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The impact of grocery retail superstores location on the customer's perceived quality of servicescape in Jordan

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ABSTRACT
The aim of this study was to examine the impact of customers' perceived location quality of retail stores on the perceived quality of the servicescape. Therefore, this study examined to what extent the customers shopping at more convenient, accessible, visible and attractive location; are shopping also at more convenient store environment in term of visual, olfactory, and auditory cues. Three retail superstores were surveyed in Amman the capital of Jordan. These retail superstores were: Carrefour, Safeway, and C-Town. A questionnaire was designed to collect the data from customers of these retail stores. A sample of 1055 customers was surveyed. Multiple linear regression analysis was used to analyze the relationship between the location factors and the servicescape factors. This study revealed that the impact of retail stores location dimensions on perceived servicescape quality was moderate to low in two cases, and low in one case. This indicates that locating store's branches in high access, visible, and attractive location have low to moderate servicescape quality. In addition, retail stores that exist in good locations have better visual cues than auditory and olfactory cues. This result was the same for the three retail stores. The theoretical stance of retail stores location and servicescape quality is too fragmented. The majority of previous studies have focused on reporting the location or servicescape as a separated construct. Very limited studies have investigated this issue in service sector in general and retailing in particular.

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grocery; Jordan; location; perceived quality; retail superstores; servicescape

Introduction

The retail stores' customers' service experience affects the customers' satisfaction and loyalty (Lin and Bennett 2014). One of the main targets of retailing planning politics is creating an environment, which will increase quality of the shopping environment for consumers and will let every class of people to reach retail possibilities easily with equal conditions (Eckert, He, and West 2015). The retailers should focus on engaging the customers both behaviorally and emotionally. The success in retailing is less about what the retailer has to sell and more about how they sell it (Sachdeva and Goel 2015). The service experience expressing how the retailers sell the product from the customers view point. This concept is a dynamic, experiential and relational activities and interaction rather than dyadic, designed and produced by the firm for customer (McColl-Kennedy, Cheung, and Ferrier 2015; Lipkin and Lipkin 2016). The service experience is a multi-dimensional phenomenon, which includes; social, cognitive, affective and physical experience (Pareigis, Edvardsson, and Enquist 2011; Khare 2013; Resnick, Foster, and Woodall 2014). The service experience affects key performance indicators as customers' loyalty and satisfaction (Bustamante et al. 2017; Min et al. 2017).

The customers' perceived servicescape quality is a crucial part of customer experiences. The customers' consumption behavior is affected by the customers' perceived servicescape (Chang 2016). The positive perception of servicescape is affected by the customers' participation in making the design of servicescape itself (Dong and Siu 2013).

Many studies have investigated the impact of customers perceived servicescape quality on the customers perceptions, attitude and behavior (e.g., Jain and Bagdare 2011; Hultén 2012; Borges, Babin, and Spielmann 2013; De Nisco and Warnaby 2013; Campbell and Fairhurst 2016).

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These studies found that the shopping visitors' loyalty and desires to stay are affected by the perceived servicescape (Wu et al. 2013; Wahlberg 2016), also the perceived service quality (De Nisco and Warnaby 2013), purchase and total sales are affected by the servicescape (Hultén 2012; Borges, Babin, and Spielmann 2013; Campbell and Fairhurst 2016). The servicescape quality also affects the employees' behavior (Skandrani, Ben Dahmane Mouelhi, and Malek 2011) and the service delivery (Resnick, Foster, and Woodall 2014).

In addition, the retail store location is an essential part of customers' service experience. Consumers may weigh store attributes differently depending on the type of shopping trip (Hunneman, Verhoef, and Sloot 2017) and driving time (De Beule, Van den Poel, and Van de Weghe 2015). Accordingly, the location decision is a critical factor for the retailers since it has a series impact on the retailers' profits and image (Roig-Tierno et al. 2013).

Proper retail stores' location is a major factor affecting the success of retailers and provide strategic advantages that are difficult to overcome by competitors. The choice of a store's location is considered the most important decision a retail store is making. The location is considered as a critical factor of success, which influence the customers' perceived sense of facility place (Arrigo 2015). Location affects a customer's travel time and is an important competitive priority in a service business. The location of a facility affects process flow, costs and customer perception and satisfaction.

The literature is still having a gap in studying the impact of customers' perceived retail stores location on the perceived servicescape quality. The majority of location decision related studies have focused on categorizing the retail stores according to location decision (e.g., Öner and Larsson 2014), or identifying the location decision factors that are taken in consideration (e.g., Nilsson and Smirnov 2016; and Wang et al. 2014), and the impact of retail store location on customers preferences of retail stores (e.g., Hunneman, Verhoef, and Sloot 2017; and De Beule, Van den Poel, and Van de Weghe 2015).

