

# The Influence of Risks on Online Shopping Behaviour in Pakistan

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Online shopping behaviour is very critical and interesting in today's e-environment. It is directly associated with consumer behaviour and decisions during the time of buying. Thus, organisations use numerous marketing tools to grab consumers' consideration when making purchase decisions. The current study provides the framework of financial risk, product risk, privacy risk, convenience risk and online shopping behaviour. A total of 323 online shopping users were invited to provide the data by means of questionnaire circulation. A non-probability simple random sampling technique was used. In analysis, the PLS-SEM (Structural Equation Model) was used to measure the constructs of the framework. The outcomes of the current study visibly indicate that risks directly affect consumer behaviour when shopping online. Hence, reducing these risks can increase the online shopping behaviour of consumers.

**Key words:** *financial risk, convenience risk, product risk, privacy risk, online shopping behaviour.*

## Introduction

In the global period, organisations are looking for modern and innovative tools to attract, capture and retain consumers as long as possible. They find various ways to make their customers relaxed and happy when picking a specific brand with a few clicks of a mouse. They are signifying numerous methods to address consumer behaviour. In this situation, risks are considered the most dominant, powerful and imperious part of consumer behaviour. Hence, consumer behaviour has attracted extreme amounts of attention from marketers in today's market. However, online shopping has a big problem throughout the whole world. Consumers feel uncomfortable and they are reluctant to buy online due to many risks. These include financial risk, convenience risk, product risk and privacy risk. These are the most

important risks that affect the online shopping behaviour of consumers. Although marketing strategies convince potential customers in terms of interface and concentration, customer behaviour is a unique subject matter. The online environment has a unique composition (Maitlo, Jugwani, & Gilal, 2017). There are various studies on this subject from developed countries but they ignore developing countries (Bhatti, Saad, & Gbadebo, 2018).

According to eMarketer's (2014) report, 18% of people prefer buying online and 82% of people prefer to buy traditionally. Hence, there is a big gap in the whole world regarding this topic. In developed countries, the situation is better than in developing countries. For example, in China, 18% to 19% of total retail sales are made online. In the US, 8% to 9% of total retail sales are made online. In Pakistan not near 0.1% of their total retail sales are made online (ProPakistani, 2016). Pakistan has second lowest rates of online shopping. Only 3% of people buy online and 97% of people buy traditionally. This is due to the number of risks. Regarding financial risk, people do not feel secure when sharing their debit card number for fear of password hacking. Privacy risk involve the misuse of personal information by hacking private information. Product risk involve the product not being the same as shown in picture. Convenience risk involve delays in shipping or the wrong product being shipped (Qureshi, Fatima, & Sarwar, 2014). Pakistan does not have much research on this subject, however, it is very important to explore this area of research. Therefore, behaviour and risks are crucial to examine in the e-environment. Hypothetically, this study is an empirical study. It explores online shopping behaviour and risks.

### ***Research momentum***

Over the last decade, consumer behaviour has become critical and imperative for all organisations around the world. This has triggered a high level of interest from researchers and scholars to explore and examine the behaviour of consumers in numerous geographical areas. Few of the researchers suggested that there is a need to study online shopping behaviour in developing countries (Rehman, Bhatti, Mohamed, & Ayoup, 2019). According to psychological, situational, traditional and environmental traits, consumer behaviour is dynamic (Schiffman & Kanuk, 2000). Furthermore, consumer behaviour in the online environment is negative. This is because of a lack of physical elements. In traditional shopping, tangibility and high levels of interaction are involved. This shows that consumer behaviour in traditional shopping and online shopping is different. Thus, the proposed model of this study consists of risks, such as financial risk, convenience risk, product risk, privacy risk and online shopping behaviour. This study perceives risk theory to develop a theoretical framework. According to Pappas (2016), the theory of perceived risk explains why consumers face some potential risks that affect their decisions when making purchases.

