

## **The Effect of Store Environment on Shoppers Urge to Buy Impulsively: An Application of Stimulus-Organism-Response Paradigm**

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### **Abstract**

The purpose of this paper is to examine the influence of store environment elements (e.g. music, light, layout, employee's friendliness) on Egyptian shoppers' urge to buy impulsively (UBI) via affecting their hedonic shopping motivation and their impulse buying tendency (IBT).

The study utilizes Stimulus-Organism-Response (S-O-R) paradigm to investigate the proposed research model in the Egyptian retail context. Mall-intercept method with self-administered questionnaire were applied to collect data from 449 shopper at hypermarkets/supermarkets located in Cairo, Egypt. Structural Equation Modelling was used to examine the proposed model. The results indicate that store environment has a significant positive effect on hedonic shopping motivation, shoppers' impulse buying tendency (IBT) and urge to buy impulsively (UBI). In addition, the findings reveal that hedonic shopping motivation has a strong positive effect on shoppers' impulse buying tendency, which in turn positively affect shoppers' urge to buy impulsively.

The findings can be of interest to Egyptian retailers as they provide better understanding of the store environment elements that affect shoppers' urge to buy impulsively. Hence, they can draw on the results to deliver the promised value to their target shoppers, thus generate more sales and boost their retail store overall performance. Finally, the study contributes to the extant literature as it incorporates store environment elements with individual factors in one holistic model to extend the comprehension of shoppers urge to buy impulsively.

**Keywords:**

Store environment, Hedonic motivation, Impulse buying tendency, Urge to buy impulsively, S-O-R, Retailers, Egypt.

**1. Introduction**

Impulse buying is a universal phenomenon occurs when “a consumer experience a sudden, often powerful and persistent urge to buy something immediately” (Rook 1987, p. 191). According to O'Brien (2018), on average, an American consumer spends \$5,400 annually on impulse purchases. In addition, Amos, Holmes, and Keneson (2014) asserted that products bought on impulse account for 40 to 80 percent of purchases. Such findings indicate that impulse buying represents a mainstream revenue to retailers, hence it is of significance to investigate its antecedents in different contexts. ‘Felt urge to buy impulsively’ is the main antecedent of impulse buying. It is defined as “*a state of desire that is experienced upon encountering an object in the environment....it is spontaneous and sudden*” (Beatty and Ferrell, 1998, p.172). Clearly, the more consumers experienced ‘felt urge to buy impulsively’, the more actual impulse buying will take place and ultimately the more generated revenues for retailers.

The literature identified three main streams of research underscoring different impulse buying antecedents as follows: situational (e.g. time and money; store environment); marketing

drivers (e.g. in-store promotions; shelf placement); and individual difference factors (e.g. motives; impulse buying tendency) (e.g. Beatty and Ferrell, 1998; Amos *et al.*, 2014; Badgaiyan and Verma, 2015; Leong, Jaafar and Sulaiman, 2017).

Previous studies emphasized the influential effect of store environment on consumer impulse buying via evoking some emotions such as pleasure and arousal (e.g. Hulten, 2012; Gilboa *et al.*, 2016; Mamuaya and Pandowo, 2018). Retailers can capitalize on store environment classified into ambient, design and social factors (Baker, Parasuraman, Grewal and Voss, 2002) to make shoppers experience more enjoyable and further induce their emotions, which eventually will be translated into spending more time and money in store and increased experienced urges to buy impulsively (Mohan, Sivakumaran, and Sharma, 2013; Santini *et al.*, 2019; Mamuaya and Pansowo, 2018).

Store environment elicited emotions are also triggering consumers hedonic shopping motivations which cannot be ignored (e.g. Sharma *et al.*, 2010a; Tamilmani, Rana, Prakasam, and Dwivedi, 2019). The latter in turn generate several positive emotions such as fun, social interaction, novelty, excitement, and personal enjoyment (e.g. Arnold and Reynolds, 2003; Hoyer, MacInnis and Pieters, 2013). These positive emotions are found to be strongly correlated with impulse buying tendency (e.g. Kim and Eastin, 2011; Styvén, Foster, and Wallström, 2017). In addition, they further guide, and influence consumers urges to buy impulsively (e.g. Yim, Yoo and Sauer, 2014; Santini *et al.*, 2019). Despite store environment importance in making shopping experience 'different', little is known about its relation to impulse buying tendency and urges to buy impulsively (Mohan *et al.*, 2013).

The current study follows the Stimulus-Organism-Response (S-O-R) paradigm first introduced by Mehrabian and Russell (1974).

According to S-O-R framework an internal or external stimulus (S) directly affects organism (O) (i.e. consumers), which in turn influences the behavioral response(s) (R). S-O-R paradigm has been extensively used in impulse buying literature (e.g. Badgaiyan and Verma, 2015; Setyani *et al.*, 2019; Barros *et al.*, 2019; Zhu, Yan and Ding, 2020; Djafarova and Bowes, 2021; Zafar *et al.*, 2021). Thus, following previous studies, the current research examined S-O-R paradigm in the Egyptian retail context where store environment elements represent the external stimuluses (S) that trigger consumers hedonic shopping motivation, and stimulate their impulse buying tendency (O), which in turn influence their urge to buy impulsively (R).

