Street Markets Influencing Consumer Behavior in Urban Habitat

(Keywords: Street markets, consumer behavior, ethnic markets, sales differentiation, market attractiveness, consumer satisfaction)

Rajagopal[1]
Professor of Marketing
Graduate School of Administration and Management (EGADE),
Monterrey Institute of Technology and Higher Education, ITESM
Mexico City Campus, Mexico
E-mail: rajagopal@itesm.mx , prof_rajagopal@yahoo.com
Homepage: http://www.geocities.com/prof_rajagopal/homepage.html

Working Paper #2009-03-MKT

Graduate School of Administration and Management (EGADE)
Monterrey Institute of Technology and Higher Education, ITESM
Mexico City Campus, Mexico 14380 DF

June 2009

[1] Dr. Rajagopal is Professor of Marketing at Graduate Business School (EGADE) of Monterrey Institute of Technology and Higher Education (ITESM) in Mexico City Campus and Fellow of the Royal Society for Encouragement of Arts, Manufacture and Commerce, London. Dr. Rajagopal is also Fellow of Institute of Operations Management and Professional Member of Chartered Management Institute. His biography is listed in various international directories including Who's Who in the World and International Biographic Center, Cambridge, UK since 2008. He holds doctoral degree from Ravishankar University, India and has been conferred the award of National Researcher Level-II of Mexican National System of Researchers.

Abstract

This study explores the influence of street markets in urban geo-demographic settings and analyzes vending patterns with ethnic values enhancing the consumer satisfaction. Interrelationship among urban dwellers, marketplace ambiance, and conventional shopping wisdom of customers and interactive customer relations are also addressed in the study based on empirical survey. Research on street markets is very limited though some studies are available on street vendors with focus on spatial planning, political interventions, and legal rights. This study on street markets contributes significantly to the existing literature in reference to shopping behavior and perceptional values of urban consumers.

Street Markets Influencing Consumer Behavior in Urban Habitat

Introduction

Increasing globalization in the developing countries has affected the socio-economic and cultural paradigms in urban areas and consumer behavior is significantly influenced by the street markets which demonstrate ethnic trade practices. Vending in street markets is considered as parallel leisure place particularly where people tend to move to suburban locations in order to experience the difference from the routine shopping (Powe, 2006). Street markets in the urban setting may be considered as the bottom of the pyramid market structure where most consumers reside in the semi-urban locations and look for farm fresh agricultural products and low priced consumer goods. The access of consumers of this demographic segment to the larger retail outlets is limited not just because of high prices, but also by inadequate distribution of fresh consumer goods and food products as compared to street markets. The street markets in urban settings may be considered as 'socially responsible distribution centers' with the initiatives that provide consumers with market access for goods and services that they can benefit from by either buying or selling, thus neutralizing the disadvantages they suffer due to inadequate physical links to large retail outlets, information asymmetries, and weak bargaining power (Vachani and Smith, 2008)

Street markets in Mexico City employ more people than any single branch of medium scale industry as they represent one of the largest categories of workers in retail trade, along with food, drink, grocery and apparel vendors in categorical retail shops. All residential colonies in Mexico City are covered by the street markets organized periodically, which attract customers of supermarkets and department stores on the rationale of convenience and low buying cost to customers beside the derived satisfaction of freshness of products (Williams, 2003). However, consequent upon consolidation of structural reforms in Latin American countries, spatial models of enterprises have been changing, making possible large retail enterprises such as supermarkets and malls to locate close to residential neighborhoods but street markets co-exist classically serving customers through informal channels of commerce.

The study aims at analyzing the impact of geo-demographic locations of street markets on convenience and cost to customers in buying products in. The study also examines the retailing patterns in street markets in reference to driving customer perception, satisfaction, ethnicity in product display and enhancing customer value. Interrelationship among marketplace branding, ambiance, conventional shopping wisdom of customers, and long-term customer services are also discussed in the study based on empirical survey. Broadly, this study makes contributions to the existing research in conventional retailing outlets existing along with modern shopping malls in Latin America. Research on street markets is very limited though some studies are available on street vendors with focus on spatial planning, political interventions and legal rights. However, there are few studies available in reference to Mexico that discusses consumer behavior in reference to organized street vending. Hence, this study on street markets would contribute significantly to the existing literature.

Review of Literature and Hypotheses Framework

Socio-cultural Determinants and Ethnicity

Culture and consumption pattern plays an important role in determining the attributes of markets and shaping business relations. The trajectory of market evolution and transformation in the marketing strategies can be viewed in reference to economic history, consumption patterns, and the structure of local labor markets. The local culture is embedded in urban settings that are evolved historically. Interaction and local culture are essential parts of business community and play guiding role in measuring the consumer behavior to develop marketing strategies by the firms (Brennan *et al*, 2009). In Latin American countries street markets have emerged not only as a social meeting place for people but also are considered as political grass roots to institutions to propagate ideologies and debates on the current issues. The distinct segregation pattern of urban areas, transit system, and state-licensed street markets permit greater contact between rich and poor and foster vital public spaces. These markets reflect the characteristics of users,

varying degrees of accessibility to diverse populations, and state policies toward markets (Stillerman, 2006).

The street markets exhibit the ethnographic influence in urban economy where vendors find their market on the street and social interventions that propel passers-by into buying behavior. In street markets social and economic activities are stimulated through interactions from prospecting the customers through to realizing the sales. The street vendors are contextually embedded in the urban landscape, and operate within the urban social order (Llewellyn and Burrow, 2008). Street markets are also identified as informal markets which have higher sociological values and low economic gains. Location of the street and size of the market play a critical role in establishing the socio-economic thrust among the customers in the area. Pro-active customers patronage the trade in street markets and represent powerful socio-economic hierarchies based on gender, age and class (Bass, 2000). Consumer behavior and informal economic activity within the urban lower middle class demographics in urban areas are closely related. Street vendors tend to offer innovative products in major emerging markets, targeting the consumers falling largely in the middle class demographic segment (McBride and Gillespie, 2000).

Ethnicity is blended in the street markets that attracts largely elderly segment of population comprising elderly household women and retired people, and children staying at home in urban demographics. Though street markets deal with household consumer goods and fast food, vendors target their products and advertising efforts towards ethnic groups. These markets reveal the relative importance of traditional and ethnic value of consumers and facilitate both consumer understanding and market development. The vendors in the street market understand how to sell products to target customers and how to emphasize commonality with the mainstream markets and where the differences lie (Emslie et al, 2007). Over the past several years working consumers of age between 21-54 years in large growing cities like Mexico have show tendency to shop local food in multinational self services stores as they perceived these outlets as a place of convenience and prestige to purchase ethnic food (*e.g.* Cooper and Nelson, 2003). Recently a reverse trend has emerged in shopping of young consumers as they are switching to ethnic street

markets as local source of these products. These markets have responded to both types of consumers in some cases by branding the produce as well as by stocking a wide variety of foods including those which are not locally produced (Sinnreich, 2007).

Accessibility and Ambiance of Street Markets

Though vendors in the street market have limited income, neighborhood consumers as a group represent a sizable market for consumer products. Vendors define the basic needs of the consumers and offer products at relatively lower prices as compared to the fixed retail outlets and super markets. This also influences the shopping behavior of consumers which partly explains the resilience of the traditional/small format retailers (D'Andrea et al, 2006). Prices in street markets are low as most of the vendors have their own transport and the taxes they pay to the local area governing body or municipality are marginal. Municipality issues permits to individual vendors through their vendor organization to sell on streets at determined locations either for a week or season and taxes are fixed accordingly. Permit fee ranges according to the discretion of the competent authority within a specified range by the municipality (Staudt, 1996).

H1(a): Street markets serve urban consumers of middle class demographic segment who have ethnic preferences towards buying locally produced fresh products and traditional food at relatively lower price.

