

Drivers and Barriers to Online Shopping in a Newly Digitalized Society

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Abstract – Despite the massive penetration of internet in the developed and the developing world, e-commerce is still struggling in most of the developing and emerging economies. In this context, this study investigates why the customers, in developing countries, do not prefer online shopping for apparel despite the several benefits such as convenience, control, variety and enjoyment being offered by this mode of shopping. Moreover, the study assesses the boundary conditions under which consumers' perceived risk diminishes online shopping benefits. With data from prospective online customers in an emerging economy, the proposed concept is tested using SmartPLS 3.0 based SEM approach. The results indicate a significant positive effect of online shopping benefits on consumers' purchase intention for online shopping. In addition, the relationship between online shopping benefits and purchase intention is contingent on the consumers' level of perceived risk in the digital environment. The paper concludes with a discussion on the managerial and the theoretical implications.

Keywords – convenience, control, variety, enjoyment, online shopping, risk

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1. Introduction

In the past decade, internet has penetrated into our daily life and has become an essential medium of communication both for individuals and for businesses. This has helped companies to communicate with their customers electronically and sell their products and services online. However, many e-commerce surveys reflect that although companies are trying their best to satisfy their customers yet a large number of customers are reluctant to purchase online due to their concerns about privacy and security of their online transactions. This is especially relevant to the developing countries where digital commerce is gradually emerging.

E-commerce offers some benefits to the consumers, as compared to traditional commerce, in terms of convenience, a variety of products, greater control over their buying and entertaining experience. Past research shows a positive impact of e-commerce benefits in developing consumers' favorable attitude toward online shopping and also in enhancing their likelihood for online buying various products and services [6,7,11,18]. So, in this research perceived benefits of online shopping, namely: Perceived Convenience, Perceived Control, Perceived Variety and Perceived Enjoyment are incorporated as the drivers of online shopping.

As the perceived risk may vary across various products and services and also on the basis of customers' personal profile, so this study is restricted to the examination of drivers and barriers to online shopping of apparels. Further, commonly for apparels, a physical examination for such products is greatly desired and thus offers a greater perceived risk [1]. Apparels offer to be a suitable product category for this study, as we want to assess the conditions under which the impact of perceived benefits of online shopping strengthens or diminishes consumers' purchase intention from online websites.

Many surveys have reported that most internet surfers are not making any online transaction because they are concerned about internet security [17]. The customers making online transaction have apprehension about passing along their credit card numbers and other confidential information on the internet. Internet fraud is one of the major factors causing growing concern in the minds of online customers. Consumers' personal risk profile (i.e., being risk-take or risk-averse) also plays a key role in their online shopping decisions. Generally, it is observed that "risk neutral consumers are more likely than risk-averse consumers to consummate a purchase transaction when faced with buying a product (or service) with uncertain outcomes or possible loss" [15]. Therefore, those consumers having higher risk perception in the online channel may avoid or delay their buying decision through this channel.

Previous studies have identified perceived risk as a key factor in customers' participation in e-commerce, while others have highlighted the role of perceived risk as an antecedent to the willingness to be profiled online. This research contributes to the literature by examining the role of consumers' risk profile on the relationship between online shopping benefits and purchase intention. The proposed conceptual model has been empirically tested with data from prospective online shoppers in an emerging economy.

The rest of the paper is organized as follows: the next section is dedicated to theoretical background and hypotheses development, the methodology is discussed in the third section, the following section is devoted to analysis and the results and the last section concludes the paper with the discussion and the implications for academicians and practitioners.

2. Theoretical background and hypotheses

This section is divided into three parts, i.e., online shopping benefits, perceived risk, and demographics. In the following section, the perceived benefit of the online shopping has been discussed and substantiated by literature.

2.1. Perceived Convenience (CNV)

Literature has mainly focused on the service convenience in the context of traditional stores [18], but this study focuses on the website convenience aspect. Jiang et al. (2013) proposed five dimensions of perceived convenience in an online shopping context including access, search, evaluation, transaction, and possession/post-purchase. Customers' CNV is considered one of the major motivators for online shopping environment [7] due

to several reasons such as time-saving, avoiding crowds, flexibility, 24/7 availability, etc.

