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GENDER DIFFERENCES AMONG ONLINE SHOPPING FACTORS IN PAKISTAN

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Abstract. *Pakistan is a huge consumer market, where very little is known about the aspects of consumers in online shopping environment. Consumer demographics such as gender are important factors in determining behaviour of individuals towards online shopping. This study finds relationships between gender and online shopping factors in Pakistan. With a survey sample of 286 respondents from various disciplines, exploratory factor analysis was used as an extraction method on the items of the proposed latent variables. MANOVA was then conducted to find gender differences among online shopping factors. Findings showed that shopping patterns differed between genders due to the influence of online shopping factors. This research may facilitate national and multinational organisations to streamline e-tailing strategies in order to gain business opportunities in emerging markets such as Pakistan.*

Key words: *Pakistan, gender differences, online shopping, men, women, emerging markets*

1. INTRODUCTION

Online shopping is becoming everyday part of most people's lives rather than being a minority hobby (Doherty & Ellis-Chadwick, 2010). Better understanding of the behaviour of consumers involved in online shopping is essential in developing and designing effective websites that can help businesses attract and retain online consumers (Hasan, 2010). Individual actions were found to be influenced by demographic attributes before they engage in a given behaviour (Ajzen & Fishbein, 1980; Zhang, 2005). Online shopping behaviour has been scrutinised in many previous studies from the perspective of consumer demographics (Brown, Pope, & Voges, 2003; Chau, Cole, Massey, Montoya-Weiss, & O'Keefe, 2002; Hasan, 2010; Hernández, Jiménez, & Martín, 2011; P. Korgaonkar, Silverblatt, & Becerra, 2004; Park, Lee, & Ahn, 2004).

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Demographic attributes such as gender, age, income and education are important factors affecting consumers' online shopping behaviours.

Firms nowadays are rethinking on their global strategies as business growth has improved in emerging markets (Ramamurti, 2012). Firms from the developed markets need to explore new opportunities and businesses in the densely populated emerging markets to identify and capture recently developed opportunities (Ramamurti, 2012). Western and multinational online businesses are finding new routes from saturated western markets to unsaturated underdeveloped emerging markets for better e-commerce opportunities. Moreover, conventional local businesses are also plunging in to e-tailing business due to the rapid growth of Internet access.

The rise of Internet users around the world paved the growth of e-commerce industry, especially in developed countries. Internet users in developed countries, for example in the United States (US), preferred shopping online due to convenience (such as a possibility to compare prices) and time-saving attributes of online shopping (PewResearchCenter, 2008). However, the trend of online shopping is also gaining momentum in developing and underdeveloped countries. A recent survey showed that technology adoption rates are growing in emerging economies and people in these regions are catching up with those in developed countries in terms of usage of technology (Poushter, 2016). For example, Internet users in emerging economies use online social networks more frequently than Internet users in Europe and the US (Poushter, 2016).

With the introduction of third generation (3G) and Long Term Evolution (LTE) services along with reduced smartphone prices and the rise of online social networks, online shopping is rapidly growing in emerging economies, including Pakistan (PRNewswire, 2016). The e-commerce industry of Pakistan is growing exponentially and it is expected to surpass US\$ 1 billion benchmark by the year 2020 (Tribune, 2015). A report published by Deloitte "*Hidden heroes, the next generation of retail markets*", revealed that Pakistan's retail market has a huge potential for international grocers. Pakistan's increasingly large young population, rising middle-income class (25% of the population), increasing urbanisation, escalating admiration of international food items and a growing number of international fast food chains and restaurants, make Pakistan an attractive emerging market for Europe and the US (Deloitte, 2011).

In Pakistan, 48% of Internet users are of the age bracket 18-34, whereas 55% of Internet users use Facebook social network (PRNewswire, 2016). The gender division of Internet users in Pakistan is uneven with 70% men and 30% women, however, the average e-commerce conversion rate between men and women is approximately equal (PRNewswire, 2016).