The space and business relationship in retailing is also classically argued as the size of a market area results from the spatial range of the demanded and supplied goods and services. Hence, the distance-sales relations or price-sales relations produce overlapping and interconnecting sales implications in retailing (Löffler, 1998). Proximity to shopping centers largely influences also the choice of residence of urban dwellers. The location preferences largely depend on income and housing budget, proximity to good schools and shopping centers (Chiang and Hsu, 2005). Besides the consideration of distance in predicting accessibility to shopping centers and buying behavior, time is another

important factor, which determines the shopping behavior of urban consumers (Weber and Kwan, 2002). The retailing territories in Mexico are complex comprising the distinct habitation pattern, transit system, and state-licensed periodic street markets occupying public spaces. Such urban planning allows retailing integration and collective behavior of consumers in street markets, and shopping malls (*e.g.* Loafland, 1985). Street markets in Mexico City function for a scheduled period from 0800 Hr to 1600 hr as determined by the convention under local area governance. Motivations of shopping in the street markets include inside and outside ambience, layout, and extent of involvement of vendors in the selling process. Ambience of marketplace, assortment of vending booths, and excitement motivate the buyers to stay long in the street markets (Rajagopal, 1999).

H1 (b): Accessibility and proximity to the street markets from dwelling place, assortment of vending stalls, ambiance of the marketplace and ethnicity determine the buying behavior of consumers.

The growing street consumer markets in low-income countries offers easy access to inexpensive food, clothing and grocery as well as a natural ambiance of shopping for urban residents. While this development is positive in many ways, it also presents new public health and traffic regulation challenges for the urban population. In the street markets consumers often prioritize freshness, price and accessibility of perishable edible products and cooked food products without putting much stress on hygiene and safety concerns. However, consumers rely on sensory effects of touch feel and pick, appearance, and trustworthiness of vendor in choosing products. Since same vendors erect their stalls in street markets that are held periodically, consumers gradually develop loyalty with the vendors in these markets (Rheinländer et al, 2008). Markets held on the street periodically at a determined place for a fixed duration serve proximity and convenience of the consumers in the urban neighborhood. These markets are of ethnic nature and are set on the two dimensional marketing metrics representing geographic and economic variables. Street markets in urban settings are associated with diversification of land use away from brick and mortar marketplaces, establish more intense contact with nearby

urban centers, and connect strategically two or more number of urban streets to serve urban dwellers (Tipraqsa and Schreinemachers, 2009).

Consumer Beliefs and Perceived Benefits

There exists high degree of satisfaction in terms of pricing advantages and freshness of products sold by the vendors in the street markets. Shopping and eating-out on street markets among consumers of major cultural and ethnic groups has been developed as a leisure shopping behavior in Latin American countries. The consumer behavior in these societies is guided by the socio-demographic preferences in references to gender, income, and level of education of consumers. However, understanding of consumer behavior in traditional societies is largely governed by the conventional wisdom than technological advancement in delivering goods and services (Steenkamp and Burgess, 2002). It has been observed that food products sold by the vendors in street markets do not qualify the national standards of Mexico. Fruit juices and meat products are more likely to cause health disorders as evidenced in a study which reveals that the frequency of isolation of pathogens in samples from juice serving establishments at commercial shopping malls was significantly lower than that found in juices sold by street vendors. *Salmonella enterica* serotypes Agona, Typhimurium, and Anatum were found in orange juice, fresh oranges, and wiping cloth samples, while *serotype Mexico* was found on fresh oranges and in wiping cloths (Castillo *et al*, 2006).

It is perceived by the consumers that food vendors in the street markets use fresh meat and quality cooking ingredients applying semi-mechanized cooking process for the recipes of cultural traditions. The food cooked by the vendors in the street markets is perceived to taste like home cooked food and such cultural identity influences the consumer decisions about the private and public kitchen, and the spaces of consumption with ethnicity and an understanding of what is authentically traditional despite the hygiene standards (*e.g.* Wardrop, 2006).

H2 (a): Shopping and eating on the street markets has emerged as a leisure behavior among consumers in urban habitats perceiving freshness, product differentiation, and price advantages, irrespective of quality and hygiene considerations.

It is observed that the attributes determining overall acceptance of food products among Mexican consumers are significantly influenced by product attractiveness and price sensitivity. Purchase intent was influenced by appearance, taste, and overall liking. However, sensory attributes play a vital role in making decisions for acceptance and purchase intent of new food products among consumers in Mexico (Rajagopal, 2006[a]; Herrera-Corredor *et al*, 2007). Consumers in Mexico are largely influenced by product display and while choosing food products and store, consumers evaluate both the fixed and variable utilities of shopping; the fixed utility does not vary from trip to trip whereas the variable utility depends on the size and composition of the shopping list (Rajagopal, 2006[b]; Tang, 2001). Preferences and perceptions of Mexican consumers on food products also depend on the social and cultural values and they put more emphasis on the place of origin of food products like recipe of Oaxaca or Chiapas (States in Mexico) than on brand names. The product-place evaluations of Mexicans seemed to be affected by a strong cultural bias (Ahmad and d'Astous, 2006).

H2 (b): Consumer beliefs, sales differentiation and price advantages influence consumers to shop in the street markets

Street-based retailing combined with innovative spatial forms such as space assigned for vending stalls, assortment of vendor stalls, parking space and natural ambiance of tree grooves extend the opportunities and broaden the experiential aspects of shopping for a wide range of urban consumers. Such ambiance of street markets have promoted various types of vendors ranging from apparel sellers to home furnishing to magazine sellers, to operate profitably within the spatial settings. As mall construction nationally has declined new shopping centre formats and the recent revival of street markets have provided

advantage to urban consumers also in reference to logistics. Thus alternate retailing outlets with conventional practice have become increasingly flexible in its geo-demographic marketplace (Marston and Modarres, 2002). As the urbanization in developing countries tended to increase, existing marketplaces contracted in the downtown while larger shopping malls and recreation centers have been developed in the suburbs. Street markets have evolved over time as an alternate shopping channel for urban consumers. Increasing population and industrialization has driven retailing industry to re-define the potential trade areas represented by these new transportation and land use patterns. The consumer values manifest themselves with ethnic behavior in street markets towards product choices and purchase preferences. The combination of cultural value with functional utility emerges as one of the powerful stimuli for consumers to make their shopping in street markets in large cities where distance to superstore and shopping malls are the major determinants of shopping (Rajagopal, 2009; Kumar et al, 2007).

Governance and Relationship Paradigms of Vendors

Street markets in Mexico City are governed by the vendor organizations which play major role as negotiators or deal-makers in selecting locations and taking formal approval from the municipal administration. Vendors in the street markets choose to become members of these organizations as a means to overcome red tape or complex bureaucracies. Vendor organizations also serve as managers of social assets and limit membership and access to informal markets and manage conflicts among vendors (Pena, 1999). Street vendors show higher income and lower levels of education than their formal sector neighbors and these two groups show distinct product acquisition/patronage patterns, as well. However, they do not always demonstrate more innovative behavior, as adoption appears product specific. The vendor organizations creatively adapt their structures and strategies to changing political governance circumstances to defend the interests of their constituents, as well as influence socio-political outcomes at local and national levels (McBride and Gillespie, 2000; Vanderbush, 1999).

H3 (a): The street markets are supported by vendor organizations and only registered vendors are allowed to trade in authorized category of outlets and place.

Vendor organizations control the number of outlets to be permitted to do business in an authorized neighborhood or urban habitat. It is observed that long association of vendors with the consumers develops trust and personal bonding which develop loyalty of consumers with the vendors in street markets. The most important issue for a vendor in the street market is towards gaining the confidence of consumers and managing informal customer relationships. The customer relationship skills vary among vendors and word of mouth communication among consumers about vendor relationship spread fast in the street markets. Accordingly, consumers make their decision towards developing relationship with the vendors in the street markets (McBride and Gillespie, 2000). Vendors in the street markets largely operate their retail outlets as family enterprises and train their family members who are able to influence consumers and also augment the volume of sales. Home delivery services are also offered by the vendors for loyal customers which further strengthen the relationship bonds between vendors and customers. Among various types of consumer relationships voluntary relationship, reciprocal relationship, market relationship and friendship are most commonly developed between consumers and vendors in the street markets. Like all relations and activities that exercise important human capacities and play an important role in a meaningful life, market relations and activities are essentially structured and supported by ethical norms within the social standards (Badhwar, 2008).

