Spatial Vs Non-Spatial Determinants of Shopping Mall Sales: A Review Analysis

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ABSTRACT

This research reviews the existing literature on retail. Retailing is undergoing unprecedented change in developing economies. It is an integral part of the value chain in an organization, undergoing sea change in developing economies. Many organized retail formats such as convenience stores, departmental stores, specialty stores, super market, super stores, hyper markets and shopping malls are on a consistent rise. Shopping malls as a business entity have started penetrating down the line up to smaller towns. It is evident that the development of a shopping mall entails several strategic decisions from conception, localization, construction and finally to the operation stages[i]. Location has long been known to play a major role in the retailing process. The concept of shopping malls has evolved around various theories of urban spatial structures. The research done in last two decades on spatial & non-spatial determinants of retail sales reveal inter dependence on these factors. Certain empirical studies highlight spatial dependencies among both consumers and retailers[ii]. Extensive review of literature provides insights of recent studies which impress upon the argument that non-spatial factors are as important to shopping mall patronage as spatial factors. The reasons describing the effect of non-spatial factors are to increase retailer differentiation factor in competitive retail markets. Secondly, these factors promote brand identity as retailers develop alternative non-store retail formats. They also eventually represent a source of shopping center intangible value. Thus, the strategies relating to mall space configuration and retail store location within the mall has gained prominence. Proper strategic planning relates to a higher consumer traffic levels that has become a prerequisite for the success of a retail store in a shopping mall.

Keywords: *Spatial Factors, Non-Spatial Factors, Retail Mix, Anchor-Stores, Non-Anchor Stores, Market, Footfalls, Site, Location.*

INTRODUCTION

Shopping malls have become an integral part of the economic and social fabric of India especially in metro's and big cities. A mall offers a more spatially convenient shopping environment. It segregates overall retail and non-retail functions. It stimulates conspicuous consumption similar to multi-story stores. This has been experienced by the customers of all types of classes. A mall include anchor department stores and anchor hyper-markets, along with non- anchor specialty retailers[iii]. Thus shopping mall has been rapidly increasing with various international brands. The leisure patterns being exhibited to fulfill the higher standard shopping space needs of the emerging classes.

Shopping mall operates under centralized ownership and management. Defining market area and trade area are an integral part of site selection process for a shopping mall[iv]. The retail manager most of the time has been using the spatial distribution of customers and competitors to promote sales. Normally before selecting a retail location (& site selection), managers use retail gravitation notions to examine empirically the spatial distribution of retail sales. Mall planners in this fierceful competitive world consider layout of a mall as its central nervous system. Strategic placement of anchor and non-anchor retailers has to meet the consumers' multipurpose shopping needs. The planning of a shopping mall include at least one full-line anchor retailer. Most of the time a mall has more than 300,000 square feet of non- anchor retail leasable area. Normally shopping malls are anchored by large department stores and include different non-anchor retailers arranged along covered pedestrian space[v].

In the modern era of innovations customers are highly influenced by global values. To meet & beat competition a retailer requires accurate spatial distribution information of customers and competitors. As large astrological bodies have great gravitational force, in the similar manner the retail gravity models draw an analogy with Newton's gravitational law to account for human behaviors related to shopping activities. The literature available on the effect of spatial factors on retail sales in a shopping mall has extensively analyzed various spatial and non-spatial factors[vi]. It has also described the effect of non-spatial or intangible factors on retail patronage. Varieties of researches in the context of shopping malls have explained the existence of spatial inter-store externalities. The exhaustive studies are highlighting the anchor and non-anchor stores spatial factors. The location or size of anchor stores affect non-anchor store sales by creating a shopping spillover effect. The non-spatial inter-stores externalities such as retail image and mix, significantly affect non-anchor retail patronage.

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It's important to recognize the effect of non-spatial factors on retail sales[vii]. Now a day's shopping malls try to differentiate from the competitors taking contingence of spatial and non-spatial factors. As the number and variety of shopping malls are increasing, locations are more comparable. Thus, it's imperative that shopping malls with unique brand characteristics are more likely to succeed. Secondly, non-spatial factors are gaining importance across the globe as retailers are more adopting non-store retail formats. E-retailing of established retail firms are more providing non-store based brand exposure[viii]. This has helped to increase their retail performance. Lastly, these non-store factors attract attention as shopping mall owners seek sources of intangible value to reduce property taxes. This research article provides references on the determinants of retail sales through review of literature.

