

# THE ASSOCIATION OF IMPULSE BUYING BEHAVIOUR WITH ENVIRONMENT AND SOCIAL FACTORS: A GENDER PERSPECTIVE

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## ABSTRACT.

**Background:** Males and females have different shopping preferences and behaviours that lead them to make impulsive purchases. Several factors have been discussed in the prior literature that would prompt them to make impulsive purchases. However, a lack of attention has been given by researchers to how social and environmental factors would differ between males and females. **Aim:** The primary purpose of this study was to examine whether environmental and social factors are associated with impulse buying in both males and females. **Methods and Sample:** The study was conducted in five premium outlets in Malaysia with a total of 390 respondents. Using t-test and Pearson correlation, this study explored the different patterns of impulse buying behaviour between males and females. **Results:** This study revealed that environmental factors were associated with impulse buying among female tourists. At the same time, word of mouth (WOM) emerged as having a significant relationship with impulse buying among male tourists. **Conclusion, Implication:** Given these findings, this study may have several implications. The retailers could design an encouraging environment to encourage both genders to purchase impulsively. Additionally, having a good reputation plays an important role in encouraging consumers or tourists to spread positive word of mouth. **Limitation:** This study has limitations in certain aspects where it only covers the aspect of gender but not age. Thus, this study suggests future research can measure the age aspect to obtain an interesting result.

**Keywords:** Environmental factors, social factors, impulse buying, gender

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## Introduction

Shopping may not be the main reason why tourists travel. However, it is not surprising to see tourists make an unplanned purchase during vacation or what is termed impulse buying behaviour. Impulse buying behaviour is one of the means to increase retail profit and shopping tourism revenue (Li et al., 2014; Foroughi et al., 2011). The retail sector in Malaysia contributed 44.8% to the tourism industry in 2018 (Statistic Malaysia, 2018). Thus, understanding the role of impulse buying behaviour would provide valuable information and strategies to retailers on how to increase revenue as well as tourist spending. Retailers can gain 60% of their profit from impulse buying behaviour (Clover, 1950). Moreover, impulse buying has been found to contribute 62% of the sales in supermarkets and 80% of the sales of luxury goods (Ruvio & Belk, 2013). The existence of credit cards, cash machines and online shopping networks make it easier for consumers to purchase products anytime and anywhere on impulse (Cheng et al., 2013).

Most previous studies have shown the importance of impulse buying behaviour. However, there is still little research on the role of gender in impulsive purchases, though it is one of the key variables for retailers in managing market segmentation (Tifferent & Herstein, 2012). The past literature has reported that men and women have different shopping behaviour and preferences (Coley & Burgeess, 2003). Particularly, the factors that have been found to contribute to such differences in impulse buying behaviour include males' and females' emotions (Coley & Bugees, 2003; Prakash et al., 2017), thinking processes (Meyers-Levey & Sternthal, 1991; Laroche et al., 2000), product preferences (Coley & Burgess, 2003; Dittmar et al., 1995), and gender companions (Cheng et al., 2013). Additionally, studies on impulse buying have highlighted the contributing roles of environmental and social factors. However, the past literature has neglected to examine whether the relationships between the main research variables would differ between males and females. Therefore, this study aimed to identify if impulse buying is significantly associated with environmental and social factors and if such associations would differ between males and females.

## Theoretical background

### Impulse buying behaviour

Impulse buying behaviour is defined as an unplanned purchase (Kollat & Willet, 1969). It is a situation wherein a purchase is made without planning in advance (Stern, 1962). Impulse buying behaviour happens when consumers do not have any intention to purchase a specific product or brand (Hadjali et al., 2012). It reflects consumer feelings, where according to Handayani (2018), impulse buying could give a sense of happiness. A person would feel happy after they made a purchase impulsively. Consumers may feel that they already own a particular product, thereby compelling them to grab and purchase it impulsively (Saad & Metawie, 2015; Virvilaite & Saladiene, 2012; Zhaou et al., 2019). Nonetheless, Stern (1962) stated that impulse buying does not always connote that the consumer did not plan to purchase ahead of time. There may be times when a consumer has planned to buy in advance; however, the actual purchase is different once inside the store. Therefore, impulse buying also occurs even when consumers already have a specific product to purchase in mind.