## Literature Review and Hypothesis Development

### *Online shopping behaviour*

The usage of the internet is increasing rapidly, generating opportunities for consumers to shop on the internet. One big reason for consumer attraction to online shopping is that they are busy in their lives. They do not have plenty of time to go shopping in malls. Hence, they prefer to buy on the internet with few clicks and with 24/7 access throughout the week. Online shopping behaviour refers to internet buying or the process of buying goods on the internet. Furthermore, it is considered a risky way of shopping because in this way of shopping, the seller is absent. This situation is quite challenging for consumers (Bhatti et al., 2018). The online process is same as the traditional shopping process. It consists five steps: problem recognition, searching for information, evaluation of alternatives, purchase decision making and post-purchase decision making (Kotler & Keller, 2006). Today, consumers don't like bargaining. They prefer an online way to buy. In spite of a number of advantages, there are still many factors and risks that are associated with online shopping. These cause low rates of online shopping. Many factors affect online shopping behaviour, such as financial risk, product risk, convenience risk and privacy risk. In last few years, this has been a very important agenda in e-commerce. Research has been done on this topic but a gap still exists. There needs to be more research on this topic to explore this area (Akhtlaq & Ahmed, 2015; Rehman, 2018).

### *Convenience risk*

Convenience risk is directly connected with the consumers' minds when they try to buy something on the internet. Furthermore, perception risk means consumers perceive that shipping can involve a delay. If the wrong order is placed, it is difficult to cancel that order. If somehow a consumer places an order but has a bad experience, then it has a very bad influence on their behaviour (Bhatti et al., 2018). In other words, convenience risk is also a time loss. This is because it is a time consuming process to search for the right product on websites and compare that product with other brands. Most people do not know how to operate computers. In Pakistan, only 1% of people can operate computers. Hence, this risk is very common and very significant in the minds of consumers due to low education and literacy rates. When a consumer cannot find the right product, many problems, fears and threats emerge in consumer's mind (Forsythe, Liu, Shannon, & Gardner, 2006). Almost 43% of people face problems when placing orders. They cannot complete their orders due to lack of awareness. This causes irritation for consumers (Adnan, 2014). Research reveals the adverse influence of convenience risk on online shopping behaviour (Ariff, Sylvester, Zakuan, Ismail, & Ali, 2014; Bashir, Mehboob, & Bhatti, 2015; Chaudary, Rehman, & Nisar, 2014; Clemes, Gan, & Zhang, 2014; Swilley & Goldsmith, 2013).

H1: convenience risk has a significant negative influence on online shopping behaviour.

### ***Financial risk***

Financial risk is an expressive emotional state that cannot be measured objectively. Financial risk is considered a primary risk for consumers when online shopping. Furthermore, financial risk refers to monetary loss in the case of buying online and having a password hacked or credit card details stolen. This risk plays an imperative role in online shopping and the decision making of consumers. Previous research demonstrates that there are various and many risks that influence consumer's behaviour. (Almoussa, 2011, 2014; Bhatnagar, Misra, & Rao, 2000; Candra & Iahad, 2013; Crespo, del Bosque, & de los Salmenes Sánchez, 2009; Cunningham, 1967; Ingene & Hughes, 1985; Jacoby & Kaplan, 1972; Peter & Ryan, 1976; Sharma & Kurien, 2017; Stone & Grønhaug, 1993; Zhang, Tan, Xu, & Tan, 2012). Prior studies observed that financial risk have a substantial and depraved influence on online shopping behaviour (Bhatnagar et al., 2000; Chang, Cheung, & Lai, 2005). Upcoming research needs more exploration of the connections in this relationship (Chaudary et al., 2014; Mamman, Maidawa, & Saleh, 2015).

H2: Financial risk has a significant negative influence on online shopping behaviour.

