Does Store Environment Influence People with Disability's (PWD) In-Store Experience and Approach Behaviour? An Empirical Analysis

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ABSTRACT

Drawing upon the Stimulus-Organism-Response (S-O-R-) behavioural model, this paper proposes a theoretical framework that explores how this seminal theory holds across with new constructs, namely hedonic shopping value and emotional attachment. Additionally, it attempts to examine the correlation between store environment, in-store experience and the approach behaviour within the shoppers' context of people with disability (PWD). Using a quota sampling approach, a total of 300 guided self-administered survey questionnaires were distributed to target respondents but only 151 returned questionnaires were usable and subsequently run for data analysis through structural equation modelling technique. The findings revealed that emotional attachment significantly influenced shoppers' approach behaviour followed by in-store experience. Meanwhile, hedonic shopping value indicated insignificant effect on approach behaviour and significant relationship between store environment and in-store experience of PWD consumers.

Keywords: Approach behaviour, emotional attachment, in-store experience, people with disability (PWD) consumers, stimulus-organism-response (S-O-R) model

INTRODUCTION

Competition between shopping malls has prompted the management of shopping malls to explore various ways to attract customers. Psychological theories acknowledge shopping mall environment plays a crucial role in delivering compelling experiences to customers. A number of studies that utilised the three components of S-O-R model (Stimulus-Organism-

Response) has generated substantial findings on the dimensionality, in-store experience and consumer behaviour. However, the significance of shopping value and emotional attachment to consumers, and the role of these two constructs in an approach response within the S-O-R model, remain unexplored. Thus, research efforts on the understanding of consumer responses to shopping mall environment, along with shopping value and emotional attachment are deemed necessary.

Over the past decade, the retail industry in developing nations such as Malaysia, Thailand and Indonesia has witnessed a tremendous continued growth with the increasing number of retail establishments. The sector's rapid growth was attributed to global development, higher disposable income and also an increase in population (Kaliappan, Alavi, Abdullah, & Zakaullah, 2008). Many different retail formats are evident in the retail environment, ranging from traditional retailers to the latest retail formats such as contemporary air-conditioned shopping malls, departmental stores, convenience stores, and online retail business. While the concept of store environment has received much attention in the retail and marketing literature to predict consumer behaviour, a growing market segment, that is, people with disability (PWD) or PWD consumers have been overlooked. Their experience in the shopping mall environment have also not been explored. In fact, Keng, Huang, Zheng, and Hsu (2007) suggest that among the aspects that consumers today are seeking for include a great customer experience.

Store environment is undeniably widely researched in retailing and marketing disciplines such as segmentation (El-Adly, 2007), environmental stimuli as well as behavioural outcomes (Liao et al., 2012). Many attempts have been made to investigate the behavioural consequences of customers. Nevertheless, empirical research on the outcome of PWD experiences about shopping mall environment is still very limited. Besides, no studies to the best of the authors' knowledge, have looked into incorporating a utilitarian and hedonic shopping value, emotional commitment and approach behaviour within the S-O-R model. Therefore, it is essential for shopping mall management to know the extent to which their shopping malls are attractive enough to PWD shoppers in influencing their approach behaviour. Specifically, this study aims to fill this gap by examining how the three constructs are relevant in shopping mall environment and approach behaviour relationship based on the S-O-R theory. The following section discusses main literature findings related to the said model and proposed constructs.

LITERATURE REVIEW

Stimulus Organism Responses (S-O-R) Model

The S-O-R model is a seminal work developed by Mehrabian and Russell (1974) and has been predominantly applied as an underlying theoretical foundation in many academic types of research. As illustrated in Figure 1, the model has three major components namely stimulus, organism and

response. SOR model also proposes that stimuli can influence consumers' attitude, experience and emotional states, hence resulting in a response in terms of consumer's approach behaviour or intention. Within this framework, the stimulus is conceptualised as a variable that influences internal or organismic states of an individual. The organism, on the other hand, is defined as cognitive and affective states of a person that mediate the relationship between stimulus and responses. Meanwhile, response reflects an outcome with two types of variables, approach or avoidance behaviour. Among the earlier studies on store environment, stimulus component has been represented as social, design, and ambient factors (Baker,

