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The Moderating Role of Subjective Norms Between Online Shopping Behaviour And Its Determinants

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Abstract: The primary aim of this study is to examine the influence of financial risk, privacy risk, and convenience risk on online shopping behavior in Pakistan, with subjective norms acting as a moderating factor. The study seeks to understand how these risks impact consumer behaviour and how social influences might alter these effects. A quantitative approach was employed, utilizing a questionnaire survey method to collect data from university students who engage in online shopping. A total of 550 questionnaires were distributed, with 522 valid responses returned. The data were analyzed using SPSS and SmartPLS to test the proposed hypotheses and assess the moderating role of subjective norms. The results reveal that convenience risk and privacy risk negatively impact online shopping behavior, while financial risk does not have a significant effect. Subjective norms positively influence online shopping behavior and can moderate the impact of privacy risk, but do not significantly moderate the effects of convenience risk or financial risk. This study highlights the critical role of privacy and convenience risks in deterring online shopping behavior in Pakistan, while financial risk appears less influential. Subjective norms positively influence online shopping behavior and can mitigate the negative impact of privacy risk. These findings underscore the importance of addressing privacy concerns and leveraging social influences to encourage online shopping.

Keywords: Financial Risk, Convenience Risk, Privacy Risk, Subjective Norms, Online Shopping Behavior.

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1. Introduction

The rapid growth of the internet globally has transformed how consumers connect with retailers, revolutionizing the provision and sharing of information through digital marketing tools for both local and international services. Online shopping behaviour (OSB) has emerged as a dominant trend in today's busy life, offering unparalleled convenience by enabling people to make purchases from home. This shift has led a significant portion of retailers to focus on e-commerce (Bhatti, Saad, & Gbadebo, 2020).

OSB has fundamentally changed people's lives by making shopping effortless and more convenient than traditional methods. It saves consumers considerable time and effort spent searching for products and services. As a result, online shopping is considered the most efficient way to shop in today's fast-paced world. The OSB process typically involves three steps: searching for information, selecting the desired product or service, and finally making the purchase. This process is direct between consumers and retailers but lacks physical interaction, leading to perceived risks such as financial, privacy, convenience, product, delivery, and social risks. These risks naturally influence consumer behaviour and highlight areas needing improvement.

The development of e-commerce varies significantly between developed and developing countries. For example, in the USA, 68% of people shop online, compared to 68% in Malaysia, 16% in India, and only 3% in Pakistan. The low adoption rate in Pakistan is largely due to security concerns and inadequate law enforcement. Despite these challenges, the online shopping market in Pakistan is growing, with the value of online purchases rising from PKR 4.52 billion in 2016 to PKR 50.56 billion in 2019, and an expected PKR 63.2 billion in 2020 (Seyal, Awais, Shamail, & Abbas, 2004).

Retailers now understand that competing in the global market necessitates a strong focus on e-commerce. They are increasingly working to minimize the risks associated with online shopping to make it more secure and comfortable for consumers (Bhatti, Saad, & Gbadebo, 2018a). It is crucial to explore and understand online shopping behaviour in Pakistan (Jukariya & Singhvi, 2018). The Theory of Planned Behavior is utilized to develop a theoretical framework for this study.

2. Literature Review

The rapid proliferation of e-commerce has transformed consumer purchasing behaviors globally, including in emerging markets like Pakistan. Online shopping, while convenient, introduces various perceived risks that can deter consumers. Financial risk, privacy risk, and convenience risk are notable concerns affecting online shopping behavior. Additionally, subjective norms, defined as the perceived social

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pressure to engage or not engage in a behavior, can moderate these risk perceptions. This literature review explores the impact of these risks on online shopping behavior and examines the moderating role of subjective norms in the context of Pakistan.

Financial risk refers to the potential monetary loss a consumer might face when engaging in online transactions. Studies indicate that financial risk significantly influences consumers' reluctance to shop online. According to Forsythe et al. (2006), concerns over credit card fraud, hidden costs, and the inability to receive refunds or exchanges are primary deterrents. In Pakistan, where financial literacy and trust in online payment systems are still developing, financial risk is a substantial barrier to online shopping (Hassan, 2020).