These days, people do not have enough free time to go to the market and stand in the long queues. Therefore, online shopping websites have provided them with an alternative for conveniently conducting their purchasing needs according to their flexible schedule.

Unlike the brick and mortar stores, an online store's website plays a crucial role in forming customers' pleasant experience. In fact, an online store website acts as an environment element throughout the shopping process and is directly linked to customers' perceived convenience [8]. Customers' effortless experience will help them form a positive attitude towards the online website, and their likelihood of engaging in online store will increase. Website quality characteristics such as easy to navigate, easy to search, easy to transact and easy to order also contribute to customers' convenience [14].

Based on the above arguments, it is expected that consumers' perceiving online channel to be convenient will have a favorable attitude toward this channel. Hence, it is hypothesized:

H1: Perceived convenience of shopping from an e-retailer positively impacts customers' purchase intention.

2.2. Perceived Control (CNT)

According to [2], perceived behavioral control is an individual's belief of "perceived ease or difficulty of performing behavior" (Ajzen, 1991, p.188). In Theory of Planned Behavior (TPB), perceived control is proposed as a part of individuals' beliefs affecting their intention which consequently results in their actual behavior. Thus, perceived behavioral control depicts consumer's perception of their control over their actions. In the context of online shopping perceived control is the level of control that the customers perceived in the online buying process [11].

Moreover, the Unified Theory of Acceptance and Use of Technology (UTAUT), [24] argued that facilitating conditions capture the essence of the TBP's construct perceived control over behavior. This means that the facilitating conditions such as availability of resources, ease of use, ability to search and customization of the products help increase the degree of perceived control on online transactions. Therefore, in case of online shopping customers' greater control over their shopping experience helps them develop a favorable attitude toward e-commerce.

Generally, online stores provide customers with a large number of products and services as compared

to their traditional brick and mortar counterparts. In addition, customers can quickly navigate into the catalog and thus feel more control over their product selection. High-quality online shopping websites provide many options such as product search, selection, customization and so on. Through all their online shopping experience, customers have a lot of flexibility, and they are in full control of their decision. This control builds their positive attitude and enhances their likelihood of engaging in online shopping. Literature has also supported the influence of perceived control for online shopping [11,19,25]. Martin et al. (2015) reasoned that ease of use and customization are major drivers of perceived control that eventually leads to customers' satisfaction and repurchase intentions.

From the above discussion, we can conclude that perceived control is an important factor in determining information systems usage intention and adoption. Therefore, we argue that customers' perceived control would positively contribute toward their online purchase decision, and this leads to the following hypothesis:

H2: Customers' perceived control on their online shopping positively impacts their purchase intention.

2.3. Perceived Variety (VRT)

Product variety mostly signifies the depth and breadth of product collection. A large product assortment of online stores allows customers' greater choices and more comparisons [7]. This helps them develop a favorable attitude toward the online store and consequently their likelihood to purchase online increases. With not much location/space constraints, online stores, generally, may offer a greater product choice to their customers as compared to the traditional stores. This is because these do not face certain limitation as faced by a traditional outlet such as an expensive prime location, limited shelf space and these may offer as many products as these can and so provide a greater choice of products to the consumers. Chang (2011), through her study conducted in Taiwan, examined the impact of product categorization on product variety and found that participants with more product subcategories perceived greater product variety on the website and they showed favorable attitude toward e-commerce. Therefore, a greater product/service assortment or product/service variety of online store may positively contribute to form favorable customer evaluations of this channel.

Literature signifies that it's not the actual rather the perceived product variety that influences consumer behavior [6]. Therefore, online shopping website, taking advantage of the technology, can categorize

and portray the products in a way that gives an impression of a greater assortment.