However, the majority of servicscape related studies have focused on examining the impact of servicescape on customers perceptions or image about the retail stores (e.g., Durna et al. 2015; Huarng et al. 2014; Hooper et al. 2013), and customers attitudes and behavior (e.g., Jain and Bagdare 2011; Hultén 2012; Orth, Heinrich, and Malkewitz 2012; Borges, Babin, and Spielmann 2013; De Nisco and Warnaby 2013; Campbell and Fairhurst 2016). Very limited studies have investigated the determinants of servicescape as the geographic region or location (e.g., Verhetsel 2005).

The retailers are looking to provide customers with more impressive service experience, so they are trying to manage the process of service experience from the beginning by choosing a good location which is accessible for customers, followed by making the store environment more convenient for customers. Accordingly, the literature has a significant gap in term of determinants of retail stores servicescape in general, and the impact of retail stores location on particular.

The retail sales in developing countries have increased more than 350 percent and now represent more than half of total global retail sales, Jordan is 13th in GRDI (Global Retail Development Index), Jordan's market is the least saturated Middle Eastern country as ranked in the GRDI, and it's the fast growth of population, also an attractive for potential entrants, the retail space grew by 7 percent to 158,000 square meters, and sales increased 2.5 percent during 2016 (Ben-Shabat et al. 2016). Jordan retail market is concentrated in Amman, which hosts most of the top developments, Grocery retail stores sales have increased by 5 percent over the past three years, and international retailers have taken notice (Ben-Shabat et al. 2014).

Therefore, the aim of this study was to investigate the impact of perceived retail stores location quality on the perceived servicescape quality. Therefore, to what extent the customers shopping at more convenient, accessible, visible and attractive location are shopping at more convenient store environment in term of visual, olfactory and auditory cues. Accordingly, this study answered the following research questions:

- What is the impact of customers' perceived location quality of grocery retail superstores on the perceived quality of visual cues in Amman- Jordan?
- What is the impact of customers' perceived location quality of grocery retail superstores on the perceived quality of auditory cues in Amman- Jordan?
- What is the impact of customers' perceived location quality of grocery retail superstores on the perceived quality of olfactory cues in Amman- Jordan?

This paper is issued in six sections: the first is an overview of retailing in Jordan, and the grocery retail superstores. The next section is the literature review, which represents the conceptual model of the study. The third section is the research methodology and data analysis techniques used in the research. The fourth section is the data analysis and findings. The fifth section is the discussion. The last section is the conclusions, applications, limitations and future researches.

Overview of retailing in Jordan

Jordan is a constitutional monarchy with a representative government, which located in the Middle East region. The total population of Jordan is about 10 million. The GDP of Jordan is $38.8 billion, the service sector participates by about 70% of GDP, and the contribution of retail and wholesale sector is about 10.8% of GDP (Al-Bitar 2017).

The wholesale and retail trade sector have benefited from the changes in the country's economic structure after Jordan joining the World Trade Organization (WTO) in April 2000. The retail sector in Jordan is consisted of small retailers, local, multinational, and small family business. The introduction of supermarkets and superstores was a kind of re-shaping of the retail sector (Khraim et al. 2011).

Three foreign grocery brands have branches in Jordan. These are Carrefour, Safeway and C-town. 80% of foreign retailers' branches are located in Amman. The concentration of foreign brands branches in Amman is somehow close; it is between 75% and 86%. Therefore, the majority of foreign retail stores are located in Amman. On the other hand, the number of local grocery brands in Jordan is four. The local stores are MCC, CSC, Sameh Mall and Cozmo. The government owns the first two brands, and the last two are private. 24% of local retailers' branches are located in Amman. The percentage of local retailers' branches concentration in Amman is between 15% and 100%, so the branches of local brands branches are spread overall the country. Grocery retail stores sales have increased by 5 percent over the past three years, the international retailers have taken notice (Ben-Shabat et al. 2014).

Safeway superstores were the first international supermarket open in Jordan (U.S. franchise) in 1987. It succeeded in making possible for Jordanians to buy everything in one location (Khraim et al. 2011). C-town is a multinational superstore (U.S.) is the second after Safeway and has opened in 1994. While Carrefour (French) opened first branches in Amman in 2006.

Literature review

The consumers of retailer comprise ambience, layout and service relationships dimensions (Khare 2013). The customer involvement, customer placement and physical artifacts are the most important for customer's service experience (Pareigis, Edvardsson, and Enquist 2011).

The researchers' theoretical underpinnings for how individuals realize the customer experience within the environmental, social, and temporal context through intermediation (Lipkin and Lipkin 2016). Customers focus on utilitarian features of service experience and less on extraordinary aspects. However, staff still perceive the service encounter as a key requisite for successful service delivery (Resnick, Foster, and Woodall 2014).

