Non-verbal Customer-to-Customer Interaction in Retail Setting: An Investigation of Indirect Effects of Perceived Customer Similarity on Important Marketing Outcomes

Nusser Raajpoot
Central Connecticut State University, raajpootnus@ccsu.edu

Anita Jackson
Central Connecticut State University, jacksona@ccsu.edu

Jean Lefebvre
Central Connecticut State University, lefebvrej@ccsu.edu

Recommended Citation

Non-verbal Customer-to-Customer Interaction in Retail Setting: An Investigation of Indirect Effects of Perceived Customer Similarity on Important Marketing Outcomes

Nusser Raajpoot, Central Connecticut State University

raajpootnus@ccsu.edu

Jean Lefebvre, Central Connecticut State University

Anita Jackson, Central Connecticut State University

Abstract - The purpose of this paper is to empirically examine the causal effects of similarity among customers in retail mall settings on four outcome variables: intent to stay, satisfaction, word-of-mouth generation and repurchase intention. Using structural equation modeling, we tested both direct and mediated effects. Results indicate significant direct influence in the direct model and significant indirect influence in the mediated model. The study suggests that similarity with other customers has a significant influence on outcome variables. Therefore, mall managers should measure and monitor consumers' perceptions of similarity and enhance these similarities whenever appropriate and feasible. To our knowledge, this is the first paper to test a causal model in order to understand the effects of mere presence of other customers' retail setting. However, care should be taken when generalizing from student data.

Keywords - Customer-to-customer, Similarity, Retail, Indirect effects

Relevance to Marketing Educators, Researchers and/or Practitioners - Similarity between customers can impact some very important marketing outcomes such as word of mouth and time spent in retail settings which in turn have the ability to influence market shares and profits. Understanding the paths through which similarity impacts the marketing outcomes can help retailers, educators and researchers to develop strategies that take advantage of customer similarities and subsequent positive interactions.

Introduction

Except for online purchases, most shopping experiences are delivered in the presence of other customers. The presence of other customers in a retail space has generally been treated as an uncontrollable external factor; worthy of mention but easy to ignore in the planning process. As a consequence, the subject has attracted scant research, as academicians and managers are more likely to focus on controllable elements of the marketing mix such as product, price, store design and layout rather than on the presumed uncontrollable effects of co-shoppers. Clearly, a shopping experience can be ruined (or enhanced) through no fault of a retailer but simply because of the presence of other incompatible (or compatible) customers. The role of other customers becomes critical in situations where customers are in close physical proximity and are expected to share time and space (Martin & Pranter, 1989). The recent emphasis on delivering superior shopping experiences calls for marketers to take into account the strong negative or positive impact that co-shoppers may have on such experiences.

Most of the previous research in customer-to-customer interactions has focused on the study of social interactions, including verbal interactions in the presence of other customers. This includes documenting and organizing a typology of undesirable behaviors of fellow customers; identifying the roles that customers assume in the presence of other customers; and to the related issue of crowding. Researchers, with some exceptions, have not studied the impact of non-interactive social situations on managerially relevant outcomes such as customer satisfaction with the retail experience and consequent word-of-mouth generation. We define non-interactive social situations as events (shopping mall visits) where a social entity (other customers) is physically present during one's shopping but is neither involved in nor attempts to overtly in any way with the customer. In accordance with the extensive evidence for homophily (i.e., "love of the same") in social networks (McPherson, Smith-Lovin & Cook, 2001), customers may become comfortable in the presence of similar co-shoppers and may enjoy their presence; or conversely, become uncomfortable and want to leave when mixed with dissimilar co-shoppers. Customers will visually gauge the level of similarity with other customers by observing some subtle and not-so-subtle cues such as apparel, poise, assurance or ethnicity, race, gender and age, (McPherson, Smith-Lovin & Cook, 2001). It is assumed that this visually inferred similarity is interpreted as similarity in status, tastes and values (Lazarsfeld & Merton 1954). The perceived similarity with co-shoppers may increase satisfaction with the shopping experience and many other consequent variables of interest such as positive word-of-mouth generation, repurchase intention, and intention to stay in the mall. Perceived dissimilarity would have the opposite and negative effects on the outcome variables.

The study of the impact on shoppers of the presence of co-shoppers has largely been ignored. We fill this gap in the literature by focusing on the impact of the mere presence of other customers during shopping experiences on four outcome variables: intention to stay in the mall, satisfaction with the mall, word-of-mouth generation,

and repurchase intention. Since all four variables drive importance, they are important to retail managers.

In addition, with the exception of Argo, Dahl and Manchanda (2005) who have adopted Latane's theory of social impact, much of the previous research lacks a theoretical foundation. Therefore, we start by reviewing the theories that support the assumption that the mere presence of other customers in a shopping mall will affect customer behaviors and marketing outcomes: theories of social impact, social comparison, social identity, social distance, and self-congruity. Second, we elaborate a more complex theoretical frame by including the mediating variables of the established pleasure-arousal framework from environmental psychology. Argo, Dahl and Manchanda (2005) suggest that the impact of other customers on marketing outcomes is better explained when mediated by pleasure and arousal. This framework has already been used to study the effect of store atmosphere in retail settings (Donovan & Rossiter 1982). Third, we review the managerially significant customer behaviors and marketing outcomes: word-of-mouth generation, customer satisfaction and repurchase intentions. Methodology, analysis of results, conclusions, limitations and managerial implications and suggestions for further research follow.

THEORETICAL FOUNDATIONS AND HYPOTHESES

Theories Supporting the Importance of the Role of Other Customers: The Direct Causal Model

Several psychological and social theories can explain the impact of the mere presence of other customers on one's shopping experience.

Theory of Social Impact
"As social animals we are drawn by the attractiveness of others and aroused by their mere presence" (Latane 1981, p.343). People (shoppers) are known to be influenced by the real, implied or imagined presence of other people. Latane believes that the amount of influence experienced by the target (a shopper) is a multiplicative function of strength, immediacy and the number of people present in the social environment (shopping mall). In this paper we focus on the strength of social influence.

Latane defines social strength as "salience, power, importance, or intensity of the given source to target – usually this would be determined by such things as the source's status, age, socio economic status, and prior relationship with, or future power over, the target" (Latane 1981, p.344). Argo, Dahl, and Manchanda (2005), operationalize social source strength as "perceived similarity" where greater similarity among customers means greater influence. In shopping malls, co-shoppers are the social source and the shopper is the target. The more the target perceives similarity between himself or herself and the source, the more the target will be influenced in his or her behavior, such as intention to stay in the mall.