H3 (b): Vendors in the street markets continue functioning in the authorized marketplace for long time and develop sustainable customer relationship to gain advantage of win-win situation.

Study Design

Sampling

This study has been conducted in 14 street markets periodically held in Tlalpan (6) and Coyoacan (8) municipalities in southern part of the Mexico City. There were 374 vending stalls in the selected street markets representing 24 vending stalls per market on an

average. The selected street markets were located in the urban habitats of low and middle socio-economic demographics comprising C+, C and D+ socio-economic levels of population. The attributes of socio-economic levels of population in Mexico is exhibited in Appendix-1. The sample respondents chosen in this study were those who frequently visit the selected street markets for leisure shopping from the residential areas in selected municipalities of Mexico City. These respondents showed similarity in shopping behavior in reference to propensity of shopping, location preference, ethnic perceptions, sensitivity to price and customer relationship, and marketplace ambiance. Data was collected administering semi-structured questionnaires to 490 customers who were selected following a snowballing sampling technique. Information collected though the questionnaires were reviewed for each respondent to ascertain quality and fit for analysis.

Data Collection Tools

The data collection process was initiated in February 2008 and terminated in November 2008 covering all 14 street market locations. The data collection process was prolonged due to interruptions in conducting the interviews with consumers and vendors who did not understand the purpose of research and assumed that this survey will have adverse implications on their business. Hence the interview process was spread over 42 weeks interviewing 11 respondents per week on an average in the selected markets. A focus group session was organized with potential respondents to identify most appropriate variables for data collection for the principal study and relevant variables were chosen for analysis. Accordingly, 31 variables, which were closely related to influencing the physical preferences of shoppers towards logistics and marketplace attractions, and consumer preferences including shopping attributes and customer relationship were incorporated in the questionnaires and accordingly selected for analysis. The questionnaires were pilot tested to 63 (12.86 percent of total sample size) respondents randomly selected, and finalized after refining them based on the responses during the pilot study. The variables selected for the study have been broadly classified into physical preferences and consumer preferences related variables as exhibited in Table 1.

//Table 1 about here//

A questionnaire was developed to investigate the extent to which the selected variables for study have influenced the shoppers. Pre-test of the preliminary questionnaire on measuring the influence of point of sales promotions on stimulated buying behavior indicated that promotion offers introduced by the retailers acted as strong stimuli for the regular and new shoppers. Based on responses from the pre-test, the final questionnaire necessitated no significant changes. The questionnaires were translated in Spanish. All care was taken about the terminology and language being employed in each version of the questionnaire. The variables used in the questionnaire for data collection include various perspectives of customer satisfaction and promotional practices offered by the retailers to gain competitive advantage, optimal market share and higher aggregate sales. Data was collected by means of personal interviews by undergraduate students of international commerce and marketing who hand-delivered the questionnaires to the key respondents in the self-service retail stores who had agreed to be the subjects of the research investigation. In most cases, the respondents completed and returned the questionnaires on the predetermined date.

Response Trend

Questionnaires were administered to 490 respondents. However, during the process of data analysis, questionnaires of 49 respondents (10.0 percent of total sample size) were omitted due to paucity of information. In all 441 respondents were covered under the study and the usable response rate was 90 percent. The non-response bias has been measured applying two statistical techniques. Firstly, informal conversations were made with those respondents who neither responded to the questions administered to them nor provided adequate information of their preference to shop at street marketplace, economic benefits, lifestyle perceptions, and logistics related issues (*e.g.* Gounaris et al, 2007). It was found during the study that 38.78 percent respondents showed low level of confidence in during interview while 34.69 percent subjects failed respond all questions due to paucity of time and 26.53 percent subjects depended on their accompanying

persons to offer responses who either could not do so or were indifferent to the questions asked. Secondly, T-tests were used to ascertain emerging differences between respondents and non-respondents concerning the issues pertaining to market orientation and customer services strategies. No statistically significant differences in pre-coded responses $(\alpha = 0.10)$ were found. A second test for non-response bias examined the differences between early and late respondents on the same set of factors (Armstrong and Overton, 1977; Rajagopal, 2009) and this assessment also yielded no significant differences between early and late respondents.

Construct of Measures and Data Validation

The focus of the study is to analyze the consumer behavior and it is revealed in previous studies that higher consumer value leads to sustainable consumer behavior (Jindal et al, 2007; Rajagopal, 2008; Malthouse and Mulhern, 2008). This consumer value has been considered as dependent variable which is measured in reference to independent variables as shown in the Figure 1 depicting the conceptual framework.

//Figure 1 about here//

The constructs of the study were measured using reflective indicators showing effects on the core variables. Physical preferences (VS_1 and VS_2) including logistics and marketplace attractions perceived by the consumers towards shopping in the street markets were measured with 17-variables (logistics related - VS_1-9 and marketplace attraction related VS_2 -8) on a self-appraisal perceptual scale derived originally on the basis of focus group analysis as referred in the pretext. This multivariate construct has been derived in reference to vendors in the street markets with low investment vending operations, customer relationship, and ethnic orientation as principal behavioral components. This scale also comprised triadic decision coordination consisting of factors including ambiance of street markets, assortment of vending stalls and consumer preferences including long-term customer value (*e.g.* Narver and Slater, 1990, Rajagopal 2009; Ruekert 1992; Hunt and Morgan 1995). Constructs related to consumer preferences

(VS_3 and VS_4) were measured using 14-variable 'self-appraisal perceptual scale' comprising shopping attributes of customers and customer relationship effects.

All reflective constructs for all variable segments of the study were analyzed through the factor analysis model as a single confirmatory test. The goodness-of-fit statistics[2] comprising chi-square statistics (2.84), root mean square error of approximation (0.275), Tucker-Lewis fit index (0.714), comparative fit index (0.692) and incremental fit index (0.784) indicate that the model used for analysis in the study fits the data adequately. All variables were loaded significantly on their corresponding segments which revealed significant p-value at 0.05 to 0.10 levels. The data collected from respondents was tested for its reliability applying the Cronbach Alfa test. Variables derived from test instruments are declared to be reliable only when they provide stable and reliable responses over a repeated administration of the test. The test results showed acceptable reliability level $(\alpha = 0.783)$ on an average for all observations included for analysis in reference to all variables pooled under different segments. SPSS package was used to compute data of the study. Descriptive statistics and correlation of selected variables are exhibited in Table 2.

//Table 2 about here//

In this study, a five-point Likert scale was employed to measure the consumer preferences for street markets with shopping intentions in the study area. Respondents were sought responses on a five-point Likert scale (anchored by strongly agree=1/strongly disagree=5) to analyze the vendor practices influencing consumer behavior in street markets. The chi-square and comparative-fit index for the factor loadings were analyzed for the model. Regression analysis was performed in order to

[2] The goodness-of-fit statistics that the Tucker-Lewis index (TLI) also known as the Bentler-Bonett non-normed fit index (NNFI), comparative fit index (CFI) and incremental fit index (IFI) tend to range between 0 and 1, with values close to 1 indicating a good fit. The TLI (NNFI) has the advantage of reflecting the model fit very well for all sample sizes. It is observed in past empirical studies these indices need to have values above 0.9 before the corresponding model can even be considered moderately adequate.

ensure that the results on these constructs become non-correlated with the mutual interaction terms (Jaccard *et.al.*, 1990).