In our previous research (Akhlaq & Ahmed, 2015), we identified six (6) latent factors, namely Perceived Risk (PR), Perceived Enjoyment (PE), Perceived Usefulness (PU), Perceived Ease of Use (PEOU), Distrust (DT) and Legal Framework (LF) that were found to significantly influence 'online shopping intentions' in Pakistan. Carrying

forward our prior research (Akhlaq & Ahmed, 2015), the objective of the present study now is to find gender differences among these six significant latent variables (PR, PE, PU, PEOU, DT, LF).

The next section develops the literature review and hypotheses.

2. PRIOR LITERATURE AND HYPOTHESES

Past studies looking at the relationship between demographic profiles and online shopping revealed that the demographics of customer determines attitude towards online shopping (Haque, Sadeghzadeh, & Khatibi, 2011; Harn, Khatibi, & Ismail, 2006). In general, gender has been the most influential factor affecting Internet usage observed in the recent years (Hills & Argyle, 2003; Hwang, Jung, & Salvendy, 2006; Jackson et al., 2008; Levy, 2002; Mishra, Kramer, & Tyler, 1996; Potosky, 2007; Zhang, 2005). There was a significant gender gap in consumer's shopping behaviour which can be related to difference in online shopping behaviour between men and women (Bae & Lee, 2011).

Evidence of dominance by men and resistance in using the Internet by women is reported in multiple studies (Fang & Yen, 2006; Hills & Argyle, 2003; Nai Li & Kirkup, 2007). Findings from many previous studies proved that men purchase and spend more money online than women (Alreck & Settle, 2002; Brown et al., 2003; P. Korgaonkar et al., 2004; P. K. Korgaonkar & Wolin, 1999; Rodgers & Harris, 2003; Stafford, Turan, & Raisinghani, 2004). However, Akman and Mishra (2010) found no significant difference in using the Internet between men and women employees in Turkish organisations. Moreover, a study by Khare and Rakesh (2011) showed that in India, men have a more positive attitude towards online shopping compared to women.

2.1. Hypotheses Development

Perceived Risk

PR (Dowling & Staelin, 1994; Kaplan, Szybillo, & Jacoby, 1974; Lopes, 1995) is consumer's perception of the likelihood that something will go wrong and will cause severe consequences of purchasing a product or service. Shopping is the most favourite activity of women (Zhou, Dai, & Zhang, 2007) but prior studies (Garbarino & Strahilevitz, 2004; Rodgers & Harris, 2003) showed that women were reluctant to shop online and spent little time on the Internet. In contrast, findings from Ha & Stoel (2004) showed that women used the Internet more often to search information on apparel products than men and suggested that there may be more possibility for women to become actual online purchasers in future. Previous research on online shopping (Byrnes, Miller, & Schafer, 1999; Gutteling & Wiegman, 1993; Stern, Dietz, & Kalof, 1993) showed gender differences in perception of risk. For example, a study by Garbarino and Strahilevitz (2004) confirmed that women perceived higher risk of online shopping than

men. Similarly, another study (Bae & Lee, 2011) found that women were anxious about the risks of online shopping.

This advances the following hypothesis:

Hypothesis 1

H₁: Women perceive higher risks than men when shopping online.

Perceived Enjoyment

Perceived Enjoyment (PE) (Igbaria, Parasuraman, & Baroudi, 1996) is the intrinsic impulse to use new technology. Davis (1989) refers enjoyment as a level to which the activity of using the computer is perceived to be pleasant. Girard, Silverblatt, and Korgaonkar (2002) and Brown et al. (2003) found that recreational orientation and convenience were strong predictors of preference of online shopping. It was found that PE has a positive effect on the buying behaviour of women searching and purchasing products online, but not on men's (Liu, Forsythe, & Gropper, 2005). Moreover, Seock and Bailey (2008) and Anjana and Naidu (2016) found that women enjoy shopping online significantly more than men, therefore we hypothesise the following:

Hypothesis 2

H₂: Women perceive more enjoyment than men when shopping online.