Theory of Social Comparison

According to the theory of social comparison, that individuals often assess how well they are doing by comparing themselves with similar others. When Festinger (1954) developed the theory, he argued that individuals desire an accurate assessment of their performance, and that in the absence of objective standards they often look to others, preferably those who are similar to them in the assessment type. For example, if one desires to assess his or her athletic ability, the comparison individual is likely to be a fellow member of sports team and not someone who excels in academics.

The tendency to compare self with others decreases as the perceived difference between one's opinions and performance and those of others increases. In other words, someone who shares one's opinions and is similar in performance will be chosen for comparison. A person will be less attracted to situations where others do not share his or her opinions and where they perform differently. In such situations the person will stop making these comparisons. The cessation of comparison is expected to be accompanied by hostility or derogation towards others because continued comparison implies unpleasant consequences for the comparer.

In retail stores, customers will find themselves in company of some who are similar to them and some who are not (Martin 1996; Martin & Pranter, 1989). Shoppers tend to observe the actions and to feel comfortable around others whom they judge to be like themselves. This perceived similarity is evaluated visually, using visible traits such as ethnicity, age and gender and subtle cues such as apparel, poise, and assurance. Shoppers attribute and frequently stereotype tastes to physical features and tend to trust and gravitate toward strangers who are similar to those with whom they are already socially connected (McPherson, Smith-Lovin & Cook, 2000).

Social Identity Theory

Social identity theory suggests that people are motivated to behave in ways that maintain and boost their self-esteem. Social comparison, a basic idea in this theory, with other customers in the mall can increase or decrease one's self-esteem.

A positive self-concept is part of normal psychological functioning. There is evidence that if we are to deal effectively with the world we need to feel good about ourselves. The idea of social comparison is that in order to improve our self-esteem we tend to evaluate ourselves in comparison to similar others.

Without high self-esteem a person feels isolated and this isolation causes anxiety. A visit to a shopping mall patronized by similar customers can work to increase self-esteem for a person by association and affiliation. Such association has the potential for contributing positively to their identity, and therefore strengthening their own self-esteem.

Theory of Social Distance

The impact of other customers in retail environments can also be explained by the theory of social distance. Customers from the same social class are expected to react

spontaneously to each other more than with those from higher or lower social classes (Cooley, 1909). Research shows that people prefer to interact with people in their own social class. They are less willing to interact with people of higher social classes, and would rather avoid associating with people in lower social classes (Bogardus, 1925; Westie, 1959; Laumann, 1965; Laumann & Senter, 1975).

Self-Congruity Theory

Self-congruity theory suggests that part of consumer behavior may be explained in terms of comparison between self-image and the image of a brand, store or a mall (Sirgy, 1986; Sirgy et al., 1997). Consumers often have a preference for and choose brands, including shopping malls that display high levels of perceived congruity with themselves. In seeking self-congruency, customers are either trying to preserve self-concept via self-consistency motivation or to enhance self-concept via self-esteem motivation (Hong & Zinkhan, 1995). It is clear that the type and quality of other customers in the mall affects the level of self-congruency with the mall. Identification with other customers is an important aspect of service encounter, as the behavior of other customers can impact overall quality evaluations and resultant satisfaction (Bitner et al., 1997; Parker & Ward, 2000; Swinyard 1993). In this research, we study the impact of the similarity with other customers on self-congruity with the image of the mall.

The concept of shopping mall image has been based on a mix of tangibles such as price, layout, ease of reaching, parking, hours of operation, merchandise, quality and psychological dimensions such as satisfaction, value, reputation, services, atmosphere (Downs, 1970; Finn & Louviere, 1996; Hauser & Koppelman, 1979). Mall atmosphere is defined by a multiplicity of factors such as design, layout, employee behavior, reputation and other customers. Using the construct of self-congruency, Chebat, Sirgy and St-James (2005) demonstrated that self-congruity experience impacts mall image.

These theories point to the potentially strong impact of the mere presence of fellow customers in retail settings. They suggest that perceived similarity between self and co-shoppers is a key determinant of positive impact on self and the quality of the shopping experience. In the direct causal model, we hypothesize that perceived similarity between self and co-shoppers will be positively related to (1) intention to stay at the mall, (2) satisfaction with the mall, (3) generation of positive word-of-mouth about the mall, (4) repurchase intention, and (5) self-congruity with mall image.

A More Complex Mediated Model

These hypotheses rest on a simple direct causal model. Since consumer behavior in retail space is a fairly complex phenomenon involving marketing inputs, emotion and behaviors, such simple models may offer little diagnosis value to guide managerial action. A more powerful way of studying the impact of marketing stimulus on behaviors such as word-of-mouth and other outcome variables is to

include mediating variables. These mediating variables will help establish not only the causality but also the paths of causality.

Additionally, the empirical methodologies used to test complex causal relationships affect the validity of the results. Ethnography and/or critical incidence technique (Arnould & Price, 1993; Grove & Fisk, 1997; Harris et al., 1997) have been most used. While others have used multiple regression to understand these issues (Moore, Moore & Capella, 2005; Wu, 2007), no study has tested these relationships within an SEM framework, which is the appropriate method to study interactions among multiple-item constructs. In order to produce more valid results, we adopt the SEM framework.

The Pleasure-Arousal Framework

The Mehrabian-Russel environmental psychology model argues that all responses to an environment can be classified as either approach or avoidance. What it means is that customers will either show an interest or a lack of interest in exploring the mall; to interact with others or avoid them; to enjoy staying in the mall or to leave. The original Mehrabian Russel model identifies three emotional states – pleasure-displeasure, arousal-nonarousal, and dominance-submissiveness--as moderating a person's response to the environment. The model was later modified by Russell and Pratt (1980) who removed dominance-submissiveness but kept the other two states. They believe that interpretation of dominance requires a cognitive input and cannot qualify as purely emotional; pleasure and arousal sufficiently represent a person's response to the environment. Pleasure and arousal, although orthogonal, show a conditional interaction (i.e. high arousal in pleasing environment will enhance an approach while high arousal in an unpleasing environment results in greater avoidance). Arousal in a shopping environment is directly related to the amount of information in the environment. Higher information load indicators such as crowding, surprises, or novel situations will make a customer feel excited, stimulated and alert while a low information load is expected to make a customer relaxed and calm.

Based on the Stimulus-Organism-Response (S-O-R) paradigm we relate one feature of the environment--the presence of co-shoppers (S)--to approach-avoidance retail behaviors (R). This relationship is mediated by an individual's emotional state (O) as aroused by the presence of other customers. This model has been used extensively to study marketing-related issues (Baker, Levy, & Grewal 1992; Donovan & Rossiter 1982; Donovan et al. 1994; Dube, Chebat & Morin 1995; Kaltcheva & Weitz 2006; Sherman, Mathur & Smith 1997; Sweeney & Wyber 2002; Wirtz & Bateson 1999; Yalch & Spangenberg 2000).