Structural Equations Model Specification

In order to analyze the effects of different variables identified in the study on the customer value of buying in the street markets, structural equations model is derived. Multivariate regression technique has been used to estimate equations of the model. These structural equations are meant to represent causal relationships among the variables in the model (*e.g.* Fox, 2002). Let us assume that the consumers value is $\left(C_x^{jt}\right)$ towards shopping in the street markets and ambiance of the street market is $SM_t^{(i1+i2+i3+...in)jh}$ with shopping attractions $\left(i_1, i_{2,} i_3 ... i_n\right)$ such as assortment of vending stalls, freshness of perishable products, organic grains and millets, proximity to the habitat, traditional food, price advantage, and credit facility in j^{th} market at a given time t on a marketplace location h. Thus, deriving consumer satisfaction out the shopping attraction revealed in the street markets can be states as:

$$C_x^{jt} = \sum_t^{jh}\left[SM^{(i_1+i_2+i_3+...+i_n)}\right] \qquad (1)$$

Consumers perceive value $\left(C_{pv}^{jh}\right)$ in buying products in view of their economic, social and cultural preferences stimulated by ethnic factors $\left(E_p^{jh}\right)$ and ambiance of market place $\left(S_a^{jh}\right)$ and assortment of vending stalls $\left(V_a^{jh}\right)$ in the street market. Deriving from equation (1), we get,

$$C_{pv}^{jh} = \sum_t^{jh}\left(C_x^{jh}\right)\left[E_p^{jh}, S_a^{jh}, V_a^{jh}\right] \qquad (2)$$

Hence

$$C_{pv}^{jh} = M_p^{jh}\frac{\partial q}{\partial t} = M_p^{jh}\frac{\partial b'}{\partial k}\frac{\partial k}{\partial t} = M_t^{in,j}\frac{\partial q}{\partial k}\left[E_p^{jh}, S_a^{jh}, V_a^{jh}\right] \qquad (3)$$

Wherein M_p^{jh} denotes buying orientation of consumers in the street markets derived from the perceived value $\left(C_{pv}^{t}\right)$ in a market (j) at location (h), (q) represents the distance traveled by the consumers to the street markets (proximity from the dwelling place) in time *t* with preferential shopping interests (k). In the equation b' expresses the amount spent by the consumers on buying variety of products including food and grocery, fruits and vegetables, meat products, apparel and other leisure products in the street markets. The total quality time spent in the street markets prompts consumers toward spending money in buying goods and services $(\partial_t / \partial_k > 0)$, and customer relations developed between vendors and consumers during interactive buying in street market tend to increase the level of satisfaction of the customer $(\partial_{b'} / \partial_k > 0)$. However, the number of vending stalls in the street market *x* and preferential shopping interests (k) of consumers create lower values with smaller size of street markets $(\partial_k / \partial_x < 0)$, while the assortment of vending stalls in the street market in irrespective of customer relations and price advantages, enhance the consumer value $(\partial_{b'} / \partial_x > 0)$.

Therefore $\int b' \partial b' = \int \left(E_p^{jh} + S_a^{jh} + V_a^{jh} + V_b^{jh}\right)$ (4)

In the above equation V_b denotes the customer value generated in shopping with competitive advantage over time, distance, price and satisfaction in j^{th} street market at *h* location. Applying Ordinary Least Square (OLS) method to measure the perceived value of consumers towards buying in street markets (dependent variable) in reference to the above discussed physical, cognitive and economic variables (independent variables) as exhibited in Table 1 (VS_1, VS_2, VS_3 and Vs_4), we get the construct as below:

$$C_x^{jt} = \alpha + \beta_1 E_p^{jh} + \beta_2 S_a^{jh} + \beta_3 V_a^{jh} + \beta_4 V_b^{jh} + \beta_5 M_p^{jh} + \beta_6 C_{pv}^{jh} + \varepsilon \quad (5)$$

In the above equation error term is denoted by ε.

The model explains that consumers prefer to shop in the street markets as it provides cognitive pleasure, ethnic ambiance, economic advantage, and comfort. Street markets

also offer disruptive innovation products at lower prices. When low priced disruptive innovation products with easy to use versions are offered to the low and middle end consumers, stores doing business in shopping malls with established brands are affected. Street markets around the urban habitat comprising population of C+, C and D+ socio-economic levels, offering disruptive innovative products are always motivated to target up-markets than to defend low-end markets. Hence, street markets pose continuous threat to formal retail markets and play major role in dividing the customer preferences between them and shopping malls (Christensen *et al*, 2006). As a result, the street markets in developing countries emerge as a sub-market, which consists of highly substitutable products and consumer values are reflected in their competitive gains, perceived use values, volume of buying and level of quintessence with the customer relationship services provided by the vendors (Rajagopal, 2009).

Results and Discussion

Street markets in the study area represent a standard assortment of vending stalls which include fruits and vegetables (16.67%), grocery and condiments (20.0%), food (20.0%), fashion accessories and cosmetics (10.0%), apparel (10.0%), audio and video (10%), and miscellaneous products (13.33%) vendors in each market. The regression results have shown strong evidence towards the shopping orientation in street markets of urban consumers in reference to physical preferences comprising variables on logistics market attraction, and consumer preferences including variables concerning shopping attributes and customer relations. The results are discussed categorically indicating the hypotheses tests.

//Table 3 about here//

It may be seen from the results exhibited in Table 3 that demographic surroundings significantly affect the behavior of consumers in choosing marketplace for shopping. Since street markets are located near the urban habitat comprising C+, C and D+ demographic segments, these markets make major impact $(\beta = 0.629, p < 0.01)$ on

consumer shopping preferences. The street markets are generally held at an intersection of street and main roads which attract consumers not only from the neighborhood but also cater to the bystanders on the main street. Thus, location of marketplace also appears to be one of the principal determinants influencing consumers to shop at the street markets $(\beta = 0.471))$. Most of the passer-by consumers halt at the street markets for eating traditional food and do casual shopping. However, proximity of street markets $(\beta = 0.572, p < 0.01)$ to the dwelling places and car parking $(\beta = 0.382, p < 0.10)$ for onlookers, add value to the consumers intending to shop in the street markets. Respondents revealed during the study that street markets which are of ethnic nature in Mexico have good governance by the organizations to which vendors are affiliated $(\beta = 0.601, p < 0.01)$. The markets follow the strictly the opening and closing schedule, undertake proper post-closure sanitation measure by leaving the street clean, the garbage cleaning services are also organized by he vendor organizations at the time of closure of market hours $(\beta = 0.594, p < 0.01)$. Street markets in Mexico operate systematically following the scheduled hours of markets and take appropriate sanitation measures which create confidence among the neighborhood dwellers and consumers towards living with ethnic tradition. Accordingly, the results are consistent with hypothesis H1 (a) and H3 (a).

Ethnicity in the street markets is one of the most significant variables driving consumer behavior in Mexico $(\beta = 0.697, p < 0.01)$ which is largely reflected in the consumers exploring the traditional recipe for eating out. Food vendors in the street markets in Mexico, among other traditional food, also serve hot pan-cakes rolled with meat products, fried pork and fruit juice products which offer ethnic taste and the ambiance of street markets adds value to the consumer perceptions. As a result, eating out in the street markets is often considered by the consumers as recreation irrespective of their socio-economic levels $(\beta = 0.548, p < 0.01)$. Freshness of food products of farm and animal origin is perceived by the consumers as one of attractions in the street markets as compared to super markets $(\beta = 0.481, p < 0.05)$ irrespective of hygienic conditions under which these products are sold. The β value in measuring the hygiene variable as an indicator of

consumer behavior towards shopping in street markets has been insignificant, which shows that ethnicity and hygiene do not go along in determining the consumer behavior of eating out in street market in the study area. Besides, in most of the street markets apparel with ethnic appearance is also sold. Number and assortment of shops are also important determinants of consumers intending to shop in the street markets. Consumers look for number of shops to evaluate alternate buying options and strengthen their bargaining power for getting the price reduced $(\beta = 0.346, p < 0.10)$, while assortment of shops in the street markets tempt consumers to exploring new products, especially low priced cosmetics, and audio and video CDs and DVDs $(\beta = 0.425, p < 0.05)$. Digital audio and video products can be copied at almost no cost from internet and are subject to non-commercial copying by the users. As the copy of a copy typically does not deteriorate in quality, copies can become available on a large scale basis for selling in the street market at a very low price against the original products (Peitz and Waelbroeck, 2006). Consumers in the street markets are attracted also by the ambiance including the market setting under the groove of trees, adjacent parks for leisure time and availability of convenience stores for value added eating pleasures $(\beta = 0.494, p < 0.05)$. The results reveal that customer values in the street markets are associated with ethnic consciousness in shopping and deriving short-term comparative gains over prices despite consideration of health and hygiene. Therefore, the results support the hypotheses H1 (b) and H2 (a).

