

IMPACT OF HEDONIC VALUE AND E-WOM ON IMPULSE BUYING: AN ANALYSIS OF APPAREL INDUSTRY IN PAKISTAN

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ABSTRACT

The study impact of hedonic value and E-WOM on impulse buying: an analysis of apparel industry” is focused to analyze the apparel industry in Pakistan which has gone through various challenges and changes from the tailor to readymade trends. Online and technological advancements brought a lot of changes during the entire phase and the apparel industry has been revolutionized. Electronic Impulse Purchasing has brought a change and left an impact on the buying behaviors and buying patterns. The foremost objective of this research was to determine the Impact of Hedonic value and E-WOM on Impulse Buying: Mediating role of Emotional Arousal and Moderating role of Perceived risk and Customer income. A Case from Apparel Industry of Pakistan. Target population was the female customers who are buying apparel from markets of Pakistan, from four major cities (Lahore, Karachi, Islamabad, Multan) whereas, 461 respondents were selected as sample of this study. Research data was collected through standardized questionnaires. The study addressed the key considerations in a well manner and all the hypotheses approved for the study in hand.

Keywords: E-WOM, Impulse Buying Behavior, Hedonic Values, Apparel Industry.

INTRODUCTION

Clothing is the main necessity of mankind through ages and most of the people spend a lot on clothing. Dressing has become a key element in grooming the personality of human beings at present and their dressing sense is judged keenly by others, everyone intends to dress up with the

best and to have a positive difference in the personality, due to these reasons people spend for shopping the clothes (Bhatnagar et al., 2000). This has not been limited to male only but the females show even more keen interest in their dressings and it has been a common practice since ages and

today women are even more fond of shopping apparel than man (Dennis et al., 2009).

Therefore, the apparel industry is having equal interest of both men and women at present due to the changing trends of the world and further the world has been transformed into a global village as well where the distances and differences are reduced due to technological advancements. Now the clothing has become one of the top choices to be ordered throughout the globe due to electronic commerce and online shopping platforms. This has made apparel industry more common and more preferable globally for being a basic need of human beings. As far as the apparel industry is concerned, it has roomed a prominent position across the global business industry. Just like other parts of the world the apparel industry in Pakistan has gone through various changes as Pakistan has been a textile hub through decades and a large number of population in the country has been affiliated with this industry. With the passage of time the tailor stitched clothing to readymade clothing era has been witnessed (Ghani, 2010).

The transformation in the apparel industry has been observed from tailored stitching to readymade and subsequently clothing brands culture which has transformed the entire industry (Arifeen, 2017). Today dozens of small and big clothing brands are there in Pakistan serving the apparel needs of the men and women, thousands of outlets are serving the needs of the people across the country (Weekly Technology Times, 2016). Pakistan has been among the top ten textile exporters in Asia and the economy of Pakistan is dependent on textile to larger extent as the country has been among the top five consumers and producers of the cotton so we may ascertain that the cotton industry has been the backbone to economy of Pakistan. So, Pakistan is the country which is dependent on the textile and cotton to larger extent according to reports by the Government of Pakistan. Foregoing in view there are around 400 textile industries operating in Pakistan and this sector adds around 5 percent of market capitalization. The consumers of this industry are growing day by day as this industry has become technologically advanced because of the latest communication and social media tools as well as the online shopping facilities (Lee, 2013).

Such a communication and transformation has bridged both consumers and industry into a linkage based upon easy access to shopping these days (Husnain & Toor, 2017).

1.1. Impulse Buying

The buying trends in the world has also been changed and the impulse buying has been there since 1950s but with the introduction of online shopping trends during the past few years a new era of shopping clothes and transformation in apparel industry is witnessed and this online phenomenon is a new thing for the researchers to study as well (Dawson & Kim 2010). Such dynamic transformative changes in the technology the e-commerce have changed the purchasing behaviors of the customers related to apparel industry. The impulse buying also leaves impact on the decision making of the customers and their behaviors as well (Verhagen & Dolen 2011). This may also lead to better understanding regarding the online shopping of the apparel products (Singh & Verma, 2017). Further, it is evident that the consumers of the textile products move with the flow of impulse buying and it has been studied and analyzed by a number of researchers and scholars to understand the phenomenon through different times (Dawson & Kim, 2010; Hashmi, Attiq & Rasheed, 2019; Rifatin & Sudarwanto, 2021 and Nuseir, 2020). In a nutshell the apparel industry and impulse buying are bridged strongly being an instant need of mankind through the ages (Babin, Lee et al. 2005 and Ladeira, Nique et al. 2016).

1.2. Hedonic Value

The studies by various scholars and researchers says that shopping experiences are not only limited to the purchasing of the products to fulfil the needs but also that the shopping experiences leads the customers to a variety of hedonic values. It not only determines the needs and gratification of the consumers but also that purchasing hedonic products affects shopping behaviors preferring various apparel brands (Singh 2018). The hedonic shopping left a positive effect on the impulse buying of certain social media platform users, the firms carry out the social media campaigns using the E-WOM (Electronic Word of Mouth) which

triggers the hedonic shopping drives of the customers urging them to purchase the products (Yap & Depari, 2022).

1.3. E-WOM (Electronic Word of Mouth)

The Electronic Word of Mouth (E-WOM) is a continuous and dynamic process where the exchange of word and information is executed between the consumers of different types including the potential, actual and former customers. It also expands to the information or E-WOM through social media sources and platforms available for all the stakeholders through internet technology (Ismagilova, Rana et al. 2020). This information exchange not only serves the information but also stimulates the people for impulsive purchase of the products, moreover the E-WOM serves the quick flow of information as well as an intensive feedback and reviews are also given which not only ensures the flow of information but also ensures the loyalty of customers towards the products at one end and ensures the brands or business to own the customers as well. Keeping the aforementioned in view Husnain et al (2016) affirms that the E-WOM leaves a positive impact overall for the customers and it significantly urges the customers for the sudden and even unplanned purchase. Further, the cognitive reactions and emotional states of the individuals also leaves an impact on the behaviors and attitudes in the process of purchasing the products where the hedonic values and EWOM leaves impact on impulse buying for the customers (Sayed et al, 2003).

1.4. Integration of Impact of Hedonic Value, E-WOM & Impulse Buying

E-WOM has been recognized and it urges the impulse buying (Singh & Verma, 2017). The impulsive purchases are linked closely to the hedonic responses establishing a linkage between the hedonic value and the impulse purchase, here the fact is also established that novelty and individual affirmations are bridged with impulse purchases (Yu and Bastin 2017).

Although the conceptions related to hedonic values, E-WOM and impulse buying are widely addressed across the globe particularly in the western countries but in Pakistan the studies are

rare and there is a need to understand the aforementioned concept and a need to bridge the gaps between the given variables in Pakistan. Hence, it may be determined that there is a need to study the conception as there is a gap in the existing literature in a context to Pakistan. Therefore, the study in hand may be a unique one due to different cultural and contextual levels (Durmaz, 2014) particularly focusing on the apparel industry as impulse buying and E-WOM is a new thing here and it need to be studied so that the impact of hedonic value and E-WOM on impulse buying may be addressed.