Specifically, the mediated model hypothesizes that:

(1) perceived similarity with other customers will have a mediated effect on intention to stay in the mall through pleasure and arousal;
(2) perceived similarity with other customers will have a mediated effect on satisfaction with the mall through pleasure and intention to stay;

(3) the effect of perceived similarity with other customers on self-congruity with the shopping mall image will be mediated by pleasure;

(4) Relationship between perceived similarity with other customers and overall satisfaction is mediated by pleasure, arousal and intention to stay;

(5) that perceived similarity with other customers will have indirect impact on word-of-mouth generation; and

(6) that perceived similarity with other customers will have indirect impact on repurchase intention for the mall

Managerially Important Outcome Variables in Retail Settings

Word-of-mouth

The success and growth of a business, and especially of a service business, depends on its ability to generate positive word-of-mouth (Mangold, Miller & Brockway, 1999). Service attributes are difficult to evaluate a priori. For services such as retail shopping, positive word-of-mouth is a major criterion for a decision to visit or not to visit a shopping mall. Conversely, the consequences of negative word-of-mouth can be extremely damaging.

Most of the research on word-of-mouth is focused on understanding its role in product innovation and diffusion (Bass, 1969; Mahajan, Muller & Bass, 1990). Consequently much research has been conducted on the role of social networks that are necessary for word-of-mouth (Steyer, Garcia-Bardidia & Quester 2006, Brown & Reingen 1987, Brown & Reingen 1987). Overall customer satisfaction has been identified as the leading predictor of the generation of positive word-of-mouth which in turn predicts product and service quality evaluations (Wangenheim & Bayón 2004, Marquis & Filiatrault 2002, Brady & Robertson 2001, Anderson 1998, Oliver, Rust & Varki 1997). A strong relationship has been observed between product performance, the quality of human interactions and word-of-mouth generation (Athanassopoulos, Gounaris & Stathskopoulos 2001, Scott & Scott 2001, Hartline & Jones 1996, Zeithaml, Berry & Parasuraman 1996).

Raajpoot, Sharma and Chebat (2009) have shown that similarity with other customers in retail environment is also a good predictor or word-of-mouth generation. They tested a model in which similarity with other customers contributed to word-of-mouth generation while this relationship is being moderated by the hedonic nature of the shopping experience and overall retail evaluation. While this model used similarity with other customers as one of the three factors (the others being ambiance and employee behavior), we extend their research by exploring the sole impact of similarity with other customers on word-of-mouth.

Satisfaction and Repurchase Linkage

Satisfaction is the degree of pleasure or contentment felt after an overall evaluation of a product /service consumption experience (Hellier et al. 2003; Oliver, 1992). The majority of research on repurchase intentions has described satisfaction as a reliable indicator of future purchase intentions (Anderson & Sullivan, 1990; Bitner,

1990; Cronin & Taylor; 1992; Fornell, 1992; Oliver, 1980; Rust & Zahorik, 1993; Woodside, Fray & Daly, 1989). It must be noted, however, that satisfaction is only one of many factors in repurchase intention. Even the relationship between satisfaction and repurchase intention is not strictly a direct one. Many other factors such as personal characteristics, length of patronage and loyalty are expected to moderate this relationship (Homburg & Giering 2001; Mittal & Katrichis 2000; Rust & Zahorik 1993; Sharma & Patterson, 2000).

Method

Data Collection

Data were collected from students enrolled in undergraduate marketing research classes. Students responded to an online questionnaire as part of a class exercise. Respondents were asked to recall a shopping mall visit in the previous week and respond to a series of Likert scales 1-7. Data were collected over a three-week period and responded reported an average of 30 minutes to complete the survey.

Two hundred and forty-six responses were collected, of which 227 were usable. The sample was slightly skewed towards male (55.9%) which reflects the general campus population. The majority (69%) were 18-24 years old with (87%) being single. Sixty percent visited the mall with a friend; 30% went alone. Sixty-seven percent had a list of things to buy and (utilitarian purchasers); 20% went with no purpose in mind.

Measures

Perceived similarity with other customers

A modified measure of self-image congruence (Sirgy et al. 1997) was adopted. It consisted of 6 items (1 reverse worded) with an α value of 0.94. In exploratory factor analysis, the single factor accounted for 72.2% of the variation.

Pleasure

Modified four items (Happy, contented, satisfied, pleased) Mehrabian and Russell (1974) scale was adopted ($\alpha = 0.903$). In exploratory factor analysis, the single factor accounted for 77.7% of the variation.

Arousal

Modified four items (aroused, stimulated, frenzied, jittery) Mehrabian and Russell (1974) scale was adopted ($\alpha = 0.668$). In exploratory factor analysis, the single factor accounted for 62.05 of the variation.

Intention to stay

A three-item measure ($\alpha=0.895$)

Repurchase Intention

A three-item measure from Hellier et al. 2003 was used ($\alpha=0.898$). In exploratory factor analysis, the single factor accounted for 83.21% of the variation.

Word-of-mouth

Modified three-item measure from Raajpoot, Sharma and Chebat (2009) was adopted (α = 0.866). In exploratory factor analysis, the single factor accounted for 79.14% of the variation.

Customer Satisfaction

Satisfaction measure used by The American Customer Satisfaction Index (ACSI) was adopted (α = 0.851). In exploratory factor analysis, the single factor accounted for 77.57% of the variation.

Self-congruity with shopping mall

Modified three-item measure was adopted from Sirgy et al. (1997) (α =0.855). In exploratory factor analysis, the single factor accounted for 74.5% of the variation.