Product assortment or variety is generally addressed in literature from traditional shopping environment, but its benefits from online shopping perspective are not systematically addressed [12]. Therefore, this study is an attempt to examine how product assortment may affect consumers' decision-making in the digital environment. Specifically, this study assesses the influence of perceived variety on the consumers' purchase intention for online shopping in an environment where e-commerce is at an initial stage of its development and e-commerce is an emerging trend. Thus, our hypothesis is:

H3: Product variety at an e-retailer has a positive impact on customers' purchase intention.

2.4. Perceived Enjoyment (ENJ)

Perceived enjoyment refers to "the extent to which the activity of using a specific system is perceived to be enjoyable in its own right, aside from any performance consequences resulting from system use" (Venkatesh, 2000, p.351) [23]. Thus in case of online shopping perceived enjoyment will be the consumers' enjoyable experience of using e-commerce website to explore and buy products online. The interactive nature of online shopping is a source of entertainment for some online consumers. As there is no external intervention, this allows consumers to focus on buying their preferred products in their own way. Online merchants can decrease consumers' risk perceptions and increase their trust by providing them with an entertaining environment, an environment where consumers can make their buying decisions in a playful manner. Online shopping can do so with the help of a high-quality interactive website.

Literature has established perceived enjoyment's role in intrinsic motivation to describe information system's adoption [9,11,22]. Thus, considering the importance of perceived enjoyment as a critical factor in forming consumers' decision making in an e-commerce environment, the next hypothesis is:

H4: Perceived enjoyment of shopping from an e-retailer positively impacts customers' purchase intention.

2.5. Perceived Risk (PR)

The concept of perceived risk was introduced in the late 60's by Bauer as "the likelihood of unfavorable outcomes, and consequences" of one's actions [3-5]. Forsythe and Shi (2003), defined perceived risk in online shopping to be a subjective evaluation of expected loss due to online shopping. So in terms of online shopping, perceived risk will be

any potential uncertain negative outcome from their online interaction.

The consumers, making an online transaction, may be reluctant to purchase on the web because the sense of risk may be far more as compared to the traditional mode of shopping, where he can touch, feel, and even try the product before finally purchasing it. While purchasing online, a consumer has to provide personal information and even confidential credit card information. After providing the necessary information, the consumer can only hope that the transaction will be processed completely, accurately and on time.

Historically, perceived risk is considered a barrier towards online shopping. The negative impact of consumers' risk is linked to lower purchase intentions. Literature highlighted that consumer's higher risk perceptions in the online channel leads to their lesser chances of using this channel (Lim, 2003). Depending on consumers' personal profile and the product/service characteristics, their risk perceptions may vary. Thus, the impact of perceived risk may also be different for different consumers. This study extends beyond exploring simple, direct effects of perceived risk on purchase likelihood and

examines how consumers' higher/lower risk profile may play a moderating role in the relationship between online shopping benefits and purchase intentions. Though many types of perceived risk have been presented in the literature [1,17] yet this study focuses on the moderating role of overall risk due to the online channel. Therefore, we hypothesize:

H5: Consumers' perceived risk moderates the relationship between online shopping benefits (convenience, control, variety, and enjoyment) and their purchase intention such that the relationship is stronger (weaker) for lower (higher) risk levels.

2.6. Demographics

Consumers' risk perception as well as their attitude and purchase intention through online channels may vary depending upon their profile. For instance, customers' demographics such as gender, age, education, experience, may play a significant role in their decision to use or not to use the online channels. Thus, we include customers' demographics as covariates in the model (see Figure 1).

