# Influence of Retail Store Design on the Performance of Retail Store Managers

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**Abstract.** The purpose of this study is to examine the influence of retail store design on the performance and job satisfaction of retail store managers. A structural equations model is tested with 200 managers of a large supermarket chain. Moderating effects of crowding and perceived control on design satisfaction are examined. Managerial implications for strategy and theoretical contributions are discussed.

**KEYWORDS:** Store experience through design, Design and employee experience

**JEL Code:** M 310

## 1. Introduction

The retail store is the last, but certainly not the least, important step in the supply chain. Indeed, it could be argued that the retail store is perhaps the most critical venue because it is the ultimate interface between the product and the consumer. The retail setting is also distinct in the sense that it serves as both a workplace for employees and a buying place for customers. In the last couple of decades, marketing researchers have devoted increasing attention to the impact of retail store design on various shopping and consumer behaviors (for reviews, see Turley & Milliman, 2000 and Eroglu & Machleit, 2008).

Yet, while researchers have examined the effect of store design on customers, this literature has not examined the way that store design affects employee cognitions and behaviors. This omission is serious because a better understanding of how workspace design affects its occupiers is likely to have implications for employee (performance, satisfaction, turnover) and service outcomes (service quality, customer satisfaction, loyalty).

Because employees spend extended periods of time within the retail store, the impact of store design should be even more pronounced than its previously demonstrated effects on shoppers.

Missing from the literature, however, is the impact of the physical store environment on employee cognitions and behaviors. This omission is serious because a better understanding of how workspace design affects its occupiers is likely to have important implications for employee outcomes (such as performance, satisfaction and turnover), service outcomes (service quality, customer satisfaction and loyalty) and the ultimate retail strategy.

Furthermore, since employees, more so than customers, spend extended periods of time within the retail store, the impact of store design should be even more pronounced than its previously demonstrated effects on shoppers.

The modern commerce comes off through the agency of the stores with considerable commercial surfaces and more and more bigger as in the case of the stores of the type hypermarket, supermarket, discount and cash and carry that are the places where the population prefer to do the shopping at the present time.

The hypermarket is a type of store invented in France, in 1963, by the firm Carrefour, being a of sale point that individualizes itself, essentially, through:

- the surface for sale is of over 2.500 mp;
- the size of the assortment of merchandise : between 25 and 50 thousands references, of which 4000 from the food sector;

- the public food sector present with three rooms of consumption : restaurant, home town buffet (cafeteria), snack bar;
- the presence of all departments, even of those that practise the sale through the agency of salesmen (meat, salami and sausages, cheese, vegetables-fruit), in the help-yourselves flux;
- a cash register (at the exit from the help-yourselves flux) for every 200 mp of sale surface;
- the construction on a single level;
- the settlement, usually, at the periphery of the town;
- the availability of a large parking area (1200 parking places on an average ).

In the last few years, the hypermarkets consolidated their "locomotive" role in the commercial centers where there are specialized dealers and service bidders. Thus, for example, in a period of 30 years, in France the hypermarket became the most dynamic form of commerce, getting to represent almost 21% of the total sales through en detail commerce. This spectacular dynamic of the hypermarkets was also sustained through the opening, outside France, of numerous of sale unities of French origin. Other European countries know, sometimes under other forms, the " hypermarket " phenomenon, starting from 1000 mp, like for example, "Verbraucher Market " in Germany.

The increase of the market rate of the hypermarkets is accompanied by a mutation of the concept, characterized through two evolutions:

- a pronounced bipolarization of the typodimensions of the store: big hypermarkets of over 8000 mp (Carrefour, Auchan), considered the most profitable, but with a less rapid evolution because of the lack of the settlement availabilities; small hypermarkets, of up to 5000 mp (Leclerc, Intermarche); the last ones are often obtained through the transformation of the supermarkets and have a weight of the nonfood sector sufficiently reduced;
- a qualitative amelioration of the offer : in order to satisfy the consumers' needs, that are more and more hard to please, the hypermarkets have the tendency to extend their offers with new products, with services set in the very vicinity, multiplying its efforts in order to make the purchase cadre agreeable. Anyway, the discount prices remain the major axis of the commercial politic of the hypermarket.