ANALYSIS AND RESULTS

We take a two-step approach to analyze the data. First we estimate a direct model (as shown in Fig. 1) in which perceived similarity with other customers load directly on four outcome variables. If the data fit this model well, we will test a more complex mediated model as shown in Fig. 2. This model is mediated by emotions generated by similarity or lack thereof with other customers. In this way can come to a more complex understanding of both the direct and indirect effects of similarity with other customers.
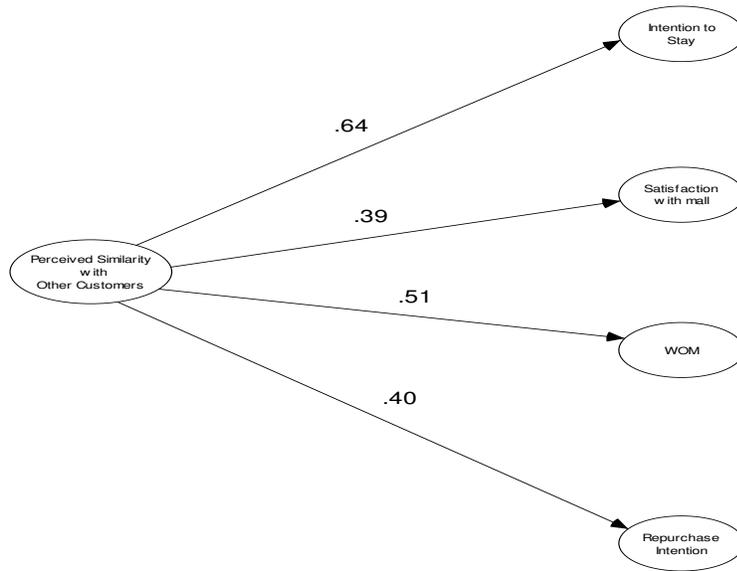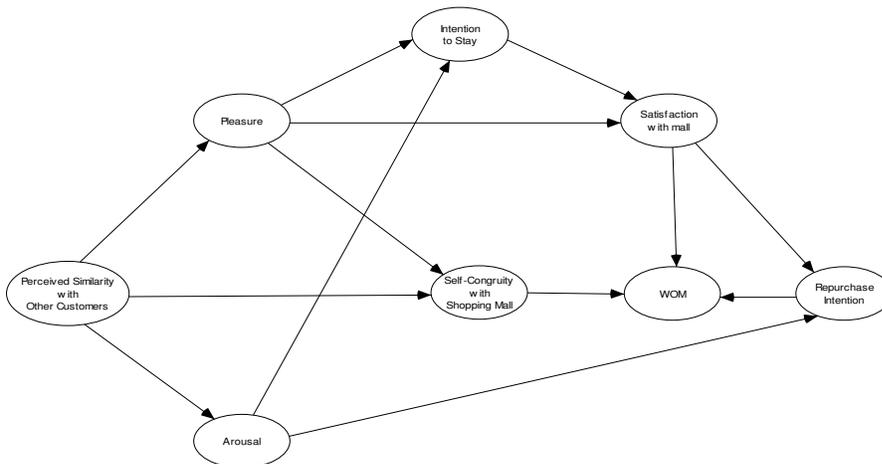
Figure...1

Direct Model

Figure...2

Mediated Model

Direct Causal Model Results

Table 1 shows fit indices. A χ^2 value of 312 with 115 degrees of freedom was significant (p <0.001). Results show that the data fits the model reasonably well (GFI= 0.938, AGFI=0.911, CFI=0.984, RMSEA =0.060). Table 2 presents the standardized regression weights for the paths defined in the model. All four paths were statistically significant (p < .000), supporting the first five hypotheses of the direct model. Similarity with other customers loaded most on intention to stay in the mall (0.64) and least on overall satisfaction (0.39). A higher loading on intention to stay can be explained in terms of its being the most immediate behavioral reaction to similarity that can lead to secondary behaviors such as satisfaction. A good fit of direct model will lead us to test a more complex model with the mediating variables.

Table...1

Direct Model Fit Assessment

Statistic	Suggested	Obtained
Chi-square significance	p >= 0.05	0.001
Chi-square / degrees of freedom (Wheaton et al., 1977)	>= 5.00	2.710
Goodness of fit index (Joreskog and Sorbom, 1988)	>= 0.90	0.938
Adjusted goodness of fit index (Joreskog and Sorbom, 1988)	>=0.80	0.911
CFI (Bentler 1990)	>= 0.90	0.984
RMSEA (Hu and Bentler, 1995)	>= 0.050	0.060

Table...2
Standardized Regression Weights...Direct Model

			Estimate	P
Perceived similarity with other Customers	→	Intention to stay	.64	.000
Perceived similarity with other Customers	→	Satisfaction with shopping mall	.39	.000
Perceived similarity with other Customers	→	Word of mouth	.51	.000
Perceived similarity with other Customers	→	Repurchase Intention	.40	.000

Mediated Causal Model Results

A hypothesized mediated model as shown in Fig.1 was tested using maximum likelihood estimation procedure within SEM framework. Table 3 provides model fit statistics. A χ^2 value of 655 with 312 degrees of freedom was significant (p <0.001). High goodness-of-fit statistics (GFI= 0.914, AGFI=0.891, and CFI=0.954) and a reasonably low RMSEA (0.063) provide evidence of a good fit between data and the hypothesized mediated model. Table 4 presents standardized path estimates for the proposed structural model. All paths in the model were statistically significant and in the expected directions supporting the mediated hypotheses. Paths from arousal showed negative loadings. An aroused customer will have negative intentions to stay (-0.231, p<.002) and tend to exit mall as soon as possible. Similarly aroused customers will have negative repurchase intentions (-0.241, p<.005).

Table...3

Mediated Model Fit Assessment

Statistic	Suggested	Obtained
Chi-square significance	p >= 0.05	0.001
Chi-square / degrees of freedom (Wheaton et al., 1977)	>= 5.00	2.100
Goodness of fit index (Joreskog and Sorbom, 1988)	>= 0.90	0.914
Adjusted goodness of fit index (Joreskog and Sorbom, 1988)	>=0.80	0.891
CFI (Bentler 1990)	>= 0.90	0.954
RMSEA (Hu and Bentler, 1995)	>= 0.050	0.063

Table...4
Standardized Regression Weights...Mediated Model

			Estimate	P
Perceived similarity with other Customers	→	Pleasure	.420	.000
Perceived similarity with other Customers	→	Arousal	-.405	.000
Pleasure	→	Intention to stay	.408	.000
Arousal	→	Intention to stay	-.231	.002
Pleasure	→	Satisfaction with shopping mall	.484	.000
Intention to stay	→	Satisfaction with shopping mall	.274	.000
Perceived similarity with other Customers	→	Self-congruity with shopping Mall	.528	.000
Pleasure	→	Self- congruity with shopping Mall	.334	.000
Arousal	→	Repurchase Intention	-.241	.005
Satisfaction with shopping mall	→	Repurchase Intention	.378	.000
Self-congruity with shopping Mall	→	Word of mouth	.447	.000
Repurchase Intention	→	Word of mouth	.428	.000
Satisfaction with shopping mall	→	Word of mouth	.185	.006

The model proposed two important three-way mediated relationships. The first one is the mediating role of pleasure in the relationship between similarity and self-congruity with mall image. This mediation can be confirmed by obtaining p values with bootstrap procedure (.08, p<.001....see table 5). This p value can be obtained by constructing two-sided bias-corrected confidence intervals. The results show that the perceived similarity with other customers has a significant indirect impact on self-congruity with mall image. The second one is the mediation of intention to stay

on relationship between pleasure and satisfaction. An indirect effect of .13, p<.001 within bootstrap procedure confirms the mediation.