The retailers should focus on engaging the customers both behaviorally and emotionally. The success in retailing is less about what the retailer has to sell and more about how they sell it (Sachdeva and Goel 2015). The service experience expressing how the retailers sell the product from the customers view point. This concept is a dynamic, experiential and relational activities and interaction rather than dyadic, designed and produced by the firm for customer (McColl-Kennedy, Cheung, and Ferrier 2015; Lipkin and Lipkin 2016).

The service experience is multi-dimensional phenomenon, which includes social, cognitive, affective and physical experience (Pareigis, Edvardsson, and Enquist 2011; Khare 2013; Resnick, Foster, and Woodall 2014). The service experience affects the key performance indicators as customer loyalty and satisfactions (Migdadi 2013; Migdadi 2015; Bustamante et al. 2017; Min et al. 2017; Alkhatib and Migdadi 2018).

The customers perceived servicescape quality is a crucial part of customer experiences. The customer consumption behavior is affected by the customers' perceived servicescape (Chang 2016). In addition, the retail store location is an essential part of customers' service experience. Consumers may weigh store attributes differently depending on the type of shopping trip (Hunneman, Verhoef, and Sloot 2017) and driving time (De Beule, Van den Poel, and Van de Weghe 2015).

Retail superstores servicescape

Servicescape term was coined by Bitner (1992) as "the physical surroundings as fashioned by service organizations to facilitate the provision of service offerings to spectators which comprise both tangible and intangible aspects". Intangible aspects as music, scent and temperature. Whereas tangible characteristics include fixtures, decorations, colors, lighting, buildings, layout and design (Hoffman and Turley 2002; Hoffman and Bateson 2010).

Many studies have shown that physical environments, also termed servicescapes play an important role in customers' impression formation (Bitner 1992). In 1992, Bitner studied in depth the concept of servicescape as an environment in which a service is provided. Bitner (1992) explained that servicescape

can be considered as one of the tools used in the area of consumer behavior.

The retail stores' environment dimensions are; physical, social and ambient dimensions (Baker 1986). Zeithaml, Bitner, and Gremier (2009) defined servicescape as "the environment in which a service is delivered and in which the firm and the customer interact, and any tangible commodities that facilitate performance or communication of the service".

Bitner (1992) coined the term of "servicescape" to denote a physical setting in which a marketplace exchange is performed, delivered, and consumed within a service organization (Zeithaml, Bitner, and Gremier 2009). In addition, Bitner conceptualized the existence of three types of objective, physical and measureable stimuli that constitute a servicescape. These stimuli are; characterized as being organizationally controllable and able to enhance or constrain employee and customer approach/avoidance decisions and to facilitate or hinder employee/customer social interaction (Parish, Berry, and Lam 2008).

Zeithaml, Bitner, and Gremier (2009) reinforce Bitner's idea with the thought that servicescape acts as a facilitator. Later, in 2011, Rosenbaum and Massiah complete Bitner's and Zeithaml's definitions by explaining that servicescape includes several dimensions as physical, social, socially-symbolic and natural dimension. Accordingly, servicescape is a complete concept, which includes a wide range of variables. Rosenbaum and Massiah (2011) argue that the social dimension is the easiest to understand because it is more perceivable. Moreover, some environmental stimuli of the physical dimension may be linked for different reasons (as crowd and layout).

Zeithaml, Bitner, and Gremier (2009) declared servicescape as the facilitator that assist the employee performance in organization. Liu and Jang (2009) declared the servicescape as "the facilitator's role which demonstrated when the physical environment increases or restricts the efficient flow of activities during the service encounter". They also explained socializing factor of servicescape as "the design of servicescape helps in socializing employees and spectators in the sense that it conveys the expected roles, behaviour and relationships between them". A Lovelock (2011) argued that servicescape is designed to facilitate productivity rise, service encounter, reduce service failure and improve service delivery process. Garland, Macpherson, and Haughey (2004) argued that physical surroundings help in endorsing respect and care for the customers.

Bitner's (1992) servicescape concept is grounded in the stimulus-organism-response (SO-R) paradigm and is one of the most cited typologies in marketing (Tombs and McColl-Kennedy 2003). The servicescape framework describes the effect of a complex mix of atmospherics, such as physical design and decor elements, which influence the internal responses and external behaviors of both consumers and employees.

Servicescape is defined as "the man-made, physical surroundings as opposed to the natural or social environment" (Bitner 1992, p. 58) and is accepted as an important determinant of consumer psychology with respect to affect (e.g., emotion), cognition (e.g., satisfaction), and behavior (e.g., patronage, positive word of mouth). Mehrabian and Russell (1974) postulated that all responses made within a servicescape are considered approach or avoidance of behaviors.

The majority of previous studies have focused on examining the impact of servicescape on the customers perceptions or image about the retail stores and perceived service quality (e.g., De Nisco and Warnaby 2013; Durna et al. 2015; Huarng et al. 2014; Hooper et al. 2013). The impact of servicescape on the customers retention, loyalty (e.g., Orth et al. 2012; Wu et al. 2013; Wahlberg 2016). In addition, its impact on purchase and total sales (Hultén 2012; Borges, Babin, and Spielmann 2013; Campbell and Fairhurst 2016).