In contrast, impulse buying behaviour in the context of tourism is strictly considered a planned purchase, that is, tourists have made a plan to go on vacation before booking a trip (Leasser & Dolnicar, 2012). As travelling decisions are sometimes made last minute, Karl et al. (2021) define impulse buying in tourism as a situation in which an individual may approach the travel decision-making process without a list of specific products to buy but with an impulse to act impulsively. According to Stern (1962), pure impulse buying does not occur in tourism except in the context of shopping tourism. Tourists do not have any shopping intention before they travel, but they would eventually purchase specific products to experience the culture of the place they are visiting (Babin et al., 2004; Karl, 2021).

Basically, the process of deciding to make a purchase consists of five stages, namely, problem/need recognition (stage 1), information search (stage 2), evaluation of alternatives (stage 3), purchase decision (stage 4), and post-purchase behaviour (stage 5). However, the intermediate process is skipped in impulse buying (Prakash et al., 2017). The first stage is swiftly followed by the penultimate stage, which is making a purchase decision. Most commonly, the environment in a shopping mall or store is the primary element that encourages consumers to purchase impulsively. In terms of social factors, suggestions from friends, family members, salespersons as well as the crowd may influence customers to make a purchase spontaneously. To summarize, impulse buying behaviour usually occurs due to certain factors that allure them to make a purchase.

## Environmental factors

In the shopping setting, the environment is one of the important elements influencing consumers' shopping behaviour. The store environment encompasses the physical characteristics of the store or shopping mall, such as the layout design, sound, color, light, and temperature, that create a certain impression from the consumer's view (Berman & Evans, 2014). Most previous studies have indicated that the attributes of the environment can make consumers stay longer in the mall or store, thus encouraging them to make a purchase (Porral & Mangin, 2019; Mohan et al., 2013; Muruganantham & Bhakat, 2013). Specifically, a comfortable ambience, layout, and music may persuade consumers to make a purchase impulsively (Meents et al., 2020; Bustamante & Rubio, 2017; Anwar et al., 2022). The conducive environment in malls or stores may arouse positive emotions, thereby facilitating impulse buying behaviour.

Sales promotion is another environmental factor that can induce consumers to make a purchase. The symbols, labels, and displays used to attract consumers are among the components of the retail environment (Ashraf et al., 2014). Even though sales promotion might not always induce additional purchases, it leads to customers staying longer in the mall (Li et al., 2021s). Sales promotion manifests marketing communication activities (Alvarez & Casielles, 2005; Mkhize & Ellies, 2020) that are used by retailers to prompt consumers to make a purchase (Shimp, 2003). Additionally, prior studies stated that promotional activities help retailers to gain more sales (Altukar & Kensari, 2018; Chandukala et al., 2017) as well as consumer engagement (Kaveh et al., 2020) which in return garners impulsive purchases (Hashmi et al., 2019; Ali et al., 2019). Consumers or tourists are easily persuaded by sales promotion offered by retailers. Previous studies have found that sales promotion can encourage consumers to make a purchase (Bandyopadhyay et al., 2021; Metilda & Karthika, 2015; Andreti et al., 2013). Moreover, exposure to a great deal of sales promotion affects the mood of the consumers or tourists, thus triggering them to make a purchase. Studies have found explicitly that an attractive promotion, lower price and fewer taxes can influence tourists to purchase impulsively (Ali et al., 2019; Sohn & Lee, 2016; Timothy & Butler, 1995).

The wide variety of selections in shopping malls can spur an exciting feeling among consumers, thereby turning them into variety seekers (Donthu & Garcia, 1999; Moe, 2003; Lim & Dubinsky, 2004). In other words, consumers are offered a wide array of choices before they make a purchase. Khorrami et al. (2015) indicated that a variety of selections allows consumers to adapt to current trends or different situations. This can also arouse the consumers' emotions, thereby leading them to make a purchase on impulse (Sharma et al., 2010; Lin, 2014; Park et al., 2012). Additionally, Idoko et al. (2019) stated that the variety of stores in shopping malls creates positive arousal, such as excitement in shoppers' minds. On the other hand, prior studies (Brusch et al., 2019; Mofokeng, 2021) found that broad product variety leads to customer satisfaction. While in the context of online shopping, product variety is an important element that encourages consumers to make a purchase (Kim & Ammeter, 2018). It allows variety seekers to enjoy their shopping experience, which, in turn, causes impulsive purchases.