Privacy risk involves the potential misuse of personal information shared during online transactions. Belanger et al. (2002) highlighted that privacy concerns are a major factor influencing online shopping behavior. In Pakistan, privacy risk is amplified due to limited regulatory frameworks and lower levels of consumer trust in online platforms. Rehman et al. (2019) found that privacy concerns significantly deter Pakistani consumers from engaging in e-commerce, with fears of data breaches and unauthorized sharing of personal information being predominant (Ahmad & Ahmad, 2018; Ahmad & Ahmad, 2019).

Convenience risk pertains to the potential difficulties and inconveniences consumers might encounter while shopping online. These include complex website navigation, delayed deliveries, and challenging return processes. Studies by Forsythe et al. (2006) and Almousa (2011) suggest that convenience risk negatively impacts consumers' willingness to shop online. In the Pakistani context, these risks are magnified by infrastructural challenges and inconsistent service quality in the logistics sector (Iqbal et al., 2018).

Subjective norms, derived from the Theory of Planned Behavior (Ajzen, 1991), refer to the social pressures individuals perceive regarding whether they should engage in a particular behaviour. These norms can moderate the relationship between perceived risks and online shopping behavior. For instance, if influential peers or family members endorse online shopping, it can mitigate the perceived risks. Raza et al. (2020) found that in Pakistan, subjective norms significantly influence online shopping intentions, often overriding personal risk assessments.

The interplay of financial, privacy, and convenience risks creates a complex decision-making environment for consumers. Studies have shown that perceived risk negatively affects online shopping intentions and behaviours (Kim et al., 2008; Wu et al., 2011). However, the moderating effect of subjective norms can alter this dynamic. In Pakistan, where social influence plays a crucial role in consumer behavior, subjective norms can either exacerbate or alleviate the perceived risks associated with online shopping (Rehman et al., 2019).

3. Hypothesis Development

3.1. Convenience Risk And Online Shopping Behaviour

Convenience risk denotes the risk attached to products that are shipped to another person, often leading to delivery issues, damaged products, or incorrect deliveries, which result in consumer loss (Iconaru, 2012). This risk is significant and directly linked to consumers' perceptions at the time of purchasing products online, influencing their behaviour. Consumers often perceive they are wasting time when they cannot find the exact product they are searching for, or when products are delayed (Forsythe, Liu, Shannon, & Gardner, 2006). Traditional shopping is perceived as less risky than online shopping because consumers can physically examine products in-store, which is not possible online. In Pakistan, only 1% of people are familiar with computers and online shopping processes, which impacts their online shopping behaviour significantly (Bhatti, 2018; Bhatti, Saad, & Gbadebo, 2018a).

H1: *Convenience risk (CR) has a significant influence on online shopping behavior (OSB).*

H2: *Subjective norms (SBN) significantly moderate the relationship between convenience risk (CR) and online shopping behavior (OSB).*

3.2. Financial Risk and Online Shopping Behavior (OSB)

Financial risk is a primary consideration during online shopping and is closely tied to perceptions and emotions. It includes the potential loss of money through credit or debit card transactions, where consumers feel insecure about sharing their card information online (Horton, 1976). In Pakistan, 97% of people prefer cash on delivery (COD) due to these concerns (Bhatti, Saad, & Gbadebo, 2018b). Young consumers, however, are more willing to take risks and shop online (ur Rahman, Khan, & Iqbal, 2018). Although financial risk is a dominant factor in online shopping, some studies indicate no relationship between financial risk and OSB, necessitating further exploration (Rehman, 2018; Mamman, Maidawa, & Saleh, 2015).

H3: *Financial risk (FR) has a significant influence on online shopping behavior (OSB).*

H4: *Subjective norms (SBN) significantly moderate the relationship between financial risk (FR) and online shopping behavior (OSB).*

3.3. Privacy Risk and Online Shopping Behavior (OSB)

Privacy risk is a perceived risk where consumers fear losing their personal information, which retailers might misuse or sell without permission (Bhatti, Saad, & Gbadebo, 2019). In Pakistan, the majority of consumers avoid online shopping due to privacy concerns and prefer COD (Mathur, 2015). The unauthorized sale of consumer information further exacerbates these fears, making people reluctant to share personal data online. Previous

research shows that privacy risk negatively impacts OSB, though some studies have found no relationship (Masoud, 2013; Rehman, 2018; Arshad, Zafar, Fatima, & Khan, 2015; Brüseke, 2016). This inconsistency indicates a need for further research in this area (Ariff, Sylvester, Zakuan, Ismail, & Ali, 2014; Bhatti et al., 2018a; Shahzad, 2015).