Very limited studies have investigated the determinants of servicescape as the geographic region (e.g., Verhetsel 2005), or the impact of strategy on the relationship between customers satisfaction and perceived servicescape quality (e.g., Miles, Miles, and Cannon 2012). Accordingly, very limited studies have investigated the impact of location decision on the quality of retail stores servicescape.

The location decision of retail superstores

The choice of location for the retail stores is a logistic operational action. According to Vinh and Devinder (2005) location selection for distribution center is worked out through three main stages. At the first stage, a general geographical area for distribution center is identified based on the center of gravity principle, taking into consideration socio-economic factors. The second stage of the selection process involves the identification of alternative locations for the distribution center and the location of airports and sea ports for inbound and outbound cargo flows. The third stage focuses on specific site selection among the identified alternative locations for the distribution center based on the quantitative approach.

The location issue is defined as a 'spatial resource allocating problem' in that one or more service

facilities serve a spatial distribution of demands (Brandeau and Chiu 1989). This issue has received attention from both academicians and practitioners. From a holistic perspective, it can be classified into two popular categories: locating the manufacturing facilities (such as plants, warehouses, etc.) and locating distribution centers in a retailer facility network. The research stream of this issue could be classified into cost based quantitative models and qualitative models.

The research literature regarding location decisions of distribution centers (DCs) in a retailer facility network are quite limited in comparison with ones of manufacturing facilities location decisions (Rosenfield 1987). The retail geography literature is the main source for the academic research in the field of retail location (Resnick, Foster, and Woodall 2014). Different models were developed for determining the optimal store location, which dates back to late 1980s, the golden age for location analysis (e.g., Wringley 1988). These models seeks to identify the optimal location depending on multi-factors analysis as the number of competitors, store size, proximity to major attraction, vehicle traffic.etc (Wood and Tasker 2008).

Despite the development of geographic information system, the location decision is still complex and requires more attention at the micro level taking in consideration the impact natural, social, temporal and spatial dimensions (Resnick, Foster, and Woodall 2014). After reviewing, the literature on store location models that adopted in the UK, Eastern and Central Europe (Clarkson, Clarke-Hill, and Robinson 1996), the location dimensions are convenience, which is the quality or situation that makes something easy or useful for someone by reducing the amount of work or time required doing something. Accessibility, which is the ability to access and benefit from some system or entity. Visibility, which is the quality or state of being visible and known to the public. Attractiveness, which is having the power or quality of drawing interest and attraction.

The impact of location on the quality of retail superstores servicescape

The influences on the perceived quality of servicescape are numerous and various. The impact of geographic location on marketing strategies has been a hot topic in marketing, which enforces some researchers to develop conceptual models. Limited studies have investigated the impact of location on marketing strategies (e.g., Geomarketing models in supermarket location strategies) (Baviera-Puig, Buitrago-Vera, and Escriba-Perez 2016).

Some of these studies found that the space allocation patterns of food (core) and non-food (non-core) products should be adopted to local market conditions, which differs from location to another (Campo et al. 2000). The neighborhood characteristics play a dynamic role on the relative attractiveness of product categories within a store (Verhetsel 2005). The allocation of store space of different products categories differ according to location characteristics (Campo et al. 2000).

The location of retail stores is a critical factor because this decision affects financial performance and corporate image (Roig-Tierno et al. 2013). The retail stores of different kinds are possible to be categorized with respect to their location pattern (Öner and Larsson 2014). The different types of retail stores valued street centrality differently. Specialty stores the most valued this attribute in comparison with supermarkets and furniture stores. This factor affects the commercial land use intensity (Wang et al. 2014).

The transportation infrastructure affects the location and accessibility of retail stores (Nilsson and Smirnov 2016). Consumers may weigh store attributes differently depending on the type of shopping trip. Major shoppers treat service factors as less important. Convenience is a more important for regular fill-in shoppers (Hunneman et al. 2017). The driving time has a strong impact on the customers preferences toward particular retail store (De Beule, Van den Poel, and Van de Weghe 2015).

Methodology and methods

This section discusses the methods used to answer the research questions. It is divided into seven sections: study population and sample design, developing the questionnaire, questionnaire translation, the pilot study, the scales reliability, the ethical considerations and data analysis techniques.

Population and sample design

The sampling technique of this research was a multi-stages sampling technique. The first stage was identifying the surveyed retail stores, then, identifying the sample size of respondents (customers) for each retail store.

Stage 1: Identifying the surveyed retail stores

Table 1 shows the statistics of grocery retail stores hypermarkets in Jordan. It can be seen that three foreign grocery brands have branches in Jordan. These

Table 1. Statistics of hypermarkets distribution across Jordan.