### ***Privacy risk***

Privacy risk refers to the disclosure of personal information or misuse of personal information without permission. Privacy risk is at the highest level of risk in consumers' minds. In Pakistan, people avoid buying online. 97% of people prefer to buy with cash on delivery because they don't feel secure when online shopping. There are four simple types of privacy. First, there is information privacy; second, bodily privacy; third, communication privacy; and fourth, territorial privacy (Davies, 1996). In online shopping, the most important type of privacy is information privacy. Consumers feel insecure about their personal information. They do not want to share their name, address and contact number. People manage other problems but they are very sensitive in the case of privacy. Few of the researchers demonstrated that privacy risk has an adverse influence on online shopping (Masoud, 2013; Rehman, 2018; Zhang et al., 2012). Therefore, the impacts of privacy risk on online shopping are unclear. In the present study, we will observe the association between privacy risk and online shopping. The relationship between privacy risk and online shopping in must be investigated further in upcoming studies (Bhatti et al., 2018).

H3: Privacy risk has a significant negative influence on online shopping behaviour.

### ***Product risk***

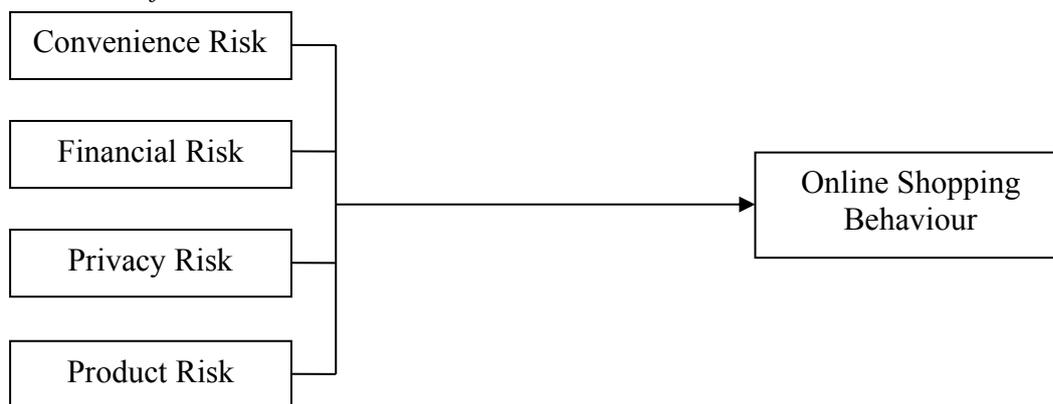
Product risk is an inadequate ability to determine a product. It is considered risky to buy online because, in this channel of shopping, people cannot touch the product. They can only see pictures and graphics. Furthermore, products sometimes appear to have higher quality in

pictures on websites, but in actuality they are different. This becomes a big obstacle in online shopping (Peter & Tarpey Sr, 1975). This is considered the most imperative risk and most cited reason to avoid online shopping (Dai, 2007). This risk is directly connected with the judgment of consumers (Liu & Forsythe, 2010). It is considered very serious. Some retailers don't provide after-sale services. Therefore, people may be reluctant to buy such products because websites have limited information, no direct interaction and products may be different in orders and in actuality (Saprikis, Chouliara, & Vlachopoulou, 2010). Research demonstrates this adverse influence on online shopping behaviour (Ariff et al., 2014; Chakraborty, 2016; Ko, Jung, Kim, & Shim, 2004; Masoud, 2013; Shahzad, 2015). This is a very important risk. It still needs to be explored in coming studies (Masoud, 2013; Rizwan, Umair, Bilal, Akhtar, & Bhatti, 2014; Shahzad, 2015).

H4: Product risk has a significant negative influence on online shopping behaviour.

### Theoretical Framework

**Figure 1**  
*Theoretical framework*



### Research Methodology

The researchers paid great attention to the area of research methodology to examine the research objectives of any type of study (Rehman, Mohamed, & Ayoup, 2019a). Moreover, the researchers acknowledge that a suitable analysis technique is required to solve both theoretical and practical problems (Rehman, Mohamed, et al., 2019a). Therefore, this study used quantitative approach for data collection and the study is cross-sectional in nature. Rehman, Bhatti and Chaudhry (2019) argue that an approach using deductive reasoning develops a theoretical framework when a researcher has an existing theory. A theoretical framework was developed on the base of that theory or theories. This study used a deductive reasoning approach to develop a theoretical framework.