Perceived Usefulness

PU and PEOU are the two factors of Technology Acceptance Model (TAM) that determine usage of the information system (Davis, 1989). TAM has been used extensively for many empirical studies encompassing user technology acceptance (Moon & Kim, 2001; Ulbrich, Christensen, & Stankus, 2011; Venkatesh & Davis, 2000; Venkatesh & Morris, 2000; Zhou et al., 2007).

PU is defined as the extent to which a person believes that using a particular technology will increase his or her job performance (Davis, 1989). Venkatesh and Morris (2000) indicated that choices of men were more influenced by perceived usefulness as compared to women, when making decisions considering usefulness of a new technology. Ong and Lai (2006) found rating of PU by men higher than that by women in an e-learning environment. Similarly, another study showed that men's rating regarding PU of using information systems (e.g., computer based assessment) was higher than women's (Terzis & Economides, 2011). Considering these observations we hypothesise the following:

Hypothesis 3

H₃: Online shopping is perceived to be more useful by men than by women.

Perceived Ease of Use

Davis (1989) defined PEOU as the extent to which a person considers that using a system would be effortless. A study by Lee, Fiore, and Kim (2006) indicated that all three aspects of TAM, PU, PEOU and PE, significantly increased consumer attitude

and behavioural intention towards an online retailer. Moon and Kim (2001) showed that the technology that is less menacing was rated higher by men than women. In contrast, women users were found to be less familiar with web applications and devote less time and efforts in using the Internet (Wasserman & Richmond-Abbott, 2005; C. Yang & Wu, 2006). We assume that the individual's knowledge of technology will make the individual comfortable using the technology, therefore we construct the following hypothesis:

Hypothesis 4

H₄: Online shopping is perceived to be easier by men than by women.

Trust

Interpersonal and commercial relationships are based on trust (Golembiewski & McConkie, 1975; Morgan & Hunt, 1994) where the possibilities of risk, interdependency and uncertainty exist (Mishra et al., 1996). A person's need to trust other people increases as the person becomes more dependent on others, ultimately showing that the importance of trust is highly associated with the extent a person depends on others (Deutsch, 1958; Rousseau, Sitkin, Burt, & Camerer, 1998). Lack of trust or distrust prevents users to shop online. For example, users discard their shopping cart if any element of distrust is perceived during an online transaction (Kelley, Rhineland, & DeMoulin, 2001; D. Kim & Benbasat, 2003). Women consider trust as a more significant factor than men do when opting for online shopping (Awad & Ragowsky, 2008). Awad and Ragowsky (2008) showed that women who put more emphasis on trusting an online seller before making an online purchase showed more dependence on networks of people (Tannen, 1991). Another study (Cho & Jialin, 2008) showed that women were reluctant in giving up their traditional means of shopping for the online shopping technology and that they demonstrated a lower level of self-efficacy and trust than men. Furthermore, it was found in other research that men were more likely to trust online shopping than women (Riquelme & Román, 2014). Therefore, we hypothesised the following by reversing trust into distrust as follows:

Hypothesis 5

H₅: Women perceive distrust more than men when shopping online.

Legal Framework

Cheung and Lee (2006) referred to LF as the laws and code of practice to protect Internet shoppers when purchasing online. LF protects the purchaser from any kind of loss during the online transaction (Na Li & Zhang, 2002). Legal policies are essential to protect online consumers' bill of rights (Cheung & Lee, 2006).

Women shoppers have less trust in online transactions than men shoppers because women feel more insecure than men when shopping online (M.-J. Kim, Lee, & Chung,

2012). Moreover, women were found to be more anxious than men using computers for online purchases (B. Yang & Lester, 2005). Women were also more concerned than men in dealing with privacy and security (San Martín & Jiménez, 2011; Sebastianelli, Tamimi, & Rajan, 2008). Taking LF as essential to secure online shopping environment, we hypothesise the following:

Hypothesis 6

H₆: Women feel safer than men in the LF of online shopping.