Grewal, & Levy, 1992). The social factor is related to variables such as the store's salesperson attitude and behaviour. The ambient factor then relates to the non-visual aspect of the retail store environment. In contrast, design factor is more related to the visual element of a retail outlet. Several examples include colour, cleanliness, layout, display and others. Many firms embrace stimulus environmental cues in their marketing strategy as a source of competitive advantage (Tan & Lau, 2010). Nowadays, retail customers have shown a high degree of their commitment and environmental attitude, resulting in many firms becoming more socially responsible in addressing such an issue.
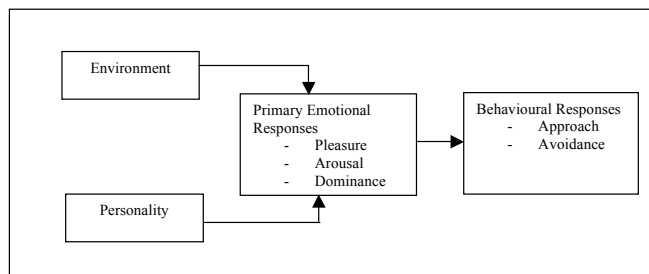

Figure 1. Classic Environment Model by Mehrabian and Russel (1974, p. 8)
Source: Adopted from Mehrabian & Russell, 1974; Sandra Diehl, 2001

Store Environment

The concept of environment is widely studied, in particular, its influence on consumer behaviour. In the retailing context, studies on the environment have focused specifically on store environment. Several authors have conceptualised the concept of environment in many different ways. For example, store environment is characterised by some physical elements, which are

blended to create a distinctive image perceived by the customers. Also, store environment reflects a socially constructed reality, composing both physical and social elements (Lin & Chiang, 2010). In the retail environment, it is usually conveyed through visual merchandising, which involves colour, texture, lighting, mannequins, and signage.

Based on the S-O-R theory, store environment comprises environmental

stimulus cues where customers use to evaluate a retail store. It contains numerous non-product cues that aim to create a buying environment designed to produce specific emotional effects in them to enhance the probability of purchasing. Several other researchers have proposed different categories of all the factors in a physical store environment. Bitner (1992) specifically proposed store environment to comprise (1) ambient condition; (2) spatial layout and functionality; and (3) signs, symbols and artefacts.

Spena, Caridà, Colurcio, and Melia, (2012) stated that understanding and enhancing customers' experience were critical argument in the retail marketing academics and practitioners' agenda. Among others are the seminal work of Kotler (1973), Relph (1976) and Baker et al. (1992) that have emerged regarding the importance of retail environment on customer purchasing behaviour. Studies have also found that physical environment of a store or shopping mall can affect consumer behaviour. These include variety seeking behaviour (Mohan, Sivakumaran, & Sharma, 2013), and purchase intention (Gustafson, Hankins, & Jilcott, 2012). Also, the behaviour is influenced by two types of internal states of a customer: affective and cognitive (Mehrabian & Russell, 1974). The emotional outcome was mainly found to be a significant factor in consumers' approach behaviour.

Utilitarian and Hedonic Shopping Value

Shopping value was derived from consumers' shopping experience and from the product they purchased (Levy, 1959). The author acknowledged that consumers bought a product, not only based on the physical variables, but also based on their meaning. Shopping value of retailers is viewed as having two primary sources: hedonic value and utilitarian value (Sarker, 2011). Hedonic is deriving value from the pleasurable experience, whereas utilitarian indicates obtaining functional value from the efficient experience. Several characteristics of hedonic shopping value include smells, sights, as well as memories evoked by shopping as well as social interactions during their shopping spree. The utilitarian shopping value will be experienced by a consumer when specific goals for a shopping trip are satisfied. One such example is consumers' deliberate search for the particular item.