The advances and growth in technological innovation have placed emphasis on digitized retailers, which in turn created opportunities to those who are technologically savvy, whereas posited challenges to traditional ones (Farah, Ramadan and Harb, 2019). In addition, the recent COVID-19 pandemic has altered shoppers' buying behavior as well as their spending patterns (PwC report, 2020). PwC report (2021) confirms that between 2020 and 2021 mobile shopping has increased at the expense of in-store shopping. Accordingly, the research problem could be articulated as follows: lack of attention to in-store environment elements may lead to a decrease in consumers' impulse buying, which in turn will negatively affect retailers' overall sales and profits.

Therefore, it deemed appropriate to unearth the effect of physical in store environment elements on shoppers' impulse buying behavior. Thus, the following research questions are expressed: (1) What are the stimuluses that assist shoppers to form hedonic motivation in a physical retail store? (2) How do hedonic motivation and impulse buying tendency interact in a physical retail store? And (3) Do store environment elements, hedonic motivation, and impulse buying tendency affect shoppers' urge to buy impulsively?

The current study contributes to the existing literature in the following ways. First, usually researchers embrace separate store environment element and investigate its relation to impulse buying (e.g. Selema and Makgosa, 2018), where the overall influence of these elements left untapped. Therefore, the present research complements the prevailing work by encompassing the joined effect of store environment elements on the previously said relation. Second, most of the studies have explored the relation between store environment elements and urge to buy impulsively in developed countries context, while little is known about such relation in developing countries (Hashmi, Shu, and Haider, 2020). Having more emphasis on this relation will allow researchers to gain more insights with respect to shoppers' in developing countries. Meanwhile, the Egyptian market is characterized by being highly populous. Hence, it is a very tempting market to many local and international retailers. Consequently, the study results will provide both local and international retailers operating in Egypt the support needed to advance and administer their store environment in the way that influence shoppers impulse behavior.

To this end, the rest of the paper is organized as follows. First, we introduce the relevant literature from which the research hypotheses and proposed model were derived. Next, we present the research methodology, data analysis and results. Followed by a discussion, conclusions, implications, limitations, and future research.

## 2. Literature Review and Hypotheses Development

### 2.1 Store Environment

In 1973 Kotler emphasized the significance of the atmospheric elements in shaping a store environment that provoke consumers emotions, therefore increases the likelihood of purchasing.

Baker *et al.* (2002) classified store environment into three groups as follows: ambient factors (e.g. lighting, music, color); design factors (e.g. layout, assortment); and social factors represented in the presence and efficiency of salespersons.

Drawing on Kotler's (1973) idea, several authors revealed the positive effect of store environment on buying behavior (e.g. Mohan *et al.*, 2013; Campbell and Fairhurst, 2016; Helmfalk and Hultén, 2017; Lick *et al.*, 2017; Pantano and Gandini, 2017). The literature further underscored the direct effect of store environment in making shoppers' experience more enjoyable, stimulating pleasure and awakening emotions, positively affects hedonic shopping value, allows for spending more time and money in store, stimulates impulse buying tendency, and increases shoppers urge to buy impulsively and acting upon these urges (e.g. Pan, Su and Chiang, 2008; Ballantine *et al.*, 2010; Hulten, 2012; Gilboa *et al.*, 2016; Atulkar and Kesari, 2018; Mamuaya and Pansowo, 2018; Barros *et al.*, 2019).

Turley and Milliman, (2000), Garlin and Owen, (2006), Morin *et al.* (2007), Morrison *et al.* (2011); and Yi and Kang (2019) examined individual store environment elements (e.g. ambient, design, social) and their relationship with shoppers' emotions and buying behavior. For instance, many scholars reported that music is a key ambient factor that induces positive store stimuli and affects shoppers' emotions like pleasure, excitement, and dominance. Likewise, Kacen *et al.* (2012) and Summers and Hebert (2001), among others, emphasized the significant positive

affect of attractive store lighting on directing shoppers' eyes to main point of purchase, therefore, making the store more visually appealing and well-designed. Hence, it produces in store enjoyment vibes, and accordingly increases the level of impulsive buying tendency and eventually the urge to buy impulsively.

Certainly, music and lighting are significant factors that trigger consumers urge to buy impulsively. The latter is defined as “a state of desire that is experienced upon encountering an object in the shopping environment .....[it is spontaneous and sudden and clearly precedes the actual impulse action]” (Beatty and Ferrell, 1998, p.172).

Moreover, number of authors highlighted the importance of store design specifically its layout and its sizable open spaces that provide shoppers with a comfortable shopping trip where they can easily find the products they are looking for (Spies, Hesse, and Loesch, 1997; Turley and Milliman, 2000; Ballantine *et al.*, 2010). Furthermore, good retail layout allows for effective product assortments that results in reduced shoppers' perceived stress and make their shopping experience trouble-free. Hence, it triggers shoppers' emotions, creates hedonic value, makes shoppers' experience more pleasant and comfortable, and create an urge to buy impulsively (Spies *et al.*, 1997; Baker *et al.*, 2002; Aghazadeh, 2005; Ballantine *et al.*, 2010).