## Social factors

When it comes to shopping, consumers or tourists tend to be influenced by their families, friends, relatives or even the salesperson as they seek some information or opinions before they make a purchase. Such a form of communication wherein consumers gain information from other consumers who have purchased a product or service is called word of mouth (WOM) (Westbrook, 1987). WOM is the most powerful means of communication and a source of influencing consumer purchase behaviour (Scuderi et al., 2019). It is essential for retailers to sustain their image and good reputation through the spread of a positive WOM among consumers. In predicting consumer purchase intention, Gutierrez-Rodríguez et al. (2020) found that store image lead to positive WOM. When the retailers are able to retain their image, it will lead to store loyalty which in return encourages consumers to spread positive WOM (Guesta-Valino et al., 2022). Interaction with a salesperson can thus influence consumers to make a purchase on impulse (Chang et al., 2011). Chang (2014) also found that the opinions o tourist guide may encourage tourists to purchase impulsively. The process of sharing information or opinions among consumers can therefore influence them to purchase a product (Hawkins et al., 2004; Scuderi et al., 2019). Similarly, the interaction between the consumer and an accommodating employee facilitates impulse buying behaviour (Matilla & Wirtz, 2008).

The crowd in a shopping mall may also influence impulse buying in consumers entering the establishment. Perceived crowding is the density of the crowd in a particular place that affects an individual's feelings (Bandyopadhyay, 2020; Eroglu & Machlet, 1990; Jin et al., 2016). It can stimulate both positive and negative emotions among consumers. Some consumers may feel pleasure and dominance while being a part of the crowd in malls, but some may avoid it (Gogoi, 2017;

Bandyopadhyay, 2020, Nguyen & Ha, 2021). Ladhari et al. (2017) found that human crowd will lead to shopping confusion which will lessen the store loyalty and it lead to stress (Tran, 2020). Somehow, the crowd in shopping malls are able to persuade consumers to make a purchase impulsively (Sriwardiningsih, 2011, Miyuri, 2017). This feeling of excitement that consumers or tourists experience with a crowd may encourage them to make an impulsive purchase (Gogoi 2017; Katakam, 2021; Parsad et al., 2018).

### **Gender and impulse buying**

The differences between men and women are of interest to the industry that seeks to develop strategies that would be responsive to their needs and wants. Males and females have different preferences before they make a purchase (Pradhana & Sastiono, 2018; Paramitha et al., 2022). Men are more likely than women to purchase a product that has practical use and function and allows them to demonstrate their strong personality identity. In contrast, women are more likely to be attracted to products that are related to their social identity, fashion sense and style (Coley & Burgees, 2003; Dittmar et al., 1995). Generally, women engage in more impulse buying compared to men due to their innate tendency to shop (Dittmar et al., 1995; Rook & Hoch, 1985; Tifferet & Herstein, 2012; Djafarova & Bowes, 2021). Women have higher levels of impulsiveness to spend more money than men do (Tinnie, 2011; Atulkar & Kesari, 2017; Imad et al., 2022). Their impulse buying tendency is high and they are known as highly materialistic consumers compared to men (Utama et al., 2021). Moreover, previous researchers (Stern, 1962; Chun et al. 2020) indicated that women tend to carry out planned impulse buying, changing their purchases depending on sales, price specials, and coupon offers, among others. Kollet & Willet (1969) stated that if the number of sales remains constant, both men and women would have the same degree of vulnerability to impulse purchase. On the other hand, Cheng et al. (2013) reported that consumers have a high tendency to purchase on impulse when they are shopping with the opposite gender.