Retail sales are affected by spatial and non-spatial factors. Spatial factors are related to shopping mall's market, building and site while non-spatial factors describe the shopping mall's character and are usually described in terms of retail image and mix.

This research analysis through extensive review of literature try to understand the role of retail crowding with special reference to retail sales and consumers' behavior context. For this study, development of the proposed conceptual framework is based on literatures, such as density study by Stokols (1972)[ix].The store layout research by Hasty & Reardon (1996)[x] and Levy & Weitz (2001)[xi] has contributed to this study. Retail crowding models investigated by Eroglu & Harrell (1986)[xii], Harrell et al. (1980)[xiii], and Gilbert & Hutt (1976)[xiv] have given enough insights about spatial and non-spatial parameters. The emotional responses typology by Mehrabian & Russell (1974)[xv] has added to the review. The store layout patterns and promotional fixtures eg, aisle tables' display were integral part of the physical retail environment factors in the study.

The review has overall enhanced the extended version of shopping behavior. The review of literature also touched upon the nature of intra-centre spatial convenience and its attributes[xvi].

The research develops an accurate outcome clarifying material conditions (like walls, doorways and fixtures) magnifying the configuration of the subject space. A focus on graphic representation of the floor plan is required[xvii]. The floor plan in the case of shopping mall requires focused approach regarding interior public areas from the mall entrances upto the entrances of the stores. The interior and exterior plans of buildings, site and neighborhoods along with the shape recognition process has to be applied in a shopping mall that decomposes the spatial configurations[xviii]. These steps are broken down into various activities which enable setting elementary shapes. Thus it defines function as units of analysis. The approach shares justification to interpreting syntactic measures which help relating appropriate non- spatial parameters like pedestrian movement. Defining the subject space within which people move describes the floor plan provided by mall management. The outcomes are usually field checked and redrawn to develop an accurate floor plan that represents actual material conditions. These elements change the spatial arrangement and consequent traffic movements in subtle but significant ways. To elaborate further the shape syntax typically uses three elementary units of analysis bounded spaces. Bounded spaces to start with clarify typical enclosable rooms with doors which usually correspond to functional use designations and inventory levels. Convex spaces provide details of deformed circles representing the largest unobstructed space[xix]. The study describes axial lines with unbroken straight visual / walking lines to identify the extent of spatial continuity from the entrance[xx]. The axial line relates to a person walking down in a shopping mall.

LITERATURE REVIEW

The literature review in this study provides details of density models. The physical environment, consumers' characteristics, retail crowding, emotional responses, and consumer shopping behaviors are simultaneously studied. The literature could highlight details sharing difference on the importance of distance among retailer and consumers (Mejia and Benjamin, 2002)[xxi]. In certain researches Gautchi (1981)[xxii] as well as Eppli and Shilling (1996)[xxiii] suggested that the distance parameter may be significantly overstated in previous retail gravity research. The academic literature on shopping malls has evolved around various theories of urban spatial structure (Hotelling, 1929; Christaller, 1933; Losh, 1940; and Alonso , 1964)[xxiv]. The strategies relating to space configuration and store location within shopping mall are studied (Vandell and Lane, 1987[xxv]; Pearson, 1991; Brueckner 1993; Roulac, 1990 and brown, 1999). Eroglu & Harell (1986)[xxvi], Harell et al. (1980)[xxvii] , and Gilbert & Hutt (1976)[xxviii] focused on the store layout patterns and promotional fixtures eg, aisle tables' display. It was included as physical retail environment factors in their study. The breadth of shopping behavior has been extended. The contribution of retail store crowding to shoppers' emotion has been examined. The conceptual framework in various studies included the variables of retail density, consumer factors, and perception of crowding, emotional responses, and behavioral outcomes. They are important elements in store interior design (Hasty & Reardon, 1996)[xxix]. This may affect consumers' perception of crowding and emotions while shopping in the store. Spatial density in the study refers to the number of fixtures and configurations in retail settings. Levy and Weitz (2001) and Pegler (1998) suggested that grid layout, free flow layout, aisle tables, and cash registers as important physical environment factors that are related to consumers' shopping attitude. Each may affect shoppers' perception of crowding in different ways. Ceiling height and lighting are additional physical factors. For retail crowding, two dimensions of