In the same way, the literature pointed out the importance of number and friendliness of store employees. Where Bitner (1992) demonstrated that the social interactions between customers and employees are an integral part of the service encounter that can be used to predict customer evaluation toward the service. Correspondingly, prior studies indicated that prompt and friendly salespeople with customers induce positive affect, which significantly influence shoppers' responses towards the store, thereby stimulate their impulsive buying tendency, and their urge to buy impulsively (Baker *et al.*, 1994, 2002; Ghosh, Tripathi, and

Kumar, 2010; Kim and Kim, 2012; Mohan *et al.*, 2013; Chang, Yan and Eckman, 2014).

Although the literature highlighted the importance of store environment in stimulating both shoppers' hedonic motivation and their impulsive buying tendencies by making their shopping experience more enjoyable, and accordingly increases the experienced urges to buy impulsively (e.g. Mohan *et al.*, 2013; Saad and Metawie, 2015; Parsad and Prashar, 2017; Parsad, Prashar and Sahay, 2017; Mamuaya and Aditya, 2018; Santini *et al.*, 2019). Yet, the said relation is still under investigation in developing countries (Hashmi *et al.*, 2020).

Based on the literature, the current research identifies store environment as customers' perception towards four environmental elements namely: music, lighting, layout and employees' friendliness, and investigates their total effect on hedonic shopping motivation, impulse buying tendency and urge to buy impulsively. Accordingly, the following hypotheses are developed:

*H1: Store environment has a significant positive influence on consumers' hedonic shopping motivation*

*H2: Store environment has a significant positive influence on consumers' impulse buying tendency*

*H3: Store environment has a significant positive influence on consumers' urge to buy impulsively*

## **2.2 Hedonic Shopping Motivation, Impulse Buying Tendency and Urge to Buy Impulsively**

Motivation theorists highlighted that extrinsic and intrinsic motivations are the main drivers that allow human beings to behave in a certain way to attain either their internal and/or external goals expressed as self-interest and fun and/or receiving

a reward or overcoming some pressures respectively (e.g. Koo, Chung and Nam, 2015; Hung *et al.*, 2011).

While linking extrinsic and intrinsic motivations to the context of shopping behavior, the literature underscored that consumers are usually encouraged by both types of motivations: utilitarian and hedonic (Babin, Darden and Griffen, 1994; Trang *et al.*, 2007; Cardoso and Pinto, 2010). Babin *et al.* (1994, p.645) defined utilitarian value as “resulting from some type of conscious pursuit of an intended consequence”. Accordingly, it is task oriented, rational and can be considered a form of extrinsic motivation (e.g. Trang *et al.*, 2007; Yim *et al.*, 2014).

Meanwhile, hedonic value is defined as “being more subjective and personal than its utilitarian counterpart and resulting more from fun and playfulness than from task completion” (Babin *et al.*, 1994, p.646). Likewise, Trang *et al.* (2007, p.230) described hedonic shopping motivations as “recreational, pleasurable, intrinsic and stimulation-oriented motivations”. They further allow consumers to perceive shopping as a positive experience, full of fun and causes pleasure (Kim, 2006; Hoyer, MacInnis and Pieters, 2013). In addition, they elicit recreation, joy, self-expression and entertainment (Arnold and Reynolds, 2003; Trang *et al.*, 2007; Yim *et al.*, 2014). Also, they change individuals’ mood as it takes them away from stresses and daily routine activities (Evangelista *et al.*, 2020). Hence, it can be considered a form of intrinsic motivation. Although, individuals consider both types of motivations when they go shopping, however in so many times hedonic motivation may overcome the utilitarian one (e.g. Koo *et al.*, 2015; Yim *et al.*, 2014).

Also, the literature emphasized that all the above-mentioned emotions generated by individuals’ hedonic shopping motivations are strongly correlated with impulse buying tendency (IBT) (e.g. Kim and Eastin, 2011; Styvén *et al.*, 2017). In

addition, they guide, and influence shoppers urges to buy impulsively (e.g. Gültekin and Özer, 2012; Tifferet and Herstein, 2012; Yim *et al.*, 2014; Santini *et al.*, 2019; Setyani *et al.*, 2019; Zheng *et al.*, 2019). Based on the above we hypothesize the following:

*H4: Hedonic shopping motivation has a significant positive influence on consumers' impulse buying tendency.*

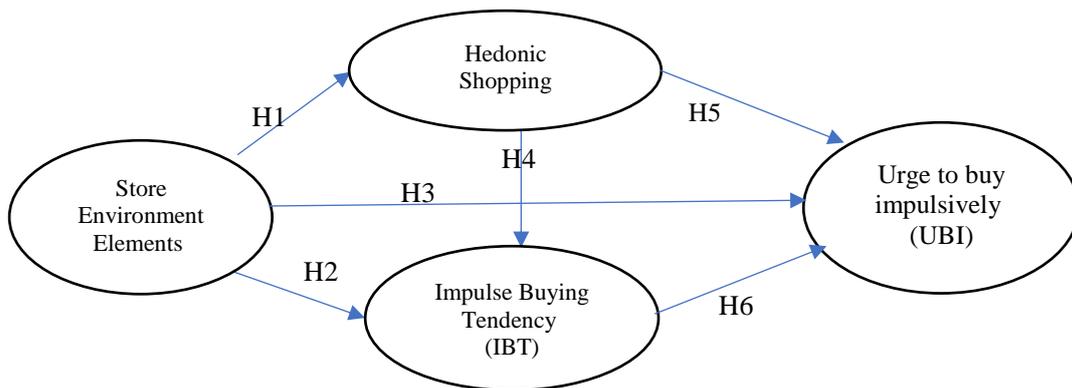
*H5: Hedonic shopping motivation has a significant positive influence on consumers' urge to buy impulsively.*