## **Methodology**

### **Study sample and data collection**

This study is to identify whether impulse buying is significantly associated with environmental and social factors in both females and males. Thus, the sample for this study consisted of international and local tourists who shopped in premium outlets in Malaysia. A non-probability sample was employed due to the unavailability of the list of international and local tourists who visited the said establishment in the country. The questionnaires were distributed to 390 respondents who were shopping at the Johor Premium Outlet (JPO), Mitsui Outlet Park (MOP), Freeport A' Famosa Outlet, Design Village Outlet (DVO) and Genting Premium Outlet (GPO). The questionnaires were written in four languages, namely, Malay, English, Chinese, and Arabic. A pre-test of the questionnaires was done by service experts of premium outlets as well as by academic experts at the Universiti Putra Malaysia. A pilot test was also done with 60 respondents. Their comments and suggestions were taken into consideration to improve the questionnaire. Then, the questionnaire was revised and modified accordingly. The respondents were approached after they were done with shopping and were asked if they were willing to participate in the survey. Once they agreed, they were asked to complete the survey, which took just a few minutes for them to do.

### **Measure**

The development of the questionnaire for this study was based on the extant literature. The instruments were measured using a 7-point Likert scale with response options ranging from strongly disagree (1) to strongly agree (7). The store environment was measured using six items of the instrument adapted from Lo & Qu (2015) and Mohan et al. (2013). The seven items for sales promotion were adapted from Lo and Qu (2015), Wakefield & Barnes (1996) and Park et al. (2012). While the six items for variety of selection were obtained from Park et al. (2012). Moreover, the question used to measure WOM was adapted from Jalilvand & Samiei (2012). Lastly, the items for perceived crowding were taken from Gogoi (2017) and Li et al. (2009).

## Results

### Profile of the sample

Table 1 indicates the demographic profile of the respondents for this study. Most respondents were females (52.1%) aged 25 to 35 years. Approximately 40.5% of the respondents were single, whereas 57.2% were married. Among local tourists, 3.8% had an income below RM 1000, while 17.9% earned about RM 2000 to RM 3000. In contrast, among the international tourists, 12.8% reported having an income below USD 1000, while 14.6% earned about USD1000 to USD2000. Additionally, 31% of the respondents were employed in the government sector and with a bachelor's degree. Also, around 54.9% of the respondents were local tourists, whereas 45.1% were foreigners.

Table 1: Demographic profile

Demographic characteristic	Percentage (%)	Demographic characteristic	Percentage (%)
<b>Gender</b>		<b>Occupation</b>	
Male	47.9	Government Sector	31.0
Female	52.1	Private Sector	45.9
<b>Age</b>		Self-Employment	14.9
18-24	17.7	Others	8.2
25-35	43.6	<b>Country of Origin</b>	
36-44	25.4	Malaysia	54.9
45-55	11.3	Non-Malaysia	45.1
55-60	1.3	<b>Education Level</b>	
Above 60	0.8	Secondary/High school	10.5
<b>Marital Status</b>		Diploma	24.1
Single	40.5	Bachelor's degree	43.1
Married	57.2	Master's degree	17.7
Divorced	2.1	Doctorate degree	4.1
Others	0.3	Others	0.5
<b>Income (RM)</b>		<b>Income (USD)</b>	
Below RM1000	3.8	Below USD 1000	12.8
RM1000-RM2000	5.1	USD1000 – USD2000	14.6
RM2000-RM3000	17.9	USD2000 – USD3000	10.5
RM3000-RM4000	11.0	USD3000 – USD4000	5.1
RM4000-RM5000	9.2	USD4000 – USD5000	0.8
More than RM5000	7.7	More than USD5000	1.0

### Results on the significant difference between males and females in terms of the environmental and social factors that affect impulse buying behaviour

Further analysis was performed using a t-test to identify the differences between females and males with regard to the main research variables. As shown in Table 2, the variable with the highest scores was store environment with a mean of above 5 on a 7-point scale. The highest rated items for females were, “the outlet has attractive displays,” and “the environment of the outlet is clean.” Meanwhile, the highest rated item for males was, “it was easy to move about in the outlet.” Generally, there were no statistically significant differences between males and females in all items for store environment.

