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# Do the Key Mediating Variables of Overall Satisfaction, Trust and Commitment Affect Low and High Relational Customers' Future Intentions in Virtual Auctions?

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## ABSTRACT

This paper develops a pair of research models and related hypotheses to address the question "Do the key mediating variables of overall satisfaction, trust and commitment affect low and high relational customers' buying behaviors in virtual auctions?" The paper also includes a research method to test these models and hypotheses. The research springboards off Garbarino and Johnson's (1999) work on the roles of satisfaction, trust and commitment; and Morgan and Hunt's (1994) commitment-trust research on relationship marketing.

## MOTIVATION

"Trust is like the air we breathe, when it's present, nobody really notices. But when it is absent, everybody notices." (Warren Buffet, qtd. in Sandlund, 2001)

The creation of virtual auctions has ignited new competition, which accelerates buyer and seller transactions. Moreover, businesses are examining a variety of methods to develop or improve their consumer relationships to gain competitive advantages. "Gaining competitive advantage does not require a radically new approach to business; it requires building on the proven principles of effective strategy" (Porter, 2001, p. 63). Relationship marketing that leverages technology could be a viable competitive advantage strategy because relationship marketing values consumers as partners. (Morgan and Hunt, 1994) Relationship marketing harbors consumer satisfaction, trust and commitment, which maintain a consumer relationship over an extended time period contributes to businesses economically. The issue is to find strategies to increase repeat virtual purchases to offset the hyper-competition. Competition empowers the participants to switch or click easily between desirable products and prices. Effective e-commerce strategies build upon a satisfied consumer foundation that translates into committed, trusted and profitable long-term relationships. Successful relationships involve a partnership with mutual commitment. The link between satisfaction, trust and commitment via customer relational nature in virtual auctions should provide a better understanding of the participants' perspective of the virtual marketplace.

## Electronic Commerce

Though "e" is representative of the first word electronic in the term e-commerce, it is the second word, commerce, which proves more valuable. This is not intended to undervalue the powerful technology

behind the Internet; rather technology is the marketplace background, not the backbone of e-commerce, business activity fills that role. The central issue challenging business is the comprehension and utilization of the electronic world. (MacGraw, 1999) A firm's innovativeness is fundamental to remain competitive in the marketplace. (Hosmer, 1996) Technology is escalating at a blurred speed, which requires businesses to take advantage of the latest innovations that utilize technology to gain a sustainable competitive advantage. The electronic exchange platforms are dependant on communication via the computer. This business first — technology second mentality should align business acumen and technology with a sustainable competitive advantage. The goal of virtual auctions may be to build lasting relationships, which ultimately supply a revenue stream, curtail costs and accelerate transactions. The e-commerce business revolution requires new business strategies, models, methods of connecting and interacting with customers. This paper's models are a reaction to the recognized business revolution.

## DEFINITION OF TERMS

In developing this research, there are some key terms that need definition. Relationship marketing can be defined as "attracting, maintaining and—in multi-service firms—building customer relationships" (Morgan and Hunt, 1994, p. 28). Remaining a consumer rewards the consumer; the reward is of sufficient value to the consumer that a relationship is established. Social Exchange according to Cook (1978) is an exchange network that includes a set of actors, a distribution of valued resources among those actors and for each actor a set of exchange opportunities with other actors in the network, a set of historically developed and utilized exchange opportunities called exchange relations, and a set of network connections linking exchange relations into a single network structure (p. 722). Additional terms include commitment, which is "an implicit or explicit pledge of relational continuity between exchange partners" (Dwyer, Schurr and Oh, 1987 p. 19). Trust according to Morgan and Hunt (1994) exists "when one party has confidence in an exchange partner's reliability and integrity" (p. 23).

Satisfaction is the result of one party meeting or exceeding another party's expectations. The initial Web Motivation Inventory (WMI) designed by Rogers and Sheldon (1998) identified four primary factors of web usage through factor analysis. The motives were researching, shopping, socializing and surfing. However, their findings did not explain online behavior in conjunction with situational factors. "Such

an understanding should only sharpen our ability to make predictions about internet-related attitudes and behaviors” (Rogers and Sheldon, 1998, p. 94). The parts that create this study’s overall satisfaction are: participant satisfaction, first choice of recognizable sellers, transaction satisfaction, and website appearance satisfaction. These exogenous antecedents are described below formally.