### **2.3 Impulse Buying Tendency (IBT) and Urge to Buy Impulsively (UBI)**

Impulse buying tendency (IBT) has been repeatedly mentioned in the literature as an antecedent of 'urge to buy impulsively' (UBI). Beatty and Ferrell (1998, p.174) defined IBT as "both the tendencies (1) to experience spontaneous and sudden urges to make on-the-spot purchases and (2) to act on these felt urges with little deliberation or evaluation of consequence". It is further described as "the tendency to respond quickly to a given stimulus without deliberation and evaluation of consequences" (Gerbing *et al.*, 1987, p.357). Thus, consumers with high IBT are more likely to get stimulated by in-store environment, advertisements and promotions, accordingly respond more often to urges to buy impulsively in a retail setting and act upon these urges (e.g. Beatty and Ferrell, 1998; Mohan *et al.*, 2013; Parsad *et al.*, 2017; Bellini *et al.*, 2017; Zafar *et al.*, 2021). In addition, drawing on the extant literature 'urge to buy impulsively' was used as an alternative to actual impulse behavior (e.g. Chen *et al.*, 2016; Chung *et al.*, 2017; Chen and Chang, 2018) due to the difficulty of measuring the latter (Luo, 2005). Therefore, the following hypothesis is extrapolated:

*H6: Shoppers’ impulse buying tendency has significant positive effect on their urge to buy impulsively*

Figure 1 depicts the study proposed model that is drawn on the logic of Stimulus-Organism-Response paradigm introduced by Mehrabian and Russell (1974). Where store environment elements (i.e. music, light, layout and employee friendliness) act as the stimulus that directly triggers and provokes the organisms expressed as consumers hedonic shopping motivation and impulse buying tendency, whereas the latter influence the response articulated as ‘urge to buy impulsively’. The model is applied in the Egyptian retail context.



**Figure 1: Research Proposed Model**

### 3. Research methodology

#### 3.1 Sample and Data Collection

The current study is a conclusive descriptive single cross-sectional research. The study targeted 550 consumers who shop regularly at the following hypermarkets/supermarkets located in Cairo, Egypt: Carrefour, Spinneys and Seoudi. The sample size was determined based on Hair, Black, Babin and Anderson

(2010) suggestion that emphasizes to apply Structural Equation Modelling a minimum sample size of 300 for models with seven constructs or less should be used. Since the research proposed model encompasses four constructs, each is represented with three items or more, the researchers decided to collect data from a relatively large sample to account for any incomplete responses and to minimize sample bias.

Data were collected using mall-intercept method. Three research assistants helped the authors collecting data from randomly selected respondents at different branches of the previously chosen hypermarkets/supermarkets, where they were requested to fill in a self-administered questionnaire. To overcome time biasedness, data were collected throughout the day, and on weekdays and weekends. By doing so, the researchers provide different types of shoppers the chance to be selected.

After excluding incomplete questionnaires, 449 usable responses were obtained, yielding a response rate of 82 percent. The sample was skewed in favor of female respondents who accounted for 67 percent. Further, younger consumers aged between 21 and 40 constitute 64.4 percent of the sample. Finally, 50 percent of the respondents' report having monthly income between 2200 L.E. and 3200 L.E.

### 3.2 Measures

Drawing upon the previous literature, validated scales were used to measure the proposed research concepts as follows. Store environment was measured using eleven items reflecting four elements namely: music, light, layout, and friendly employees adopted from Mohan *et al.* (2013). Hedonic shopping motivation scale was adopted from Arnold and Reynolds (2003). It is consisted of six types each is measured using three items as follows: Hedonic Adventure Shopping (HAS), Hedonic Social Shopping (HSS), Hedonic Gratification Shopping (HGS), Hedonic Idea Shopping (HIS), Hedonic Role Shopping (HRS) and Hedonic Value Shopping (HVS). Meanwhile, Impulse

Buying Tendency (IBT) was measured using seven items developed by Rook and Fisher's (1995), and later were extensively applied in the context of impulse buying behavior by several authors among whom are Mai, Jung and Loeb (2003) and Parsad and Prashar (2017). Finally, Urge to Buy Impulsively (UBI) was measured using three items adopted from Beatty and Ferrell (1998). All items were measured using a five –point Likert scale ranging from strongly disagree (1) to strongly agree (5).

Thus, the final questionnaire consisted of two sections. The first entailed questions measuring the research constructs, whereas the second underscored some demographic information. Before the final dissemination of the questionnaire, a pre-test was conducted using 25 interviewees to ensure its clarity and consistency. The pre-test results in modifying few statements to better express their meanings.