//Table 4 about here//

Results of variables on shopping attributes and customer relations which attract consumers to the street markets are exhibited in Table 4. It is observed during the study that consumer have various beliefs in shopping at street markets which include helping economically small vendors, getting fresh products of farm and animal origin, a leisure stroll for elderly members of the family, enjoying public places and eating out to relax from the daily routine. The study revealed that personal beliefs significantly influence the shopping behavior of consumer at the street markets $(\beta = 0.577, p < 0.01)$. The locally grown farm products are also believed to be organic by most of the consumers shopping at street markets and consumers' acceptance of organic fruits and vegetables is strongly

influenced by their beliefs and values, and their reasoning (Efthimia *et al*, 2007). Results presented in the Table 4 divulge that urban shoppers exercise limited choices of products $(\beta = 0.374, p < 0.10)$ in the street market and product differentiation has least impact on the consumers. However, consumers felt the difference in selling approach by vendors in the street markets as compared to supermarkets and convenience stores where often consumers seeking clarifications on products and solutions to their needs are left unattended. Vendors in the street markets possess higher listening skills and have the potential of resolving consumer problems with prolonged customer interactions $(\beta = 0.452, p < 0.05)$. Hence, it is felt by the respondents of the study that there exists sales differentiation in street markets in terms of prospecting customer, analyzing need, delivering solutions, closing the deal and building customer relationship on one-to-one basis $(\beta = 0.406, p < 0.10)$. Sales differentiation is observed by the shoppers in reference to pre- and post-sales services offered by the retailers *viz.* consultation on the grocery and cooked food products during pre-sales and customization of products during the sale. It is observed during the study that the contemporary after-sales market is of increasing importance to the retailing firms. One of the features required by the retailing firms is to provide differentiated service levels to different groups of customers (*e.g.* Kranenburg and van Houtum, 2008). It is observed during the study that consumers carry a pre-conceived perception that prices in the street markets are relatively lower than the supermarkets and convenience stores, which did not appear to be true occasionally as the prices offered by the vendors in the street markets are either equal to that of supermarkets or marginally higher as observed in 13.89 percent in case of grocery products in 42.85 percent markets of the total sample. However, consumers are attracted to the vendors when low prices are offered $(\beta = 0.538, p < 0.05)$. In view of the above results it can be stated that hypothesis H2 (b) is conformed.

Credit availability did not emerge as a significant driver for consumers to shop in street markets, though 6.66 percent vendors in 21.42 percent markets to the total sample were found using mobile phone linked point-of-sales terminals subject to purchases of over US $ 37.03 (equivalent to MXN 500 Pesos at the exchange rate of 1USD=13.5 MXN Pesos during April-June 2009 quarter). Telcel, the leading wireless services provider in Mexico,

recently chose Axalto to provide SIM cards and services for subscriber access to dynamic Internet content and services to any GSM mobile phone that enables the point-of-sales terminals to be used for realizing payment from any remote place using internet. It is also evident from the results that better customer services $(\beta = 0.496, p < 0.01)$ combined with vendor loyalty $(\beta = 0.511, p < 0.01)$ help developing higher confidence among consumer towards sustained association with street markets and leads to higher satisfaction $(\beta = 0.539, p < 0.05)$ derived from shopping at street markets. Hence, the results discussed above are consistent with the hypothesis H3 (b).

The factor analysis results are exhibited in Table 5. Factor analysis was conducted to reduce a large number of variables to a smaller number of factors based on the structural equations model discussed in the pre-text where large number of variables precludes measuring individually. Thus, factor analysis is integrated in structural equations to conform the impact of principal components on consumer value as single determined factor in shopping at street markets assuming that this method will place higher variance on the factor (Kaiser, 1958; Comrey *et al*, 1988). The average factor loading was found to be 0.829 which validated the independent variables used in the analysis.

//Table 5 about here//

The results presented in the above table reveal that street markets do not attract consumers of A/B socio-economic level except for the reason of spending time in street markets to enjoy the ambiance $\left[F_{(6,31)} = 0.496, p < 0.01\right]$. Ambiance in the street markets is reflected in combination of variables comprising demographic surroundings, floor area of shops, car parking, covered place for shopping, and sanitation and ethnicity. Street markets are largely preferred by the consumers belonging to C and D+ socio-economic level for shopping in reference to gain in competitive advantages $\left[\left\{F_{(7,169)} = 0.392, p < 0.05\right\} and \left\{F_{(7,106)} = 0.487, p < 0.05\right\}\right]$ respectively over location of market, type of shops, freshness of products, personal beliefs, sales differentiation, price advantage, and interaction with vendors. However, the perceived value of consumers

towards shopping in street markets was found significantly high among the respondents occupying C socio-economic level $\left[F_{(9,169)} = 0.517, p < 0.01\right]$. The variable determining the consumer perceptions towards street markets include location of marketplace, ethnicity, freshness of products, ambiance, personal beliefs, sales differentiation, price advantages, interaction with vendors and vendor loyalty. Table 5 also exhibits results of correlation among principal components which reveal that perceive consumer value of shopping in street markets has high correlation with the components-competitive advantage $\left(r = 0.633, p < 0.01\right)$, market ambiance $\left(r = 0.591, p < 0.01\right)$, and ethnicity $\left(r = 0.684, p < 0.01\right)$. Accordingly, it can be established that behavior of consumers to shop in street markets is influenced by three major factor including competitive advantage, market ambiance and ethnicity, beside other physical, economic and relational variables. Hence the above results also conform with the hypotheses H1 (a), H1 (b), H2 (a), H2 (b) and H3 (b).

Overall analysis of the results reveals that logistics, accessibility, ethnicity and ambiance of street markets influence the shopping behavior of consumers in urban habitat. Results show that low price, freshness of products and vendor-customer interactivity leading to better customer relations also drive the consumer behavior. Hence, street markets and small vendor should thrive to achieve operating efficiencies by making product differentiation, quality improvement, price advantages and opening credit options to the customers. Such strategies would enable vendors of the street markets to sustain increasing competition, and enhance their market share.

Policy Implications

The global displacement of traditional selling cultures which have evolved in the sub-urban habitats by supermarket revolution, and packed agro-exports, have incubated the street markets in developing countries to ensure sovereignty of vendors who hail from small enterprises. It is argued that the economic and political reforms not only increase street vendors' insecurities, but may also undermine the potential for their broad-based solidarity and collective actions. Extreme competition in the overcrowded street commerce and diminishing returns hinder cooperation among street

vendors and fragment the social harmony of the street marketplace (*e.g.* Agadjanian, 2002). In emerging markets, governments generally view street markets as a social issue and fail to understand its effect on productivity and economic growth. The informal economy driven by the unorganized trade is believed to create jobs for unskilled workers, low capital enterprises and resolves urban employment tensions to some extent in short run. However, street markets may grow and eventually join the formal market organizations if they are adequately backed by credit and technology support. In Latin American countries, including Mexico, these markets also manifest in political ideology so they would continue to co-exist in future along the formal market organizations. Thus, street markets need to be developed under the town planning programs by allocating proper place for vendors, parking place for customers, public amenities and measures against traffic disruption during the hours of business in street markets. The future policies need to be designed in such a way that government and social institutions, like street vendor organizations, share responsibilities for the smooth functioning of informal markets. There is also a rising need for regulating the markets of street vendors in developing countries like Mexico and determine the ways of alternative forms of regulation that complement and challenge the state's attempt to impose a "one size fits all' form of regulation for the national economy.