crowding like, spatial crowding and human crowding were identified by Machleit et al. (1994)[xxx]. Spatial crowding may be defined as the shopper's perception of restrictiveness of physical body movement within limited customer space while shopping at a store. These perceptions may, in turn, influence the shoppers' perception of overall feelings of crowding. The research elaborates perceptions of human crowding. It appears to rise from high density with number of shoppers simultaneously participating in browsing, transaction, and interaction activities on the selling floor (Machleit et al., 1994)[xxxi]. The research review shares the conceptual framework which focuses on a shopper's characteristics like, shopping motives, time pressure, expectations of crowding, prior experiences of crowding, tolerance for crowding, gender and age. These may influence one's perception of retail crowding. Human density, the other dimension of retail crowding, refers to the number of shoppers in a store at a particular time. In a retail store, high human density can affect shoppers' perceived crowding and their satisfaction (Machleit et al., 2000). The image of a shopping mall may also impact upon sales level (Brown, 1992; Kirkup and Rafiq, 1994; and Anikeeff, 1996)[xxxii]. It stems from consumers' perception of major occupants (Nevin and Houstan, 1980[xxxiii]), shopping mall size and configuration. IT also signifies the quality of goods and services offered. In this respect, image of a retail store is increasingly dependent on fashion (James, Durand and Dreves, 1976; Jain and Etgar, 1976; Mazursky and Jacoby, 1986; and Grewal, Krishnan, Baker and Borin, 1998[xxxiv]). Similarly, the research review provides insights on the affects tenants in their negotiation for an optimal location (Mejia, Eppli and Benjamin, 2001[xxxv]). Finally, the spatial auto correction issue was addressed by Carter and Haloupek (2000)[xxxvi] on the grounds of previous work performed mainly on the residential market (Griffith, 1987[xxxvii]; Pace and Guilley, 1998[xxxviii]; Dubin, Pace and Thibodeau, 1999[xxxix]). Mejia and Benjamin (2002)[xl] throw light on non-spatial factors for example, retail image and mix. These are considered the most relevant determinants of shopping mall sales and rents. While a similar conclusion has been extracted from Hardin, Wolverton and Carr's (2002)[xli] study on community centers. The researcher insisted on the need to include spatial information in rental market models.

A shopping mall can offer spatial convenience in two ways (Thompson, 1967)[xlii] . The first is via its proximity to consumers. It further highlighted the fact that shorter the distance between the two, the more spatially convenient it is. Hence, in the research review, spatial convenience refers to the time and effort involved in travelling to a shopping mall. The second means for offering spatial convenience is by minimizing the time and effort involved in travelling within a shopping mall. The spatial convenience in the researches has been referred to as intra-centre spatial convenience. The research review explains four attributes of a mall that determine its intra-centre spatial convenience; its retail concentration, its size, its layout and its store compatibility (Reimers and Clulow, 2009)[xliii].

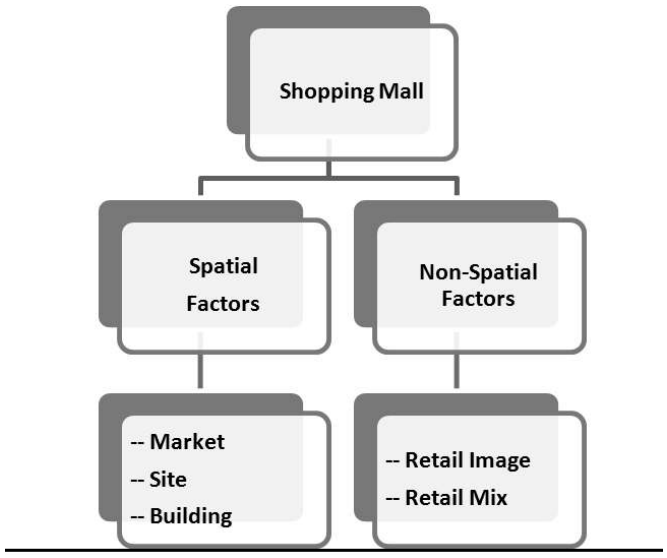
The review of the central place models proposed by Christaller (1935, 1966)[xliv] and Losch (1954) provides an insight to the basic framework for normative theories of the spatial organization of retailing. It explains simple postulates regarding consumer buying behavior. These models attempt to logically deduce the expected spatial organization of retail firms. Both Christaller and Losch[xlv] presented a number of conclusions regarding the location and spacing of different types of retail firms. The validity of many of the normative predictions of central place theory have been confirmed by a number of empirical studies. These research works further provides insights on retail organization in metropolitan as well as rural areas (Berry 1967; Berry and Barnum 1962)[xlvi].