In retail brand context, Sarker (2011) found that utilitarian and hedonic shopping values have significantly affected satisfaction, loyalty and also WOM. Yusof, Musa, & Rahman, (2011) and Din, Putit & Muhd Najib (2016) further found that shopping values and social cues play equal roles in predicting consumer behavioural outcome such as store loyalty. Past studies have also acknowledged the importance of value on product or store choice and repurchase intention (e.g. Kim, Galliers, Shin, Ryoo, & Kim, 2012).

Emotional Attachment

Emotional attachment is important for businesses or organisations because it forms a tie between a consumer and an object. Patwardhan and Balasubramaniam (2011) highlighted that emotional attachments are integral to customer loyalty. In fact, for a brand to have fostered strong bonds with the consumers, it will be able to have a genuine competitive advantage against the rivals. Research has shown that consumers develop emotional attachment towards consumption of objects throughout their lives. Gemmel and Verleye (2010) stated that there are four dimensions of emotional attachment: confidence (consistency between promises and delivery), integrity (fairness of solutions), pride (positive association and identification with the company) and passion (internationalisation of self-fulfilling prophecy).

Approach Behaviour

According to the S-O-R theory, approach behaviour is an action by customers as a result of their individual states (Mehrabian & Russell, 1974). Approach response includes physical approach, work performance, exploration, and social interaction. They refer to approach action as the willingness or desire to move toward and explore an environment. In this study, approach behaviour reflects PWD shoppers' willingness to patronise shopping malls to shop at the various retail stores within the mall.

The following hypotheses are proposed:

- H1 - Store environment significantly affects in-store experience

- H2 - In-store experience significantly influences approach behaviour

- H3 - Hedonic shopping value significantly affects approach behaviour

- H4 - Emotional attachment greatly influences approach behaviour
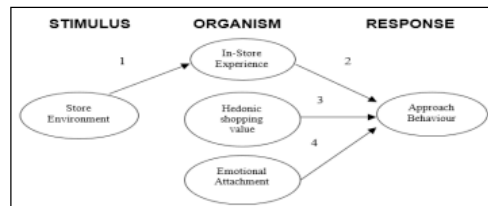
Figure 2. Proposed theoretical framework

The research framework is presented in Figure 2 depicting the hypothetical causal model for the study.

METHODS

This study adopts a quantitative research design using quota sampling, in which gender and race are identified as control variables. The research design measures the shopping mall environment, utilitarian and hedonic shopping value, emotional attachment, and approach behaviour. The measurement involves asking target respondents to rate shopping malls' environment according to refined attributes. Using a 7-point Liker

scale measurement, several adopted items from relevant prior studies are used to operationalise constructs for the investigated model. Minor wording changes are observed and amended accordingly. Data collection has been carried out at the respective PWD registered association centres. A total of 300 guided self-administered survey questionnaires were distributed to PWD target respondents who have visited shopping malls at any given time but only 151 completed forms were usable for further data analysis.

RESULTS AND DISCUSSION

The analysis is based on 151 respondents consisting of PWD shoppers as shown in Table 1 below:

Table 1
Demographic information

Item	Frequencies (n=151)	Percentages (%)
Age group		
20 to 24 years old	28	18.5
25 to 29 years old	39	25.8
30 to 34 years old	28	18.5
35 to 40 years old	29	19.2
40 years old and above	27	17.9
Gender		
Male	137	90.7
Female	14	9.3
Race		
Malay	103	68.2
Chinese	21	13.9
Indian	18	11.9
Others	9	6.0

Table 1 *(continue)*

Level of education		
SPM	94	62.3
STPM	33	21.9
Bachelor's Degree	3	2.0
Masters	0	0
PhD	0	0
Others	21	13.9
Occupation		
Manager	1	0.7
Executive	2	1.3
Government staff	2	1.3
Self-Employed	5	3.3
University Student	3	2.0
Others	138	91.4
Income level		
Less than RM 1000	61	40.4
RM1000 to RM3000	80	53.0
RM3000 to RM5000	4	2.6
RM5000 and above	6	4.0

Male and female respondents accounted for 90.7% and 9.3% respectively; the age of the samples were mainly distributed in five groups: less than 20 to 24 years old (18.5%), 25-29 years old (25.8%),30 to 34 years old (18.5%), 35 to 40 years old (19.2%) and more than 40 years old (27%). People with disabilities' (PWDs) are as shown in Table 2. Types of disabilities include Blindness or Low Vision (2%), Learning disabilities (2%), Medical Disabilities (3.3%), Physical Disabilities (88.1%), Psychiatric Disabilities (2%); and Speech and Language (2.6%).