In the current era of e-commerce and online purchase the customers do not prefer the conventional or traditional marketing tactics while making the purchase decisions (Hudson and Thal 2013) as the internet technology has introduced the advent of E-WOM (Hennig-Thurau, Gwinner et al. 2004), the E-WOM communication technology are considered as important means for consumers getting the information regarding quality services of different products (Chevalier and Mayzlin 2006). The consumers having the hedonistic trends and tendencies seek satisfaction getting instant gratification as a result of impulse buying in the recent age (Chang, Eckman et al. 2011). Following Research Questions and Objectives are being addressed for the study in hand:

1.5. Research Questions

RQ1: What is the impact of hedonic value on impulse buying of female apparel in the context of Pakistan?

RQ2: What is the impact of E-WOM on Impulse Buying of female apparel in the context of Pakistan?

RQ 3: What is the impact of emotional arousal on impulse buying of female apparel in the context of Pakistan?

RQ4: Does Emotional arousal mediate between Hedonic value and impulse buying of female apparel industry of Pakistan?

RQ5: Does Emotional arousal mediate between e-WOM and impulse buying of female apparel industry of Pakistan?

RQ6: Does Perceived Risk moderates between Emotional Arousal and Impulse Buying of female apparel in the context of Pakistan?

1.6. Research Objectives

1. To investigate the impact of hedonic value and e-WOM on impulse buying of female apparel in Pakistan.
2. To investigate the impact of emotional arousal on impulse buying of female apparel in Pakistan.
3. To investigate the mediating role of emotional arousal between hedonic value and impulse buying of female apparel in Pakistan.
4. To investigate the mediating role of emotional arousal between e-WOM and impulse buying of female apparel in Pakistan.

1.7. Significance of the Study

The study is focused to analyze impact of the hedonic value and E-WOM on the impulse buying related to apparel industry in Pakistan where the female apparel industry is the key focus. The study in hand has to propose a viable solution to the problems of the effects of hedonic value and E-WOM on the impulse buying which has been rarely focused in such a manner earlier and this study might be among the initial and rare studies conducted on the issue within Pakistan. Focusing on the female apparel business industry the study would help to develop the E-WOM marketing infrastructure and the relevant strategies encouraging the customers to purchase products following the latest technologies. It would be quite logical here to state that studying and analyzing the nexus of hedonic value, E-WOM as well as impulsive buying would help to add on the relevant literature focusing on the apparel industry particularly for females creating a relevance and aligning them with latest marketing practices. This study would benefit the key stakeholders related to female apparel products predominantly the female apparel consumers, the female apparel producers in particular whereas overall customers and related industries in general. This study would benefit to rationalize the market share as well.

2. Literature Review

Shopping of the products has been a key process within the human life and it involves several steps. The retailers as well as the customers both are actively involved in this process, for retailers the information of the customers as well as their preferences and latest purchasing trends are important to understand so that the retailer may be able to address the customers' needs, demands and preferences and the product may be sold in such a manner using the latest electronic business trends that even the price of the product is paid after receipt of the product by the customer (Arnold & Reynolds, 2003). The customers are given the services through online or electronic means and here several factors serve to attract the attention of the customers and now the seasoned and trust worthy as well as the customer friendly websites or online platforms attracts the customers (Wu et al., 2016).

Further, studies while addressing several factors which may affect the customers for the impulse purchase of the products may include offers to seek the customer attention or attraction which is mostly being practiced by brands, further the brand loyalty and sense of ownership towards the retailer by the customer and vice versa is also observed (Al Salamin & Al Hassan, 2016), while addressing the same point of view a diverse opinion is also presented by Saad & Metawie (2015) who claimed that sometimes this discount culture or the offers by the brands or retailers may impact negative on the brand imaging which may result I negative for the companies. Floah & Madlberger (2013) have illustrated the electronic store characteristics that the affiliation and mediation also plays a role in success of the business and customer service, the personality analysis is also performed according to which the products are offered and the personification is determined in such a manner.

The conception regarding impulsive buyers is determined in such a way that they do not bother the consequences of their buying behaviors and purchasing decisions (Rook, 1987) considering the similar opinion Amos, Holmes & Keneson (2014) argues that the impulsive buying depends on and it affects the customers mind and attitude for seeking variety while purchasing the products.

While addressing the impulse buying Parboteeah, Valacich et al. (2009) refers this as a rapid, persuasive as well as hedonically complex purchasing behavior which does not requires extensive examination of the available information. The impulse buyers also value the previous experiences most of the time and their focus remains the purchase of the desired product regardless their effects or impact on the lives as well as the possible consequences (Rook, 1987) which triggers the emotional responses and behaviors too compelling to purchase any product and this lead to impulse purchase (Verhagen and Van Dolen 2011).

As the recent age is age of social media which has played a prominent role in almost all walks of life particularly the electronic commerce or the electronic business, the social media is playing a key role to stimulate intentions to the impulse purchase most of the time as there are certain cases where the impulse purchase is not executed successfully (Shen, & Khaloifa, 2012 and Verhagen, & Dolen, 2011). The previous researchers and scholars have also indicated that the impulse buyers are exposed to such a stimulus which may be referred as promotional one when the buyers spend maximum time on the internet which shows an observation that impulsive buyer are affected more through an external stimuli rather internal ones while using internet.

Hedonic value refers to the use of sensory input such as touch, taste, smell, and sound, as well as the imagination, to create emotional arousal (Tifferet and Herstein 2012). Kennedy & Vimala (2018) explains the working women's intensity on the impulse buying. The inner feelings of the working women like shopping enjoyment tendency, Hedonism, Impulse Buying Tendency and Self-Identity stimulate them towards the impulse buying. Impulse buying for the apparel items is normally a spontaneous decision taken within the showroom premises. Emotional or hedonic incentives drive impulsive buying (Yu and Bastin 2017).

Impulsive buying brings consumers' hedonic values excitement as well as a pleasant experience (Wolfenbarger & Gilly, 2003). However, utilitarian values bring focus towards the cost, quality and ease of use of the product (Xiang et al.,

2016). The significance of these hedonic and utilitarian values makes it important for marketers to come up with ways to focus on customer values. Various researches have explained and found that there is a positive correlation between hedonic shopping value and impulsive purchasing online (Alba & Williams, 2013). The emotions and pleasant feelings of consumers happen to enhance hedonic value. They also positively impact impulsive purchase behavior online (Chung, Song, & Lee, 2017).

Impulse Buying a sudden urge to buy something spontaneously without any prior planning of shopping on the internet – has come up as the one of the interested issues in online context. Online retailers, researchers and academicians are keen to get the deeper insights about this phenomenon and its stimuli. E-WOM practices are recognized as one of the stimuli of e-impulse buying through exploratory research (Singh & Verma, 2017). It is also possible to conclude that other factors, including such e-WOM and hedonic shopping incentives, affect impulse buying (Astuti, Khasanah et al. 2020). (Singh and Verma 2017) identified various e-WOM practices like social networking sites, blogs, reviews, you tube, Instagram, coupons, QR code and so on. And also indicate a significant and noticeable role of above e-WOM practices in facilitating the impulse buying.