Another research paradigm on spatial & Non-spatial determinant is space syntax methods. It's being used to understand shape recognition to generate a topological or theoretic formal model of spatial configuration. The plan of a shopping mall explains spatial configuration which signifies the space where people can walk. The concept of space syntax is used increasingly in anthropology and archeology (Ferguson, 1996)[xlvii]. It has been used rigorously to analyze shopping malls (Brown, 1994; and Teklenburg, Aloys, Borgers and Timmermans, 1994)[xlviii].

Another significant research contribution is referring to "spatial distribution of shopping malls and analysis of their trade Areas in Istanbul" by Zhan Entekin, Vedia Dokmeci, Tuba Unlukar & Evren Ozus (2003)[xlix]. The study investigates the spatial distribution of shopping malls with respect to population. The factors which effect the shopping mall location were explored by the researchers. It focused more on establishing relationship between the shopping mall space, income population and distance to the central business district (CBD) of the locations by using the regression analysis. It revealed that income was the only factor affecting the location of shopping malls. The results of the study fell within the concept of central place theory. Tripathi, P. Aditya, studied the "emerging trends in modern retail formats and customer shopping behavior in Indian scenario: a meta analysis and review". They studied the emerging trends in shopper's behavior by studying 30 shopkeepers from 6 malls operating in Delhi/ NCR. Tabak, Ozgen and Aykol (2005)[l] worked on the research area with the topic, "high school girls shopping mall experiences, perceptions and expectations: A qualitative study". In this study the researchers had focused on the expectations, experiences and perceptions of high school girls to understand what attracts them to the malls. The researchers identified six themes as "duration timing companion, frequency, spending money the reasons for visiting the favorite shopping mall. The researchers also analyzed the participant's positive and negative perceptions and their expectations. Kuruvilla, Jose. Shelja. and Ganguli, J. (2008)[li], " mall development and

operations: an Indian perspective". The researchers studied the Indian perspective of shopping malls. Liu and Yuping (2007) found out the long term impact of loyalty programs on consumer purchase behaviour and loyalty. Hendrik, Meyer- Ohle (2006)[lii], "Two Asian Malls: Urban Shopping Centre Development in Singapore and Japan". This study explored the factors underlying the development of urban shopping malls in Singapore and Tokyo. Brubaker (2004)[liii] in his thesis, site selection criteria in community shopping centers: Implications for real estate developers defined market area as a "conglomeration of retail stores" and have explained various factors influencing the market, such as visibility, access, traffic, and parking. Shim, Soyeon and Eastick, Ann. Mary (2003)[liv], studied the hierarchical influence of personal values on mall shopping attitude and behavior". Ford, Ken (2002)[lv], "shopping as it should be: welcome to the mall", the researcher had studied various facets of shoppers buying behavior with respect to retail formats. As the decisions on a shopping trip are recursive processes of shopping experiences, perception of crowding can influence shopper's satisfaction and future shopping choices. Huff (1966)[lvi] review can provide insights about store loyalty as well. However, it has been observed that a very few retail centers as they currently stand are regarded as being well placed to serve the needs of an aging population (Myers and Lumbers, 2008)[lvii]. There is also a dearth of research into how malls and strips compare in the actual provision of intra-centre spatial convenience which is henceforth referred to as a supply-side analysis. Yet in spite of its potential benefits, the need to incorporate a combined demand-side / supply-side analysis has been ignored in academic research.