### ***Method for data collection***

In this study, structured questionnaires were used to collect data that was adopted from previous studies on online shopping. Questionnaires were personally distributed among university students in Punjab.

### ***Questionnaire development***

The framework of this study consists of five constructs. Every construct was measured by using numerous items. Furthermore, these items were adapted from prior studies. Questionnaires were divided into two sections. The first was demographics and the second section consisted of constructs. Online shopping behaviour consists of 17 items (Forsythe et al., 2006; Karayanni, 2003; Liang & Huang, 1998; Swinyard & Smith, 2003). These seventeen items cover the study (Karayanni, 2003; Liang & Huang, 1998; Swinyard & Smith, 2003).

Financial risk used 7 items and product risk used 7 items as well. Privacy risk used six 6 items (Tsai & Yeh, 2010) and convenience risk used nine (9) items. (Forsythe et al., 2006; Swinyard & Smith, 2003). The Five-Likert scale was used to measure these items (1 for strongly disagree, 5 for strongly agree). This was due to a few reasons, such as that respondents felt comfortable with the Five-Likert scale and found the questionnaire easy to fill. This decreased the frustration level of the respondents and increased the response rate. On the other hand, the Seven- Likert scale respondents got frustrated. The quality of responses were better from the Five-Likert scale respondents. They filled the questionnaire with diligence and honesty.

### ***Population and sampling***

Population considers the whole group of entities, things and events that the researchers wanted to determine (Sekaran & Bougie, 2000). The population of the study contained students of universities in Punjab. This study used a simple random sampling technique because it provides an equal chance of choice of population, has no chance of bias and provides the general results.

### ***Sample size***

In this study, the sample size was 323. The sample size should be between 30 to 500 (Roscoe, 1975). This is good and provides superior results. Respondents were students that were considered more educated and risk-takers. This study meets the rule of thumb mentioned above for the selection of the sample.

### ***Demographics profile***

As mentioned in Table 1, the total number of respondents was 323. 289 (89.5%) were male and 34 (10.5%) were female. Regarding education, 14 (4.3%) students were diploma holders, 52 (16.1%) were bachelor's students, 215 (66.6%) were master's degree students, 6 (1.9%) were Ph.D. students and 36 (11.1%) were others.

**Table 1**

### ***Demographics profile***

<b>Items</b>	<b>Frequency</b>	<b>Percentage</b>
Gender		
Male	289	89.5
Female	34	10.5
Education		
Diploma	14	4.3
Bachelor's degree	52	16.1
Master's degree	215	66.6
Ph.D. degree	6	1.9
Others	36	11.1

### ***Data analysis***

In this study, Smart PLS was used to define the theoretical framework. This is because it is a rising generation tool (Hair Jr, Hult, Ringle, & Sarstedt, 2016). According to Hair Jr, Sarstedt, Ringle and Gudergan (2017), bootstrapping is a method to get path coefficients and factors loading. By running bootstrapping 5000, subsamples can then get significant values. Smart PLS is considered the best for every kind of framework, whether it be complex or simple. It is also considered a superior tool compared to others because of some advantages. These include its normality and multicollinearity test and comparison of regression. Furthermore, literature reveals that Partial Least Squares Structural Equation Modelling (PLS-SEM) is better at calculating and validating variables than Covariance-Based Structural Equation Modelling (CB-SEM). Data analysis uses a two-step approach. According to Anderson and Gerbing (1988), in step one, the measurement model is analysed (outer model) and in step two, the structural model is analysed (inner model) along with test relation among latent constructs. The main purpose of using this two-step approach is to check the reliability and validity before their use in full model. The current study's model involved a set of independent and one dependent variable, structural equation modelling (SEM) techniques and multiple regression technique. These are appropriate techniques.

In this study, SEM analysis used regression analysis. This is because SEM can instantaneously examine all paths in one analysis (Hoyle, 1999). In addition, SEM provides full information regarding the extent of the research model, which is supported by the data of

regression techniques (Gefen, Straub, & Boudreau, 2000). According to Tanaka (1985), SEM needs a sample size of at least 400-500 to obtain a proper and suitable solution. PLS provides measurements and the structural model.