#	Retail stores	Total number of branches in Jordan	Total number of branches in Amman	% of branches in Amman
Foreign				
1.	Carrefour	16	12	75%
2.	Safeway	12	10	83%
3.	C-town	7	6	86%
	Total	35	28	80%
Local				
4.	MCC	112	17	15%
5.	CSC	8	8	100%
6.	Sameh Mall	8	4	50%
7.	Cozmo	3	3	100%
Total		131	32	24%

Table 2. Study respondents' population and sample.

(1) #	(2) Retail stores	(3) # of branches in Amman	(4) Calculation of Retail Store Ratio	(5) Ratio	(6) Visitors/ "population of study"	(7) Sample
1.	Carrefour	12	12/60	0.200	166,288	382
2.	Safeway	10	10/60	0.170	141,345	382
3.	C-town	6	6/60	0.100	83,144	382
					390,777	**1146**
4.	MCC	17				
5.	CSC	8				
6.	Sameh Mall	4				
7.	Cozmo	3				
Total		60				

are Carrefour, Safeway and C-town. The total number of foreign branches in Jordan is 35. The number of branches in Amman city the capital of Jordan is 28, which represents about 80% of branches. On the other hand, the number of local grocery brands in Jordan is four. The local stores are MCC, CSC, Sameh Mall and Cozmo. The government owns the first two brands, and the last two are private. The total number of local branches in Jordan is 131. The number of branches in Amman is 32, which represents 24% of branches. Therefore, the majority of foreign retail stores are located in Amman. Further, the concentration of branches in Amman by foreign brands regardless of brand name is somehow close; it is between 75% and 86%. However, the branches of local brands branches are spread overall the country. The percentage of concentration is too deviated between brands, and it is between 15% and 100%. So Jordan retail market is concentrated in Amman, which hosts most of the top developments. Grocery retail stores sales have increased by 5 percent over the past three years, and international retailers have taken notice (Ben-Shabat et al. 2014).

Stage 2: identifying the respondents (customers) sample of the chosen retail stores

The source of data was the retail stores customers (visitors). In order to identify the population and the sample size of visitors for each retail store the approximation method was used. This technique was used because of unavailability of published retail stores' visitors' statistics.

The procedure of sampling design was as follows:

1. The retail stores and the number of their branches in Amman were identified (Table 2, columns 2, 3).
2. The relative number of branches for each retail store was computed by dividing the number of branches of each retail store by the total number of branches (Table 2, column 4).
3. The total number of populations in Amman was identified by referring to Population and Housing Census (2016) report that was published by the Department of Statistics. The number is 4,007,526.
4. The average size of family was identified by referring to Department of Statistics Census (2016). The size is 4.82
5. The number of families in Amman was computed by dividing the number of people lives in Amman by the average size of family. (4,007,526/ 4.82 = 831,437) (note: no published census about the number of families in Amman).
6. By assuming that almost one family member conducts the shopping. So, the proposed size of population is the number of families living in Amman, which is 831,437 customers.
7. The total proposed visitors or the population of each retail store was computed by multiplying the total population (831,437) by the relative number of branches (Table 2, column 6).

Table 3. The sample representation for Amman populations' characteristics.

Characteristics	Category	% Amman	% Sample Respondents
Gender	Male	52.9%	45%
	Female	47.1%	55%
Nationality	Jordanian	89.2%	87%
	Non-Jordanian	10.8%	13%
Education level	Bachelor an upper	26.5%	72%
	Diploma	9.8%	18%
	Secondary	10.8%	10%
Job status	Full time	86.9%	89%
	Part time	13.1%	11%
Marital status	Single	23.6%	21%
	Married	76.4%	79%

Source: Department of Statistics (2016)

8. The optimal sample size was identified by using Sekaran and Bougie (2016) proposed sample size guide.

The number of distributed questionnaires was 1,177, however, 1,055 usable questionnaires were returned (89.64% return rate) of total questionnaires. No questionnaires were eliminated from the statistical analysis. Table 3 shows the representation of sample demographics to Amman citizens. It can be seen that the study sample was very close in its characteristics to Amman citizens statistics. There is some deviation in the education level, but it is reasonable since the bachelor and above are the dominant respondents in the sample. So, in general the sample is well representative for the Amman citizens.

Developing the questionnaire

The developed questionnaire contained (4) sections. The first section is mainly concerned with gathering the demographic information about the study sample. The second section is concerned about gathering default information about the respondent (number of shopping times, the main reason for this preference store, and it has been asked to determine how long ago and is a customer at this store).

The third section of the questionnaire contained (10) close ended questions to assess the customer's attitude toward the retail stores' location quality. The fourth section of the questionnaire consisted (15) closed questions to assess the customer's perceived about the layout of the store if founded. The scale of sections 3 and 4 items was five-point Likert scale. The rate 1 was assigned for "Strongly disagree", and 5 for 'Strongly agree". Table 4 summarizes the questionnaires' dimensions.