EXHIBIT: 1 FACTORS THAT AFFECT SHOPPING MALL SALES PERFORMANCE



Ref exhibit: 1: Buyers and sellers available within a given geographic area forms a retail market. Retail sales are to define further are the resultant of the dispersion of these buyers and sellers. The researchers Betancourt and Gautschi's (1988)[lviii] with their theoretical analysis suggests, buyers first assess consumption benefits and costs and then make demand, making supply decisions that maximise utility. Income, population and demographic characteristics are the market (retail) demand factors that affect retail sales. Income and population better explains the variability of retail sales. In another study Feber (1958)[lix] empirically analyzes aggregate and individual income as the variable of shopping mall sales. The researcher finds that wealthier areas have higher retail sales. Lillis and Hawkins (1974)[lx] and Anderson and Kaminsky (1985)[lxi] share their agreement with the study of Russell out-shopping argument. They analyze shopping data across small towns. The conclusion drawn is that some consumers travel outside their areas to purchase products that could otherwise be obtained closer to home. Certain exclusive research work done by Adamchak, Bloomquist, Bausman and Qureshi (1999)[lxii] shared their argument that retail sales and aggregate income may not be necessarily be correlated. The fact which emerged is that analyses of population and retail sales are also turning ambiguous. The parameters like, total population, household size and population change could help explain the total retail sales, sales per household and retail employment change respectively. On the contrary a research done by Liu (1970)[lxiii] further added that population density may not necessarily explain retail sales. When we talk of demographic characteristics the review of already existing literature has provided many inputs on the consumer buying behavior. Certain researches focus more on consumer characteristics, including population age, education, occupation and ethnicity which in totality determine consumer tastes and subsequently leading to retail patronage. Lachman and Brett (1996)[lxiv] has a typical argument that younger consumers pay more attention to advertising and brands while older consumers shops differently. They are more knowledgeable about merchandise quality and less concerned with image. Liu (1970), in turn, studied on college going students. The outcome has been that the proportion of consumers with college education positively affects aggregate and per capita sales. On the similar kind of research, Evans, Christiansen and Gill (1996)[lxv] survey the shopping behaviour of various types of consumers. They provided insights on the extent to which the behaviour of consumers follow social and family influences. When the case of patronizing shopping mall comes, this survey provides an insight about the female homemakers who are more sensitive to family influences. It is found that when the retail supply decisions are generally being analysed, the competition, agglomeration, prices, entry barriers, scale economies and distance factors are accounted for. The researchers who studied market supply factors affecting retail sales have shared variety of findings. Certain exclusive researches by Benjamin, Jud and Okoruwa (1993)[lxvi], Benjamin, Jud and Winkler (1995, 1998a, 1998b)[lxvii] studied the retail competition and shared the findings that

retail space which is usually recognised as a proxy for competition, is a function of retail sales. Another research by Bresnahan and Reiss (1991)[lxviii] shared their outcome of the research that retail profits vary with the number of competitors. Gabszewicz and Garella (1987)[lxix], Wilde (1982)[lxx] in their research put forth their findings that retailers which are located in proximity to one another reduce consumer search costs. They explained that the relationship between retail competition and sales are bi-directional. Another exclusive work by Bresnahan and Reiss (1991) could study the affect of competition on retail profits. They found that retail profit is high with few retailers and it diminishes as the number of competitor's increases. Some of the cases of research have explained the findings where excess profits getting reduced, even if the competition remains unchanged. On the contrary in other researches the excess profits persist with the presence and availability of new competitors. The research review touched upon the benefit of scale economies which exclusively depend on the market's retail capacity. Ryan, Von Hohenbalken and West (1990)[lxxi] in their research findings explained that retailers make decisions to enter a market in response to the changes in market capacity. The capacity is measured as the number of stores of the same type. Agglomeration concept is also being reviewed. The principle of minimum differentiation explains that competition between two sellers of a similar product leads to agglomeration at the shopping mall of a linear market. They suggested that the sales of similar stores increase as they locate closer to each other. In any case, agglomeration process is being recognized as the attempt made by similar retailers to reduce consumer search costs. Researches done on the subject has been exhaustive. Researchers Gabszewicz and Garella (1987)[lxxii] studied on this phenomenon of agglomeration. They confirms this view point that by noting store clustering outweighs the uncertainty associated with consumer search. It creates a positive effect on sales.