### ***Measurement model***

In this paper, we calculate both convergent and discriminant validity with the help of the measurement model (outer).

### ***Convergent validity***

Convergent validity means seeing items of variables measures in the same construct (Rehman, Bhatti, & Chaudhry, 2019). In other words, convergent validity is achieved when one measure of a model is connected with various other kinds of measures in the same model. This means the measures are inter-correlated (Rehman, Bhatti, & Chaudhry, 2019). In a measurement model, we can calculate three things to see convergent validity. These are factor loadings, average variance-extracted (AVE) and composite reliability (CR). Some standard values like AVE and factor loading should be at least 0.50 or above and CR value should be bigger than 0.7. To get better results for theoretical models, items that have factor loading of less than 0.5 can be removed. Consequently, all items used in the model will have factor loading higher than 0.5 AVE. CR will be higher than 0.7, as shown in table 2.

### ***Discriminant validity***

Discriminant validity refers to a situation where every single variable of a model is dissimilar to other predictors (Rehman, Mohamed, & Ayoup, 2019b). It ensures that all items of specific constructs are not related to other constructs but relate to their own constructs (Hair Jr et al., 2016). This was evaluated by observing cross-loading and relationships among constructs as well as the square root of AVE (Fornell & Larcker, 1981). In addition, the discriminant validity value (cross-loading) of each measurement regarding its latent variable is greater than other constructs in the same row and column. This is shown in Table 3.