As to sales promotion, different mean scores emerged between females and males. The item “promotion plays a big part in my choice to make a purchase” had the highest mean score in both gender groups. While, the items with the second highest mean scores were “promotion influences how much I spend when I visit the outlet” and “special price for the product are available in this outlet” for females

and males, respectively. Overall, the results indicated statistically significant differences between males and females in the t-test analysis of five items for sales promotion.

Table 2: Comparisons between males and females on environmental factors

<b>Environmental factors</b>	<b>Males</b>	<b>Females</b>	<b>t</b>	<b>df</b>	<b>t-test sig (2-tailed)</b>	<b>Effect size</b>
<b>Store environment</b>	<b>Mean</b>	<b>Mean</b>				
The decoration of the outlet is modern	5.09	5.30	-1.655	388	.099	0.007
The environment of the outlet is comfortable	5.32	5.30	.204	388	.838	0.000
The environment of the outlet is safe	5.30	5.38	-.673	362.762	.501	0.001
The environment of the outlet is clean	5.35	5.42	-.598	368.372	.550	0.000
It was easy to move about in the outlet	5.34	5.36	-.137	367.008	.891	0.000
It was easy to locate products/merchandise in the outlet	5.25	5.33	-.667	388	.505	0.001
The outlet has attractive displays	5.31	5.43	-1.094	388	.548	0.003
<b>Sales Promotion</b>	<b>Mean</b>	<b>Mean</b>				
The outlet has attractive discounts.	4.81	5.07	-2.124	388	.034**	0.011
The outlet gives out gifts and samples.	4.41	4.33	.546	388	.585	0.000
Special prices of the product are available in this outlet.	5.01	5.14	-1.020	388	.308	0.002
Promotion information influences me when I visit the outlet.	4.82	5.31	-3.625	388	.000**	0.035
Promotion information influences how much I spend when I visit the outlet.	4.89	5.34	-3.339	388	.001**	0.029
If there's a promotion, I like to go to that particular outlet instead of another one.	4.72	4.89	-1.204	388	.229	0.003
Promotion plays a big part in my choice to make a purchase.	5.14	5.42	-2.164	388	.031**	0.012
The price of products in the outlet is economical.	4.77	5.08	-2.399	388	.017**	0.015
<b>Variety of selection</b>	<b>Mean</b>	<b>Mean</b>				
The outlet deals with a variety of fashion items.	4.93	5.26	-2.833	388	.005**	0.021
The outlet has wide assortment of products with different prices.	5.16	5.37	-1.818	388	.070	0.008
The outlet deals with a variety of brands.	5.21	5.47	-2.138	388	.033**	0.011
The outlet sells interesting fashion items.	5.28	5.39	-.848	388	.397	0.001
The selection of shops in this outlet is sufficiently wide and varied.	5.04	5.17	-1.132	388	.258	0.003
There is an attractive range of shops in this outlet.	5.09	5.43	-2.885	388	.004**	0.021

The items for variety of selection with the highest mean scores in females were “the outlet deals with variety of brand,” and “the outlet sells interesting fashion items.” On the other hand, the items “there is an attractive range of shop in this outlet,” and “the outlet deals with a variety of brand” had the highest mean scores among males. The results also demonstrated statistically significant differences between males and females in three items for variety selection.

Table 3: Comparisons between males and females on social factors

Social Factors	Males	Females	t	df	t-test sig (2-tailed)	Effect size
WOM	Mean	Mean				
Ask tourist/friend/salesperson to make good impression on others	4.13	4.42	-1.839	388	.067	0.008
to make good impression. Ask tourist’s/friend’s/salesperson’s reviews.	4.28	4.64	-2.264	388	.024**	0.005
Consult other tourists choose attractive fashion.	4.33	4.51	-1.165	388	.245	0.003
Gain information from tourist/friend/salesperson before purchase.	4.10	4.37	-1.786	388	.075	0.008
When I shop, other tourists/friends/salesperson opinions make me confident.	4.28	4.55	-1.734	388	.084	0.007
Perceived Crowding	Mean	Mean				
I found the outlet too busy during my shopping trip.	4.44	4.66	-1.492	388	.137	0.005
The outlet traffic was high.	4.42	4.67	-1.694	388	.091	0.007
I found a lot of shoppers in the outlet.	4.76	5.02	-1.864	388	.063	0.009
The outlet looks more congested due to the design and layout.	4.36	4.28	.540	388	.589	0.000
The outlet feels very spacious when I shop in the store.	4.98	5.04	-.467	388	.640	0.000
I felt confined when shopping in the outlet.	3.64	3.34	1.795	388	.073	0.008