It reveals that store proximity is beneficial when the combined set of retailers meet consumer needs that a store could not meet singly. According to the findings market equilibrium may not be attained, if the sellers are not far enough from each other. The study on retail externalities shares the fact that positive inter-store externalities, sometimes termed as demand externalities (Eppli and Benjamin 1994), are the positive effects generated from one or more tenant(s) to other tenant(s). This effect is realised without consent and compensation between the generator and receiver. These demand externalities have been recognized as significant agglomeration economies. To have an overall view on retailing it generates increased returns in shopping malls. However, the researchers explained agglomeration economies in shopping malls as more than just the spillover of customer drawing power of the anchor tenants. Under a wider definition of positive inter-store externalities, these inter-store effects should have a broader content including compatibility and complementarily among tenants. The research outcomes explained about the enhancement of the shopping atmosphere by the mall management resulting into sales efforts, shopper circulation, the public services and facilities provided by the shopping mall. Consequently, one of the most critical objectives before a shopping mall management is to maximize these positive inter-store externalities. This has lead to achieve the highest profits and possible investment returns. Although, the research study has taken note of a well-managed shopping environment where the mall management put stress to the internalization processes that are accomplished through the distribution of obligations and resources among tenants. These parameters are like rents, service charges, leasing incentives, other non-monetary obligations and regulations. Consistent studies try to figure out the meaning of "strong" tenants and observe the internalizing process through empirical studies. The major objective in the empirical study revolves around the impact factor of "strong" tenant's base. The three characteristics highlighted through researches are: size of tenant, strength of chain stores and the top retailers in each retail/service categories.

Many researches on retail location theory bring in thrilling observations. Nelson (1958) was the first to illustrate the agglomeration of retail activities. The research is based on the theory of cumulative attraction and the principal of compatibility. In their research they suggested that retail store spatial affinities are based on three location theories. The research elaborates the theory of land use and land value, central place theory and the theory of tertiary activity. All the above theories relating to store clustering have given an insight concerning the agglomeration of retail stores. They are homogeneous or heterogeneous is not much stressed upon. The shopping mall management generates some kind of collective or inter-store advantages. These retail stores consequently increase transaction opportunities and store profits. The research reviews highlight the inter-store advantages generated by agglomeration process. The studies have also justified the possible ways to enhance or manage any positive inter-store effects. The resultant is achieving higher collective benefits for all stores. Within the shopping mall tenants are able to receive mutual benefits. The benefits are not only from other individual stores but, from the collective advantages of the whole shopping mall. Many researches for instance has been more focused on small tenants which altogether bank upon the strong customer drawing power generated by anchor stores. These benefits would not be available if they were scattered as single-freestanding stores. In a shopping mall by sharing the total costs of the public services and facilities, these tenants obtain the collective benefits of higher quantity and quality of services. These facilities given by small tenants are able to draw and serve more customers in a shopping mall. This synergy of retail

tenant-mix increases the interchange of customer footfall among stores and also raises operational performance. The turnover, profits and rental value of each tenant creates synergy. Positive inter-store externalities enhances favorable interactive effects generated from one store which spillover to other store(s). However, despite these positive inter-store externalities being only a "by-product" to the generators, they are essential resources for those stores receiving benefits and for the shopping mall at large. Consequently, maintaining and enhancing these positive inter-store externalities has become one of the most crucial tasks for shopping mall management.

OBJECTIVES AND CONTEXT OF RESEARCH

This study through a review of literature analysis develops the economic trade-off between spatial and non-spatial determinants of shopping mall sales. Location has long been known to play a major role in retail sales. Shopping mall site selection and retail store strategic placement has long been driven by primary market data linking income, wealth and location. Due to rising obesity levels, declining fitness levels and shopper lethargy, retail planners must give serious consideration to the physical demands malls are place on their patrons. The research encircles the following objectives:

i. To identify the different spatial & non-spatial determinants with special reference to the shopping mall sales.
ii. To investigate the role of retail crowding and its relationship with shopping mall sales.

RESEARCH ANALYSIS & FINDINGS THROUGH REVIEW OF RESEARCH

In analysis through review of literature six components of crowding emerged.

i. Spatial crowding
ii. Human crowding
iii. Area spatial crowding
iv. Consumer factors
v. Perceived store crowding
vi. Emotional responses
vii. Consumer satisfaction
viii. Behavioral outcomes

Retail density commonly explained as spatial density and human density are the antecedent of retail crowding. Spatial density refers to the number of fixtures and configurations in retail settings.

i. Grid layout
ii. Free-flow layout
iii. Aisle tables
iv. Cash registers

Are some of an important physical environment factors that are related to consumers' shopping attitude. Each may affect shoppers' perception of crowding in different ways. Ceiling height and lighting are being explained as additional physical factors in the literature review. They are important elements in store interior design that may affect consumers' perception of crowding and emotions, while the process of shopping is on, in the store. Human density, the other dimension of retail crowding, refers to the number of shoppers in a store at a particular time. In a retail store, high human density can affect shoppers' perceived crowding and their satisfaction. For retail crowding, two dimensions of retail crowding are very important:

i. Spatial crowding
ii. Human crowding

Perceptions of human crowding appear to arise from high density. This has lead to the number of shoppers simultaneously participating in browsing, transaction, and interaction activities on the selling floor.