Questionnaire translation

The questionnaire was developed in English language. Then, it was translated into Arabic language. The questionnaire was translated into Arabic with the help of specialized translator.

Table 4. The summary of questionnaire dimensions, items and references.

Dimensions of questionnaire	Items sequentially number	References
Location dimensions		
Convenience	3	Clarkson et al. 1996
Accessibility and visibility	4	
Attractiveness	3	
Servicescape dimensions		
Visual cues	5	Bitner 1992
Auditory cues	5	Jain and Bagdare 2011; Kryter 1985
Olfactory cues	5	Hirsch 1992

Pilot study

The pilot study sample was 30 respondents of grocery retail superstores customers. The targeted respondents were chosen carefully. They were settled in different areas of Amman, and were close in their characteristics for the main study sample. The pilot study was intended to assess the clarity and understanding of the items, the response time and the administration of questionnaire.

After the pilot study, some changes were made on the questionnaire in order to improve its validity and reliability. For example, separating some items that included two or more sub-items, simplifying the language of some items, eliminating some unnecessary repeated items, and adding some items on some dimensions.

Questionnaire administration

A group of research assistant were hired for the purpose of questionnaire administration. They were provided with the data collection guide (protocol). The protocol included how to select the respondents and the number of respondents required. The group was about 20 research assistants. They were located in different areas in Amman, they were waiting outside the retail stores, and asked customers directly after shopping to fill the questionnaire. This approach ensures the customers remember of layout quality and the location considerations. However, there was a problem in the acceptance of customers to participate especially after shopping as they were tired. So, the team was provided with tables and chairs. A permission from the malls or retails stores to have a space close to the store was taken.

Table 5. The result of Cronbach's Alpha test.

Variable measure	Dimensions	Number of items	Cronbach's Alpha			
			All Stores	Case (A)	Case (B)	Case (C)
Location	Convenience	3	0.676	0.666	0.729	0.622
	Accessibility and Visibility	4	0.664	0.628	0.647	0.707
	Attractiveness	3	0.696	0.67	0.711	0.686
Servicescape	Visual cues	5	0.787	0.810	0.753	0.804
	Auditory cues	5	0.842	0.879	0.824	0.828
	Olfactory cues	5	0.588	0.579	0.643	0.507

Table 6. Multiple Regression results for the impact of location dimensions on the quality of servicescape for Case (A).

Dependent Variables	Independent Variables	β_i Coefficients	t-value	Sig. (*P*-Value)	*F*-value	Sig. (*P*-Value)	R^2
Visual cues	(Constant)	β_o : 1.846	11.513	0.000	66.763	0.000	30.4%
	Convenience	β_1 : 0.008	0.292	0.771			
	Accessibility and Visibility	β_2 : 0.131	3.525	0.000			
	Attractiveness	β_3 : 0.393	10.461	0.000			
Auditory cues	(Constant)	β_o : 2.180	8.454	0.000	7.452	0.000	4.7%
	Convenience	β_1 : 0.059	1.436	0.152			
	Accessibility and Visibility	β_2 : 0.165	2.540	0.011			
	Attractiveness	β_3 : 0.056	0.930	0.353			
Olfactory cues	(Constant)	β_o : 2.518	12.578	0.000	8.205	0.000	5.1%
	Convenience	β_1 : 0.055	1.712	0.088			
	Accessibility and Visibility	β_2 : 0.082	1.631	0.104			
	Attractiveness	β_3 : 0.107	2.280	0.023			

Scales reliability

Table 5 shows the Cronbach Alpha reliability test. It can be seen that all the scales show satisfactory value of reliability. Convenience dimension (3 items) reported reliability of 0.676. Accessibility and visibility dimension (4 items) also reported 0.664. Attractiveness dimension (3 items) reported 0.696. Visual cues dimension (5 items) reported 0.787. Auditory cues dimension (5 items) reported 0.842. Olfactory cues dimension (5 items) reported 0.588.

Ethical considerations

Before starting the survey, the targeted retail stores' headquarters in Jordan were provided with informed consent. This consent included the detailed research procedures and the questionnaire used in the survey. During the data analysis, the cases were coded as case (A), (B), and (C) to protect the anonymity. In addition, the data were represented in the data analysis and findings section in this paper without cases names.

Data analysis techniques

Before conducing the multiple linear regression analysis, the test of models adequacy was conducted for the data of the three retail stores. The result showed some skewness and kurtosis, but this is not a problem since the sample size is large enough (more than 30 or 40). In such large the parametric procedures can be used even the data are not normally distributed (Pallant 2007). In addition, when the sample size is hundreds of observations the distribution of data can be ignored (Field 2009).