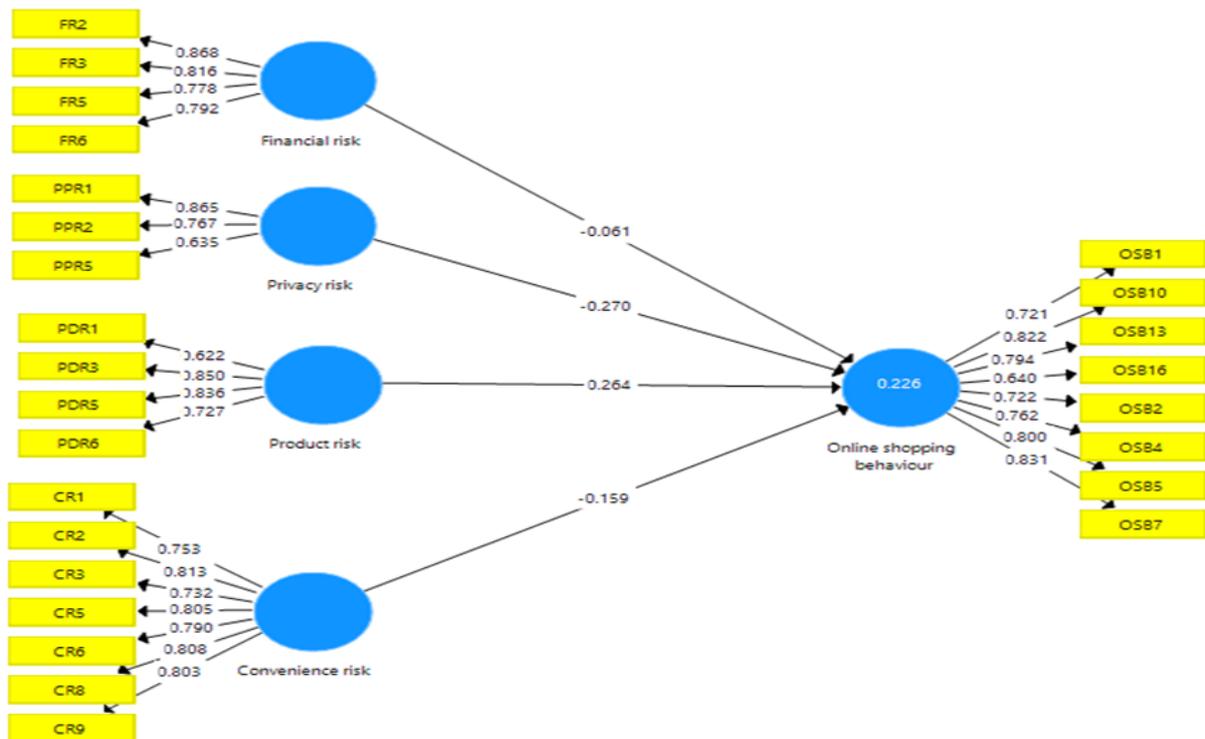
**Table 2**

### ***Convergent validity***

<b>Variables</b>	<b>Items</b>	<b>Factor loading</b>	<b>AVE</b>	<b>CR</b>	<b>R<sup>2</sup></b>	<b>Rho-A</b>
Financial risk	FR2	0.868	0.66	0.89		0.86
	FR3	0.816				
	FR5	0.778				
	FR6	0.792				
Privacy risk	PRR1	0.865	0.58	0.80		0.69
	PRR2	0.767				
	PRR5	0.635				

Product risk	PDR1	0.622	0.58	0.85		0.77
	PDR3	0.850				
	PDR5	0.836				
	PDR6	0.727				
Convenience risk	CR1	0.753	0.62	0.92		0.93
	CR2	0.813				
	CR3	0.732				
	CR5	0.805				
	CR6	0.790				
	CR8	0.808				
	CR9	0.803				
Online shopping behaviour	OSB1	0.721	0.58	0.92	0.23	0.90
	OSB10	0.822				
	OSB13	0.794				
	OSB16	0.640				
	OSB2	0.722				
	OSB4	0.762				
	OSB5	0.800				
	OSB7	0.831				

**Figure 2**  
*Measurement model*



**Table 3**

*Discriminant validity*

Variables	CR	FR	OSB	PPR	PDR
Convenience risk	0.79				
Financial risk	0.04	0.81			
Online shopping behaviour	-0.27	-0.07	0.76		
Privacy risk	0.23	-0.06	-0.33	0.76	
Product risk	-0.19	-0.07	0.33	-0.12	0.76

