, if a majority of non-native English speakers share another common native language (e.g. Spanish) a translated version of the questionnaire could be tested. If respondents speak a variety of native languages, it might be necessary to revert to simple questions or alternative answer formats. However, any alternative approach has to establish whether equivalence of responses is achieved before combined results provide psychometrically and managerially useful information.

When sub-groups of English native speakers or groups from countries with strong cultural ties to the English language are compared, the interpretation of emotional terms included in ARC is very similar. Crystal (1999) suggests that English native speakers adjust the local version of their language when acting in an international context, which seems to be the case here. *Happy* is the only term included in the ARC

continuum that signifies different emotional intensity depending on membership in these English speaking groups with Indian respondents more readily describing an experience as *happy* followed by the three groups; the *Inner Circle* (UK, Australia, and New Zealand), U.S. Americans and Scandinavians. The observed difference in intensity assigned to *happy* in various language areas is a reflection of cultural influences on language and appears to fit the stereotypical characteristics of these groups of people. Indians, for example, often pictured as vibrant, outgoing and joyful, interpret happy as an emotional state of relatively less positive intensity and Indians would describe feelings they gain from an experience relatively more easily as *happy*.

Respondents from the U.S.A. generally interpret the term *happy* as slightly more positive than respondents from other countries within Kachru's (1985) *Inner Circle.* This result might be somewhat surprising given the stereotypical characteristic of the reserved British, who make up the majority of this group. However, the generally similar meaning *happy* has in the U.S. and other countries within the *Inner Circle* reflects the historical connection between these countries but also the strong ties in music, film and other areas of popular culture. Scandinavians are frequently described as reserved and not showing emotions easily, a result that is also reflected in the ARC scale, where they assign the strongest positive emotional meaning to the word *happy*.

Once the different interpretations of *happy* is taken into account, native speakers and respondents from countries with strong links to the English language can be meaningfully combined. When the position of a respondent from the U.S.A. and an Indian citizen on the ARC scale reflects the same level of emotional state experienced, in spite of their identical inherent emotional state, compared to the Indian respondent, the American respondent will find it harder to endorse the item *happy.* Further research can therefore use these ARC results to investigate different antecedents or consequences of ARC.

The Rasch Model (Rasch 1960/80) has been shown to provide an effective and efficient method for examining data equivalency between English speaking groups. The model conveniently enables the comparison of subgroups that might present different or inconsistent answer patterns. Marketing academics and managers use global satisfaction measures such as ARC as benchmarks or as dependent variables in models explaining antecedents of the construct or subsequent behavior. Being aware of potential inconsistencies in groups' answer behaviors is essential to ensure the quality of measurement instruments in cross-national satisfaction and post-consumption emotion studies.

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Acknowledgements: The authors would like to thank the editor and three anonymous reviewers for their helpful and constructive suggestions. A special thank-you goes to Walter Feldkircher at Austrian Airlines for supporting this research and collecting the data.

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