Data analysis and findings

Table 6 shows the results of multiple linear regression analysis for the impact of location factors on servicescape quality dimensions of case (A). It can be seen that; all location factors were low determinants for the servicescape quality dimensions as presented by R^2 –value, although there was a positive relationship between the variables.

Furthermore, the impact of customers perceived location quality was the positive strongest impact on the visual cues (R^2 = 30.4%), while the weakest impact was on the auditory cues (R^2 = 4.7%). All location factors were significant determinants for the visual cues expect the convenience (t-value = 0.292 p-value = 0.0721). However, accessibility and visibility factor was a significant determinant for the auditory (t-value= 2.54 p-value = 0.011). Attractiveness was a significant determinate for the olfactory cues (t-value = 2.28 p-value = 0,0233). The general result is that the located (A) store's branches in high access, visible, and attractive location, have low servicescape quality.

Table 7 shows the results of multiple linear regression analysis for the impact of location factors on servicescape quality dimensions of case (B). It can be seen that all location factors were low determinants for the auditory and olfactory cues of servicescape,

Table 7. Multiple Regression results for the impact of location dimensions on the quality of servicescape for Case (B).

Dependent Variables	Independent Variables	β_i Coefficients	t-value	Sig. (*P*-value)	*F*-value	Sig. (*P*-value)	R^2
Visual cues	(Constant)	β_o : 0.428	1.358	0.176	44.094	0.000	38.8%
	Convenience	β_1 : 0.088	2.165	0.032			
	Accessibility and Visibility	β_2 : 0.274	4.032	0.000			
	Attractiveness	β_3 :0.509	6.148	0.000			
Auditory cues	(Constant)	β_o : 0.768	1.500	0.135	10.744	0.000	13.4%
	Convenience	β_1 : 0.059	.895	0.372			
	Accessibility and Visibility	β_2 : 0.342	3.096	0.002			
	Attractiveness	β_3 :0.249	1.852	0.065			
Olfactory cues	(Constant)	β_o : 2.074	5.522	0.000	6.779	0.000	8.9%
	Convenience	β_1 : 0.111	2.284	0.023			
	Accessibility and Visibility	β_2 : 0.120	1.486	0.139			
	Attractiveness	β_3 :0.128	1.297	0.196			

Table 8. Multiple Regression results for the impact of location dimensions on the quality of servicescape for Case (C).

Dependent Variables	Independent Variables	β_i Coefficients	t-value	Sig. (*P*-value)	*F*-value	Sig. (*P*-Value)	R^2
Visual cues	(Constant)	β_o : 0.899	4.711	0.000	100.908	0.000	44.6%
	Convenience	β_1 : −0.014	−0.514	0.608			
	Accessibility and Visibility	β_2 : 0.222	4.709	0.000			
	Attractiveness	β_3 :0.549	10.904	0.000			
Auditory cues	(Constant)	β_o : 1.531	4.998	0.000	15.304	0.000	10.9%
	Convenience	β_1 : 0.031	0.720	0.472			
	Accessibility and Visibility	β_2 : 0.181	2.399	0.017			
	Attractiveness	β_3 :0.286	3.540	0.000			
Olfactory cues	(Constant)	β_o : 2.021	9.536	0.000	17.636	0.000	12.3%
	Convenience	β_1 : 0.055	1.828	0.068			
	Accessibility and Visibility	β_2 : 0.113	2.159	0.031			
	Attractiveness	β_3 :0.212	3.802	0.000			

while the location factors were moderate determinants for the visual cues, although there was a positive relationship between the variables.

Furthermore, the impact of customers perceived location quality was the positive strongest impact on the visual cues (R^2 = 38.8%), while the weakest impact was on the olfactory cues (R^2 = 8.9%). All location factors were significant determinants for the visual cues. However, accessibility and visibility factor was a significant determinant for the auditory (t-value = 3.096 p-value = 0.002), and convince was a significant determinate for the olfactory cues (t-value= 2.284 p-value = 0.023). The general result is that the located (B) store's branches in high access, visible, and attractive location, have low to moderate servicescape quality.

Table 8 shows the results of multiple linear regression analysis for the impact of location factors on servicescape quality dimensions of case (C). It can be seen that; all location factors were low determinants for the auditory and olfactory cues of servicescape, while the location factors were moderate determinants for the visual cues.

Furthermore, the impact of customers perceived location quality was the positive strongest impact on the visual cues (R^2 = 44.6%), while the weakest impact was on the olfactory cues (R^2 = 12.3%). Accessibility and visibility factor was a significant determinant for visual cues (t-value = 4.709 p-value = 0.000), also significant determinant for auditory cues (*t*-value = 2.399 *p*-value = 0.017), and a significant determinant for olfactory cues (*t*-value = 2.159 *p*-value = 0.031).