The purpose of the present study is to fill this void in the marketing literature by exploring the impact of retail store environment on employee job outcomes. Specifically, we examine such influence on retail store managers' performance and job satisfaction outcomes. No study to date has examined the unique situation of store managers' environmental responses. Thus, we present and test a model positing that managers' satisfaction with store design (which is affected by job demands and satisfaction with their own private office space) impacts their job performance and job satisfaction.

## 2. Theoretical background and proposed model

### 2.1 Physical environmental stimuli

Commercial domains where marketing exchanges of services and products take place have been classified in various ways in the marketing literature. Perhaps the most dominant among these efforts is Bitner's classification (1992) which presents a tripartite conceptualization with "ambient," "space/function," and "signs/symbols/artifacts" as the three major categories.

Ambient stimuli include background characteristics and, as a general rule, appeal to five senses. Spatial/functional stimuli define the sizes and shapes of equipment and furnishings, the ways in which they are managed, the spatial relationships among them and their ability to facilitate performance. Signs/symbols/artifacts are all the objects that implicitly or explicitly communicate information about the place to its users. Given the lack of literature on environmental effects on employees, we use the findings in consumer contexts as the underlying conceptual base of our model. General perceptions of store interiors have been found to influence a number of consumer behaviors, including approach/avoidance, time spend in the environment, and sales. Among the specific environmental stimuli that shape these perceptions are music, scent, color, and lighting. Music affects a number of behaviors including arousal, perceptions of and actual time spent in the store, as well as the perception of other visual stimuli in the store (Gulas & Schewe, 1994; Hui, Dube & Chebat, 1997).

Similarly, olfaction (aroma) is shown to affect consumers' variety seeking behavior, perceived time spent in the store, and amount purchased (Hirsch, 1995; Spangenberg, Crowley & Henderson, 1996; Mitchell, Kahn & Knasko, 1995).

Studies on color showed that different hues stimulated sales, pleasant feelings, time spent in store, and attraction to displays. Lighting has been shown to influence store image as well as desire to handle and examine merchandise (Areni and Kim, 1994).

Layout and display factors refer to variables such as floor space allocation, fixtures, product and department groupings, merchandise organization, and allocations within departments. Findings show that they affect shopper perceptions, notably of price and unplanned purchases in the stores. Research on in-store signage shows the impact on sales via the content and format of the information the signs reveal.

### 2.2 Employee satisfaction with store

Research on environmental psychology and organizational behavior has shown that workplaces can significantly affect employee well-being and satisfaction. While the extent to which the physical environment affects the psychological state of employees is not known, there is evidence from different sources that the relationship can be significant.

Links have been found between physical office environmental stimuli such as temperature, lighting, air quality, and office design and employee attitudes and behaviors, especially satisfaction and turnover.

### 2.3 Hypothesized model

The proposed model hypothesizes a direct and positive link between appraised appropriateness of the physical store environment and satisfaction with the store's environmental qualities as shown in Figure 1.

Given the above discussion, if the store manager perceives the store environment to be appropriate, then s/he is likely to be satisfied with the physical store environment.

To help with further development of the relationships hypothesized in the model, informal interviews were conducted with retail store managers.