Table...5
Standardized Total Indirect Effects...Mediated Model

	Perceived Similarity with Other Customers	Arousal	Pleasure	Intention to Stay
WOM	0.38 (.001)	-0.02 (.078)	0.37 (.001)	0.15 (.004)
Satisfaction with mall	0.23 (.003)	-0.05 (.101)	0.13 (.001)	N.A.
Intention to Stay	0.18 (.003)	N.A.	N.A.	N.A.
Repurchase Intention	0.16 (.003)	-0.02 (.077)	0.29 (.002)	0.15 (.004)
Congruity with Mall Image	0.08 (.001)	N.A.	N.A.	N.A.

Apart from these two mediations, whose significance can be tested, there are other indirect mediated effects whose significance cannot be tested in the extended model but need to be analyzed. We discuss these results below.

Similarity with other customers and word-of-mouth

In analyzing the effect of similarity on word-of-mouth generation we looked both at direct and indirect path loadings and their significance. Results are presented in Table..6. The direct path from similarity to word-of-mouth, within the mediated model, had close to zero loading (0.06 p=0.621) and is insignificant. The total indirect direct effects from similarity to word-of-mouth (Table...5) on the other hand had a significant loading of 0.38 (p=.003). Significance or p-value of indirect effects was obtained through bootstrap method by constructing two-sided bias-corrected confidence intervals. This total indirect effect passes through four constructs (pleasure, intention to stay, overall satisfaction and self-congruity with mall). We may conclude that similarity has an indirect effect on word-of-mouth generation but we cannot determine the amount of mediation each of these constructs contributes to the overall indirect effects. An alternate approach may be to break down this model into simple one-way mediation paths (i.e. similarity→pleasure→word-of-mouth; similarity→satisfaction→word-of-mouth; similarity→intention to stay→word-of-mouth). In order to establish mediation in this simple three-way relationship within SEM framework, we followed Holmbeck's (1997) recommendations. In order to establish mediation in the three-way relationship among constructs A, B and C, where B is a mediator, we need to satisfy the following conditions: 1) assess fits for paths A—C, A—B, and B---C in that order. If all three paths are significant then test model fits for model a) when path A—C is

unconstrained   b) when path A---C is constrained to zero. If the χ^2 difference between unconstrained and constrained models is substantial, then mediation is considered significant. Our results show that of the four possible mediators (i.e. pleasure, congruity with mall image, intention to stay and satisfaction) only two mediated strongly i.e. pleasure ($\Delta \chi^2$ = 22.21) and overall satisfaction with the mall ($\Delta \chi^2$ = 17.49) while the other two seem not to mediate with low χ^2 difference i.e. congruity with mall image ($\Delta \chi^2$ = 2.29) and intention to stay ($\Delta \chi^2$ = 2.40).

Similarity with other customers and intention to stay in the mall
In the direct (unmediated) model, similarity had a strong and significant loading (0.64, p<.000) that disappears in the mediated model. Total standardized indirect effects of similarity on intention to stay calculated through bootstrapping were significant (0.18 p<.003). On further investigation, both possible indirect paths through pleasure ($\Delta \chi^2$ =46.5) and arousal ($\Delta \chi^2$ =55.96) were found to be significant. Arousal, however, seems to exert a slightly greater influence on intention to stay than pleasure does.

Table…6
Summary Results of Three-way Mediated Models

Mediated Paths	$\Delta \chi^2$	Δ DF
Similarity with other customers→Pleasure→Word of mouth	22.21	1
Similarity with other customers→Congruity with mall image →Word of mouth	2.29	1
Similarity with other customers→Intention to stay→Word of mouth	2.40	1
Similarity with other customers→Satisfaction with Mall visit→Word of mouth	17.49	1
Similarity with other customers→Pleasure→Intention to stay	46.57	1
Similarity with other customers→Arousal→Intention to stay	55.96	1
Similarity with other customers→Pleasure→Satisfaction with Mall visit	5.42	1
Similarity with other customers→Intention to stay→Satisfaction with Mall visit	0.72	1
Similarity with other customers→Pleasure→ Repurchase intention	8.08	1
Similarity with other customers→Intention to stay→ Repurchase intention	0.87	1
Similarity with other customers→Satisfaction with Mall visit→Repurchase intention	5.27	1
Similarity with other customers→Arousal→Repurchase intention	8.31	1
Similarity with other customers→Pleasure→Congruity with mall image	79.89	1

Similarity with other customers and satisfaction with the mall

In the direct (unmediated) model similarity had significant standardized loading (0.39, p<.000) that turns out to be insignificant in the mediated model. Total standardized indirect effects of similarity on satisfaction with the mall calculated through bootstrapping were significant (0.23 p<.003). Further investigation revealed that this mediation was solely through pleasure ($\Delta \chi^2$ =5.42) and intention to stay ($\Delta \chi^2$ =0.74) did not mediate the relationship.

Similarity with other customers and repurchase intention

In the direct (unmediated) model similarity had a significant standardized loading (0.40, p<.000) that becomes insignificant in the mediated model. Total standardized indirect effects of similarity on satisfaction with the mall calculated through bootstrapping were significant (0.16, p<.003). Further investigation revealed that both pleasure ($\Delta \chi^2$ =8.08) and arousal ($\Delta \chi^2$ =8.31) mediated the relationship between similarity and repurchase intention while intention to stay ($\Delta \chi^2$ =0.87) did not mediate the relationship.

Conclusions

We sought to understand the impact of the mere presence of fellow customers on several consumer behaviors in retail setting that play a key role in mall business performance. Our findings are as follows. First, we established the direct causal relationship between similarity and word-of-mouth generation, intention to stay in the mall, satisfaction with mall visit and repurchase intentions and self-congruity with mall. In each case we found significant direct loadings supporting the hypotheses of the direct causal model. The theoretical frameworks we used converge on (dis)similarity with fellow customers as one of many factors that affect shopping experience evaluations. In fact, the presence of fellow customers has been conceived as one of many components of the servicescape that influence consumer evaluations. However, to date, no causal relationship between customer similarity and marketing outcome measures have been proposed and tested.