Furthermore, for WOM, the mean scores were all above four based on a 7-point scale, which are quite lower than those of the environmental factors (see Table 3). The item with the highest rating in females was “to make sure I choose the right product/brand/fashion, I often ask other tourists’/friends’/salespersons’ reviews.” In contrast, the statement “when I shop, other tourists’/friends’/salespersons’ opinions make me confident to make a purchase” had the highest mean score among males. Overall, there was a statistically significant difference between males and females on one item for WOM.

Further, males and females did not significantly differ in perceived crowding. Nonetheless, both groups had the highest rating for the item “the outlet feels very spacious when I shop in the store.” Similarly, the item “I found many shoppers in the outlet” had the second highest mean score in both females and males.

### Results on the correlation analysis of the relationship between impulse buying behaviour and environmental and social factors across gender

Pearson’s correlation was used to analyse the relationship of environmental and social factors with impulse buying behaviour in both females and males (see Table 4). For environmental factors, store environment ( $r= 0.175$ ,  $p<0.05$ ), sales promotion ( $r=227$ ,  $p<0.05$ ), and variety of selection ( $r=0.177$ ,  $p<0.05$ ) were found to have statistically significant associations with impulse buying

behaviour in females, but not in males. On the other hand, for social factors, WOM was significantly correlated with impulse buying behaviour among males ( $r=.190$ ,  $p<0.05$ ) and females ( $r=0.52$ ,  $p<0.05$ ). Lastly, perceived crowding was significantly associated with impulse buying behaviour in both groups.

Table 4: Correlation matrix

		<b>Environmental Factors</b>			
<b>Group</b>	<b>Measure</b>	Store environment	Sales promotion	Variety of selection	IBB
<b>Male</b>	Store environment	1			
	Sales Promotion	.598**	1		
	Variety of selection	.668**	.729**	1	
	IBB	-.013	.099	.010	1
<b>Female</b>	Store environment	1			
	Sales Promotion	.522**	1		
	Variety of selection	.578**	.699**	1	
	IBB	.175**	.227**	.177**	1
		<b>Social factors</b>			
<b>Groups</b>	<b>Measure</b>	WOM	Perceived Crowding	IBB	
<b>Male</b>	WOM	1			
	Perceived Crowding	.252**	1		
	IBB	.190**	.222**	1	
<b>Female</b>	WOM	1			
	Perceived Crowding	.317**	1		
	IBB	0.52	.198**	1	

**Note:** \*\*Correlation is significant at level 0.05 (2-tailed).

## Discussion

Notably, there is a need to understand gender differences in the factors that influence buying on impulse. This study revealed that female tourists felt comfortable with a store environment when the retailer could offer them an attractive display as well as a clean establishment. In contrast, male tourists were more comfortable with an environment that allowed them to move around easily. Altukar & Kensari (2018) also found that the eye-catching store design, lightning, music and decoration attract and encourage female consumers to purchase impulsively compared to male consumers. While Borges et al. (2013) found that a hedonic atmosphere leads to higher quality perception and thus leads to purchase intention among female consumers. In contrast with Herter et al. (2014) study, where retail environment perception is stronger for men than for women. The contradiction of the studies might be due to differences in the context of the study as well as the sample size of the study. Somehow, the correlation result of this study indicates that females' impulse buying behaviour was highly correlated with the store atmosphere. Therefore, this study demonstrates that women are more attracted to the store environment which lead them to make impulse buying.