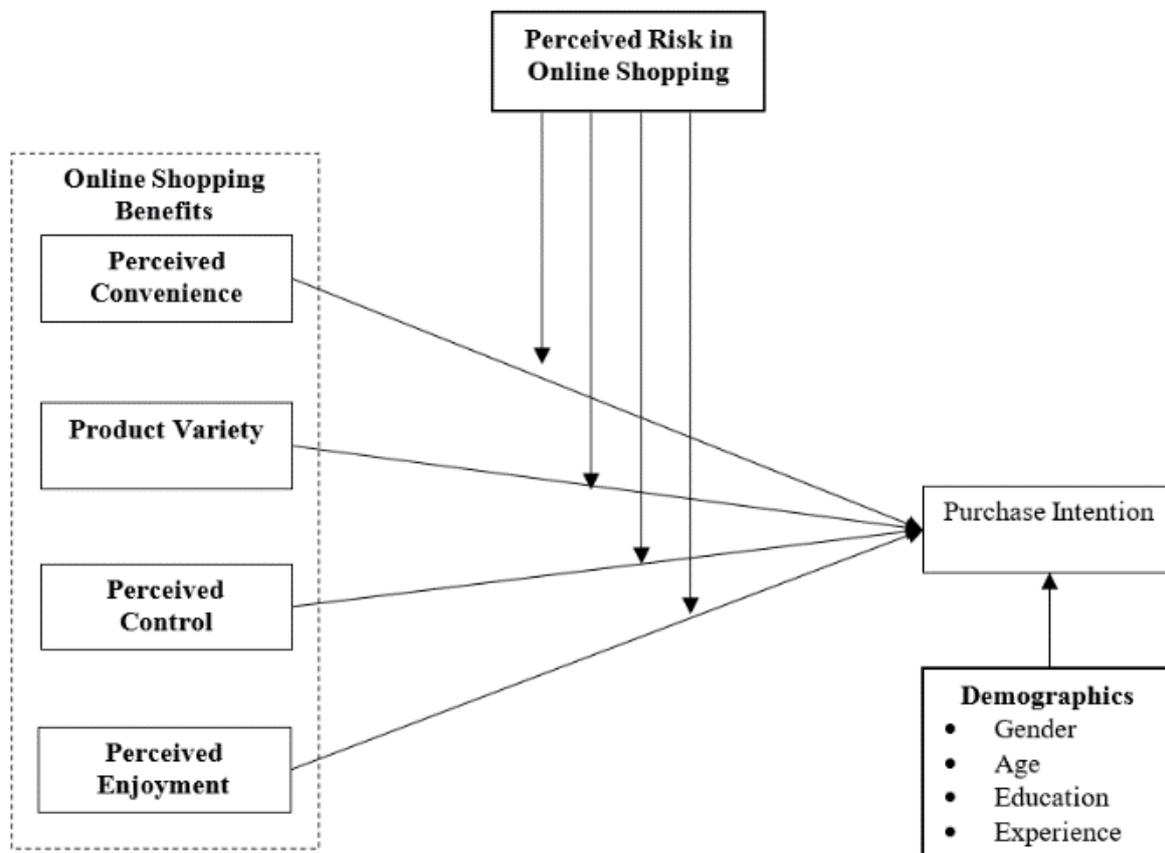


Figure 1: Conceptual Model

3. Method

3.1. Sample Profile

An online survey is used to collect data from potential users of online shopping websites in Saudi Arabia. At the beginning of the survey, the respondents were asked about their recent purchase of apparels online. Only those respondents were allowed to participate in the survey who answered yes to the screening question. The online survey resulted in 284 responses. After dropping the incomplete or invalid responses, 260 were retained for the final analysis. For detailed respondents' demographic profile see Table-1:

Table 1: Sample Demographics

Variable	Frequency	Percent
Gender		
Male	172	66.2
Female	88	33.8
Age		
Less than 20 years	27	10.4
21 to 30 Years	111	42.7
31 to 40 years	88	33.8
Above 40 years	34	13.1
Education		
High School	27	10.4
Undergraduate	158	60.8
Graduate and above	75	28.8
Online shopping experience		
Less than 1 year	48	18.5
1 to 3 years	75	28.8
3 to 5 years	71	27.3
More than 5 years	66	25.4

N= 260

3.2. Instrument

To retain the essence of the original scales and face validity, most of the scales in this study have been adapted from the well-established literature. Multiple items have been used to measure each latent construct in the conceptual model. The scale to measure perceived convenience and perceived

variety is adapted from [7]. The perceived risk is measured using the scale adapted from Chakraborty et al. (2016). The perceived enjoyment and the purchase intention are measured by the scales adapted from [21]. The scale for the perceived control has been adapted from [11] and [10].