Following both reliability and validity testing, data was analysed to test the relationship between store environment and in-store experience. The result shows

Table 2
People with disabilities' (PWD) shopping experiences in shopping malls

Item	Frequencies (n=151)	Percentages (%)
Shopping malls attendance for the past one year		
Yes	141	93.4
No	10	6.6
Frequencies of shopping mall attendance		
Once a week	65	43.0
Once a fortnight	17	11.3
Once a month	61	40.4
More than once a week	8	5.3
Activities		
Shopping	80	53.0
Recreational activities	14	9.3
Working	4	2.6
Dining	24	15.9
Leisure activities	28	18.5
Others.	1	0.7
Types of disabilities		
Blindness or Low Vision	3	2.0
Learning Disabilities	3	2.0
Medical Disabilities	5	3.3
Physical Disabilities	133	88.1
Psychiatric Disabilities	3	2.0
Speech and Language	4	2.6
Any difficulties while visiting shopping mall		
Yes	76	50.3
No	75	49.7
Types of difficulties experienced		
Difficulty using public transport	21	13.9
Lack of facilities for disabled people	29	19.2
Difficulty entering or getting around premises	8	5.3
Service providers using inappropriate language	3	2.0
Difficulty in getting information	4	2.6
Disabled people facilities used by others	40	26.5
Not Answered	46	30.5
Would still visit shopping malls even have to face such difficulties?		
Yes	117	77.5
No	34	22.5

Table 3
Convergent validity

Construct	Item	Loadings	AVE	CR
Store Environment	BSB21	0.633	0.515	0.932
	BSB22	0.641		
	BSB23	0.756		
	BSB24	0.817		
	BSC7	0.774		
	BSI27	0.821		
	BSI28	0.828		
	BSL10	0.675		
	BSL13	0.733		
	BSL14	0.635		
	BSP18	0.654		
	BSP19	0.66		
	BSP20	0.656		
In-Store Experience	DOE1	0.739	0.64	0.914
	DOE2	0.88		
	DOE3	0.804		
	DOE4	0.803		
	DOE5	0.814		
	DOE6	0.752		
Hedonic Shopping Value	EOV1	0.468	0.641	0.912
	EOV2	0.919		
	EOV3	0.832		
	EOV4	0.885		
	EOV5	0.763		
	EOV6	0.851		
Emotional Attachment	FOE1	0.649	0.625	0.868
	FOE2	0.872		
	FOE3	0.875		
	FOE4	0.742		
Approach Behaviour	GRL1	0.819	0.695	0.919
	GRL2	0.782		
	GRL3	0.844		
	GRL4	0.855		
	GRL5	0.866		

Note: BSM1, BSM2, BSM3, BSS4, BSS5, BSS6, BSC8, BSL9, BSL11, BSL12, BSL15, BSL15, BSL16,BSL17,BSB25,BSI26,BSI29,BSI30 and BSI31 deleted due to low loading

Table 4
Discriminant validity

	Approach Behaviour	Emotional Attachment	Hedonic Shopping Value	In-Store Experience	Store Environment
Approach Behaviour	0.834				
Emotional Attachment	0.683	0.79			
Hedonic Shopping Value	0.595	0.434	0.801		
In-Store Experience	0.649	0.543	0.746	0.8	
Store Environment	0.597	0.42	0.775	0.781	0.718

Note: Values on the diagonal (bolded) are square root of the AVE while the off-diagonals are correlations

($\beta = 0.781$, p< 0.05) indicating a significant relationship. Therefore, H1 was accepted where the R^2 values explains 61% of the variance in in-Store experience.