Second, in order to understand how this process works, we used the pleasure-arousal framework to include emotions in the model in which several complex relationships were proposed. In this model, pleasure and arousal were two main mediators of the relationship between similarity and consumer behaviors. In word-of-mouth generation, pleasure and satisfaction turned out to be two important mediators. Both pleasure and arousal strongly mediated the relationship between similarity and intention to stay in the mall. Pleasure also fully mediated the relationship between similarity and congruity with mall image providing support for the mediated model hypotheses.

Based on the results of this study we can conclude that perceived similarity with other customers in retail situations has both direct and indirect causal relationships with important marketing outcomes measures. This confirms

conclusions by other researchers that similarity with other customers is important and should be taken into account while designing marketing programs (Grove & Fisk, 1997; Martin, 1996; Sirgy et al. 2000).

Managerial Implications

Our results suggest that retail managers should seek to increase customers' homogeneity and avoid heterogeneity. As a first step, they should measure perceived similarity among co-shoppers, which has a causal effect on important marketing outcomes; word-of-mouth, intention to stay, satisfaction and repurchase intention should alert retail managers to start measuring similarity in order to predict these marketing outcomes. Measurement is the first step in increasing customer homogeneity.

Both increased homogeneity and decreased heterogeneity call for more accurate segmentation and precise targeting. The objective of extreme homogeneity, however, collides with general objective of attracting large number of new customers. This research suggests that retailers should provide spaces in which, or time periods when different segments of similar customers will be attracted to congregate and shop. Retailers should provide options for customers to congregate into separate and thus more compatible surroundings. For example, restaurants typically separate the bar from the dining area, and may designate an area for families with small children. In a restaurant scenario, consumers should be allowed to change their seating or even go to another restaurant if they experience incompatibility with the other patrons. This strategy will reduce the negative effect of dissimilarity toward the service provider. Restaurant staff themselves may suggest relocation to new customers indicating the several areas designed to serve separate groups of customers, compatible within groups and incompatible across. Alternatively, rather than physical segregation in diverse areas, the service provider can segregate across time periods; a theater offering a children's matinee is one example.

The negative effects of perceived incompatibility can be reduced by managing customer expectations prior to the visit. This recommendation is not new, as the need for better segmentation also addresses the same issue of increased targeting and, therefore, a better match of expectations and actual delivery of the service. For example, mall patrons may tell their customers to expect crowding and dissimilarity during the year end sales.

This research shows the importance of emotions in retail space. Retailers may consider mood manipulation and enhancement. They can consult the guidelines from marketers such as Disney that are very good at manipulating moods. The music, scenery, and manufactured scenes at the entrance to theme parks quickly and positively change consumers' moods. Shopping malls have also moved in this direction by creating entertainment within their interiors. For example, the Mall of

the Americas in Minnesota has a roller coaster and an ice rink in the middle of the shopping facility.

Intention to stay, which is an important predictor of the amount of money spent during a shopping visit (Wangenheim & Bayón, 2004), has shown strong linkage with perceived similarity. Retailers go to great lengths to keep customers in the mall as long as possible. For example the retail space is designed (e.g., Ikea's race track design) to get customers to look at as much merchandise as possible. Other retailers provide food courts and child-care to entice customers to stay longer. However, it is not clear that layout and extra services increase perceived similarity among co-shoppers.

LIMITATIONS AND DIRECTIONS FOR FUTURE RESEARCH

Use of student data is the most serious limitation of this research. Although student data is used extensively in business research, it is no substitute actual mall data. Further research in this should collect data from actual shoppers with a minimum lapse time between mall visit and data collection.

We suspect that reaction to perceived similarity will vary along demographic and psychographic lines. There is sufficient evidence of differences in reactions to (dis)similarity based on factors such as gender, age, marital status, and shopping goals. It will be interesting to know how female shoppers react to (dis)similarity when compared to males. In addition, similarity according to different personal characteristics should be investigated. An extrovert may view the importance of similarity is ways that an introvert does not.

This research was conducted in a retail mall where similarity with other customers seems to be important. It is reasonable to assume that the relative impact of customer similarity will vary across industry types. Further research could identify the industries and contexts within them where similarity is critical.

References

Anderson, E. W. (1998), "Customer Satisfaction and Word-of-Mouth," *Journal of Service Research*, 1(1), 1-14.

Anderson, E. W., Sullivan, M. W. (1990), "Customer satisfaction and retention across firms", Paper presented at the TIMS College of Marketing Special Interest Conference on Services Marketing, Nashville, TN, (September).

Argo, J. J., Dahl, D. W. and Manchanda R. V., (2005), "The Influence of a Mere Social Presence in a Retail Context," *Journal of Consumer Research*, 32 (2), 207-212.

Arnould, E., Price, L., (1993), "River magic: Extraordinary experiences and the extended service encounter", *Journal of Consumer Research,* 20, 24-45.

Athanassopoulos, A., Gounaris, S. and Stathakopoulos, V., (2001), "Behavioural Responses to Customer Satisfaction: An Empirical Study," *European Journal of Marketing*, 35 (5/6), 687- 707.

Baker, J., Levy, M., Grewal, D. (1992), "An experimental approach to making retail store environmental decisions", *Journal of Retailing* **68** (4), pp. 445–460.

Bass, F. M., (1969), "A New Product Growth Model for Consumer Durables," *Management* Science, 15(January), 215–227.

Bitner, M. J. (1990), "Evaluating Service Encounters: The Effects of Physical Surroundings and Employee Responses," *Journal of Marketing*, 54, 69-82.

Bitner, M. J., Faranda, W. T., Hubbert, A. R., Zeithaml, V. A., *(1997), "*Customer contributions and roles in service delivery", *International Journal of Service Industry Management*, 8 (3), p193-205

Bogardus, E.S., (1925), "Social distance and its origins", *Sociology and Social Research* **9**, pp. 216–225.

Brady, M. K., Robertson, C. J., (2001), "Searching for a Consensus on the Antecedent Role of Service Quality and Satisfaction: An Exploratory Cross-National Study," *Journal of Business Research*, 51 (1), 53-60.

Brown, J.J., and Reingen, P.H., (1987), "Social Ties and Word-of-Mouth Referral Behavior," *Journal of Consumer Research*, 14(3), 350-362.

Brown, J.J., Reingen, P.H., (1987), "Social Ties and Word-of-Mouth Referral Behavior," *Journal of Consumer Research*, 14(3), 350-362.

Chebat, Jean-Charles, Sirgy, M. J., and St. James, V., (2006), "Upscale Image Transfer from Malls to Stores: A Self-image Congruence Explanation", *Journal of Business Research*, 59(12), 1288-1296.