4. Analysis

After initial screening of the data, the structural equation modeling (SEM) served the purpose of data analysis. The psychometric properties of the scale and the hypotheses have been tested using Partial Least Squares based Structural Equation Modeling (PLS-SEM) method by SmartPLS 3.2. There are four independent, one dependent and one moderating variable in the conceptual model. So, first of all, the reliability and validity of these latent constructs are assessed. The scale reliability is examined in terms of internal consistency (Cronbach Alpha's) and composite reliability (CR). The coefficients' (α) values range from 0.78 to 0.89 while the CR values range from 0.87 to 0.93. Table 2 shows that all these values are above the minimum threshold of 0.7 [20], thus indicating the high reliability of the used scales.

After setting up the scale reliability, it is assessed for convergent and discernment validity. According to [13], a scale should explain at least 50% of the variance to meet the convergent validity requirement. Statistically, to attain convergent validity, each construct should have an average variance extracted (AVE) value above 0.50. This condition is met for each latent construct (Table 2), thus, proving convergent validity. Finally, to assess the discriminant validity, we compared the AVE values for relevant shared variance [13]. Table 2 confirms that the diagonal values (square root of AVE) for each construct is significantly greater than off-diagonal values (correlation with other constructs), thus establishing discriminant validity.

4.1. Direct Effects

In Hypotheses 1 to 4, it is argued that the dimensions (i.e., convenience, control, variety, and enjoyment) of online shopping benefits positively affect consumers' purchase intention. PLS-SEM

Table 2 Reliability and Validity Statistics

α	CR	AVE	Constructs	CNV	CNT	VRT	ENJ	PR	PI
0.78	0.87	0.70	Perceived Convenience (CNV)	0.83					
0.85	0.91	0.76	Perceived Control (CNT)	0.47	0.87				
0.89	0.93	0.82	Perceived Variety (VRT)	0.32	0.35	0.90			
0.79	0.88	0.71	Perceived Enjoyment (ENJ)	0.54	0.63	0.36	0.84		
0.86	0.92	0.78	Perceived Risk (PR)	-0.11	-0.33	-0.20	-0.36	0.88	
0.88	0.93	0.81	Purchase Intention (PI)	0.39	0.33	0.14	0.40	-0.54	0.90

Note: α : Cronbach's Alpha, CR: Composite Reliability, AVE: Average Variance Extracted, Diagonal entries are the square root of AVE and off-diagonal are the inter-construct correlations

results indicate a significant effect of each of these four perceived benefits (convenience, control, variety, and enjoyment) on PI (Table 3). Out of these benefits, the perceived convenience of the online channel has emerged as the strongest predictor of consumers PI from this channel. The results also confirm a strong negative impact of consumers' risk perceptions on their PI.

Broadly, our results confirm that consumers' perception of convenience, control, variety, and enjoyment of the online channel positively contribute to their decision to engage in online shopping. Therefore, the online store managers need to design their store in a way that their customers have a sense of convenience, control, variety, and enjoyment while they are on their website.

Table 3: Direct Effects

Relationship	Estimates	T-Values	P-Values
Direct Effects			
CNV -> PI	0.34	6.55	0.00
CNT -> PI	0.14	2.65	0.01
VRT -> PI	0.11	2.16	0.03
ENJ -> PI	0.13	2.46	0.01
PR -> PI	-0.33	6.46	0.00
Demographics			
Gender -> PI	-0.03	0.67	0.50
Age -> PI	0.05	1.40	0.16
Education -> PI	0.02	0.73	0.47
Experience -> PI	0.08	2.38	0.02

CNV: Perceived Convenience (CNV), CNT: Perceived Control (CNT), VRT: Perceived Variety (VRT), ENJ: Perceived Enjoyment (ENJ), PR: Perceived Risk, PI: Purchase Intention

As far as the consumers' demographics are concerned, we did not find a significant impact of any of the demographic variables except past online shopping experience. This suggests that the consumers having a great experience with the online retailers are more likely to engage in online buying in future as well. Table 3 summarizes the results.