Moreover, attractiveness also a significant determinant for visual cues (*t*-value = 10.904 *p*-value = 0.000), also a significant determinant for auditory cues (*t*-value 3.54 *p*-value = 0.000), and a significant determinant for olfactory cues (*t*-value = 3.802 *p*-value = 0.000). The general result is that the located (C) store's branches in high access, visible, and attractive location, have low to moderate servicescape quality.

Discussion

The theoretical background of this research is too fragmented between the location and servicescape theory. Accordingly, the following discussion is based on the available theoretical stance, and the researchers' observations.

The impact of retail stores location dimensions on perceived servicescape quality is moderate to low in two cases, and low in one case. This indicates the store's branches that exist in a high access, visible, and attractive location, have a low to moderate servicescape quality. This could be related to different reasons, first, the spreading and expansion of retailing sector of hypermarkets in Jordan is still in its infancy.

The first priority of retailers at the launching stage is choosing the location carefully, since it is too expensive, and it is not easy to modify this decision.

On the other hand, this could reflect the priority of customers in Jordan. They concern more about easy access and closer hypermarket than the well-arranged store. Accordingly, the retailers concern more about the location rather than servicescape.

The majority of surveyed people about (85%) of sample is married, 80% have 3–5 children, and 92% are working full time. So they are looking to visit closer stores because of personal obligations. The majority of surveyed customers have limited monthly salary which is between $500 to $1000, so they choosing closer stores with competitive prices. In addition, this will affect the priority of retailers in such community as Jordan.

The good located retail stores have better visual cues than auditory and olfactory cues. This result was the same for the three retail stores. The visual cues have direct impact on the image and functionality of the store. The visual cues like color vary in stimulating depending on the personal moods and emotions (Bellizzi and Hite 1992). In addition, lights can increase the attractiveness of products in the store (Vanri and Van 2014), and influence the perception of form, color, texture and enclosure (Ching 1996), so brighter stores prompt more handling and exanimating of products (Steffy 1990).

Sings, symbols and artifacts are important in forming first impressions, communicating new service concept and repositioning the service (Bitner 1992). In addition, the layout of facilities in the stores will affect the esthetic feature (beauty and decoration) and functionality features (waiting area, ease of transaction) (Ryu and Jang 2007; Wakefield and Blodgett 1994).

On the other hand, the impact of music as auditory cue differs depending on the age of customers, the younger shoppers spending more time shopping when background music is played (Yalch and Spangenberg 1998). The majority of surveyed customers in Jordan are older within the age range 30–60 years old. So, they are less affected by background music. May be the music was played in retail stores in Jordan not fit surroundings or the servicescape as a whole. Accordingly, it will not contribute positively to customers evaluation (Stanley 1986).

The well-located stores have more crowed so much sound will be inside and outside the stores. Much sound may result in decrease concentration, increase activity, irritability and tension (Kryter, 1985). The impact of olfactory cues as odors depends on the personal perception of odors, everyone has its own perception, and it is very difficult to isolate behavior due to odors in real context and so evaluate emotions due to odors (Assadi 2012).

Conclusion, limitations and future research

This study bridged the literature gap by investigating the impact of customers' perceived location quality of grocery retail superstores on the customer's perceived servicescape quality in Jordan. Three international retail stores were investigated by surveying the customers' perceptions about the quality of location and servicescape. This study revealed that the impact of retail stores location dimensions on perceived servicescape quality is moderate to low in two cases, and low in one case. This indicates located store's branches in high access, visible, and attractive location, have low to moderate servicescape quality. Also, the good located retail stores have better visual cues than auditory and olfactory cues. This result was the same for the three retail stores.

Surveying the customers in the capital Amman without classifying Amman into different sub-regions or communities is one of the study limitations. The priority of people living in different communities differ. Therefore, their perception toward the quality of location or servicescape could differ too. Accordingly, it is recommended to conduct more in-depth analysis at communities' level.

This study investigated the international retail stores that have branches in Amman. Future researches could investigate both the local and international stores and make a comparison to have a better insight about the impact of ownership on the perceived location and servicescape, and how the relationship could be affected.

This study treats all customers the same without concern about the impact of their demographic characteristics on perceived location, servicescape quality and the impact on the relationship between location and servicescape. For example, the age, income, occupation etc. categories could have an impact on the relationship between location and servicescape.

The results of this study provide the retail stores manager with clear insight about the position of service experience in the mind of customers in Jordan. When the customers in Jordan are very happy about the location, this is not mean they are very happy about servicescape. The retail stores' managers should concern more about improving the layout design the same as they concern about the location. The

developed conceptual model is still examining the location action and servicescape a separate construct. This study developed a more comprehensive model; which combined the location and the servicescape together in one model. The assumption was the customers will choose first the close location, and then he will make judgement regarding the layout design quality (servicescape). Accordingly, academics have now findings regarding whether the good location of retail stores guarantee the good servicescape design. These results could be an initial contribution toward more extended studies in other countries or regions.

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