Cooley, C. H., 1909. *Social Organization: a Study of the Larger Mind.* New York: Charles Scribner's Sons.

Cronin J. J. and Taylor, S. A., (1992), "Measuring Service Quality: A Reexamination and Extension," *Journal of Marketing*, 56 (July), 55-68.

Donovan, R. J. and. Rossiter, J. R., (1982), "Store Atmosphere: An Environmental Psychology Approach," *Journal of Retailing*, 58 (Spring), 34-57.

Donovan, R., J. Rossiter, G. Marcoolyn, A. N., (1994), "Store atmosphere and purchasing behavior," *Journal of Retailing*, 70 (3), 283-294.

Downs, R. M., (1970), "The Cognitive Structure of an Urban Shopping Center," Environment and Behavior, 2, 13-39.

Dube, L., Chebat, J.C. Y, Morin S. (1995). "The effects of background music on consumers' desire to affiliate in buyer–seller interactions", *Psychology and Marketing*, 12 (4), 305–19.

Festinger, L. (1954), "A theory of social comparison processes", Human Relations, 7, 117–140.

Finn, A. and Louviere, J.J. (1996) "Shopping Centre Image, Consideration and Choice: Anchor
Fornell, C. (1992), "A National Customer Satisfaction Barometer: The Swedish Experience", *Journal of Marketing*, Vol. 56 (1), 6-21.

Grove, S.J. and Fisk, R.P. (1997), "The Impact Of Other Customers On Service Experiences: A Critical Incident Examination of Getting Along", Journal of Retailing, Vol. 73 (1), pp. 63-85.

Harris, K., Davies, B. and Baron, S., (1997), "Conversations during Purchase Consideration: Sales Assistants and Consumers," *The International Review of Retail, Distribution and Consumer Research*, 7 (3), 173-90.

Hartline, M. D., & Jones, K. C. (1996), "Employee performance cues in a hotel service environment: Influence on perceived service quality, value, and word-of-mouth intention", *Journal of Business Research*, *35*, 205-217.

Hauser J. R. and Koppelman, Frank S., (1979), "Alternative Perceptual Mapping Techniques: Relative Accuracy And Usefulness", *Journal of Marking Research* **16**, 495–506

Hellier, Geursen, Carr and Rickard (2003), "Customer repurchase intention: A general structural equation model", European Journal of Marketing, 37 (11/12), 1762 – 1800.

Homburg, C. and Giering, A. (2001), "Personal Characteristics as Moderators of The Relationship Between Customer Satisfaction And Loyalty – An Empirical Analysis", Psychology & Marketing, Vol. 18 (1), 43-66.

Hong, J. W. and Zinkhan G. M., (1995), "Self Concept and Advertising Effectiveness: The Influence of Congruency and Response Mode," Psychology & Marketing, 12 (1), 53-77.

Kaltcheva, V.D., Weitz, B.A. (2006), "When Should A Retailer Create An Exciting Store Environment?", *Journal of Marketing*, Vol. 70 (1),107-18.

Latane, B. (1981), "The Psychology of Social Impact", *American Psychologist, 36* (4), 343-356.

Laumann, E.O. and Senter, R., (1975), "Subjective Social Distance, Occupational Stratification, and Forms of Status and Class Consciousness: A Cross-national Replication and Extension" *American Journal of Sociology* 81(6), 1304–1338.

Laumann, E.O., (1965), "Subjective Social Distance and Urban Occupational Stratification." *American Journal of Sociology* 71 (July), 26–36.

Lazarsfeld, P., and R.K. Merton. (1954). Friendship as a Social Process: A Substantive and Methodological Analysis. In Freedom and Control in Modern Society, Morroe Berger, Theodore Abel, and Charles H. Page, eds. New York: Van Nostrand, 18–66.

Mahajan, V., Muller, E., Bass, F. (1990), "New Product Diffusion Models in Marketing, a Review and Directions for Research," Journal of Marketing, 54, 1-26.

Mangold, G. W., Miller, F., Brockway, G. R., (1999), 'Word-Of-Mouth Communication In The Service Marketplace", *The Journal of Services Marketing* 13 (1), 73-89.

Marquis, M. and Filiatrault,P., (2002), "Understanding Complaining Responses Through Consumers' Self-Consciousness Disposition", Psychology and Marketing, 19 (3) (2002), 267–292.

Martin, C. L., (1996), "Customer-to-Customer Relationships: Satisfaction with Other Consumers' Public Behavior", *Journal of Consumer Affairs* **30** (1), 146–169

Martin, C. L., Pranter, C. A., (1989), "Compatibility Management: Customer-to-Customer Relationships in Service Environments", *Journal of Service Marketing* **3** (Summer), 6–15

McPherson, M., Smith-Lovin, L., & Cook, J. M. (2001) Birds of a Feather: Homophily in Social Netweorks, *Annual Review of Sociology*, 27, 415-44.

Mehrabian, A., Russell, J.A. (1974), "A Verbal Measure Of Information Rate For Studies In Environmental Psychology", *Environment and Behavior, 6,* 233-252.

Mittal, V., Katrichis, J.M. (2000), "Distinctions Between New and Loyal Customers," *Marketing Research*, Vol 12, 1 pp. 27-33.

Moore, R., Moore, M., Capella, M., (2005),"The Impact of Customer-to-Customer Interactions in a High Personal Contact Service Setting," *Journal of Services Marketing*, 9(7), 482-491.

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

Oliver, R. L., (1992), "An Investigation of the Attribute Basis of Emotion and Related Affects in Consumption: Suggestions for a Stage-Specific Satisfaction Framework," in John F. Sherry, Jr. and Brian Sternthal (eds.), Advances in Consumer Research, Vol. XIX, Provo, UT: Association for Consumer Research, 237-244.

Oliver, R. L., Rust, R. T., Varki, S., (1997), "Customer Delight: Foundations, Findings, and Managerial Insight", *Journal of Retailing*, 73 (3), 311-366

Parker, C., Ward, P., (2000), "An Analysis of Role Adoptions and Scripts during Consumer-to-Consumer Encounters," *European Journal of Marketing*, 34 (3/4), 341-58.
Raajpoot, N., Sharma, A. and Chebat, J. C., (2009),"What Generates Word-of-mouth in Retail Contexts?," *Esic Market*, Vol. 133, 27-58.

Russell, J. A. and Pratt, G. A., (1980), "A Description of the Affective Quality Attributed to Environments," Journal of Personality and Social Psychology, 38, 311-322.