### **3.3 Data Analysis Techniques**

The researchers used SPSS-16 for descriptive statistics, and structural equation modeling (SEM) technique using AMOS-22 to examine the research hypotheses. The study followed the two-step approach suggested by Anderson and Gerbing (1988) for assessing the measurement and the structural models respectively. Several goodness of fit indices were evaluated including Chi-square goodness-of-fit test statistic, Goodness-of-Fit Index (GFI), Comparative Fit Index (CFI), Root Mean Square Error of Approximation (RMSEA) and Tucker–Lewis Index (TLI). These fit indices are considered the most important ones. Confirmatory Factor Analysis (CFA) was performed to assess the validity of the research constructs. While, the reliability was examined via Cronbach's alpha and Composite Reliability (CR). Later, structural model was developed to examine the research hypotheses and model fit.

#### 4. Analysis and Results

Based on the CFA results and modification index of indicator variables (Jöreskog and Sorbom, 1993), some items were removed from further analysis due to their low standardized factor loading, which was below the minimum recommended cut-off point of 0.5. The items removed were as follows: eight items from store environment construct, eleven items from hedonic shopping motivation construct, one item from impulse buying tendency construct, and another one item from urge to buy impulsively construct.

Table 1 hereunder depicts CFA results. Where the items have factor loading values that range from 0.5 to 0.893 at 95 percent significant level (Hair *et al.*, 2010). This result means that the measured variables represent the constructs and in the expected direction. Hence, it provides strong evidence of convergent validity.

**Table 1: Confirmatory Factor Analysis and Cronbach Alpha Results for the Measurement Model**

Constructs	Measures	Factor loading	C.R.	R-square	P-value
<b>Store Environment (SE)</b>					
SEM1	The store has pleasant music	0.500	—	0.349	***
SEL3	Lighting in the store is pleasant	0.690	6.553	0.476	***
SEE2	The store has friendly employees	0.890	6.540	0.980	***
SELO2	It is easy to locate products/merchandise in the store	0.728	6.540	0.530	***
<b>Hedonic Shopping Motivation</b>					
HAS1	To me, shopping is an adventure	0.712	—	0.507	***

HAS3	Shopping makes me feel like I am in my own universe	0.707	15.010	0.500	***
HGS2	To me, shopping is a way to relieve stress	0.822	19.866	0.676	***
HRS2	I enjoy shopping for my friends and family	0.734	15.758	0.539	***
HVS2	I enjoy looking for discounts when I shop	0.636	14.418	0.507	***
HVS3	I enjoy hunting for bargains when I shop	0.796	12.207	0.372	***
HIS3	I go shopping to see what new products are available	0.630	10.807	0.397	***
<b>Impulse buying Tendency (IBT)</b>					
IBT1	I often buy things Spontaneously	0.676	—	0.457	***
IBT2	“Just do it” describes the way I buy things	0.804	16.075	0.646	***
IBT3	I often buy things without thinking	0.881	13.432	0.776	***
IBT5	“Buy now, think about it later” describes me	0.563	10.245	0.317	***
IBT6	I buy things according to how I feel at the moment	0.683	11.997	0.466	***
IBT7	I carefully plan most of my purchases	0.631	11.250	0.398	***
<b>Urge to buy Impulsively (UBI)</b>					
UBI1	I experienced a number of sudden urges to buy things I had not planned to purchase on this trip	0.638	—	0.596	***
UBI3	I experienced no strong urge to make unplanned purchases on this trip	0.893	7.841	0.797	***

Table 2 illustrates the discriminant and convergent validity of the research constructs using Average Variance Extracted (AVE) and Composite Reliability (CR) (Hair *et al.*, 2010). According to Fornell and Larcker (1981), a dimension with an AVE value greater than 0.5 is considered having high convergent validity. Thus, all research constructs report having an AVE greater than the cutoff values, so implying good convergent validity. Table 2 also shows that Composite Reliability (CR) values (*written in italics*) are higher than 0.7 following (Bagozzi, 1994) recommended value. In addition, the overall Cronbach's alpha coefficient accounts for 0.817. Thus, the results confirm high convergent validity, high reliability, and internal consistency to all research constructs.

**Table 2. Discriminant and Convergent Validity of the Study Constructs**

	Mean	SD	Number of items	AVE	C.R	SE	HSM	IBT	UBT
<b>SE</b>	3.94	1.38	4	0.569	0.786	<i>0.728</i>			
<b>HSM</b>	3.46	1.34	7	0.500	0.845	0.185**	<i>0.861</i>		
<b>IBT</b>	4.09	1.23	6	0.510	0.859	0.287**	0.542**	<i>0.891</i>	
<b>UBI</b>	3.91	1.41	2	0.602	0.747	0.154**	0.288**	0.045*	<i>0.722</i>

Cronbach alpha of all constructs is **0.817**, Cronbach's alphas for each construct is in diagonal italic cells. \*\*Correlation is significant at the 0.01 level (2-tailed), \* correlation is significant at the 0.05 level (2-tailed)  
 SE = Store Environment; HSM = Hedonic Shopping Motivation; IBT = Impulsive Buying Tendency; UBI = Urge to Buy Impulsively

Based on the satisfactory results of the measurement model, a structural equation model was conducted to examine the research hypotheses. The findings indicate that the model fits the data very well, where all fit indices values fall within the recommended

range as follows. Chi-Square statistic = 83.878; df =85, normed Chi-square statistic (CMIN/DF) = 0.987; *p*-value = 0.514; Goodness-of-Fit Index (GFI) = 97.9%; Adjusted Goodness-of-Fit Index (AGFI) = 96.2%; Comparative Fit Index (CFI) = 96.5%, Tucker-Lewis Index (TLI) = 95%, and Incremental Fit Index (IFI) = 96.6%. Finally, Root Mean Square Error of Approximation (RMSEA) value was 0.01, where values close to zero indicate a better fit.