While sales promotion was the main criterion that women looked into before making purchases. The correlation results also indicated that among females, sales promotion is significantly related to impulse buying behaviour. This is consistent with the Saleh et al. (2013) study, which found that females



are more receptive to sales promotions (free samples) than males. However, in Sinha & Verma (2018) study, both males and females are attracted to sales promotion. This study focused on the hedonic and utilitarian benefits of sales promotion which led to the contradiction between both studies. Nevertheless, from both studies, it is found that sales promotion can influence male and female purchasing behaviour in different situations. Women considered the variety of brands that were offered by the retailers, whereas males were more attracted to interesting fashion items. This shows that both genders are attracted to retail shops that offer them a variety of selections. As stated in previous literature (Yeo et al., 2019; Damian, 2011; Idoko, 2019), variety of selections such as product and tenants would encourage consumer's excitement which leads them to make a purchase. Even though generally, it influenced both genders, interestingly, this study has found that variety of selection is significantly associated with impulse buying behaviour. Most of the previous literature (Leung, 2022; Mihic & Milakovic, 2017; Sun & Qu, 2011) studied the intention of both genders in spreading the word and very little research to study on how WOM affects their purchase behaviour. Somehow, this study found that both genders preferred asking their friends or relatives about certain products or services before they make any purchases. Remarkably, the correlation result of this study indicated that among males, WOM was significantly associated with impulse buying behaviour. Therefore, this study demonstrated that males are influenced by WOM before they make a purchase.

Finally, spacious crowding also emerged as an important factor to consider before they make a purchase. However, Bandyopadhyay (2020) demonstrated that spatial crowding showed a negative impact on impulse buying, which contradicts this study. This might be due to the study being taken over at different places with different populations. The correlation result shows that perceived crowding was significantly related to impulse buying behaviour in both gender groups. Similarly, previous literature (Katakam et al., 2021; Parsat et al., 2018) demonstrated that perceived crowding has a significant effect to impulse buying behaviour. Therefore, both genders are attracted to the crowd which leads them to make a purchase.

## Limitation and future research

Though this study demonstrated the interesting result of gender differences associated with environmental and social factors, there is still a limitation in some aspects. Firstly, this study only concentrated on the gender aspect but neglected the study on the age aspect. Secondly, this study measured the result by using a t-test and Pearson correlation. Therefore, it is suggested that future research can concentrate on the age aspect, with the collaboration of genders. Different gender within certain age groups might yield results differently as each group might have different styles and behaviour. In fact, it can be tested with other demographic categories. Thus, future research may use two-way approaches between- groups ANOVA to obtain a better result. Additionally, future research can increase the sample size as the result would be different and more interesting.

## Implication and conclusion

This study primarily aimed to identify the association of environmental and social factors with impulse buying and to determine whether there would be gender differences in such associations. Overall, the results show that environmental factors (i.e., store environment, sales promotion, and variety of selection) are more associated with impulse buying in females than in males. On the contrary, WOM is more related to impulse buying among males than their counterparts. Nonetheless, perceived crowding is significantly associated with impulse buying by both male and female tourists.

Based on the results of this study, several managerial implications can be identified. Inasmuch as the store environment was found to have a significant relationship with impulse buying in males, then retailers need to focus more on environmental factors to persuade them to purchase impulsively. For instance, retailers should consider designing a layout that would attract males to enter their stores. Since males always want to get a job done, then product arrangement is important to make it easier for them to locate the products they want. This would motivate them to purchase more items. Moreover, retailers should provide a wide range of products and brands to allow consumers to have an assortment of choices. The availability of multiple brands can encourage consumers to make a purchase (Kurtulus & Ertekin, 2015). Additionally, retailers should develop an efficient strategy for sales promotion to attract not just male consumers but females as well.

It is important for retailers to have a good reputation for the spread of a positive WOM. Instead of the preparations made for a product and/or brand, the service provided by a salesperson is more vital in establishing rapport with the consumers, thus creating a positive WOM. Moreover, a good

arrangement of space may avoid or control the density of the crowd, making it easier for consumers to move around the establishment. Overall, this study may provide better ideas and guidelines for retailers and marketers to help them manage the store's environment to eventually encourage male and female tourists to shop.

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