The second component of the conceptual framework focuses on a shopper's characteristics like:

i. Shopping motives
ii. Time pressure
iii. Expectations of crowding
iv. Prior experiences of crowding
v. Tolerance for crowding
vi. Gender and age

These parameters on non-spatial determinants may influence one's perception of retail crowding. The effect of spatial density and human density on retail crowding varied depends on individual's perception and actual experience such as, tolerance of crowding. The third component is overall perceived store crowding. This has emerged from perceptions of the factors of spatial crowding and human crowding. The fourth component illustrates emotional responses being explained under conditions of crowding. According to previous studies, individual's non-verbal responses to retail environments were a major determinant of shopping behavior. The conceptual design included negative emotions being explained through various varied review of literature. There are studies which have immensely contributed towards positive emotions to the consumer retail shopping. The emotional response dimensions are elaborated as pleasure, arousal, and dominance. These characteristics have been used to predict approach and avoidance behaviors with respect to the retail environment. The final component elaborates the consumer shopping behavioral outcomes. This has been included to examine the behavioral factors explaining how shoppers adapt to the crowded retail environment and make their shopping decisions.

The research review analysis has highlighted this fact that anchor retailers enhance the sales of non-anchor retailers by attracting consumers to the shopping center.

This has created a shopping spillover effect. On the contrary the availability of non-anchor retailers, as a group in a shopping mall affect their own sales performance by locating close to one another. This has added value to the shopping experience by satisfying the consumers' multipurpose shopping needs. It is imperative that the shopping mall sales performance is measured in terms of non-anchor retail sales per square foot. Retail image in a shopping mall throw reflection in the form of customer footfall. Normally research review provides insights on anchor retailer non-spatial attributes. These attributes are measured in terms of anchor retail fashion image. On the contrary non-anchor retailer non-spatial attributes are measured in terms of non-anchor retail mix.

The research review brings in this fact that anchor retail fashion image and non-anchor retail-mix do not affect non-anchor retail sales per square foot. Furthermore, the correlation function in variety of researches elaborate that the more fashion-oriented anchor retail image is facilitating more heterogeneous non-anchor retail mix. This would lead to more non-anchor retail sales per square foot. The review analysis indicates that anchor retail fashion image and non-anchor retail mix significantly affect non- anchor retail sales per square foot. Typically on a mall survey its being found that the large department stores are serving as anchor stores. Varieties of non-anchor retailers arranged along covered pedestrian space are serving the spatial dimensions. The findings of literature analysis have described spatial attributes. These attributes are related to and focused more upon the shopping mall's market, site, and building.

Various studies further laid down explanation of non-spatial attributes which describe the retailers' character. These characters are usually measured in terms of retail image and mix.

Retail image is the store's character in the shopper's mind. Retail mix is the combination of retailers resulting from a threshold decision process that indicates:

i. recruitment of new retailers

ii. the eviction of existing ones

iii. the exchange of one retailer for another

Shopping mall inter-store externalities result from the concurrent presence of anchor and non-anchor retailers. Sales performance of anchor retailers affects non-anchor retail by attracting consumers to the shopping mall and thus, creating spillover effect. In the same way, non-anchor retailers, as a group, affect their own sales performance by creating an agglomeration effect. This allows them to satisfy the consumers' multipurpose shopping needs. Anchor and non-anchor inter-store externalities can be spatial. Spatial inter-store externalities are commonly recognized. Non-spatial inter-store externalities are also recognized but not easily measured. In the review analysis of researches, the limited empirical evidence could be evaluated with reference to the effect of attributes related to the anchor retail image and non-anchor retail mix. This has impacted the shopping mall patronage.