2.1. Operational Definitions

- i. **Impulse Buying** is referred as a sudden, unexpected as well as an unplanned purchasing behavior by a customer towards any product, such a decision is rapid and leads to the gratification of the users leading a personal satisfaction and such a purchase is mostly unplanned most of the time (Themba, 2019 and Amrullah, et al, 2019). This is further addressed by Chan, Cheung et al. (2017) suggesting that such a thing happens when the consumers were exposed to stimulating the cues that leads to unplanned decision of purchase.
- ii. **Hedonic values** are the values associated with the feelings of gratification having a fun through any fantasy, playfulness or enjoyment (Bora, Özhan et al. 2021). Further, an individual having a hedonic value is supposed to have an aim to enjoy life. And such individuals make it important for themselves

to have a good time (Caprara, Schwartz et al. 2006).

- iii. **Electronic Word of Mouth (e-WOM)** referred to the statements which are either negative or positive, given by a potential customer, which subscribes a customer or any ex-customer about a product or the company itself through the use of internet (Alhidari, Iyer et al. 2015).

2.2. Hypothesis Development and Research Model

To achieve the research objectives, the below-mentioned hypotheses are formulated based on the literature review which will be tested in this study.

H1: Hedonic Value positively influence on impulse buying of female apparel in the context of Pakistan.

H2: E-WOM positively influence on impulse buying of female apparel in the context of Pakistan.

H3: Emotional Arousal positively influence on impulse buying of female apparel in the context of Pakistan.

H4: Emotional arousal positively mediates between hedonic value and impulse buying of female apparel in the context of Pakistan.

H5: Emotional arousal positively mediates between e-WOM and Impulse Buying of female apparel in the context of Pakistan.

H6: Perceived Risk positively moderates between emotional arousal and Impulse buying of female apparel in the context of Pakistan.

3. Research Methodology

The procedural and methodological aspects of the research investigation are covered in this in research methodology. The variables in this study were Impulse Buying, Hedonic Value, e-WOM with the mediating effect of Emotional Arousal and moderating role of Perceived Risk. It describes in precisely the different phases of the current study's collection of relevant data and information in order to arrive at reliable conclusions.

3.1. Research Design

Quantitative approach was adopted to conduct this study. A survey research was employed for the data collection. This study examines the Impact of

Hedonic shopping and e-WOM on impulse buying with mediating role Emotional Arousal and mediating role of Perceived Risk. Furthermore, the survey method allows for the simultaneous collection of numerical data from a large number of customers (Bush 2007). Cross-sectional research design was utilized because the data was analyzed based on single time collection. However, a research design can be cross-sectional or longitudinal (Sekaran & Bougie 2016).

3.2 Population and Sample of Study

In this study, the population was divided into subgroups: the target population and accessible population (Indriantoro and Supomo, 2002). The target population were female customers who are buying apparel from markets of Pakistan. All the female customers who are buying apparel in Pakistan were considered as the population of the study. Four major cities (Lahore, Karachi, Islamabad, Multan) were considered for the collection of the data. Israel (1992) posited a simplified formula to calculate sample sizes. Convenient sampling technique was used to collect data. Convenience sampling can assist in the collection of replies from truly interested respondents and the avoidance of respondents who are non-serious or who may have an impact on the study's outcome (Badgaiyan and Verma 2015). For this study 461 respondents were selected as sample while Morgan table was administered to target the sample size of this study (Krejcie & Morgan, 1970).

3.3 Instrumentation

For this study, structured questionnaire was adapted; impulse buying questionnaire was adapted from (Lee & Yi 2008) with seven items while hedonic value questionnaire was adapted from (Chang, Burns et al., 2004) with eight items whereas, e-WOM questionnaire was adapted from (Kala and Chaubey, 2018) with five items. Additionally, Perceived Risk questionnaire was adapted from (Corbitt et al., 2003) with six items and Emotional Arousal questionnaire was adapted from (Mehrabian and Russell, 1974) with four items. The Seven-points Likert scale was employed in order to gather responses from the respondents.

3.4 Data Collection

This part of the research was about preparing questionnaire. Google Forms was used to make the questionnaire where responses could be received. A demographic section containing five questions was included. It asked about frequency of clothing purchases, age and income. Questionnaire was developed by adapting the scales of variables from the previously published papers. Sample selection is straightforward based on whoever is available or volunteers to participate in the study, the researchers adopted this method (Mustafa 2011). Data is collected by researchers personally.

3.5 Unit of Analysis

Individuals, or those females who were willing to purchase apparel were the unit of analysis in this case. The reason for this is because the author went out and collect data from female respondents who are interested in purchasing apparel.

3.6 Data Analysis

The data was entered in sheets after collecting form the respondents. Statistical Package for Social Sciences (SPSS) version 25.0 was used to administered the descriptive analysis (Frequency and Percentage, Confirmatory Factor Analysis, Standard Deviation, Mean,) and Partial Least Square-Structural Equation Modelling (PLS-SEM), Smart PLS 3.3 was used to assess the measurement and structural model. In measurement model it was analyzed the reliability, internal consistency, discriminant validity and convergent validity whereas, path coefficient and mediating and moderating) were assessed by computing the bootstrapping according to the hypothesis proposed in this study. Moreover, Effect Size (f^2), Coefficient of Determination (R^2) were analyzed whereas, Predictive Capability of the Model (Q^2) was also analyzed to assess the strength of the proposed model by handling blindfolding (Henseler, Ringle & Sinkovics, 2009). It was administered reflective indicators based on first order.

Results

Response Rate

Table 4. 1



Response	Frequency	Rate (%)
Number of questionnaires administered	590	100
Questionnaires not returned	111	18.81
Returned questionnaires	479	81.19
Returned and excluded questionnaires	8	1.36
Returned and useable questionnaires	471	79.83
Missing value	10	1.69
Useable for study	461	78.13

Table 4.1 shows that there were total 590 questionnaires administered for the study among which several questionnaires were not returned by the respondents, several were excluded and a number of questionnaires were having missing value and due to the aforementioned reasons they were not added in the study. Calculating the valid returned questionnaires 471 were returned among which 10 were having missing value whereas 461 were useable which were added for the analysis of the study in hand.

Data Screening and Preliminary Analysis

Overall there were 461 returned and usable questionnaires which were coded into the SPSS-27. Tabachnick and Fidell (2007) initial level analysis were performed and the accuracy of data input and analysis of the missing data was done.

Data Accuracy

All the 471 returned and useable questionnaires were presented into the sheets' using SPSS-27 and re-evaluated to confirm that the data was correctly entered and there was no out of range value. All

responses that were received through the questionnaire were between 1 and 5. The researcher also ensured that all words related to

negative sense in the questionnaire were reversely coded.

Descriptive Statistics

Constructs	N	Mean	Std. Deviation
Hedonic Value	461	5.09	1.15
E-WOM	461	5.36	.99
Emotional Arousal	461	5.26	1.04
Perceived Risk	461	5.39	.97
Impulse Buying	461	5.32	1.00

Table 4. 2

Table 4.2 presents the constructs including Hedonic Value, E-WOM, Emotional Arousal, Perceived Risk and Impulse Buying which are well addressed in the study having a significant mean and standard deviation values.