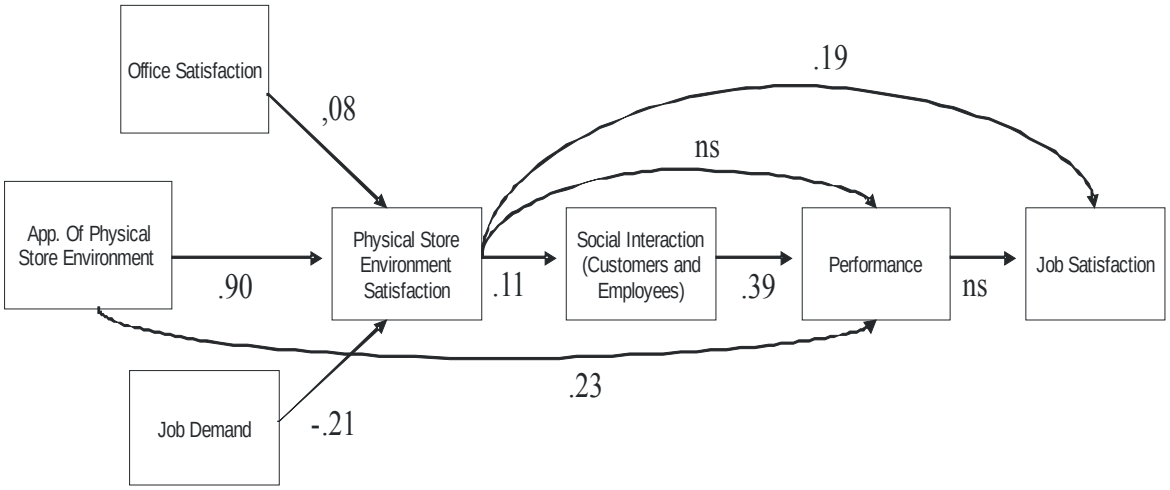
These interviews uncovered an additional environmental venue that needed to be included in our model. For the retail store managers, there is not one, but two different workspaces to consider: in addition to the general store, there is also the private office space of the manager.

These are generally small and enclosed offices located in the back of the store and are intended to address the managers' need for privacy and territorial control. Although no specific research exists on the relationship between the perceptions of private office and general store, our informal interviews suggested a direct, positive link between office satisfaction and general store environment satisfaction.

Similarly, our interviews suggested the possible link between job characteristics and perceived store environment, hence, we hypothesized a negative relationship between managers' perceived job demands and their physical environment satisfaction.

The physical store environment satisfaction, in turn, influences the extent of social interaction in the store between employees and between employees and customers as well as the overall job satisfaction of the store managers.

*Figure1.* **Hypothesized Model and Coefficients**




## 3. Method

Data were collected from 250 store managers of a large supermarket chain in Turkey. 200 questionnaires were complete and usable. The respondents participated in the study while attending a

workshop; they were given assurances of anonymity and the option to opt out of participation if desires. The project was presented as academic research designed to explore various aspects of store managers' job conditions and outcomes.

The respondents were debriefed after completing their questionnaire.

The measures were adopted from well-cited scales in the environmental psychology, marketing and organizational behavior literature. Perceived appropriateness of the physical store environment is a 12 item, five-point scale adapted from Bitner (1992) and contains the following items: air quality, noise level, music, smell/odor, store plan, color scheme, tools, furniture, signs, style and decoration and organized merchandise.

Because these are formative indicators of the "appropriateness of physical store environment" construct, we created an index using all of the items.

Office satisfaction (4-item), physical store environment satisfaction (4-item), and job satisfaction (6-item) scales were subjected to a confirmatory factor analysis. Due to a weak fit of the CFA model, the office satisfaction and job satisfaction scales were reduced to 3 items and 4 items, respectively. Office satisfaction is a Likert-type scale containing the items "My personal office in the store is appropriate," "I am satisfied with my personal office," and "The physical layout of my workspace is will suited to the tasks I do."

Physical store environment satisfaction measure is also a Likert-type scale and contains the items "The physical layout of my store is well suited to the tasks I do," "My store helps me serve customers efficiently," "All things considered, I am very satisfied with my store," and "I'm proud to show my store. The job satisfaction scale consists of items such as "If you were free right now to go into any job you wanted, what would your choice be?" with options of "take the same job," "take a different job," and "not want to work."

The reliabilities of these three scales are 0.97, 0.90 and 0.81.

Job demand, originally a 6-item Likert type scale, was reduced to 4 items via confirmatory factor analysis.