- Participant satisfaction (Garbarino and Johnson, 1999): Satisfaction research has identified participant performance to be a key attitudinal antecedent on future behaviors. The participants in this study are the virtual low and high relational consumers. The study focuses on their satisfactory perceptions after the completion of a transaction. (Garbarino and Johnson, 1999)
- First choice of recognizable sellers (Garbarino and Johnson, 1999): Personal interaction is hindered by the very essence of the term virtual environment. Usually, this virtual transaction activity does not have the exchange participants meeting in the physical world. Moreover, this interpersonal component reflects the buyer’s inclination to search for a specific proven reliable seller. The buyer has associated or developed positive sentiment from historic relations, which in turn has created a familiarity between the transaction participants. This process is a kin to a diner patron that prefers a specific waiter or waitress to provide the meals that he/she orders, only the patron has not seen his/her service provider. In this study, the author analyzes recognizable first choice because customer centric businesses aim to be recognizable and the first choice provider.
- Transaction satisfaction (Garbarino and Johnson, 1999): The core service of any exchange is the transaction task itself. The functionality of the exchange is essential for a successful transaction. The transferring of goods from one party to another is the physical task that drives this satisfaction component. Thus, it is important to gauge the website functionality experience.
- Website appearance satisfaction: Bitner’s (1990) suggestion that the physical settings can influence the satisfaction level of the consumer is a catalyst for this antecedent. This study utilizes her premise by inquiring about the physical appearance of the virtual facility. In this study the facility is identified as a Website. A Website “is not a simulation of a real world environment, but an alternative to real world environments, where consumers may experience...the perception of being present...” (Hoffman and Novak, 1996, p. 43).

Low relational customers focus on “product features with low service emphasis, and involves moderate customer contact and limited customer commitment” (Coviello and Roderick, 2001, p. 384). High relational customers “emphasize product benefits with high service, customer contact, and customer commitment” (Coviello and Roderick, 2001, p. 384). Low and high relational customers will be examined in virtual auctions.

Zeithaml, Berry and Parasuraman (1996) posited that future intentions are indicative of certain behaviors “that customers are forging bonds with a company. When customers praise the firm, express preference for the company over others, increase the volume of their purchases, or agreeably pay a price premium, they are indicating behaviorally that they are bonding with the company” (p. 34). This study’s constructs will help inform businesses about their connections with Internet consumers and the profitability of these virtual relationships.

## MEASUREMENT

Previous research suggested that the customers’ participant satisfaction, familiarity with the seller satisfaction, transactional satisfaction and physical surroundings influence overall satisfaction of the customer (MacNeil, 1980; Dwyer *et al.*, 1987; Bitner, 1990; Kotler, 1992; Morgan and Hunt, 1994; Garbarino and Johnson, 1999; and Hoffman *et al.*, 1996), as previously discussed, lead to the first three proposed hypotheses.

**H1:** For all customers groups, there are positive relationships between the antecedents (participant satisfaction, first choice of recogniz-

able sellers, transaction satisfaction and website appearance satisfaction) and overall satisfaction.

**H2:** For customers with high relational nature, there are positive relationships between the antecedents (participant satisfaction, first choice of recognizable sellers, transaction satisfaction and website appearance satisfaction) and trust in the seller’s ability to complete the electronic transaction.

**H3:** For customers with high relational nature, there are positive relationships between the antecedents (participant satisfaction, first choice of recognizable sellers, transaction satisfaction and website appearance satisfaction) and commitment to the seller.

The next step in the development of the model is to examine how the K MVs bond the parties “in such a way to encourage their continued investment in the relation” (Dwyer *et al.*, 1987, p. 19). The continued relational investment evolves over the duration of time that consists of the shared belief that future exchanges will be effective as the previous successful exchanges. (MacNeil, 1980) Contrarily, if the parties do not share that commonality then the parties do not trust each other, which rarely produce mutual benefits. (Cullen *et al.*, 2000) This unequal social exchange leads the parties to possess non-committal attitudes toward each other hence; the technology behind electronic commerce is inhibited greatly. Like Morgan and Hunt (1994), this study posits “that trust decreases a partner’s decision making uncertainty because the trusting partner has confidence that the trustworthy party can be relied on” (p. 30). Formally stated, the hypotheses are based upon Garbarino and Johnson’s (1999) research with recognition to their predecessors: MacNeil, 1980; Dwyer *et al.*, 1987; Bitner, 1990; Kotler, 1992; Morgan and Hunt, 1994; and Hoffman *et al.*, 1996, 1997 and 1998.

**H4:** For customers with high relational nature, commitment to the seller is related positively to trust in the seller.