Finally, we build another hypothesis to test gender differences on the combined online shopping factors discussed above:

Hypothesis 7

H₇: Gender differences exist between the combined online shopping factors (PR, PE, PU, PEOU, DT and LF).

The subsequent section provides details of the research methods used.

3. METHODS

Data were collected through an online survey broadcasting emails to students, alumni and faculty via a network domain of a local university in Karachi, Pakistan. Response rate could not be calculated due to non-probability sampling. The survey was available for four months.

Total respondents were 286. The questionnaire started with three (3) demographic variables, gender, age and qualifications. Income was not included as people usually were reluctant to disclose their true earnings. Six latent variables, PR, PE, PE, PEOU, DT and LF comprised of 24 items with a 5 point Likert-scale ranging from 1 = "Strongly Agree" through 3 = "Neutral" to 5 = "Strongly Disagree" were used in the survey (See Appendix for items of the variables).

Exploratory Factor Analysis, Reliability Analysis and One Way Multivariate Analysis (MANOVA) statistical techniques were used for the data analysis. All analyses were carried out using statistical software, SPSS version 22. The next section provides results of this research.

4. RESULTS

Table 1 shows the number of men and women participants in this study (N=286). Overall, 61 percent of the total respondents were between 18 and 24 years old while 30 percent were 25-34. Moreover, 41 percent of the entire respondents had a Bachelor's qualification, whereas 36 percent had a Master's qualification. Furthermore, 57 percent of the respondents had prior Internet shopping experience.

TABLE 1. **Profile of respondents**

Gender	Men	Women	Total
N	194	92	286

4.1. Exploratory Factor Analysis

Principal Component Factor Analysis (PCFA) was conducted on the latent variables for the construct validity and to measure the indicators for the latent variables. The Kiaser-Meyer-Olkin measure of 0.859 is a meritorious value and indicates that variables measured a common factor. The Bartlette's test of sphericity (p -value < 0.05) confirmed the existence of correlations between variables in the data set which were appropriate for factor analysis.

Factor analysis was accomplished using Principal Component Factoring with Varimax Rotation as an extraction method (Hair, Black, Babin, Anderson, & Tatham, 2006). Factor loadings of 0.5 or greater were retained of the factors with eigenvalues greater than 1.0. Factors evolved are PR, PE, PU, PEOU, DT and LF (see Table 2).

TABLE 2. Exploratory Factor Analysis

Factors ^a						
	PR	PEOU	PE	DT	PU	LF
PR1	.745					
PR2	.624					
PR3	.770					
PR4	.636					
PR5	.757					
PR6	.771					
PEOU1		.791				
PEOU2		.768				
PEOU3		.796				
PEOU4		.736				
PE1			.693			
PE2			.860			
PE3			.864			
PE4			.860			
DT1				.795		
DT2				.787		
DT3				.851		
DT4				.817		
PU1					.598	
PU2					.778	
PU3					.789	
PU4					.699	
LF1						.879
LF2						.905

Extraction method: principal component analysis; rotation method: varimax with Kaiser normalisation. ^a Rotation converged in 8 iterations.

4.2. Reliability Analysis

Cronbach's alpha reliability coefficient normally ranges between 0 and 1 with higher values indicating higher reliability. This determines the extent of items measuring the same underlying attribute. The overall reliability statistic of all the items of the latent factors was 0.823, which was categorized as "Good" (George & Mallery, 2003). Table 3 shows the alpha values of all the latent variables.

TABLE 3. Cronbach Alpha Values

Factor	Alpha Value	Comments
PR (six variables)	0.848	Good
Distrust (5 variables)	0.862	Good
PEOU (4 variables)	0.866	Good
PE (4 variables)	0.922	Excellent
PU (4 variables)	0.822	Good
LF (2 variables)	0.816	Good

4.3. MANOVA

MANOVA was performed to investigate difference between men and women (gender used as an independent variable) on the combined dependent variables – PR, PE, PU, PEOU, DT and LF.