Rust, R.T., Zahorik, A.J., (1993), "Customer Satisfaction, Customer Retention and Market Share", *Journal of Retailing*, Vol. 69 No.2,193-215.

Scott R. S., Scott W. K., (2001), "Service Recovery Attributions and Word-of-Mouth Intentions," *European Journal of Marketing*, Volume 35 (1/2), 194-211.

Sharma, N., Patterson, P. G., (2000), "Switching Costs, Alternative Attractiveness And Experience As Moderators Of Relationship Commitment In Professional, Consumer Services", *International Journal of Service Industry Management* 11 (5), 470-490.

Sherman, E., Mathur, A., Smith, R. B., (1997), "Store Environment and Consumer Purchase Behavior: Mediating Role of Consumer Emotions", *Psychology and Marketing*, 14 (4), 361-378.

Sirgy, M. J., (1986), Self-Congruity: Toward A New Theory of Personality And Cybernetics. New York: Praeger Publishers.

Sirgy, M. J., Grewal, D., Mangleburg, T.F., Park, J. O., Chon, K., Claiborne, C. B., Johar, J. S., Harold B., (1997), "Assessing the Predictive Validity of Two Methods of Measuring Self-Image Congruence", *Journal of The Academy of Marketing Science*, 25 (3), 229-241.

Sirgy, M. Joseph, Dhruv Grewal, and Tamara F. Mangleburg (2000), "Retail Environment, Self-Congruity, and Retail Patronage: An Integrative Model and Research Agenda", *Journal of Business Research*, 49, 127-138.

Steyer, A., Garcia-Bardidia, R., Pascale, Q., (2006), "Online Discussion Groups as Social Networks: An Empirical Investigation of Word-of-Mouth on the Internet," Journal of Interactive Advertising, 6 (2) (Spring), 45-52.

Sweeney, J., Wyber, F., (2002), "The Role of Cognitions and Emotions in the Music-Approach-Avoidance Behavior Relationship", *The Journal of Service Marketing* **16** (1), 51–69.

Swinyard, W. R., (1993), "The Effects of Mood, Involvement, and Quality of Store Experience on Shopping Intentions", *Journal of Consumer Research,* 20 (September), 271-280.

Wangenheim, F., Bayón, T., (2004), "Satisfaction, Loyalty And Word Of Mouth Within The Customer Base Of A Utility Provider: Differences Between Stayers, Switchers An Referral Switchers", *Journal of Consumer Behavior, 3*(3), 211-220.

Westie, F.R. (1959), "Social Distance Scales", *Sociology and Social Research* 43 (March–April): 251–258.

Williams, J.D., William J. Q., (1989), "Middle-Class Black Consumers and Intensity of Ethnic Identification," *Psychology and Marketing*, 6(4), 263-86.

Wirtz, J., Bateson,J., (1999), "Consumer Satisfaction With Services: Integrating The Environment Perspective In Services Marketing Into The Traditional Disconfirmation Paradigm", *Journal of Business Research,* **44**, 5–66.

Woodside, A. G., Frey, L. L., Daly, R. T. (1989), "Linking Service Quality, Customer Satisfaction, and Behavioral Intentions", *Journal of Health Care Marketing*, 9, 5-17.

Wu, C. (2007), "The Impact Of Customer-To-Customer Interaction And Customer Homogeneity on Customer Satisfaction in Tourism Service—The Service Encounter Prospective", *Tourism Management*, 28 (6), 1518-1528.

Yalch, R. F., Spangenberg, E. R., (2000), "The Effects of Music in a Retail Setting on Real and Perceived Shopping Times", *Journal of Business Research,* **49** (2), 139–147.

Zeithaml, V. A., Leonard, B. L., Parasuraman, A., (1996) "The Behavioral Consequences of Service Quality", *Journal of Marketing*, 60, 31-46.

Appendix A

The questions below relate to a shopping mall experience. Please recall your recent visit to a shopping mall and indicate your agreement or disagreement with the statements listed below by clicking on one of the seven buttons. Your response may range between strong agreement (if you click on button 7) and strong disagreement (if you click on button 1). Please answer all questions. Strict confidentiality will be maintained for the information collected through this survey.

Perceived Similarity with other customers (n=225, Items=6, α=0.94) Modified from Sirgy et al., 1997)

1. The typical customer in this shopping mall reflects the type of person I am.
2. The typical customer in this shopping mall is very much like me.
3. I can identify myself with the typical customer in this shopping mall.
4. The image of the typical customer is very dissimilar from the kind of person I am.
5. I feel close to other customers in this shopping mall.
6. The typical customer in this shopping mall is similar to me.

Intention to stay (n=225, items=3α=0.895)

1. I plan to stay longer than planned.
2. I intend to check out more products than planned.
3. When shopping in this mall, I am not pressed for time.

Self-congruity with mall image (n=220, items=3, α=0.855)

1. This shopping mall reflects the type of person who I am.
2. I can identify myself with this shopping mall.
3. I feel happy shopping in this mall.
4. I feel close to this shopping mall.

Repurchase Intention: (n=229, items=3, α=0.898), Hellier et al. (2003)

1. I intend to continue shopping at this mall.
2. All things considered, I am likely to come back for shopping again.
3. My chances to continue patronizing this mall are high.

WOM (n=227, items=3, α=0.866), Raajpoot, Sharma, Chebat (2009)

1. I don't hesitate to talk about this mall
2. I never recommend this mall.
3. I am happy to tell my friends this is a great place to shop.

Pleasure: Mehrabian and Russell (1974): (n=225, items=4, α=0.903)

Happy   ____1:____2:____3:____4:____5:____6:____7:Unhappy
Pleased   ____1:____2:____3:____4:____5:____6:____7:Annoyed
Satisfied   ____1:____2:____3:____4:____5:____6:____7:Unsatisfied
Contented____1:____2:____3:____4:____5:____6:____7:Melancholic

Arousal: Mehrabian and Russell (1974): (n=227, items=4, α=0.668)

Stimulated ____1:____2:____3:____4:____5:____6:____7:Relaxed
Excited   ____1:____2:____3:____4:____5:____6:____7:Calm
Jittery   ____1:____2:____3:____4:____5:____6:____7:Dull
Aroused   ____1:____2:____3:____4:____5:____6:____7:Unaroused

Satisfaction: (n=207, items=3, α=0.851) Fornell et al. (1996)

Very Dissatisfied ____1:____2:____3:____4:____5:____6:____7:Very Satisfied

Falls short of expectations ____1:____2:____3:____4:____5:____6:____7: Exceeds
Expectations

 Not very close to the ideal ____1:____2:____3:____4:____5:____6:____7: Very close to
the ideal