4.2. Moderating Effects

In H5, we hypothesize that the relationship between the online shopping benefits (convenience, control, variety, and enjoyment) and the PI is moderated by customers' risk profile and this relationship is stronger (weaker) for lower (higher) risk levels. As both the predicting and the moderating variables are continuous, so we use product indicator method in SmartPLS 3.2 to calculate interaction effects.

Table 4: Moderating Effects

Relationship	Estimates	T-Values	P-Values
PR*CNV -> PI	-0.16	2.70	0.01
PR*CNT -> PI	-0.20	3.35	0.00
PR*VRT -> PI	-0.24	5.45	0.00
PR*ENJ -> PI	-0.07	0.97	0.33

CNV: Perceived Convenience (CNV), CNT: Perceived Control (CNT), VRT: Perceived Variety (VRT), ENJ: Perceived Enjoyment (ENJ), PR: Perceived Risk, PI: Purchase Intention

The interaction effect of PR with each of the predictors (convenience, control and variety and enjoyment) turned out to be significant (Table 4). Figure 2-4 also reflect these moderating effects or higher and lower PR. The slopes of the line presenting the impact of each of the variables (convenience, control, and variety) on PI is stronger for the lower values of PR and weaker for higher values of PR (Figure 2-4).

However, we do not find any impact of the interaction term between PR and enjoyment. Thus enjoyment does not moderate the effect of the PR on the PI. Figure 5 also depicts this fact as there is no significant difference between the slope of the two lines for the relationship between enjoyment and PI for higher and lower PR values.

The empirical results affirm that the impact of online shopping benefits on PI is dampened (strengthened) for higher (lower) levels of PR values. This implies that customers' shopping decision from the electronic channel is contingent on their risk profile (i.e., high vs. low perceived risk).