The existence of inter-store externalities has been found unique to the operation of a shopping mall. As opposed to freestanding retail locations, shopping mall provides anchor and non-anchor retailers with the means to satisfy consumer demand more efficiently. Research review highlights that shopping malls with more or larger anchor retailers perform better than shopping malls with less or smaller anchor retailers. Shopping malls multiply the individual retailers' ability to attract consumers and, in the process, permit certain retailers to benefit from the presence of others. The concurrent presence of anchor and non-anchor retailers in a shopping mall is guaranteed through various contractual arrangements. Shopping mall owners first negotiate the presence of anchor retailers. Recognizing the anchor retailer's consumer drawing power, shopping mall owners commonly subsidize department stores by giving land, paying a lump sum that is used to build stores, or reducing the rental payments. Anchor stores strategic placement within a shopping mall is not uniform across the industry. But it's found that shopping mall owners usually attract department stores by offering direct or indirect benefits. In exchange for these benefits department stores stay in the shopping mall for relatively long terms. At the same time, shopping mall owners lease space to non-anchor retailers. Owners lease space to satisfy the non-anchor retailers' desire. The research findings show that the desire is to locate close to other retailers to attract more consumers. Non-anchor retail rents vary depending on the retailer merchandise category and the individual retailer. Sales performance of a shopping mall is typically measured in terms of non-anchor retail floor space productivity. Its namely in terms of non-anchor retail sales per square foot.

The literature analysis also highlighted the fact that the income is the only factor affecting the location of shopping malls. The size of the catchment area of the shopping mall from inner zone is larger than the peripheral ones. It's due to higher accessibility with alternative transportation systems and supporting functions in its surrounding areas. The review of literature highlights that the concept of central place theory was reinforced. The roles of market and infrastructure factors in shaping spatial patterns have been examined in variety of researches. The available researches on central place theory are greatly enhanced by geographical information system (GIS).

Certain research papers investigated the spatial distribution of shopping malls according to the concentric zones of the city. The relationship has been established between the shopping mall space and income, population and distance to the central business district (CBD), and trade area analysis of malls. Although characteristics of malls such as combining shoppertainment, shopping and eating already exist in the traditional shopping streets and climate control in the

historical covered bazaars. A shopping mall offers convenience when it minimizes the spatial, temporal and effort costs of shopping. The literature analysis highlights existing strategies for spatial convenience. This includes limiting the size of a shopping mall by controlling the entry of non-retail firms, creating a compact physical design, and creating compatible clusters of shops.

The research review throw light on the issue related to the size of a shopping mall, the recent academic interest has typically focused on the notion that "bigger is better". This finding is in the context of a mall. In this regard, mall size has been found to have a positive impact on mall sales. However in the researches already done the potential negatives that stem from shopping at a large retail centre have been largely overlooked. The larger a shopping mall, the greater the potential distance the shopper must walk. Thereby impacting upon its intra-centre spatial convenience and subsequently the time and effort required to shop there. Increased size may not automatically equate to increased utility because most consumers will only be interested in that portion of the shopping mall that carries their desired product. As such, academic opinion is divided on the importance consumers assign to shopping mall size. The importance consumers assign to intra-centre spatial convenience only establishes its potential influence. A reason to choose one retail format over another, consumers must perceive spatial differences between them. This is being supported by the concept of offering superior value of merchandise over another.

Literature analysis highlights the fact that "lesser-known stores can free ride off the reputations of better-known stores. The research analysis discusses other factors such as age of mall, shopping mall size; number of units, lease terms, shopping mall location type, enclosure type and parking spaces defines the spatial and non-spatial determinants of shopping mall sales.

CONCLUSION

The research review analysis highlights that intra-centre spatial convenience was one of the three convenience factors rated as important by consumers. The mall further enhances intra-centre spatial convenience by organizing its stores into compatible clusters. Malls also minimize intra-centre spatial costs by segregating shopping and non-shopping functions. Thus, it becomes quite clear that the mall offers shoppers greater intra-centre spatial convenience. The review also explains the benefit in combining a demand-side and supply-side approach. Convenience has always influenced the varying fortunes of malls. Hence, the mall owners should always be open to the land consolidation, re-zoning and /or creating compatible clusters of stores to bridge the competitive gap. Attributes like a compact size and layout, and compatible clusters of stores are more in trend. Retail planners thus, must give full weightage to creating retail environments compatible with such human factors and conditions of strategic convenience. Offering intra-centre spatial convenience provides one such strategy for a mall to outshine the competitors.

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