On the corporate front multinational companies manufacturing and retailing consumer goods in developing countries are looking at street markets as a buffer to push sales in sub-urban habitats by lowering the selling and overhead costs. The multinational companies are leaning towards a common approach to cut costs and safeguard revenue by slashing back-office sales overhead and continue to invest in frontline salespeople. Operational strategy of the sales force in many consumer goods manufacturing and marketing multinational companies has moved towards the *feet on the street* model during current economic recession to leverage higher volume sales through vendors. Now they rely on a mixed model emerged as customer-centric frontline product specialists and industry-specific sales managers who play a coordinating role to provide better service and target new revenue opportunities in the unexplored markets (*e.g.* Court, 2008). A categorically planned assortment of stores in the street market would provide diversity,

arousal and propensity to shop among consumers of various socio-economic levels. Accordingly, market organizers may develop appropriate tenancy policies for vendors in reference to the socio-demographic factors of customers to satisfy different segments.

Ambiance of street markets significantly affects the behavior of urban consumers. Since street markets co-exist with commercial centers in developing countries, governments in coordination with the market governing bodies need to develop plans for reorganizing these markets as recreational, leisure and refreshment places that offer customers a value added experience. Recreational shopping needs to be recognized as a multifaceted activity in urban habitat that may be performed in various ways and emerge as leisure commercial parks with ethnic tinge (*e.g.* Kristina, 2006). Street markets may also be considered under the small enterprise definition and municipalities may provide assistance to the street market organizing body for developing web portals to provide information to consumers about the street markets, its governance, type of outlets, comparative data of product, price, promotion, availability, and additional services to shoppers for building shopping motivation.

Conclusion

This study discusses the behavior of consumers in urban areas in reference to preferences in going to street markets, convenience and proximity from dwelling place, economic advantage, and ethnicity. Shopping behavior is largely motivated by the physical factors like location of marketplace, distance, and type of vending stalls in the street market. The study reveals that consumers possess strong belief that street markets offer fresh products of farm and animal origin, and ethnic food irrespective of hygiene standards. Street markets are preferred as leisure shopping destination by the middle socio-economic level consumers in urban habitat. The perspectives of street market ambiance and shopping satisfaction has appeared as one of the effective measure of consumer behavior within various demographic segments in large cities like Mexico City. It is observed in this study that consumers' perceptions of the ambiance, personal beliefs, and ethnic feel mediate the emotions and shopping behavior. The discussions in the study also divulge

that consumer value in the street markets is largely driven by traditional attractions, inter-personal relations with the vendors, and comparative gains among urban shoppers.

Limitations of the Study

Like many other empirical studies this research might also have some limitations in reference to sampling, data collection and generalization of the findings. The samples drawn for the study may not be enough to generalize the study results. However, results of the study may indicate similar pattern of shopping behavior of urban consumers in street markets also in reference to other Latin American markets. The findings are limited to Mexican consumers and convenience sampling. Other limitations include the qualitative variables used in the study which might have reflected on making some causal statements. However, future studies could avoid these limitations by using data from several countries, representative samples, and additional variables.

Future Research Prospects

The core idea of this study to examine the factors influencing shopping behavior of urban consumers towards street markets as it makes the co-existence of street market along with non-conventional shopping centers stronger. This study reviews the previous contributions on the subject and raises some interesting research questions in reference to the governance of street markets, socio-political factors in developing street markets as an alternate route to market for urban consumers, and sales differentiation strategy. There are very limited studies available on street markets that have addressed these questions either in isolation or considering the interrelationship of the above factors. Researchers exploring the area of street or traditional markets are encouraged to carry comparative studies on consumer behavior towards traditional markets and modern commercial centers like lifestyle centers. However, the marketing factors including product differentiation, pricing in street markets, customer relationship, rotational supply chain management as vendors keep moving to different destination round the week, and

psychodynamics influencing consumer behavior may also be addressed in the future studies.

Acknowledgements

This paper has been developed out of the research project conducted by Rajagopal, Professor of Marketing (EGADE), ITSEM, Mexico City Campus on *Consumer behavior in urban shopping locations* under the aegis of Research Group on Consumer Behavior and Competitiveness, Monterrey Institute of Technology and Higher Education-ITESM, Campus Santa Fe, Mexico during 2008-09. Author expresses sincere thanks to Dr Jorge Vera, Professor of Marketing, ITESM-CCM and Coordinator of the research group for extending administrative support to this project.

References

Agadjanian V(2002), Competition and Cooperation Among Working Women in the Context of Structural Adjustment: The Case of Street Vendors in la Paz-El Alto, Bolivia, *Journal Of Developing Societies*, 18 (2), 259-285

Ahmed S A and d'Astous A (2006), Product-Country Images in the Context of NAFTA: A Canada-Mexico Study**,** *Journal of Global Marketing*, 17 (1), 23-43

Armstrong J S and Overton T S (1977), Estimating non-response bias in mail surveys, *Journal of Marketing Research*, 14 (3), 396-402

Badhwar N K (2008), Friendship and Commercial Societies, *Politics, Philosophy and Economics*, 7 (3), 301-326

Bass L E (2000), Enlarging the street and negotiating the curb: public space at the edge of an African market, *International Journal of Sociology and Social Policy*, 20 (1), 74-95

Brennan M A, Flint Courtney G and Luloff A E (2009), Bringing Together Local Culture and Rural Development: Findings from Ireland, Pennsylvania and Alaska, *Sociologia Ruralis*, 49 (1), 97-112

Castillo A, Villarruel-LóPez A, Navarro-Hidalgo V, Martínez-González, N E and Torres-Vitela M R (2006), *Salmonella* and *Shigella* in Freshly Squeezed Orange Juice, Fresh Oranges, and Wiping Cloths Collected from Public Markets and Street Booths in Guadalajara, Mexico: Incidence and Comparison of Analytical Routes, *Journal of Food Protection*, 69 (11), 2595-2599

Chiang L H and Hsu, J C (2005), Locational Decisions and Residential Preferences of Taiwanese Immigrants in Australia, *GeoJournal*, 64 (1), 75-89

Christensen C, Baumann H, Ruggles R, and Sadtler T (2006), Disruptive innovation for social change, *Harvard Business Review*, 84(12), 94-101

Comrey A L, Noller P and Law H (1988), Eyseneck Personality Inventory Item Factor Structure, *Multivariate Behavioral Research*, 23 (2), 159-170

Cooper S and Nelson, M (2003), Economy line foods from four supermarkets and brand name equivalents: a comparison of their nutrient contents and costs, *Journal of Human Nutrition & Dietetics*, 16 (5), 339-347

Court D (2008), The downturn's new rules for marketers, McKinsey Quarterly, December, (Online journal http://www.mckinseyquarterly.com/the_downturn_new_rules_for_marketers_2262 retrieved on 01 July, 2009)

D'Andrea G, Ring L J, Aleman B L, and Stengel A (2006), Breaking the myths on emerging consumers in retailing, *International Journal of Retail & Distribution Management*, 34 (9), 674-687

Efthimia T, Asterios T, George P and Konstadinos M (2007), Consumers' Acceptance and Willingness to Buy GM Food, *Journal of Food Products Marketing*, 13 (2), 69 – 81

Emslie L, Bent R and Seaman C (2007), Missed opportunities? Reaching the ethnic consumer market, *International Journal of Consumer Studies*, 31 (2), 168-173

Fox J (2002), An R and S-Plus Companion to Applied Regression, Thousand Oaks, CA: Sage

Gounaris S P, Panigyrakis G G and Chatzipanagiotou K C (2007), Measuring the effectiveness of marketing information systems: An empirically validated instrument, *Marketing Intelligence & Planning*, 25 (6), 612-631

Herrera-Corredor J A, Saidu J E P, Khachatryan A, Prinyawiwatkul W, Carballo-Carballo A and Zepeda-Bautista R (2007), Identifying Drivers for Consumer Acceptance and Purchase Intent of Corn Tortilla**,** *Journal of Food Science*, 72 (9), 727-731

Hunt S D and Morgan R M (1995), The comparative advantage theory of competition, *Journal of Marketing*, 59 (2), 1-15

Jaccard J, Turrisi R and Wan C K (1990), *International effects in multiple regression*, Thousand Oaks CA, Sage University Press.