Internal consistency and convergent validity

Constructs	Alpha	Rho-A	CR	AVE
Hedonic Value	0.832	0.828	0.876	0.543
E-WOM	0.709	0.711	0.821	0.534
Emotional Arousal	0.711	0.712	0.822	0.537
Perceived Risk	0.813	0.821	0.865	0.516
Impulse Buying	0.725	0.729	0.829	0.548

Table 4. 3

Tale 4.3 shows the internal consistency and convergent validity of the Hedonic Value, E-WOM, Emotional Arousal, Perceived Risk and

Impulse Buying showing the valid and significant ratios of Alpha, Rho-A, CR and AVE establishing an accuracy of the study results.

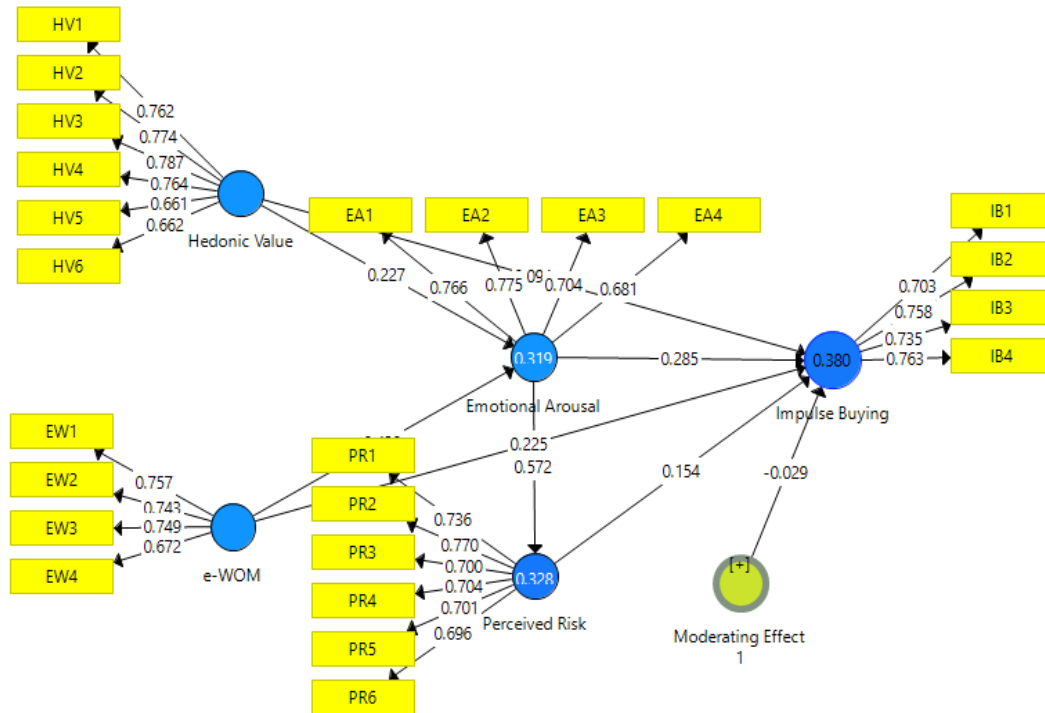


Figure 4. 1 Measurement Mode

Fornell-Larcker Criterion

Constructs	EA	HV	IB	PR	EW
Emotional Arousal	.733				
Hedonic Value	.692	.737			
Impulse Buying	.545	.432	.740		
Perceived Risk	.572	.238	.552	.718	
E-WOM	.524	.375	.491	.422	.731

Table 4.4

Heterotrait-Monotrait (HTMT 1st order)

Constructs	EA	HV	IB	PR	EW
Emotional Arousal					
Hedonic Value	0.494				
Impulse Buying	0.751	0.422			
Perceived Risk	0.739	0.271	0.574		
e-WOM	0.736	0.470	0.678	0.551	

Table 4. 4

Results of Hypothesis Testing

Ee, Halim, and Ramayah (2013); Sang, Lee, and Lee (2010) discussed that the structural model indicates the causal relationships between the constructs, for this purpose path coefficient and specific indirect effect was estimated. The t -value > 1.96 and p -value $< .05$ was carried out and guidelines given by distinguished scholars were followed in this study (Hair et al., 2014; Hair et al., 2011; Henseler et al., 2009). The summary of the result of the structural model is displayed in Table 4.6 and figure 4.2.

Structure model assessment Path Coefficient (Direct Effect)

Constructs	Beta	SD	T-Value	P-Value
HA1. HV → IB	.094	.045	2.098	.02*
HA2. e-WOM → IB	.225	.051	4.390	.00**
HA3. EA → IB	.285	.059	4.831	.00**

Table 4. 5

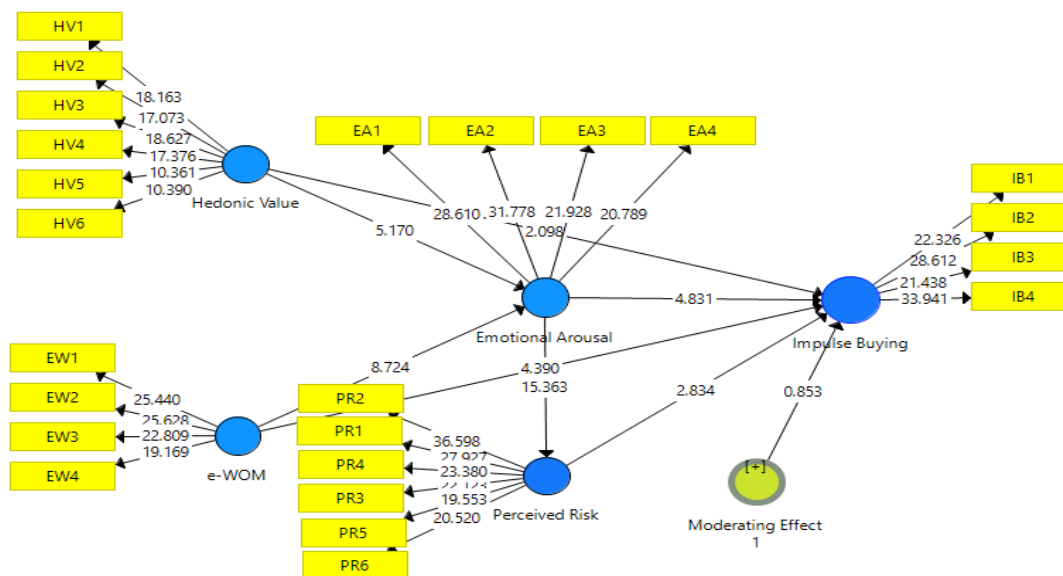


Figure 4. 2: Path Coefficient

Structure model assessment Specific Indirect Effect (Mediating and Moderating effect)

Constructs	Beta	SD	T-Value	P-Value
HA4. HV → EA → IB	.065	.019	3.364	.00*
HA5. E-WOM → EA → IB	.125	.027	4.595	.00*
HA6. EA → PR → IB	.088	.033	2.639	.04*

Table 4. 6

Coefficient of Determination (R^2)

The R^2 is known as the Coefficient of Determination, it is an indication of the strength of a presented model. Moreover, it is an indicator that helps recognize the relationship in between the present variables. It is a measure of validity, showing the ability of independent variable, the exogenous as well as the dependent, endogenous variable (dependent variable) (Elliott & Woodward, 2007; Hair et al., 2014; Henseler et al., 2009). Nevertheless, the value of 0.10 as per Falk and Miller (1992) is known to be admissible.