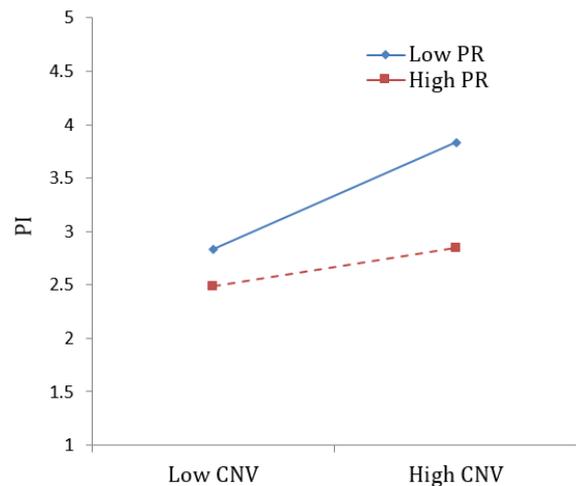


Figure 2: Moderating effect of CNV

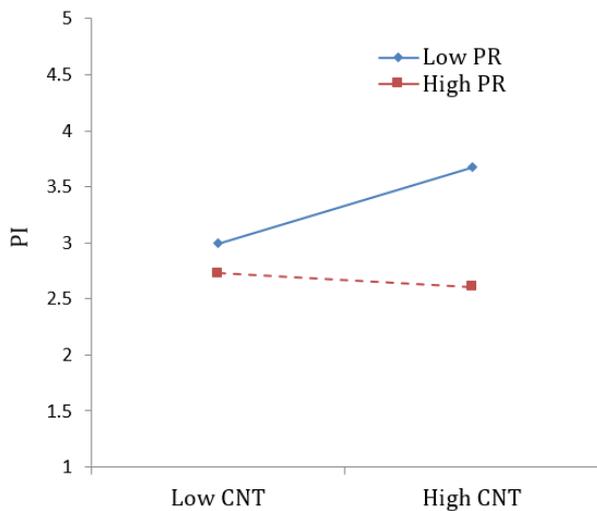


Figure 3: Moderating effect of CNT

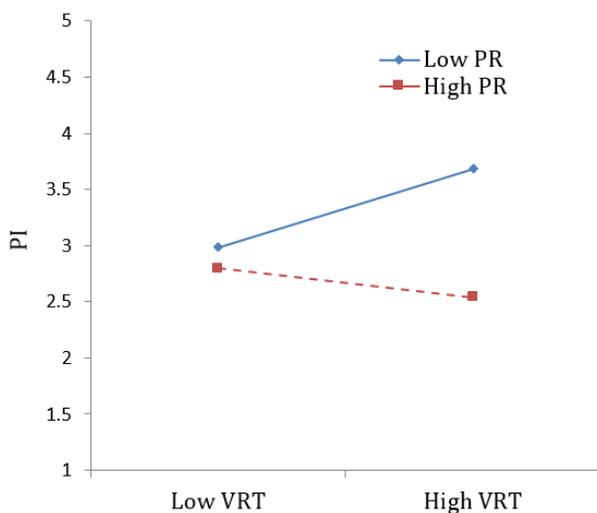


Figure 4: Moderating effect of VRT

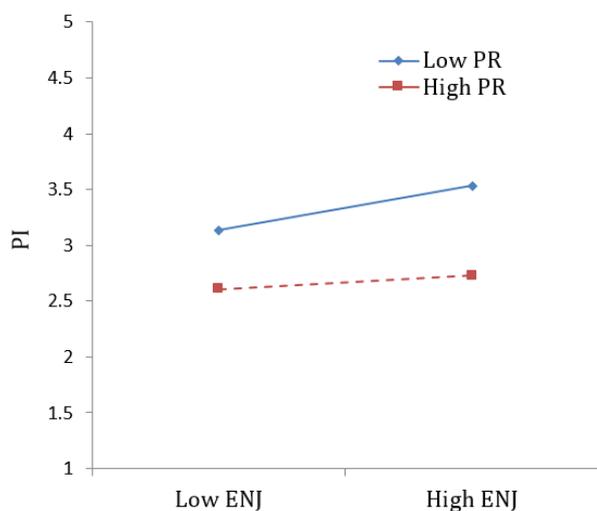


Figure 5: Moderating effect of ENJ

5. Discussion and Conclusions

In the perspective of the emerging online shopping trends in the developing economies, this paper investigates the role of the customers' perceived benefits on their purchase decision through online stores. Four major benefits/determinants — convenience, control, variety and enjoyment — of online shopping are identified and their impact is empirically tested on the PI. In addition, the paper also extends the literature by studying the role of perceived risk in a developing country context where online stores are at an emerging stage. Though we find that penetration of internet and social media is quite high yet people are not much comfortable to purchase products online, especially the apparels.

Empirical results demonstrate a significant effect of consumers' perceived benefits from online stores on their PI from such stores. Our results endorse that perception about potential benefits of the online channel enhances consumers' likelihood to engage in online shopping activity.

Perceived convenience has emerged as the most dominant variable, among the others, influencing PI from online stores. Our research is also in line with the literature which shows that consumers' perceived convenience in online vendor positively influences their attitude and purchase intention. For instance, Jiang et al. (2013) argued that convenience is one of the major motivators behind consumers' online purchase intention. Similarly, [16] demonstrated perceived convenience and perceived enjoyment to be the key determinants of mobile shopping.

The empirical results assert the positive impact of perceived control on customers' online purchase intention. This result shows that individuals' perceived control over their buying process boosts their confidence and they feel more involved and independent. Unlike traditional brick and mortar stores' environment, the consumers have no dependence on the store assistance; rather, if required, they may take independent opinion from other consumers on the internet. In this way, consumers are in control of their shopping, and they may avoid upselling and cross-selling from the store employees. This finding is also in line with the past research. For instance, Elwalda et al. (2016) proposed that consumers' level of control on their online shopping activity helps in developing a positive attitude toward online stores.

Product variety at online stores has emerged to be another significant benefit of online shopping. Generally, customers feel comparatively more product/service options and variety on the online stores than the traditional ones. This argument is true to some extent; as online stores don't face limitation such as location. They can also take advantage of

technology to present even small number of products in different ways. This gives an impression of a greater product assortment to the consumers. This finding is also in line with the literature [7,12]

Finally, perceived enjoyment is also found to be significantly affecting customers PI from online stores. This suggests that the sense of playfulness and enjoyment of online channel helps consumers develop a favorable attitude toward online stores. Thus, online retailers need to incorporate interesting features into their website design that consumers do not feel boring during their visit to the online store. This finding is consistent with the past research such as [11] and [22].