Next, the result of predictors of approach behaviour, that is, In-Store experience, hedonic shopping value and emotional attachment were further analysed. In-store experience ($\beta = 0.236$, p< 0.05) and emotional attachment ($\beta = 0.459$, p< 0.05) were both positively and significantly related to approach behaviour, while hedonic shopping value ($\beta = 0.219$, p< 0.05) were insignificant explaining 59.7% of the variance in approach behaviour. The R^2 values of 0.597 were above the 0.26 value as suggested by Cohen (1988) indicating a solid model. Thus, H2 and H4 were accepted, and H3 rejected (see Table 5).

Table 5
Discriminant validity

Hypothesis	Relationship	Std Beta(β)	t-value*	Decision	R^2	f2
H1	Store Environment→ In-Store Experience	0.781	26.139	Accepted	0.610	1.567
H2	In-Store Experience → Approach Behaviour	0.236	2.857	Accepted	0.597	0.053
H3	Hedonic Shopping Value → Approach Behaviour	0.219	1.888	Rejected		0.053
H4	Emotional Attachment → Approach Behaviour	0.459	4.295	Accepted		0.368

*p<0.05

From data analysis and findings, an extended contribution to the S-O-R theory was observed specifically on the effects of new constructs in the shopping mall environment and approach behaviour relationship. First, it tested the relationship between In-Store experience, hedonic shopping value and emotional attachment towards approach

behaviour. The results revealed emotional attachment as the strongest predictor towards approach behaviour followed by in-store experience. This indicates that emotional attachment is an important factor of businesses or organisations because it forms a tie between a consumer and an object. Emotional attachment seems to suggest that customers with a stronger emotional attachment are likely to be committed to a brand (Thomson et al., 2005).

Second, PWD's in-store experience significantly influences their approach behaviour in a shopping mall. This finding supports past studies that have acknowledged the importance of value on product or store choice and repurchase intention (e.g. Kim, Galliers, Shin, Ryoo, & Kim, 2012). Sarker (2011) and Yusof, Musa and Rahman (2011) also found that utilitarian and hedonic shopping values significantly affects satisfaction, loyalty and also word of mouth (WOM) communication.

Third, hedonic shopping value indicates insignificant relationship towards approach behaviour. As stated by Sarker (2011), hedonic shopping values include characteristics such as smells, sights, as well as memories evoked by shopping as well as social interactions incurred while shopping. Since PWD shoppers have permanent forms of disability in such hedonic characteristics, it is thus fair to indicate that hedonic shopping value has lesser impact on their approach behaviour of patronising retail outlets in shopping malls.

Fourth, further findings show a significant relationship between store environment and in-store experience of PWD consumers. This finding confirms that of earlier research (e.g. Sharma & Stafford, 2000) in which store atmosphere plays an important part of the in-store shopping experience as it can influence the consumer's decision to visit the store.

CONCLUSION

This study has contributed to knowledge on this topic First, it suggests a new contribution to the S-O-R theory in relation to the effects of new constructs within the shopping mall environment and approach behaviour relationship. Second, it highlights the distinct role of shopping mall environment for people with disability (PWD) which has so far been overlooked in past research. Moreover, the study showed an element of inclusiveness that is, enabling the PWD communities to benefit from the nation's wealth. Third, the findings could also assist the management of shopping malls or retail store operators in redesigning relevant business strategies that meet the needs of these PWD shoppers. Several limitations were further observed in this study. Among others, it only covered Klang Valley region (e.g. Kuala Lumpur, Putrajaya and the state of Selangor) and thus, future efforts should focus on wider regional coverage in major cities throughout Malaysia in an attempt to generalise the findings. A qualitative study is also recommended.

In essence, literature has shown that shopping malls and store environment comprises dimensions with a functional and aesthetic appeal to the customers. Based on the Stimulus-Organism-Response (S-O-R) framework developed by Mehrabian and Russell (1974), this study proposed a research framework to examine customers' responses, particularly the PWD's approach to the shopping mall environment. By taking into consideration the mediating role of shopping value and emotional attachment, this study showed how these two constructs influenced approach behaviour.

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