**Table 3: Path Coefficients and Significances (n=449)**

H P	Path		Estimate	Standardized	t-statistic	p	Accepted/Rejected	
H 1	SE	→	HS M	0.287	0.236	4.651	***	Accepted
H 2	SE	↘	IBT	0.086	0.099	2.020	0.043**	Accepted
H 3	SE	↘	UBI	0.681	0.606	6.480	***	Accepted
H 4	HS M	↘	IBT	0.653	0.675	9.462	***	Accepted
H 5	HS M	↘	UBI	0.255	0.275	3.224	0.001*	Accepted
H 6	IBT	↘	UBI	0.277	0.288	3.404	***	Accepted

Chi-Square statistic = 83.878; df =85, normed chi-square statistic (CMIN/DF) =0.987; p-value = 0.514; Goodness-of-Fit Index (GFI) = 97.9%; Comparative Fit Index (CFI) = 96.5%, Adjusted Goodness-of-Fit Index (AGFI) = 96.2%, Tucker-Lewis Index (TLI) = 95%, and Incremental Fit Index (IFI) = 96.6%, the Root Mean Square Error of Approximation (RMSEA) = 0.01.  
 \**p* < 0.05. \*\**p* < 0.01. \*\*\**p* < 0.001. ns= not significant  
 SE = Store Environment; HSM = Hedonic Shopping Motivation; IBT = Impulsive Buying Tendency; UBI = Urge to Buy Impulsively

Table 3 and Figure 2 depict the estimates of all path coefficients and significances of the overall research model. The results show that all research hypotheses were found to be statistically significant and in the expected direction. Accordingly, they were all accepted.

The result shows that store environment has a significant positive effect on HSM ( $\beta = 0.236$ ,  $t = 4.651$ ,  $p = 0.000$ ), Egyptian shoppers' IBT ( $\beta = 0.099$ ,  $t = 2.020$ ,  $p = 0.043$ ), as well as on Egyptian shoppers' UBI ( $\beta = 0.606$ ,  $t = 6.480$ , and  $p = 0.000$ ). Furthermore, HSM was significantly and positively associated with Egyptian shoppers' IBT ( $\beta = 0.68$ ,  $t = 9.46$ ,  $p = 0.000$ ) and UBI ( $\beta = 0.275$ ,  $t = 3.22$ ,  $p = 0.001$ ). Finally, Egyptian shoppers' IBT has a significant positive influence on UBI ( $\beta = 0.288$ ,  $t = 3.404$ ,  $p = 0.000$ ).

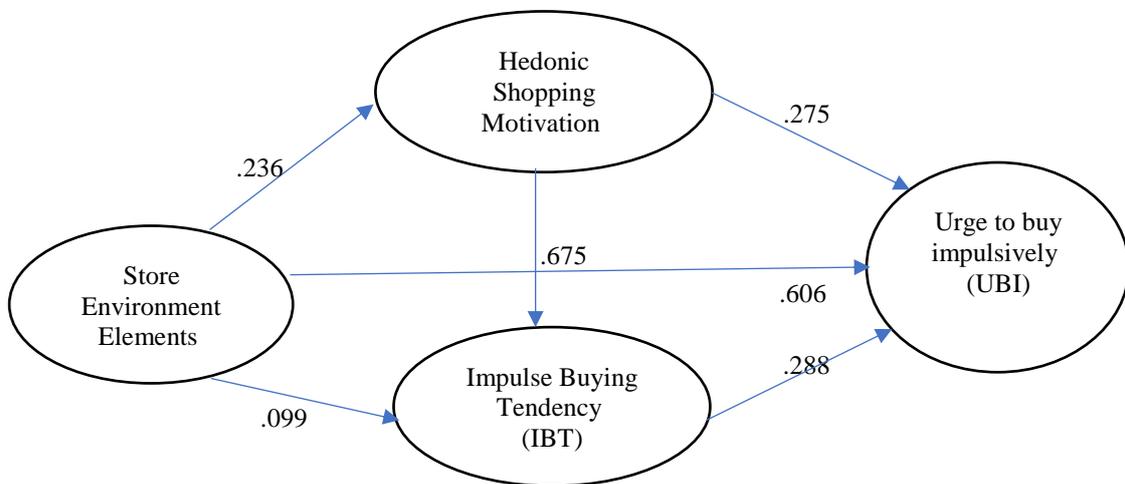


Figure 2: Structural Model

## 5. Discussion and Conclusions

Based on S-O-R paradigm and motivation theory, the current study investigates shoppers' urge to buy impulsively which is considered the main antecedent that shoppers' act upon in a physical retail store setting. Specifically, this study examines how store environment elements (music, light, layout, employees' friendliness) manipulate shoppers' urge to buy impulsively via influencing both their hedonic motivation, and their tendency to buy impulsively. The results supported all research hypotheses, where all the proposed relations occurred in the expected direction. In addition, they validate the Stimulus-Organism-Response (S-O-R) paradigm in the Egyptian retail context following the mainstream literature (e.g. Setyani *et al.*, 2019; Barros *et al.*, 2019; Zhu *et al.*, 2020; Djafarova and Bowes, 2021; Zafar *et al.*, 2021).