There was a statistically significant difference ($p \leq 0.05$) between men and women on the combined dependent variables as shown in Table 4.

TABLE 4. Multivariate Tests

Effect		Value	F	Hypothesis df.	Error df.	Sig.	Partial Eta Squared
Gender	Wilks' Lambda	0.950	2.450	6	279	.025	.050

Furthermore, when the results for the dependent variables were considered separately using a Bonferroni adjusted alpha level of 0.008 (*same results could be found through simple Student's t-test*), two of the variables – PE and LF – reached statistical significance, as shown in Table 5. This alpha level adjustment has been used to decrease the chance of a Type I error – finding a significant result when in fact there is not one (Tabachnick & Fidell, 2007).

Partial eta squared (η^2) values represent only 3, 1.8 and 2.1 percent of variance in PE and LF respectively explained by gender (see Table 5), considered to be quite a small effect according to the generally accepted criteria (Cohen, 1988).

Moreover, mean scores of both the factors – PE and LF, are higher for women than men (see Table 6).

TABLE 5. Tests of Between-Subjects Effects

Source	Dependent Variable	Type III Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared
Gender	PR	1.044	1	1.044	1.723	.190	.006
	PEOU	1.064	1	1.064	1.472	.226	.005
	DT	1.372	1	1.372	2.153	.143	.008
	PE	7.378	1	7.378	8.725	.003	.030
	PU	3.379	1	3.379	5.199	.023	.018
	LF	3.665	1	3.665	6.066	.008	.021
Error	PR	172.084	284	.606			
	PEOU	205.260	284	.723			
	DT	180.917	284	.637			
	PE	240.155	284	.846			
	PU	184.575	284	.650			
	LF	171.591	284	.604			

TABLE 6. Descriptive statistics

	Gender	Mean	Std. Deviation	N
PE	Men	2.6018	.90602	194
	Women	2.9457	.94769	92
	Total	2.7124	.93195	286
LF	Men	3.3591	.78333	194
	Women	3.6014	.76434	92
	Total	3.4371	.78418	286

Finally, Table 7 shows the summary of 'rejected' and 'not rejected' hypotheses. Out of seven null hypotheses, three were rejected.

TABLE 7. Summary of the results of seven null hypotheses

Hypotheses	H ₀ rejected / Not rejected
H ₁ : Gender differences exist between the combined online shopping factors (PR, PE, PU, PEOU, DT and LF)	<i>H₀ rejected</i>
H ₂ : Women perceive higher risks than men when shopping online.	H ₀ not rejected
H ₃ : Women perceive more enjoyment than men when shopping online.	<i>H₀ rejected</i>
H ₄ : Online shopping is perceived to be more useful by men than by women	H ₀ not rejected
H ₅ : Online shopping is perceived to be easier by men than by women.	H ₀ not rejected
H ₆ : Women perceive distrust more than men when shopping online.	H ₀ not rejected
H ₇ : Women feel safer than men in the LF of online shopping.	<i>H₀ rejected</i>

Results are discussed in the following section.

5. DISCUSSION

Overall, there was a statistical difference between men and women on the combined dependent variables of online shopping. However, when the results of the dependent variables were considered individually, only PE and LF factors reached a statistical difference.

Women showing more inclination than men towards PE confirms that they enjoy online shopping. Buying environment seems to have a stronger effect on women than men when changing from conventional buying to the online mode (Dittmar et al., 2004). Though women shop online less than men, they have greater growth potential than men in using online shopping (Zhou et al., 2007). Findings of Richard, Chebat, Yang, and Putrevu (2010) showed that website exploratory behaviour of women was positively influenced by highly entertaining websites. It is because highly entertaining websites make visits enjoyable mostly for women when putting in time and effort to gather online information (Richard et al., 2010). Putrevu (2001) and Putrevu (2004) also confirmed that women enjoyed searching all relevant information online before making a decision.