Moreover, if the value of R^2 is 0.67, 0.13 and 0.19, these values are said to be moderate, substantial and weak respectively, as stated by Chin (1998). Table 4.7 shows that the R^2 value is 0.380 which can be adjudged to be moderate for impulse buying. It therefore, brings forth that 38% of variance is explained by hedonic value, e-WOM, emotional arousal and perceived risk altogether. Hence this model is adjudged to be an acceptable one because of its shown predictive accuracy (Lei & Chu, 2015).

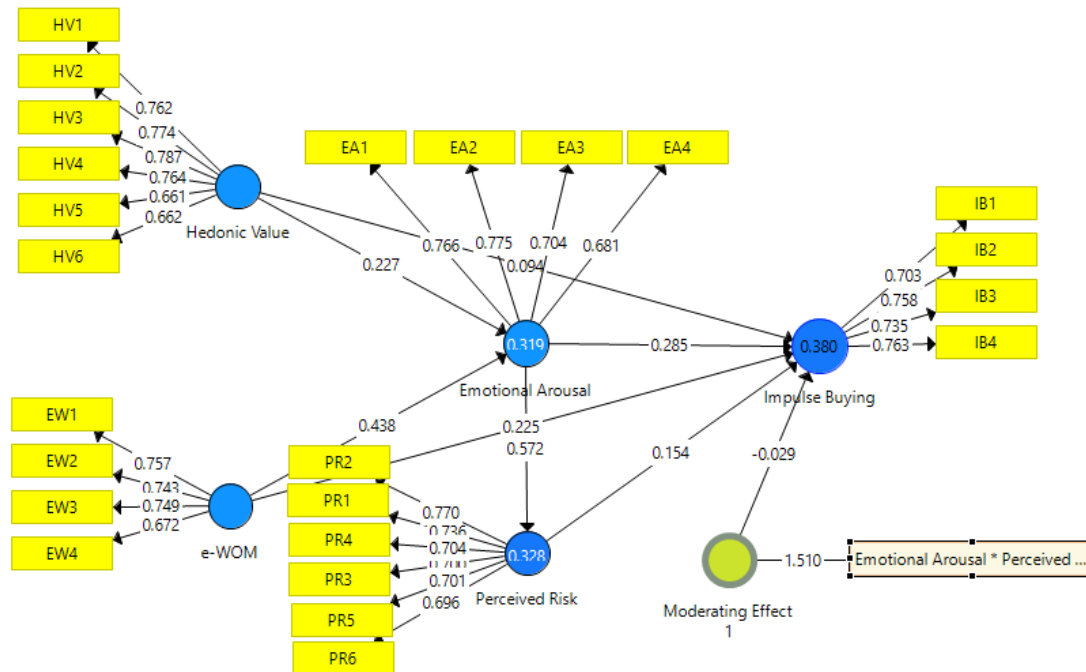


Figure 4. 3: Predictive relevance (R^2)

Predictive relevance (R^2)

Variables	R^2	Range
Impulse Buying	0.380	Moderate

Table 4. 7

Effect Size (f^2)

The effect size, f^2 , is a quantity or measure that

explains the relationship between the exogenous and endogenous constructs. It is the extent to which a specific exogenous construct impacts the endogenous one. In order for R^2 value to be determined, when an exogenous variable gets subtracted, the change that occurred in R^2 value was also found out to find the effect size (Hair et al., 2014; Gim, Desa, & Ramayah, 2015). The effect size being a useful measure and practical way to explain and discern a correlation between two variables was also stated by Preacher and Kelley (2011). While other researches (Gim et al, 2015) also suggested similarly, explaining that the effect size is a measure of correlation. Chin (1998) also

illustrated that effect size explains the relationship between two variables, the exogenous and endogenous variables.

The activity of finding the new R^2 was done by replicating based on following formula:

$$f^2 = \frac{R_{included}^2 - R_{excluded}^2}{1 - R_{excluded}^2}$$

$R_{included}^2$

Cohen (1988) has discussed about f^2 values in detail. He has postulated that 0.02 is considered weak, whereas 0.15 moderate and 0.35 being strong. Table 4.8 indicates the result of effect size between the variables of the study. The effect sizes of these five exogenous latent constructs are shown in Table 4.8.

Effect size (f^2)

Relationship	f^2	Range
HV $\rightarrow$ IB	.092	Weak

HV → EA	.227	Moderate
e-WOM → EA	.438	Strong
EA → IB	.297	Moderate
PR → IB	.160	Moderate

Table 4. 8

4.9 Predictive Capability (Q²)

This is a measure of how relevant a prediction is to latent variables. The relative determination of related constructs is determined by it as well, according to Hair et al. (2014). In table 4.9, the predictive relevance is presented in the section that is known here as 1-SSE/SSO, it is known to give squared prediction error/squared observations. Chin (1998) mentioned that values that are greater than 0 are those which have predictive relevance. This model is used to determine the predictive relevance (Henseler, Ringle, & Sinkovics, 2009).

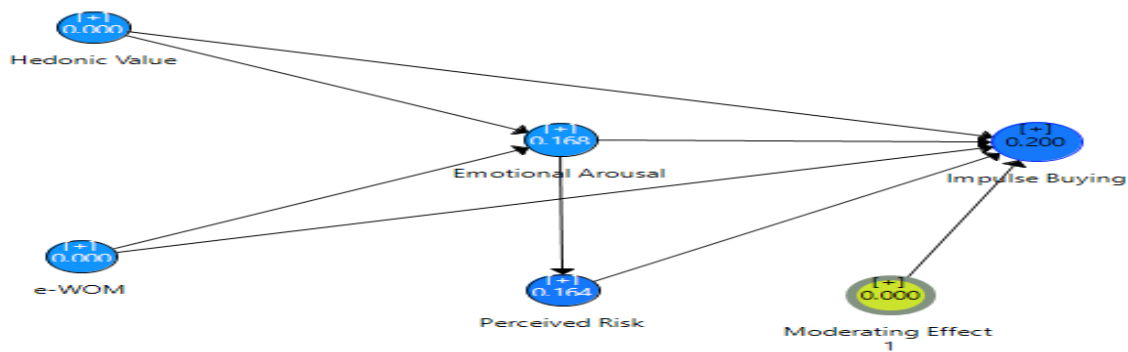


Figure 4. 4: Cross-validated redundancy (Q²)

Figure 4. 5: Cross-validated redundancy (Q²)

Construct	SSO	SSE	Q ² = (1-SSE/SSO)
Impulse Buying	1844.00	1475.360	0.200

Summary:

This chapter exhibits the results of the current research. Six research hypotheses were constructed. The findings of the study were explained in Table 4.10.