Jindal R P, Reinartz W, Krafft M and Hoyer W D (2007), Determinants of the variety of routes to market, *International Journal of Research in Marketing*, 24 (1), 17–29

Kaiser H F (1958), The varimax criterian for analytical rotation in factor analysis, *Psychometrika*, 23 (3), 187-200

Kranenburg A A and van Houtum G J (2008), Service differentiation in spare parts inventory management, *Journal of the Operational Research Society*, 59 (7), 946-955

Kristina Bäckström (2006), Understanding recreational shopping: A new approach, *The International Review of Retail, Distribution and Consumer Research*, 16 (2), 143-158

Kumar S R, Guruvayurappan N and Banerjee M (2007), Cultural values and branding in an emerging market: the Indian context, *The Marketing Review*, 7 (3), 247-272

Llewellyn N and Burrow R (2008), Streetwise sales and the social order of city streets, *The British Journal of Sociology*, 59 (3), 561-583

Loafland J (1985), Protest: Studies of collective behavior and social movements, New Brunswick, NJ, Transaction Books

Löffler G (1998), Market areas – a methodological reflection on their boundaries, *GeoJournal*, 45 (4), 265-272

Malthouse E and Mulhern F (2008), Understanding and using customer loyalty and customer value, *Journal of Relationship Marketing*, 6 (3), 59 – 86

Marston S A and Modarres A (2002), Flexible Retailing: Gap Inc. and the Multiple Spaces of Shopping in the United States, *Tijdschrift voor Economische en Sociale Geografie*, 93 (1), 83-99

McBride J B and Gillespie K (2000), Consumer Innovativeness among Street Vendors in Mexico City, *Latin American Business Review*, 1 (3), 71-94

Narver, J C and Slater, S F (1990), The effect of market orientation on business profitability, *Journal of Marketing*, 54 (4), 20-35

Peitz M and Waelbroeck P (2006), Piracy of digital products: A critical review of the theoretical literature, *Information Economics & Policy*, 18 (4), 449-476

Pena S (1999), Informal Markets: Street Vendors in Mexico City, *Habitat International*, 23 (3), 363-372

Powe N A (2006), Understanding urban attitudes towards country towns: considering their potential as visitor attractions, *Journal of Retail and Leisure Property*, 5 (4), 255-269

Rajagopal (1999), Empowering Rural Women Groups for Strengthening Economic Linkages, *Development in Practice*, 9 (3), 327-330

Rajagopal (2006[a]), Leisure shopping behavior and recreational retailing: a symbiotic analysis of marketplace strategy and consumer response, *Journal of Hospitality and Leisure Marketing*, 15 (2), 5-31

Rajagopal (2006[b]), Measuring Consumer Value Gaps: An Empirical Study in Mexican Retail Markets, *Economic Issues*, 11(1), 19-40

Rajagopal (2008), Consumer Response and Cyclicality in New Product Management, *Journal of Customer Behaviour*, 7 (2), 165-180

Rajagopal (2009), Growing Shopping Malls and Behavior of Urban Consumers, *Journal of Retail and Leisure Property*, 8 (2), 99-118

Rheinländer T, Olsen, M, Bakang, J A, Takyi H, Konradsen F, and Samuelsen, H (2008), Keeping up appearances: Perceptions of street food safety in urban kumasi, Ghana, *Journal of Urban Health*, 85(6), 952-964

Ruekert R W (1992), Developing a market orientation: An organizational strategy perspective, *International Journal of Research in Marketing*, 9 (3), 225-245

Sinnreich H J. (2007), Baluty Market: A Study of a Food Space, *Food, Culture and Society: An International Journal of Multidisciplinary Research*, 10 (1), 73-84

Staudt K (1996), Struggles in urban space: Street vendors in El Paso and Ciudad de Juarez, *Urban Affairs Review*, 31 (4), 435-454

Steenkamp J-B E M and Burgess S M (2002), Optimum stimulation level and exploratory consumer behavior in an emerging consumer market, *Future Generation Computer Systems*, 19 (2), 31-15

Stillerman J (2006), Private, Parochial, and Public Realms in Santiago, Chile's Retail Sector, *City & Community*, 5(3), 293-317

Tang C S, David R B and Teck-Hua H (2001), Store choice and shopping behavior: How price format works, *California Management Review*, 43 (2), 57-74

Tipraqsa P and Schreinemachers P (2009), Agricultural commercialization of Karen Hill tribes in northern Thailand, *Agricultural Economics*, 40 (1), 43-53

Vachani S and Smith N C(2008), Socially Responsible Distribution: Strategies for Reaching the Bottom of the Pyramid, *California Management Review*, 50 (2), 52-84

Vanderbush W (1999), Local workplace organizing in the wake of globalization: Street vendors and autoworkers in Puebla, Mexico, *Space and Polity*, 1 (1), 61 – 81

Wardrop J (2006), Private cooking, public eating: Women street vendors in South Durban, *Gender, Place and Culture*, 13 (6), 677-683

Weber J and Kwan M P (2002), Bringing Time Back In: A Study on the Influence of Travel Time Variations and Facility Opening Hours on Individual Accessibility, *The Professional Geographer*, 54 (2), 226-240

Williams E (2003), Market Reforms, Technocrats, and Institutional Innovation, *World Development*, 30 (3), 395-412

Table 1: Variables Chosen for the Study

Variables by Category	**Physical Preferences**		**Shopping Preferences**	
Analytical Segments	Logistics & Amenities VS_1 (9)	Marketplace attractions VS_2 (8)	Shopping Attributes VS_3 (9)	Customer Relationship VS_4 (5)
Description of variables selected for data collection	Location of marketplace Demographic surroundings Accessibility to market Proximity from residence Floor area of shops Car parking Covered place for shopping Sanitation Market governance	Ethnicity Number of shops in market Type of shops Hygiene and health Freshness of products Food vending stalls Sensory appeals Ambiance of market	Need Personal Beliefs Product differentiation Sales differentiation Range of choice Price advantages Quality factors Credit availability Bargain potential	Vendor interactions Customer services Vendor loyalty Home delivery services Customer satisfaction

VS=Variable Segment. Figures in parentheses indicate number of variables

Table 2: Descriptive Statistics for the Selected Variable Groups for the Study

Variable Groups	VS_1 (9)	VS_2 (8)	VS_3 (9)	VS_4 (5)
Sample Size	441	441	441	441
Mean	8.116	6.749	6.371	9.182
Standard Deviation	1.427	4.309	3.826	0.841
Standard Error	0.172	0.933	0.381	0.239
Skewness	-0.973	-0.327	-0.799	-0.513
Sample Variance	0.692	0.811	0.372	0.901
Data reliability test-Cronbach (α) scores	0.80	0.76	0.74	0.82

VS=Variable Segment.
Figures in parentheses indicate number of variables

Table 3 Determinants of consumer behavior in street markets: Physical Preferences

n=441

Segment	Logistics and Amenities			Segment	Marketplace Attractions		
	Variables	β	SE		Variables	β	SE
VS_1	Location of marketplace	0.471^{**}	0.172	VS_2	Ethnicity	0.697^{*}	0.147
	Demographic surroundings	0.629^{*}	0.210		Number of shops in market	0.346^{+}	0.129
	Accessibility to market	0.518^{**}	0.074		Type of shops	0.425^{**}	1.021
	Proximity from residence	0.572^{*}	0.093		Hygiene	0.291	4.029
	Car parking	0.382^{+}	0.183		Freshness of products	0.481^{**}	
	Sanitation	0.594^{*}	0.073		Food vending stalls	0.548^{*}	0.754
	Market governance	0.601^{*}	0.118		Sensory appeal	0.311^{+}	1.308
					Ambiance of market	0.494^{**}	0.392
$R^2 = 0.561^{**}$ Adjusted $R^2 = 0.264$ Intercept = 0.439^{**}				*p < 0.01, ** p <0.05, +p <0.10, SE= Standard Error All significance levels are based on two-tailed tests.			