The reliability of the scale is 0.73 and it consists of items such as "My job requires working fast" and "I have a great deal of work to be done." The social interaction scale is adopted from Nezlek (1993).

It is a 6 item 5 point scale with "lot" and "little" anchors at each end. Reliability is 0.74 and it consists of items such as "Rate the interaction between you and your employees" and "Rate the interaction between you and your customers."

Performance is a 3-item, 5 point scale with "the best" and "the worst" as anchors at each end. The respondent is asked to rate his performance compared to others and includes items such as "How would you rate yourself in terms of the quantiy of work you achieve in store" and "How do you rate yourself in terms of quality of your performance in regards to managing the store." Reliability is 0.70.

## 4. Conclusion

The model was estimated using Lisrel 8.7. Rather than run a model with measurement and structural coefficients estimated simultaneously, the model was run by setting the error term for each of the variables to (1-reliability)*(variance) to account for measurement error in the estimated structural relationships (Anderson & Gerbing, 1988).

Fit indices indicate a good fit. Normal theory-weighted chi square for this model is 14.88 with p value of 0.094 (df=9). RMSEA is equal to 0.054, AGFI is .94 and CFI is 0.97. While two hypothesized relationships were nonsignificant, all the other paths have significant t values and are consistent with theory.

Our findings show that physical characterstics of the store environment can have an impact on job outcomes of the employees who work in it. These results demonstrate that appropriateness of the physical environment has a dramatic effect on physical store environment satisfaction (path coefficient being equal to 0.9).

Appropriateness also has an effect on performance, highlighting the importance of the store environment on job performance of retail store managers. Interestingly, the link between job performance and job satisfaction is not significant, but there is a significant link between physical store environment satisfaction and overall job satisfaction, once again underscoring the importance of the store environment to these store managers.

The physical store environment satisfaction also affects the extent to which store managers socialize with customers and employees-clearly a desirable outcome that, as the model shows, increases job performance.

Perhaps the most significant finding in this research is the fact that perceived appropriateness of the store physical environment and store environment satisfaction had significant effects throughout the model.

This finding has a number of managerial and theoretical implications. The strong impact of the workplace physical qualities is a topic which has been gaining growing recognition among senior leadership in both private and public organizatrions. As a matter of fact, a recent survey among office workers has shown that over 80% have consistenly marked as "important" or very important" when asked about how critical the physical environment is to their work performance (Price, 2007).

Further, the survey underscored the imporance of the physical environment in workplace interaction among the employees: where interaction happens was seen as having the largest positive impact on perceived productivity. In the case of retail workers, interaction is especially critical because it involves two different types of it: interaction between employees, and, more importantly, interaction between employees and customers. The latter type of communication has direct implications for customer service quality in the stores.

These results should be interpreted with caution. First, the study focused only on retail store managers. Retail employees, in general, are different from other office workers in that their job requires constant movement without being enclosed in a particular area.

Even the store managers who comprised our sample and, who do have the privilidge of a private office, rarely find the opportunity to be use it and be sedentary for any extended period of time. Therefore, our findings may not be generalizable to other groups, such as clerical employees, who are more confined and limited than retail emplyees in terms of their workspace environment. Second, our data were not collected within an experiemental design, hence any causality implied in our findings (between physical environment and its job-realted influences) is not technically justified. However, we believe that the direction of the relationships we have uncovered is on target with previous laboratory and field experiments done in the context of environmental influences on consumers in marketing, and workers in management.

Future research on this topic should address the issue of the store environment appropriateness construct. We measured the construct consistent with prior research where different aspects of the environment are evaluated. Another way to get at this concept could be to ask for evaluations or ratings of the overall appropriateness of the environment for shoppers, for the employees, and how well the environment "fits" with the store image. Future research may also want to consider the role of individual difference variables such as "atmospheric responsiveness" (Eroglu, Machleit & Davis 2003) or involvement to determine if moderating effects are present.

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