Consistent with the literature (e.g. Parsad and Prashar, 2017; Santini *et al.*, 2019; Mamuaya and Pandowo, 2018), the current study indicates that store environment elements positively affect consumers hedonic shopping motivation. The results underscored the significance of store music in triggering shoppers emotions like pleasure and dominance, the appropriate layout makes it easy for shoppers to locate the products they are looking for, good in-store lighting induces positive energy and vibes that motivate shoppers, in addition friendly and prompt in-store employees makes shoppers experience comfortable.

Certainly, store environment encourages consumers' different hedonic shopping motivation dimensions identified by (Arnold and Reynolds, 2003), and makes their shopping experience more appealing and enjoyable. As such, they affect consumers hedonic adventure shopping, where to them, shopping is considered an adventure during which they feel like they are in their own world. In addition, they influence consumers hedonic gratification shopping and assist them to overcome stress and mood

fluctuations. Further, they provoke hedonic value shopping when consumers are looking for discounts or hunting for bargains. Moreover, they stimulate hedonic role shopping when consumers are shopping for friends and family. Finally, they trigger hedonic idea shopping when consumers are out there in-store keeping themselves up to date, and getting an idea about what is new products /brands are available

In addition, in line with previous research (e.g. Kim and Eastin, 2011; Styvén *et al.*, 2017), the existing results support the positive association between hedonic shopping motivation and shoppers' impulse buying tendency. The results revealed that consumers who buy things spontaneously, without thinking and according to how they feel at the moment of purchase are usually guided by emotions elicited from several hedonic shopping motivations that include and not limited to entertainment, joy, gratification, fun and pleasure (e.g. Hoyer *et al.*, 2013; Yim *et al.*, 2014).

According to the results, hedonic shopping motivation was found to have significant positive association with urge to buy impulsively. The result confirmed that of Santini *et al.* (2019); Setyani *et al.* (2019) and Zheng *et al.* (2019). The study suggests that urge to buy impulsively is more likely to be generated as a result of consumers going shopping for the sake of adventure; to release the stresses and get away from daily routine; looking for deals and discounts; staying trendy and knowledgeable with the latest in the market.

The findings of this research reveal a direct positive effect of store environment elements (i.e. music, light, layout, employees friendliness) on shoppers' impulse buying tendency and urge to buy impulsively respectively. Despite the growing trend towards online shopping, yet physical in-store shopping has its advantages. Since it provides consumers with an enhanced shopping experience, and an opportunity to have a closer look at their preferred products before actual endorsement. Such result

suggest that in-store environment elements have direct effect on urge to buy impulsively as emphasized by (e.g. Mohan *et al.*, 2013; Helmfalk and Hultén, 2017; Lick *et al.*, 2017). Meanwhile, they have indirect effect via increasing consumers impulse buying tendency and eventually their urge to buy impulsively, hence confirming previous works of (Parsad *et al.*, 2017; Bellini *et al.*, 2017; Zafar *et al.*, 2021)

## 6. Implications

This research provides theoretical and practical implications. From a theoretical perspective, this study fills a gap in the literature by studying the effect of store environment elements (i.e. music, light, layout, and employees' friendliness) on triggering shoppers' hedonic motivation, stimulating their impulse buying tendency, and further encourage their urge to buy impulsively. Whereas previous researchers have examined separate store environment variables despite the high percentage of buying decisions that are made in store (e.g. Beatty and Ferrell, 1998; Chang, Yan and Eckman, 2014; Badgajyan and Verma, 2015). Second, unlike previous studies, the present research was applied in a physical store setting not an experimental one, and targeted non-student sample, thus contributing to the existing stream of research by investigating various types of shoppers and providing external validity to the results obtained (e.g. Chang *et al.*, 2014; Chan *et al.*, 2017).

From a practical perspective, this study provides some insights to Egyptian retailers. Although shoppers are usually encouraged by both utilitarian and hedonic motivations, yet the latter proved to be elicited by different store environment elements (i.e. music, light, layout, employees' friendliness), which retailers should pay more attention in managing them. Retailers should note that more investments should be allocated to stimulus with strong effect on shoppers impulse buying. So the findings of this research should assist retailers to successfully allocate resources to the right stimuli. For instance, retailers should put much emphasis on

employees training to learn how to become more customer centric. Since having in-store friendly employees led customers form favorable attitude towards the store and evoke in store enjoyment vibes that increase the desire for revisit. In addition, the store design and layout are another stimulus which retailers should focus on to assist shoppers in allocating the products they are looking for comfortably and trouble-free. As having appropriate store layout will provide shoppers with a memorable experience, that will induce fun and entertainment. Moreover, having appropriate in-store lighting offers shoppers good visibility to the different sections, hence ease the shopping experience. Providing suitable in-store environment cues will eventually affect positively the amount of time shoppers spent in-store browsing, and ultimately the amount of money spent. The aim is to capture every opportunity to positively affect shoppers' hedonic adventure, gratification, value, and idea motivation to increase their urge to buy impulsively. Considering the current study results, shoppers will be encouraged to respond and act upon their experienced urges to buy impulsively, which may eventually contribute in maximizing retailers' profits. Meanwhile, they will allow retailers to deliver the promised value to their target customers, hence generate more sales and boost the retail store overall performance.