**Table 4**

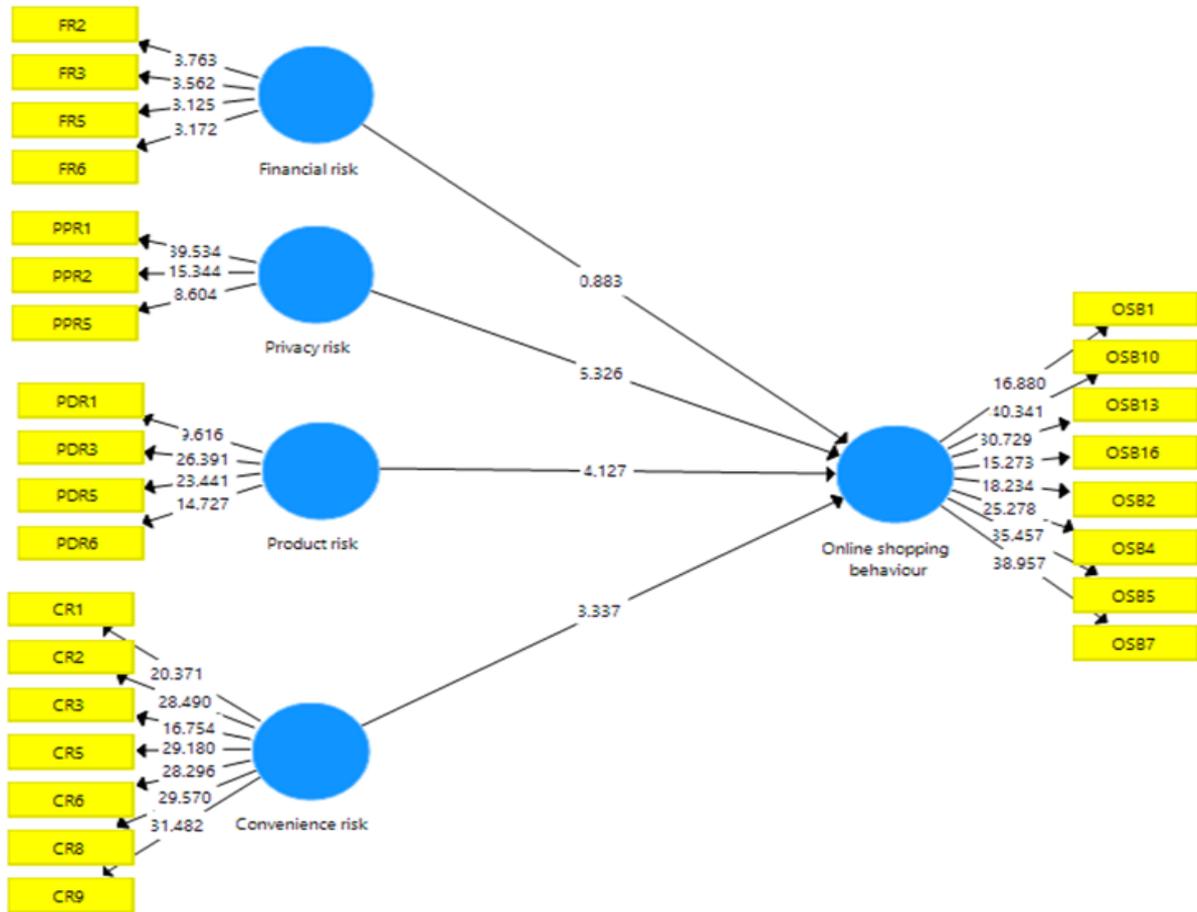
*Cross loadings*

Variables	Items	CR	FR	OSB	PPR	PDR
Convenience risk	CR1	<b>0.753</b>	0.06	-0.15	0.18	-0.15
	CR2	<b>0.813</b>	0.01	-0.19	0.13	-0.06
	CR3	<b>0.732</b>	0.06	-0.11	0.16	-0.22
	CR5	<b>0.805</b>	0.05	-0.22	0.13	-0.22
	CR6	<b>0.790</b>	0.01	-0.20	0.17	-0.14
	CR8	<b>0.808</b>	0.03	-0.23	0.27	-0.15
	CR9	<b>0.803</b>	0.02	-0.30	0.19	-0.15
Financial risk	FR2	0.06	<b>0.868</b>	-0.07	-0.09	-0.07
	FR3	0.05	<b>0.816</b>	-0.01	-0.09	-0.00
	FR5	-0.01	<b>0.778</b>	-0.04	-0.00	-0.07
	FR6	0.03	<b>0.792</b>	-0.07	-0.04	-0.06
Online shopping behaviour	OSB1	-0.19	-0.16	<b>0.721</b>	-0.17	0.28
	OSB10	-0.18	-0.08	<b>0.822</b>	-0.30	0.26
	OSB13	-0.17	-0.07	<b>0.794</b>	-0.27	0.29
	OSB16	-0.13	-0.05	<b>0.640</b>	-0.30	0.22
	OSB2	-0.23	-0.11	<b>0.722</b>	-0.18	0.25
	OSB4	-0.27	-0.04	<b>0.762</b>	-0.20	0.28
	OSB5	-0.25	0.04	<b>0.800</b>	-0.34	0.19
	OSB7	-0.25	0.03	<b>0.831</b>	-0.26	0.25
Privacy risk	PDR1	-0.13	-0.20	0.20	0.11	<b>0.622</b>
	PDR3	-0.14	-0.04	0.25	-0.17	<b>0.850</b>
	PDR5	-0.09	-0.01	0.22	-0.15	<b>0.836</b>
	PDR6	-0.21	-0.01	0.31	-0.12	<b>0.727</b>
Product risk	PRR1	0.23	-0.09	-0.31	<b>0.865</b>	-0.06
	PRR2	0.20	-0.01	-0.25	<b>0.767</b>	-0.10
	PRR5	0.05	-0.02	-0.18	<b>0.635</b>	-0.15

The literature concludes that content validity can assess by cross-loading. Moreover, the value of a specific variable should be higher than other variables in the same rows and columns(Chin, 1998). Cross loading shows in Table 5.