**H5:** For customers with high relational nature, trust in the seller intercedes with the relationships between the other K MVs and future consumer intentions.

**H6:** For customers with high relational nature, commitment in the seller intercedes with the relationships between the other K MVs and future consumer intentions.

**H7:** For customers with low relational nature, overall satisfaction intercedes the relationship between the other K MVs and future consumer intentions.

**H8:** For customers with low relational nature, there is a positive relationship between overall satisfaction and trust in the seller.

**H9:** For customers with low relational nature, there is a positive relationship between overall satisfaction and commitment in the seller.

The literature cited suggests a pair of research models (shown below in figure 1 and 2) and a related set of hypotheses. Both models include a set of four antecedents: participant satisfaction, first choice of recognizable seller satisfaction, transaction satisfaction and website appearance satisfaction. These antecedents are related to the K MVs of satisfaction, trust, and commitment and to future intentions in different ways, depending on the nature of the customer relationship. For high relational customers, the model is shown in Figure 1. Figure 2 displays the low relational model.

## METHODS

The methodology investigates whether there is a relationship between overall satisfaction, trust and commitment which, in turn, positively correlates to future actions for low and high relational consumers. The conceptualized methodology includes primary research in the form of a survey. Primary research consists of a target population of individuals who utilize the virtual marketplace. This sample population was chosen because it is the most appropriate population to survey electronically. In order to accommodate the survey sample size, this research is utilizing the services of WebSurveyor software to administer the survey with the click of one button.

Figure 1. Research Model – High Relational Customers

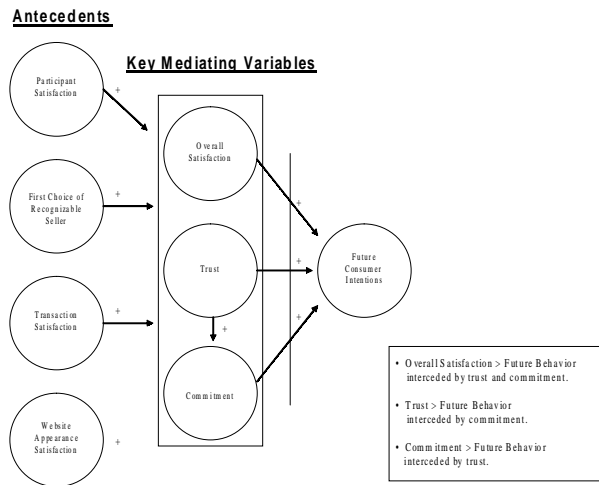
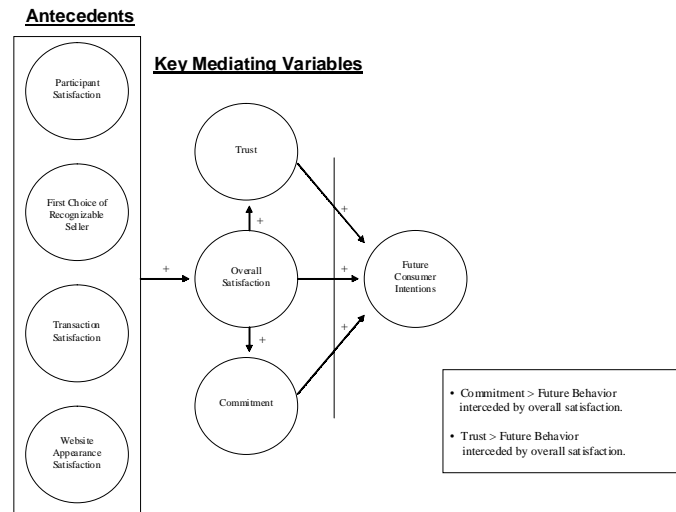


Figure 2. Research Model – Low Relational Customers



The research will be conducted via a field study using online customers as the units of analysis. A sample questionnaire will be furnished to conduct a pilot study. Commencing in the fall of 2004, the questionnaire will be distributed to individuals whom participate in an international e-commerce marketplace. InterShopZone.com has agreed to be that international corporate partner on this project. InterShopZone.com’s marketplace is a top 10 e-commerce website and is a major competitor of eBay and the e-commerce industry. Since InterShopZone.com is growing and attempting to take market-share away from eBay and other competitors, their relationships are magnified and become an important part of their corporate strategy.