Results further showed that women prefer to shop online in a robust LF. They desire to shop in a safe environment, fenced by rules and regulation, assured that they can report and complain to the concerned legal authorities if there is a mishap occurring during their online shopping tenure. Our findings resonate with Roxas and Stoneback (2004) that men are more likely to break rules and women are more likely to adhere to rules as women feel more comfortable in harmonious and safe environments in order to accomplish their tasks smoothly. Weeks, Moore, McKinney, and Longenecker (1999) found that women are more keen to adopt an ethical position than men when confronted with unethical practices. Román (2010) revealed that women were not satisfied in making online purchases due to the fear of fraudulent websites. Trust therefore can be developed among women interested in online shopping by implementing a healthy LF to protect buyers from unethical and deceiving activities.

5.1. Strengths and Limitations

The study used a large sample size from Karachi, the largest metropolitan city and financial hub of Pakistan. Data used from the published research further authenticates findings of this study.

Limitations include sampling from Karachi only, not including other regions of the country, which makes this study applicable to only urban areas of Pakistan such as Lahore and Islamabad.

5.2. Implications for practice and research

This research will pave guidelines for multinational and national e-tailers looking for endless business opportunities in emerging markets such as Pakistan. Our findings

will help developed markets to understand consumers' aspects of online shopping in emerging markets.

Moreover, e-tailers will have the chance to explore veiled opportunities in male dominant societies, as women in Eastern countries such as Pakistan, India and Bangladesh, Saudi Arabia, for example, are mostly homemakers (house wives). Online shopping adoption will open the doors for eastern women to shop within their premises with convenience and ease, abiding with all cultural values and norms of the society.

Online shopping is a new phenomenon in emerging economies and needs to be examined by other demographic attributes such as level of education, region and income that may affect its adoption.

6. CONCLUSION

Gender is an important consumer demographic to judge the perception of online shopping behaviour. In this research, gender differences were found to be statistically significant among online shopping factors in Pakistan. Men and women differed significantly by PE and LF observing that eastern women found online shopping entertaining, which allows them to be amused with shopping activities within a secure virtual environment. This research is useful for local and multinational e-tailers to capture numerous businesses opportunities in emerging markets focusing on gender preferences.

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APPENDIX 1

Statements measuring constructs:

Perceived Risk

1. Product purchased online would be disapproved by my family and friends. (PR)
2. Product purchased online would have hidden costs or lack of warranty. (PR)
3. Product purchased online may not work properly and may be hazardous to health. (PR)
4. Product purchased online would have the inconvenience of repair and replacement. (PR)
5. Product purchased online would not meet the expected requirements. (PR)
6. Overall, product purchased online would occur in dissatisfaction of the customer. (PR)

2. Perceived Enjoyment

7. I found (would find) online shopping interesting. (PE)
8. I found (would find) online shopping enjoyable. (PE)
9. I found (would find) online shopping exciting. (PE)
10. I found (would find) online shopping fun. (PE)

3. Perceived Usefulness

11. The Internet enables (will enable) me to complete shopping quickly. (PU)
12. The Internet makes (will make) it easy to do comparison shopping. (PU)
13. The Internet gives (will give) me access to useful shopping information. (PU)
14. Overall, Internet shopping is a useful technology for searching and buying goods. (PU)

4. Perceived Ease of Use

15. Learning to use the Internet for shopping was (would be) easy for me. (PEOU)
16. It would be easy for me to become skillful at using Internet shopping technology. (PEOU)
17. The interactions with the online shopping technology are (would be) clear and understandable. (PEOU)
18. Overall, online shopping is easy to use. (PEOU)

5. Distrust

19. Internet shopping is unreliable. (DT)
20. Internet shopping cannot be trusted, there are just too many uncertainties. (DT)
21. I do not trust the vendors to give out my credit/debit card number. (DT)
22. In general, I cannot rely on Internet vendors to keep the promises that they make. (DT)

6. Legal Framework

23. The existing business code of conduct is sufficient for the protection of Internet shoppers' interest. (LF)
24. The existing legal framework is good enough to protect Internet shoppers. (LF)