## **7. Limitations and Future Research**

This research suffers from some limitations. First, the existing study is bounded to the researched hypermarkets/supermarkets (i.e. Carrefour, Spinneys and Seoudi) located in certain areas in Cairo, Egypt, which impede the generalizability of the results due to differences among consumers with respect to spending patterns and buying behavior. Future research can extend the investigation to other areas in Cairo, and other Egyptian governorates. Second, the study investigated store environment elements and individual factors. Future research can examine other shoppers' traits such as shopping enjoyment tendency, and other situational characteristics like in-store promotion, or product attributes.

Also, future research could consider using some moderating variables such as gender and age to better understand the relation between hedonic shopping motivation and impulse buying tendency, and urge to buy impulsively. Third, the study is cross sectional in nature, hence potential research can either replicate or conduct a longitudinal study in order to validate the reported findings. Finally, the research was limited to consumers urge to buy impulsively in the physical store environment. Upcoming research can investigate the researched concepts in online environment, particularly after COVID 19 pandemic where consumers regular visits to physical stores have decreased.

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## Appendix: Research Questionnaire

**Section 1: Please indicate your agreement /disagreement on the following statements regarding your shopping motivation**

		Strongly disagree (1)	Disagree (2)	Neutral (3)	Agree (4)	Strongly Agree (5)
1	To me, shopping is an adventure. (HAS1)					
2	I find shopping stimulating (HAS2)					
3	Shopping makes me feel like I am in my own universe. (HAS3)					
4	When I'm in a down mood, I go shopping to make me feel better. (HGS1)					
5	To me, shopping is a way to relieve stress. (HGS2)					
6	I go shopping when I want to treat myself to something special (HGS3)					
7	I like shopping for others because when they feel good, I feel good. (HRS1)					
8	I enjoy shopping for my friends and family (HRS2)					
9	I enjoy shopping around to find the perfect gift for someone (HRS3)					
10	For the most part, I go shopping when there (HVS1)					
11	I enjoy looking for discounts when I shop (HVS2)					
12	I enjoy hunting for bargains when I shop. (HVS3)					

13	I go shopping with my friends or family to socialize. (HSS1)					
14	I enjoy socializing with others when I shop. (HSS2)					
15	Shopping with others is a bonding experience. (HSS3)					
16	I go shopping to keep up with the trends. (HIS1)					
17	I go shopping to keep us with the new fashions. (HIS2)					
18	I go shopping to see what new products are available. (HIS3)					

**Section 2: Please indicate your agreement/disagreement on the following statements regarding your evaluation of the store environment.**

S		Strongly disagree (1)	Disagree (2)	Neutral (3)	Agree (4)	Strongly Agree (5)
1	The store has pleasant music (SEM1)					
2	The store has appropriate music (SEM2)					
3	The store has terrible music (SEM3)					
4	The store is well lit (SEL1)					
5	The store is correctly lit (neither too bright nor dull). (SEL2)					
6	Lighting in the store is pleasant. (SEL3)					
7	The store has knowledgeable employees. (SEE1)					
8	The store has friendly employees (SEE2)					

9	The store has helpful employees(SEE3)					
10	It is easy to move about in the store(SELO1)					
11	It is easy to locate products/merchandise in the store(SELO2)					
12	The store has attractive displays (SELO3)					

**Section 3: Please indicate your agreement on the following statements regarding your buying behaviors:**

S	Statement	Strongly disagree (1)	Disagree (2)	Neutral (3)	Agree (4)	Strongly Agree (5)
1	I often buy things Spontaneously (IBT1)					
2	“Just do it” describes the way I buy things (IBT2)					
3	I often buy things without thinking (IBT3)					
4	“I see it, I buy it” describes me. (IBT4)					
5	“Buy now, think about it later” describes me (IBT5)					
6	I buy things according to how I feel at the moment(IBT6)					
7	I carefully plan most of my purchases(IBT7)					
8	I experienced a number of sudden urges to buy things I had not planned to purchase on this trip (UBI1)					
9	On this trip, I saw a number of things I wanted to buy, even though they were not					

	on my shopping list. (UBI2)					
10	I experienced no strong urge to make unplanned purchases on this trip. (UBI3)					

**4. Gender**

- a. Male
- b. Female

**5. Age**

- a. Below 20 years
- b. 20 to less than 30years
- c. 30 to less than 40 years
- d. 40 to less than 50 years
- e. 50 to less than 60 years
- f. Above than 60 years

**6. Income**

- a. Less than L.E. 1200
- b. L.E. 1200- less than L.E.2200
- c. L.E. 2200- less than L.E.3200
- d. L.E. 3200- less than L.E.4200
- e. L.E.4200 less than L.E. 5200
- f. L.E.5200 or more