Moreover, data collection would include voluntary survey respondents be invited to participate through multiple hyperlinks on InterShopZone.com’s high traffic website. The collected information will cover qualitative and quantitative data sets. The analysis will be derived from the questionnaire’s raw qualitative and quantitative data. Each response is assigned a unique ID, encoded and stored on a secure server until the data is ready for review. A web survey will have the ability to collect large amounts of data without having to manually enter the responses into a separate database, hence minimizing errors.

**Data Analysis**

The only constant in the e-commerce environment is change. Thus, the exact number of online purchasers is not known because it expands and contracts daily. This immeasurable population would impede the study’s response rate calculation. The continual participant fluctuations of the InterShopZone.com marketplace may lead to an improbable statistical saturation. Thus, the study’s scope may have to be reduced to reach a reasonable sample population. Glaser and Strauss (1967) supported this premise when they wrote:

*The criterion for judging when to stop sampling...is the category’s theoretical saturation. Saturation means that no additional data are being found to develop properties of the category. When saturation occurs, the analyst will usually find that some gap in categories, is almost...filled (p. 62).*

Moreover, Lincoln and Guba (1985) resonated Glaser and Strauss (1967) sentiments when they stated, “...if the purpose is to maximize information, then sampling is terminated when no new information is forthcoming from newly sampled units” (p. 202). The data analysis will show that this study has met the criteria supported by Glaser and Strauss (1967) and Lincoln and Guba (1985) to restrict the population size.

The completed questionnaire will populate an on-line database automatically. The collected data will be segmented, organized and analyzed based on the response database. Respondents will be counted only once in the statistical analysis. This task is accomplished by blocking individual IP and email addresses. Also, this passive survey usually takes longer periods of time to collect participant data. Thus, the survey is targeted to collect 200 responses over a three-month survey period to collect a statistically acceptable amount of respondents. Individual responses would be used to form grouped summary values. The common factor analysis is appropriate when the primary objective is to “identify the latent dimensions or constructs represented in the original variables, and the researcher has little knowledge about the amount of specific and error variance and therefore wishes to eliminate this variance” (Hair et al., p. 102, 1998). The values to be summarized are included but are not limited to: plotting the data, executing pair-wise correlation, overall good fit tests, Cronbach alpha, and factor analysis. The literature has revealed that most of the authors have utilized the LISREL statistical methodology. This study would follow their blazed path.

**Reliability and Validity**

The reliability and validity portion of the study will recite the measurement tools credibility. The co-efficient alpha confirms the strength of the tool’s scale. Cronbach’s alpha (1951) is the most widely used scale of internal reliability and correlates with the classical reliability definition. The rule of thumb for the Cronbach alpha depends on the nature of the study. Generally, the higher Cronbach alpha value is the more preferable value. The agreed upon “lower limit for Cronbach’s alpha is .70” (Hair, et al., 1998, p. 118). For purposes of this analysis Cronbach’s alpha is utilized. The Cronbach alphas of alternative reliability of the multi-item scale studies are displayed in Figure 3.

**Limitations**

This study examines the challenge of creating the optimal esthetic experience, which can exist in the physical world by reviewing a consumer’s affinity of a Website’s virtual experience. The virtual environment is handicapped because it cannot fully influence key human senses with the exception of sight. Thus, the challenge is to examine the environment attitudes in the virtual auction marketplace. The theoretical framework is an examination of overall satisfaction, trust and commitment in high and low relational online auction end-users. Specifically, this study’s focus was based solely on Internet high and low relational participants’ point of view and innately is a self selected sample rather than a random selection. This selected sample is a deliberate bias. Furthermore, the author believes that discriminate

Figure 3. Reliabilities of Previously Tested Constructs

Tested Construct	$\alpha$	Referenced Authors
Satisfaction	.78	Garbarino and Johnson (1999)
Trust	.95	Morgan and Hunt (1994)
	.93	Garbarino and Johnson (1999)
	.89	Larzelere and Huston (1980)
Commitment	.90	Morgan and Hunt (1994)
	.87	Garbarino and Johnson (1999)

validity, convergent validity, reliability and fit levels will be within acceptable parameters. The study is meant to serve as a building block for future studies of relationship management and the roles of overall satisfaction, trust and commitment play in the virtual environment.

## CONCLUSION

In summation, this paper has examined the nature and role of a set of four antecedents (participant satisfaction, first choice of recognizable seller satisfaction, transaction satisfaction and website appearance satisfaction) and three key mediating variables (overall satisfaction, trust and commitment) in influencing future intentions of low and high relational customers. Based on literature from a number of authors, notably Garbarino and Johnson, (1999) and Morgan and Hunt (1994), the authors developed two research models and a set of nine hypotheses to facilitate further research. Moreover, the models and hypotheses could produce results to advance our understanding of customer relationships and how to extend them in the virtual marketplace. This research results can bridge the gap between how to create more satisfied customers, best practices and a better understanding of relationships with individuals who shop via the Internet. Basically, answering the questions: are virtual auctions a place where an individual can go to find reliable sellers and/or buyers, and what do these virtual auctions do to actively encourage reliability?