Apart from empirically assessing the impact of online shopping benefits including convenience, control, variety, and enjoyment this study contributes to the literature by extending the current understanding of direct effects of perceived risk to incorporating it as a moderator on online shopping benefits — PI relationship. This study provides an empirical basis for the varying impact of high/low perceived risks on online shopping benefits — PI relationship. This exhibits that though perceived benefits may help in developing consumers' favorable attitude yet their risk levels in the online channel may dampen or strengthen their final decision. Therefore, the strength of benefits — PI relationship may vary depending upon the level of perceived risk. In addition, the impact of convenience, control, variety and enjoyment on PI from online stores increases (decreases) for the consumers with lower (higher) level of perceived risk in the online channel.

For the role of individual's demographics, in their PI from an online store, we did not find any significant role of gender, age or education but past experience has emerged to be significantly associated with PI. Nonetheless, care must be taken with respect to the impact of gender, age and education on purchase intention as in our sample majority of the subjects were male between the age of 20 to 30 years having a college degree. Therefore, more evenly distributed sample may provide better insights into the role of age, gender and education in forming consumers' purchase intention for online stores.

5.1. Theoretical and Managerial Implications

The findings of this study will be of interest to both academicians and online website managers. For the academicians, this research addresses an important aspect of consumers' online shopping intention and highlights its facilitators and barriers in the context of an emerging economy. Specifically, the study reflects on the moderating role of perceived risk in this phenomenon. Managers of online

shopping websites can employ these findings in developing strategies to leverage on the highlighted benefits and minimize consumers' risk perceptions. In this age of social media, it is difficult for the e-commerce companies to control the information. Past research shows that information asymmetry can diminish consumers' perceived trust and escalate their perceived risks [5], so e-commerce firms need to regularly update their consumers about potential online threats and carefully design strategies to counter this issue of asymmetric information.

Customers should be provided with the community page where they can exchange their experience with other consumers. This will help consumers in building their trust in the online shopping website and reduce any risk perceptions. For the community pages, the company may use its own website or can also take advantage of famous social networking platforms such as Facebook and Twitter. In addition, based on the consumers' feedback and discussions on the community platforms, the company can provide answers to the frequently asked questions on their website. This will not only solve consumers' problems quickly but also reduce company's incoming calls/queries; this will help the company save the time of its employees.

In this time of smart devices, consumers can easily search for similar products/services and can compare prices from the local and the global competitors. Therefore, attracting not only new consumers but also their retention is an important issue in this information age. Thus, online website managers need to continuously ensure that their consumers are satisfied with their offerings and are having the requisite convenience, control, variety, and enjoyment through their online marketplace.

The study suggests that in order to mitigate consumers' concerns regarding online payments through their credit card they may be offered various options such as pay on delivery, pay through ATM, etc.

5.2. Limitations and Future Research

Though the study offers interesting insights and explains a significant variance in the dependent variable, yet there are a number of limitations leading to future research prospects. First, the study relied on a data from only one emerging economy so its generalizability may be limited due to differing economic and technological conditions in other emerging economies in particular and globally in general. Second, most of the subjects in this study, are male having a university education and in the age range of 20 to 30 years. Further research may address this issue by relying on more rigorous and heterogeneous sample. Third, the KSA is one of the

leading countries in information and communication adoption, future research may test the proposed model in other countries to see its generalizability. Fourth, the study has focused only on apparels but the consumer's risks may vary for different product categories or even for various services, so future research may take into account moderating effects of perceived risk for other product categories such as electronics, books. Fifth, this study has relied on the overall risk but there may be different types of perceived risks in online shopping such as financial, psychological, time, security, etc. It will be an interesting future research opportunity to see how each of these dimensions of perceived risk moderates the relationship between online shopping benefits and purchase intention.

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