Table 4: Determinants of consumer behavior in street markets: Shopping Preferences

n=441

Segment	Shopping Attributes			Segment	Customer Relationship		
	Variables	β	SE		Variables	β	SE
VS_3	Customer Beliefs	0.577*	2.934	VS_4	Vendor interaction	0.452**	0.368
	Product differentiation	0.241	1.628		Customer services	0.496*	0.175
	Sales differentiation	0.406+	0.729		Vendor loyalty	0.511*	0.094
	Range of choice	0.374+	0.415		Home delivery services	0.327+	1.687
	Price advantages	0.538**	1.284		Customer satisfaction	0.539**	1.306
	Quality factors	0.471**	0.633				
	Credit availability	0.385+	0.395				
	Bargain potential	0.262	0.428				
$R^2 = 0.574$** Adjusted $R^2 = 0.421$ Intercept = 0.518**		*p < 0.01, ** p <0.05, +p <0.10, SE= Standard Error All significance levels are based on two-tailed tests.					

Table 5: Measurement of consumer value of shopping in street markets within socio-economic levels: Factor analysis and Correlation results

(n=441)

Demographic composition of respondents		Principal Components[a]						Correlation variables
Socio-economic level	Percent to total sample	Ethnicity	Market ambiance	Type of vending stalls	Competitive advantage	Shopping orientation	Perceived value of consumers	
		E_p^{jh}	S_a^{jh}	V_a^{jh}	V_b^{jh}	M_p^{jh}	C_{pv}^{jh}	
A/B	7.03	0.219 (1.731) *1.000*	0.496* (2.646)	0.194 (0.655)	0.281 (1.385)	0.154 (0.476)	0.211 (0.739)	E_p^{jh}
C+	20.42	0.478* (2.638) *0.715**	0.517* (3.092) *1.000*	0.351+ (1.847)	0.396** (1.935)	0.413** (2.266)	0.488* (2.945)	S_a^{jh}
C	38.32	0.486* (2.438) *0.582***	0.524* (3.277) *0.473+*	0.392** (2.016) *1.000*	0.427** (2.637)	0.418** (2.309)	0.517* (4.293)	V_a^{jh}
D+	24.04	0.472** (3.046) *0.374*	0.487* (2.659) *0.312*	0.406** (3.668) *0.488***	0.583* (4.703) *1.000*	0.374+ (2.479)	0.437** (2.204)	V_b^{jh}
D	5.66	0.377+ (1.827) *0.462+*	0.366+ (1.746) *0.537***	0.272 (0.938) *0.479+*	0.467** (2.458) *0.609**	0.365+ (2.015) *1.000*	0.429** (2.172)	M_p^{jh}
E	4.53	0.241 (1.071) *0.684**	0.205 (0.822) *0.591**	0.258 (1.193) *0.544***	0.352+ (1.832) *0.633**	0.204 (0.921) *0.598**	0.335+ (1.438) *1.000*	C_{pv}^{jh}

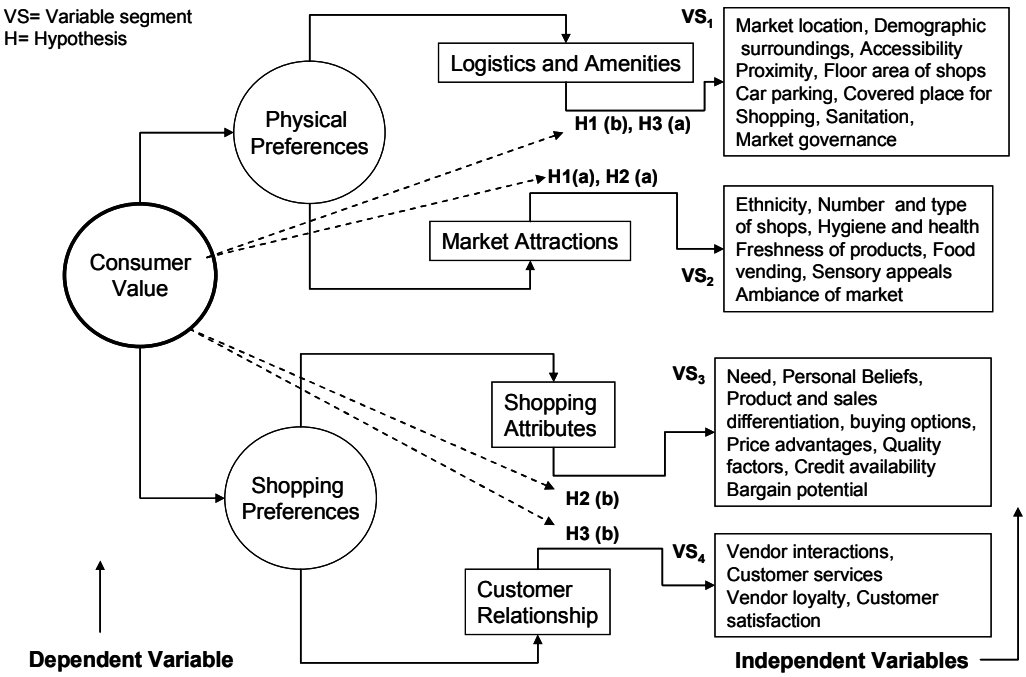
*p < 0.01, ** p <0.05, +p <0.10 All significance levels are based on two-tailed tests.

[a] Parameters for measuring consumer value have been adapted from equation (5). Each parameter in defined in the section on Model Specification in the paper.

Figures in parentheses indicate Eigen values of the weighted correlation matrix

Figures in italics show values of correlation coefficients

Figure 1: Street Markets Influencing Consumer Behavior in Urban Habitat
Conceptual Framework



Appendix-I: Socioeconomic levels in Mexico

Socio-economic Level	Demographic Attributes
A/B	Household income per month over US $7,000 on an average. Members of family possess checking bank accounts and more than 2 credit cards. Live in homes or apartments with more than three or four bedrooms, and two or three bathrooms. Own two or more luxury automobiles, two telephone lines, two or more television sets and one computer.
C+	Household income ranges between US$3,000 and US$7,000 per month. One or two credit cards will be available in the family. Live in homes or apartments with two or three bedrooms and one or two bathrooms. Family members own one or two cars, two telephone lines and two television sets. About 20 percent of households in this category own a computer.
C	Household income ranges between US$1,000 and US$3,000 per month. Some families have a credit card. Live in homes or apartments with two bedrooms and one bathroom. Own one basic automobile, one telephone line, one television set and one audio system.
D+	Household income ranges between US$600 and US$1,000 per month. Family members do not possess credit cards. Live in homes or apartments with one or two bedrooms and one bathroom. Do not own any automobile but have one telephone line and one radio.
D	Household income ranges between US$200 and US$600 per month. No credit cards. Live in homes or apartments with one bedroom and one bathroom. Use public transport and communication means. Own one television set and one radio.
E	Household income stays under US$200 per month. Families live in small homes, a third of which have a bathroom, but most do not have a connection to a municipal sewage system. Household in the class do not possess a telephone but most have only one television set and one radio.

Source: adapted from (a) Grupo Elektra, 2000 *Annual Report* (b) Chu M and Garcia-Cuellar R (2007), *Farmacias Similares: Private and Public Health Care for the Base of Pyramid in Mexico*, Harvard Business School Case, Boston, MA