## REFERENCES

1. Bitner, M.J. (1990). Evaluating service encounters the effects of physical surroundings on customers and employees, *Journal of Marketing*. 54, April, 69-82.
2. Cook, Karen S. and Emerson Richard M. (1978). Power, equity and commitment in exchange networks, *American Sociological Review*. 43, 721-740.
3. Coviello, Nicole E and Roderick J Brodie. (2001). Contemporary marketing practices of consumer and business-to-business firms: How different are they? *The Journal of Business & Industrial Marketing*. 16, 5., p. 382-400.
4. Dwyer, F. Robert and Rosemary R. LaGace. (1986). *On the nature and role of buyer-seller trust*, AMA Summer Educators Conference Proceedings, T. Shimp et al. eds. Chicago: American Marketing Association. 40-45.
5. Dwyer, F. Robert, Paul H. Schurr, and Sejo Oh. (1987). Developing buyer-seller relationships, *Journal of Marketing*. 51, April, 11-27.
6. Garbarino, Ellen and Mark S. Johnson. (1999). The different roles of satisfaction, trust, and commitment in customer relationship, *Journal of Marketing*. 63, April, 70-87.
7. Glaser, Barney G. & Strauss, Anselm L. (1967). *The discovery of grounded theory: strategies for qualitative research*. Aldine, New York.
8. Hair, J. F., R.E. Anderson, R.L. Tatham and W.C. Black. (1995). *Multivariate data analysis: with readings*. Englewood Cliffs, NJ, Prentice Hall.
9. Hoffman, Donna L. and Thomas P. Novack. (1996). Marketing in hypermedia computer-mediated environments: conceptual foundations, *Journal of Marketing*. 60, July, 50-68.
10. Hoffman, Donna L., Novak, Thomas P. Chatterjee, Patrali. (1996). *Commercial scenarios for the web: opportunities and challenges*, (<http://jcmc.huji.ac.il/vol1/issuen3/hoffman.html>).
11. Hoffman, Novak, T., Peralta, M. (1998). *Building consumer trust in online environments: the case for information privacy*, Vanderbilt University. ([URLhttp://www2000.ogsm.vanderbilt.edu/](http://www2000.ogsm.vanderbilt.edu/)).
12. Hosmer, L.T. (1996). Research notes and communication: response to Do good ethics always make good business?, *Strategic Management Journal* 17, 6, 501.
13. Hosmer, L.T. (1996). Research notes and communication: response to Do good ethics always make good business?, *Strategic Management Journal* 17, 6, 501.
14. Kotler, Phillip. —(1992). Its time for total marketing, *Business Week. ADVANCE Executive Brief*. 2.
15. Larzelere, Robert E. and Ted L. Huston. (1980). The dyadic trust scale: toward understanding interpersonal trust in close relationship, *Journal of Marriage and the Family*. 42, August, 595-604.
16. Lincoln, Yvonne S. and Guba, Egon G. (1985). *Naturalistic inquiry*. Beverly Hills, CA: Sage.
17. MacGraw, H. (1999). Managing the privacy revolution. *Direct Marketing*. 62, 36-38.
18. MacNeil, Ian R. (1980). *The New Social Contract, an Inquiry into Modern Contractual Relations*. New Haven, CT: Yale University Press.
19. Morgan, Robert M., and Hunt, Shelby, D. (1994). The commitment-trust theory of relationship marketing, *Journal of Marketing*. 58, 3, 20-38.
20. Porter, Michael E. (2001) Strategy and the Internet, *Harvard Business Review*. 79, 3, 63.
21. Rodgers, Shelly and Sheldon, Ken (1998). *The web motivation inventory: reasons for using the web and their correlates*, Paper presented at the 1999 conference of the American Academy of Advertising, Lexington, KY March 27-30.
22. Sandlund, Chris (2001). Trust is a must, *Entrepreneur Magazine*, <http://www.entrepreneur.com/...article/0,4621,303074,00.html>.
23. Zeithaml, V.A. (1988). Consumer perceptions of price, quality and value: a means-end model and synthesis of evidence, *Journal of marketing*. 52, 3, 2-22.

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