Hypothesis testing Summary

Hypothesis	Path Coefficient	Decision
HA1	HV → IB	Accepted
HA2	e-WOM → IB	Accepted
HA3	EA → IB	Accepted
Specific indirect Effect		
HA4	HV → EA → IB	Accepted
HA5	e-WOM → EA → IB	Accepted
HA6	EA → PR → IB	Accepted

Table 4. 9

Discussion and Conclusion

In this section key considerations are discussed along with research findings and other discussions. The detailed discussion of impulse

buying of females as well as the mediating effect of emotional arousal on the relationship of hedonic value and E-WOM with impulse buying and

moderating effect of perceived risk between the relationship emotional arousal and impulse buying. Impulse buying is what was set as the dependent variable. It was found that females were moderately satisfied. The mean value of constructs ranges from 5.09 to 5.39 and it was used the 7-points scale. These findings are in lined with previous researches, Singh and Verma (2017) posited the evident that online shoppers often go for the e-impulse buying with respect to different stimuli of this phenomenon. Impulse Buying has been studied and several stimuli of this have been identified. Promotional techniques and communication tools are also evolved as one of the significant stimuli for the impulse buying. In the context of online shopping, marketers frequently make use of promotional strategies. They promote up and cross-sell using suggested coordinated and un-coordinated items, the recommendations of products, offers of promotions, sales and featured items. It is because impulse often plays a part when the added on and upgraded items are purchased, impulse purchasing by customers online is an important phenomenon. It is important to both online marketers as well as consumers. Chang and Tseng (2014) advocated that the increased number of post-purchase arguments leads to a strongly

positive effect on online impulse purchase satisfaction. Dawson and Kim (2010) relationship between the retailers' Web sales and the external impulse buying cues (sales, promotions, ideas and suggestions). Impulsive buying refers to the unplanned and instantaneous buying behavior of customers (Li, 2015).

Conclusively, this study was done in order to find out the influence that hedonic value and e-WOM have on impulse buying. Moreover, the mediating role of emotional arousal, the moderating role of perceived risk of individuals from apparel industry of Pakistan were also investigated. Quantitative research design was used and standardized questionnaires were used in order to gather data from respondents. SPSS-25 was used along with Smart PLS-SEM_3 in order to do analysis. The study concluded from the results that women were moderately satisfied with all the constructs; namely hedonic value, e-WOM, emotional arousal, perceived risk and impulse buying. Hence, the

conclusion that impulsive buying is directly impacted positively by hedonic value and E-WOM was concluded.

Moreover, there was a positive mediating effect of emotional arousal on the relationship of hedonic value and E-WOM on impulse buying. Furthermore, there was a positive and significant moderating effect of perceived risk on the relationship between emotional arousal and impulse buying. Analysis of this study illustrates that R² value is 0.380, which demonstrates that 38% of variation in impulse buying of females, are explained by hedonic value, E-WOM, emotional arousal and perceived risk.

Bibliography

- Abdullah, M. S. F. and Y. Artanti (2021). The Effect of Situational Factor, Visual Merchandising, and Electronic Word of Mouth on Impulsive Buying Behavior on Video on Demand Services Current The Covid-19 Pandemic Crisis." *Journal of Business and Behavioural Entrepreneurship*. 5(1): 78-91.
- Abrar, K., et al. (2017). Impact of perceived risk on online impulse buying tendency: An empirical study in the consumer market of Pakistan. *Journal of Accounting & Marketing*. 6(3): 246.
- Alhidari, A., et al. (2015). Personal level antecedents of eWOM and purchase intention, on social networking sites. *Journal of Customer Behaviour*. 14: 107-125.
- Al-Salamin, H., & Al-Hassan, E. (2016). The impact of pricing on consumer buying behavior in Saudi Arabia: Al-Hassa case study. *European Journal Business and Management*, 8(12), 62-73.
- Amendola, C., et al. (2018). "Fashion companies and customer satisfaction: A relation mediated by Information and Communication Technologies. *Journal of Retailing and consumer services*. 43: 251-257.
- Asmundson, G. J., & Taylor, S. (2020). Coronaphobia: Fear and the 2019-nCoV outbreak. *Journal of Anxiety Disorders*, 70, 102196.

- Astuti, S. R. T., et al. (2020). Study of impulse buying on Instagram users in Indonesia. *Diponegoro International Journal of Business* 3(1): 47-54.
- Babin, B. J., & Attaway, J. S. (2000). Atmospheric affect as a tool for creating value and gaining share of customer. *Journal of Business Research*, 49(2), 91-99.
- Babin, B. J., et al. (2005). Modeling consumer satisfaction and word-of-mouth: restaurant patronage in Korea. *Journal of Services Marketing*.
- Bacon, D. R., Sauer, P. L., & Young, M. (1995). Composite reliability in structural equations modeling. *Educational and Psychological Measurement*, 55(3), 394-406.
- Bagozzi, R. P., & Yi, Y. (1988). On the evaluation of structural equation models. *Journal of the Academy of Marketing Science*, 16(1), 74-94. doi: 10.1007 / BF02723327.
- Barclay, D., Higgins, C., & Thompson, R. (1995). The partial least squares (PLS) approach to causal modeling: Personal computer adoption and use as an illustration. *Technology studies*, 2(2), 285-309.
- Beatty, S. E. and M. E. Ferrell (1998). "Impulse buying: Modeling its precursors." *Journal of retailing* 74(2): 169-191.
- Belvedere, V. and P. Goodwin (2017). "The influence of product involvement and emotion on short-term product demand forecasting." *International Journal of Forecasting* 33: 652-661.
- Best, R. J., et al. (2007). *Consumer behavior: Building marketing strategy*, McGraw-Hill.
- Bora, A., et al. (2021). "The Effects of Materialism and Hedonic Shopping Value on the Impulse Buying Behavior: A Study on University Students in Turkey." *OPUS International Journal of Society Researches* 17(36): 2518-2545.
- Boskerger, P. E., T. Bieger, and C. Laesser (2007). Multidimensional Analysis of Perceived Risk in Commercial Air Travel, *Journal of Air Transport Management*, 13, 90-96.
- Callaghan, W., Wilson, B., Henseler, J., Ringle, C., & Næs, T. (2007). *Exploring causal path directionality for a marketing structural model using Cohen's path method*. Paper presented at the PLS07-5th International symposium on PLS and related methods: Causalities explored by indirect observation, Matforsk, Aas, Norway.
- Caprara, G., et al. (2006). Personality and Politics: Values, Traits, and Political Choice. *Political Psychology* 27: 1-28.
- Chan, T. K., et al. (2017). "The state of online impulse-buying research: A literature analysis." *Information & Management* 54(2): 204-217.
- Chang, H.H. and Chen, S.W. (2008). The impact of online store environment cues on purchase intention: trust and perceived risk as a mediator, *Online Information Review*, Vol. 32 No. 6, pp. 818-841.
- Chang, H.-J., et al. (2011). Application of the Stimulus-Organism-Response model to the retail environment: the role of hedonic motivation in impulse buying behavior. *The International Review of Retail, Distribution and Consumer Research* 21(3): 233-249.
- Chin, W. W. (1998b). The partial least squares approach to structural equation modeling. *Modern methods for business research*, 295(2), 295-336.
- Chin, W. W. (2010). How to write up and report PLS analyses *Handbook of partial least squares* (pp. 655-690). Germany: Springer.
- Chiu, C. M., Wang, E. T., Fang, Y. H., & Huang, H. Y. (2014). Understanding customers' repeat purchase intentions in B2C e-commerce: The roles of utilitarian value, hedonic value and perceived risk. *Information Systems Journal*, 24(1), 85-114.
- Chiu, W., et al. (2022). Impact of COVID-19 on consumers' impulse buying behavior of fitness products: A moderated mediation model." *Journal of Consumer Behaviour* 21(2): 245-258.