**Figure 3**

*Structural model*



*Structural model*

In a PLS investigation, determining the endogenous variable evaluates the illustrative power of a structural model. The structural path analysis is depicted in fig 3. Data was collected from 323 respondents and was supported, except H2, which was not significant and less than 0.05. The significance test of all paths was executed by bootstrap.

**Table 5**

*Direct relationships*

Hypothesis	Paths	Beta value	T-value	P-value	Results
H1	CR---->OSB	-0.16	3.34	0.00	Sig
H2	FR---->OSB	-0.07	0.88	0.38	Not Sig
H3	PRR---->OSB	-0.28	5.33	0.00	Sig
H4	PDR---->OSB	0.26	4.13	0.00	Sig

There are four direct hypotheses, three of which are supported and one that is not supported (H2). Convenience risk (CR) is an important indicator in online shopping behaviour (t-value 3.34, p-value 0.000 and path coefficient -0.16). Consequently, H1 is supported. Financial risk (FR) have not a significant influence on online shopping behaviour (t-value 0.88, p-value 0.38 and path coefficient -0.07). According to these results, H2 is not supported. Privacy risk (PRR) has a major effect on online shopping behaviour (t-value 5.33, p-value 0.000 and path coefficient -0.28). Therefore, H3 is supported. Similarly, product risk (PDR) also has a significant influence on online shopping behaviour (t-value 4.13, p-value 0.000 and path coefficient 0.26). Hence, H4 is also supported.

**Discussion and Conclusion**

In this era, people are moving towards buying online because of advances in technology regarding the internet. This study contributes to the body of understanding. The research was quantitative in nature and the approach was deductive. The main purpose of this study is to examine the influence of financial risks, convenience risks, privacy risks and product risks on online shopping behaviour. The findings demonstrate that convenience risk has a significant negative influence on online shopping behaviour, which is similar to other findings (Adnan, 2014; Haider & Nasir, 2016; Rehman, 2018). Financial risk has a negative but insignificant influence on online shopping behaviour, which is similar to the finding of Rehman (2018). In addition, product risk has a significant negative effect on online shopping behaviour, which matches the finding of Chaudary et al. (2014). Privacy risk also has a significant influence on online shopping behaviour. This was determined by Almousa, Chaudary and Rehman (Almousa, 2014; Chaudary et al., 2014; Rehman, 2018).

***Theoretical implication***

Financial risk, product risk, convenience risk, privacy risk and online shopping behaviour are constructs of the current study. There are numerous other studies on these factors but in dissimilar contexts and with dissimilar content. The key distinctiveness of this study is that these factors are deliberated from consumer's behaviours and views. In previous research, this has generally gone unnoticed and been ignored. Consequently, this enables the structure



of this study to be reflected on by future researchers who are involved in this investigative area.

### ***Practical implication***

There are various practical implications of imitation of the current study. The consequences of the present study would affect attendant sellers, suppliers, dealers and plan makers. The present study deliberates some key practitioners that touch consumer purchase behaviour. If we emphasise these practitioners, then there is an expressive increase in the ratio of returns. The practical implication of elements regarding the behaviour of consumers is very significant for retailers. It facilitates upcoming points in the consideration of protection and safety. Practically, retailers' motivation regarding these elements will confirm that a secure online network makes shoppers enjoy a high level of excellence in connections and the benefits of purchasing.

### **Limitations**

The scholar has made her best effort to contribute to the damnation of online shopping behaviour. However, there are still some limitations in the current study. This study contains only internet users and online shoppers. Furthermore, online users were only students that were studying in universities in Punjab, Pakistan. Therefore, research results understand the activity of these online shoppers. To make generalised conceptions, a bigger sample size is necessary due to the diverse context of technology in Pakistan.

### **Future Directions**

In the future, researchers and scholars should conduct studies on a similar topics in countries other than Pakistan. They can check the outcomes and objectives of the study. Researchers could examine the moderating variable. Moreover, upcoming researchers could investigate some specific industries and also consider purchase intention as well as the behaviour of consumers.

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