- Chung, N., et al. (2017). Consumers' impulsive buying behavior of restaurant products in social commerce. *International Journal of Contemporary Hospitality Management*.
- Chung, N., Song, H. G., & Lee, H. (2017). Consumers' online impulsive buying behavior of restaurant products in social commerce. *International Journal of Contemporary Hospitality Management*, 29(2), 709-731.
- Clemes, M. D., Gan, C., & Zhang, J. (2014). An empirical analysis of online shopping adoption in Beijing, China. *Journal of Retailing and Consumer Services*, 21(3), 364-375.
- Cohen, J. (1988). *Statistical power analysis for the behavioural sciences* (2nd ed.). New York: Psychology Press.
- Cox, D. (1967). *Risk Taking and Information Handling in Consumer Behavior*. Boston, MA: Harvard University.
- Donovan, R.J., Rossiter, J.R., Karolyn, G. and Nestle, A. (1994). Store atmosphere and purchasing behaviour, *Journal of Retailing*, Vol. 70 No. 3, pp. 283-294.
- Dowling, Grahame R. and Richard Staelin (1994). A Model of Perceived Risk and Intended Risk-handling Activity, *Journal of Consumer Research*, 21, 119-134.
- Duarte, P. A. O., & Raposo, M. L. B. (2010). A PLS model to study brand preference: An application to the mobile phone market. *Handbook of partial least squares* (pp. 449-485): Springer.
- Elliott, A. C., & Woodward, W. A. (2007). *Statistical analysis quick reference guidebook: With SPSS examples*: Sage publications.
- Erdem, Tulin (1998). An Empirical Analysis of Umbrella Branding," *Journal of Marketing Research*, 35, 339-351
- Fastoso, F., Whitelock, J., Bianchi, C., & Andrews, L. (2012). Risk, trust, and consumer online purchasing behaviour: A Chilean perspective. *International Marketing Review*, 29(3), 253-275.
- Floh, A., & Madlberger, M. (2013). The role of atmospheric cues in online impulse-buying behavior. *Electronic Commerce Research and Applications*, 12(6), 425-439.
- Fornell, C., & Larcker, D. F. (1981). Structural Equation Models with Unobservable Variables and Measurement Error: Algebra and Statistics. *Journal of Marketing Research*, 18(3), 382-388. doi: 10.2307/3150980.
- Hair, J. F., Hult, G. T. M., Ringle, C., & Sarstedt, M. (2014). *A primer on partial least squares structural equation modeling (PLS-SEM)*. Washington DC: SAGE Publications, Incorporated.
- Hair, J. F., Money, A. H., Samouel, P., & Page, M. (2007). Research Methods for Business. *Education + Training*, 49(4), 336-337. doi: doi:10.1108/et.2007.49.
- Hair, J. F., Ringle, C. M., & Sarstedt, M. (2011). PLS-SEM: Indeed a silver bullet. *Journal of Marketing Theory and Practice*, 19(2), 139-152.
- Hashmi, H., Attiq, S., & Rasheed, F. (2019). Factors affecting online impulsive buying behavior: A stimulus organism response model approach. *Market forces*, 14(1).
- Hausman, A. (2000). A multi-method investigation of consumer motivations in impulse buying behavior. *Journal of Consumer Marketing*, 17(5), 403-426.
- Hayes, A. F. (2012). PROCESS: A versatile computational tool for observed variable mediation, moderation, and conditional process modelling. *Manuscript submitted for publication*.
- Hennig-Thurau, T., et al. (2004). "Electronic word-of-mouth via consumer-opinion platforms: what motivates consumers to articulate themselves on the internet?" *Journal of interactive marketing* 18(1): 38-52.
- Henseler, J., Ringle, C. M., & Sinkovics, R. R. (2009). The use of partial least squares path modeling in international marketing. *Advances in International Marketing (AIM)*, 20, 277-320.

- Hoover, Robert J., Robert T. Green, and Joel Saegert (1978). A Cross National Study of Perceived Risk," *Journal of Marketing*, 42, 102- 108.
- Horst, M., Kuttschreuter, M., & Gutteling, J. M. (2007). Perceived usefulness, personal experiences, risk perception and trust as determinants of adoption of e-government services in The Netherlands. *Computers in human behavior*, 23(4), 1838-1852.
- Howard, John A. and J. Sheth (1969). *The Theory of Buyer Behavior*. New York: John Wiley & Sons.
- Huang, M. H. (2003). Designing website attributes to induce experiential encounters. *Computers in Human Behavior*, 19(4), 425-442.
- Hudson, S. and K. Thal (2013). The impact of social media on the consumer decision process: Implications for tourism marketing. *Journal of Travel & Tourism Marketing* 30(1-2): 156-160.
- Husnain, M., et al. (2016). "The impact of electronic word-of-mouth on online impulse buying behavior: The moderating role of Big 5 personality traits." *Journal of Accounting & Marketing* 5(4): 190-209.
- Husnain, M., Qureshi, I., Fatima, T., Akhtar, W. (2016). The Impact of Electronic Word-of-Mouth on Online Impulse Buying Behavior: The Moderating role of Big 5 Personality Traits. https://www.researchgate.net/publication/309855994_The_Impact_of_Electronic_WordofMouth_on_Online_Impulse_Buying_Behavior_The_Moderating_role_of_Big_5_Personality_Traits
- Ismagilova, E., et al. (2020). A meta-analysis of the factors affecting eWOM providing behaviour. *European Journal of Marketing*.
- Ismagilova, E., Slade, E. L., Rana, N. P., & Dwivedi, Y. K. (2020). The effect of electronic word of mouth communications on intention to buy: A meta-analysis. *Information Systems Frontiers*, 22(5), 1203-1226.
- Ismayuni, I. and T. G. Saraswati (2015). "Pengaruh Emosi Positif, keterlibatan Pada Fashion Dan Kecenderungan Konsumsi Secara Hedonis Terhadap Perilaku Pembelian Impulsif Pada Konsumen Brand Fashion Nike.(studi Pada Pengunjung Nike Store Bandung)." *eProceedings of Management* 2(3).
- Israel, G. D. (1992). Determining sample size.
- Kaplan, L. B., Szybillo, G. J., & Jacoby, J. (1974). Components of perceived risk in product purchase: A cross-validation. *The Journal of Applied Psychology*, 59(3), 287.
- Kumar, V. and M. George (2007). "Measuring and maximizing customer equity: a critical analysis." *Journal of the Academy of Marketing Science*, 35(2): 157-171.
- Lachman, M. E., & Weaver, S. L. (1998). The sense of control as a moderator of social class differences in health and well-being. *Journal of Personality and Social Psychology*, 74(3), 763-773.
- Ladeira, W. J., et al. (2016). "Running for pleasure or performance? How store attributes and hedonic product value influence consumer satisfaction." *The International Review of Retail, Distribution and Consumer Research* 26(5): 502-520.
- Lee, G. Y., & Yi, Y. (2008). The effect of shopping emotions and perceived risk on impulsive buying: the moderating role of buying impulsiveness trait. *Seoul journal of business*, 14.
- Lei, S., & Chu, L. (2015). The Mediating Role of Consumer Satisfaction in the Relationship between Brand Equity and Brand Loyalty based on PLS-SEM Model. *International Business Research*, 8(2), 62-70.
- Li, Y. (2015). Impact of online impulsive buying behavior on postonline impulsive buying satisfaction. *Social Behavior and Personality: An International Journal*, 43(2), 339-351.
- Lin, C. and X. Xu (2017). Effectiveness of Online Consumer Reviews: The influence of source trustworthiness, valence, reviewer ethnicity and social distance. *Internet Research* 27(2): 362-380.

- Lin, S.-W. and L. Y.-S. Lo (2016). Evoking online consumer impulse buying through virtual layout schemes. *Behaviour & Information Technology*, 35(1): 38-56.
- Liu, Y., et al. (2019). Mobile shopping platform characteristics as consumer behavior
- Lo, A. S. and S. S. Yao (2019). What makes hotel online reviews credible? An investigation of the roles of reviewer expertise, review rating consistency and review valence. *International Journal of Contemporary Hospitality Management*.
- Lyeonov, S., et al. (2019). Assessment of green investments' impact on sustainable development: Linking gross domestic product per capita, greenhouse gas emissions and renewable energy. *Energies*. 12(20): 3891.
- Martaleni, M., et al. (2022). Flash sale and online impulse buying: Mediation effect of emotions. *Innovative Marketing*, 18(2): 49.
- Martí 'nez-Lo 'pez, F.J., Luna, P. and Martí 'nez, F.J. (2005). Online shopping, the standard learning hierarchy, and consumers' internet expertise: an American-Spanish comparison, *Internet Research*, Vol. 15 No. 3, pp. 312-334.
- Martin, J., Mortimer, G., & Andrews, L. (2015). Re-examining online customer experience to include purchase frequency and perceived risk. *Journal of Retailing and Consumer Services*, 25, 81-95.
- Munir, M., et al. (2021). Behavioural Determinants of Impulse Buying-An Empirical Study of a Metropolitan Hub of Pakistan. *Journal of Applied Business & Economics*, 23(4).
- Mustafa, R. F. (2011). "The POE Ms of Educational Research: A Beginners' Concise Guide." *International Education Studies*. 4(3): 23-30.
- Oppenheim, J. J. and D. Yang (2005). Alarmins: chemotactic activators of immune responses. *Current opinion in immunology*, 17(4): 359-365.
- Pallant, J. (2011). Multivariate analysis of variance. *SPSS survival manual*. Crows- Nest: Allen & Unwin, 20(11), 83-96.
- Ringle, C. M., Wende, S., & Will, S. (2005). *Smart PLS 2.0 (M3) Beta*, Hamburg 2005.
- Rook, D. W. (1987). The buying impulse. *Journal of Consumer Research*, 14(2), 189-199.
- Russell, J. A. (2003). Core affect and the psychological construction of emotion." *Psychological review*. 110(1): 145.
- Saad, M., & Metawie, M. (2015). Store environment, personality factors and impulse buying behavior in Egypt: The mediating roles of shop enjoyment and impulse buying tendencies. *Journal of Business and Management Sciences*, 3(2), 69-77.
- Saputri, A. and R. Rachmatan (2016). Religiusitas dengan gaya hidup hedonisme: sebuah gambaran pada mahasiswa Universitas Syiah Kuala. *Jurnal Psikologi*. 12(2): 59-67.
- Sharma, P., Sivakumaran, B., & Marshall, R. (2010). Impulse buying and variety seeking: A trait-correlates perspective. *Journal of Business Research*, 63(3), 276-283.
- Tesfaye, N. (2022). Effect of Visual Merchandizing on Consumer Impulse Buying Behavior (In Case Of Addis Abeba), St. Mary's University.
- Urbach, N., & Ahlemann, F. (2010). Structural equation modeling in information systems research using partial least squares. *Journal of Information Technology Theory and Application*, 11(2), 5-40.
- Verhagen, T. & Dolen, W.V. (2011). The influence of online store beliefs on consumer online impulse buying: A model and empirical application. *Information & Management*, 48, 320-327.
- Wang, J., Zhao, M., & Zhao, G. (2017). The impact of customer cognitive competence on online service decision-making: an event-related potentials perspective. *The Service Industries Journal*, 37(5-6), 363-380.
- Wu, L., et al. (2020). Defining the determinants of online impulse buying through a shopping process of integrating perceived risk, expectation-confirmation model, and flow theory issues. *International Journal of Information Management*. 52: 102099.

- Wu, W. Y., Lee, C. L., Fu, C. S., & Wang, H. C. (2014). How can online store layout design and atmosphere influence consumer shopping intention on a website? *International Journal of Retail & Distribution Management*, 42(1), 4-24.
- Xiang, L., Zheng, X., Lee, M. K., & Zhao, D. (2016). Exploring consumers' impulse buying behavior on social commerce platform: The role of parasocial interaction. *International Journal of Information Management*, 36(3), 333-347.
- Yang, K. and H. J. Lee (2010). "Gender differences in using mobile data services: utilitarian and hedonic value approaches." *Journal of Research in Interactive Marketing*.
- Yap, C. Y., & Depari, G. S. (2022). The Influence of Social Media Marketing, Hedonic Shopping Motivation and Electronic Word of Mouth Towards Impulse Purchases for Shopee's Customers in Medan. *Jurnal Ekonomi dan Bisnis Digital*, 1(1), 43-58.
- Youn, S., & Faber, R. J. (2000). Impulse buying: its relation to personality traits and cues. *ACR North American Advances*, 27, 179-185.
- Yu, C. and M. Bastin (2017). Hedonic shopping value and impulse buying behavior in transitional economies: A symbiosis in the Mainland China marketplace. *Advances in Chinese Brand Management*, Springer: 316-330.
- Zafar, A. U., et al. (2020). "Do digital celebrities' relationships and social climate matter? Impulse buying in f-commerce." *Internet Research*.
- Zeithaml, V. A. (1988). Consumer perceptions of price, quality, and value: a means-end model and synthesis of evidence. *Journal of Marketing*, 52(3), 2-22.
- Zhang, K. Z., et al. (2018). Online reviews and impulse buying behavior: the role of browsing and impulsiveness. *Internet Research*.
- Zheng, X., et al. (2019). Understanding impulse buying in mobile commerce: An investigation into hedonic and utilitarian browsing. *International Journal of Information Management*. 48: 151-160.