H5: *Privacy risk (PRR) has a significant influence on online shopping behavior (OSB).*

H6: *Subjective norms (SBN) significantly moderate the relationship between privacy risk (PRR) and online shopping behavior (OSB).*

3.4. Subjective Norms and Online Shopping Behavior (OSB)

Understanding consumer buying behaviour is crucial for retailers. Effective website design and aligning it with consumer buying behaviour can significantly influence purchasing decisions. Subjective norms refer to the influence of peers, family, friends, media, and authority figures on consumer behavior, especially in the early stages of online shopping (Vijayasarathy & Jones, 2000). These norms can either positively or negatively affect consumer decisions, making them a critical factor in online shopping behaviour (Pudaruth & Busviah, 2018).

H7: *Subjective norms (SBN) have a significant influence on online shopping behavior (OSB).*

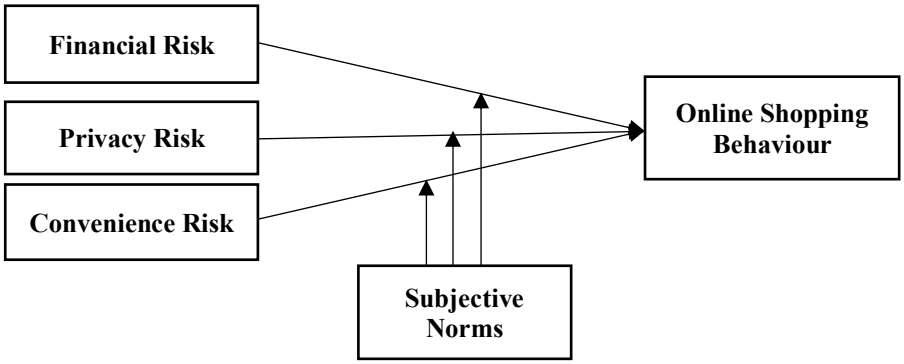

Figure 1: Theoretical Framework

4. Methodology

Research design refers to an arrangement, strategy, and structure devised to address the research problem (Bhatti & Rehman, 2019). Contemporary researchers emphasize the importance of a robust methodology in all types of research, ensuring that objectives are clearly defined (Bhatti, Rehman, Akram, & Shaheen, 2020; Rehman, Mohamed, & Ayoup, 2019). Various methods can be employed to solve theoretical and practical problems (Rehman, Mohamed, et al., 2019). In this study, a quantitative approach and a questionnaire survey method were utilized to address the research questions. The deductive reasoning approach, which involves developing a theoretical framework based on well-established theories, was employed (Rehman, Bhatti, & Chaudhry, 2019). This study utilized a deductive reasoning approach to formulate the conceptual framework.

4.1. Data Collection Method

Data for this study were collected through the distribution of questionnaires to university students who are online buyers. A total of 550 questionnaires were distributed, of which 522 were returned, resulting in 28 missing responses.

4.2. Questionnaire Development

The study comprised five variables, and the questionnaire was divided into two sections. The first section gathered demographic information, while the second section included variables related to online shopping behaviour (OSB), measured by 17 items (Karayanni, 2003; Liang & Huang, 1998; Swinyard & Smith, 2003). Financial risk was measured using 7 items, privacy risk with 6 items (Tsai & Yeh, 2010), and subjective norms with 6 items (Shih & Fang, 2004). These items were adapted from previous studies to ensure reliability and validity.

4.3. Population And Sampling

The population for this study consisted of university students. A simple random sampling method was used, and the sample size was set at 550, which is considered excellent for the study's purposes.

4.4. Demographics Profile

In this study 313 were male and 209 were female, in the case of education 23 had a diploma, 93 had a bachelor's degree, 338 master's degree, 8 PhD, and 49 were others are shown in Table 1.

Table 1: Demographics Profile

Construct	Category	Frequency	Percentage
Gender	Male	313	56.9
	Female	209	38
Education	Diploma	23	4.2
	Bachelor Degree	93	16.9
	Master Degree	338	61.5
	PhD	8	1.5
	Others	49	8.9

Source: Calculated by the Author

4.5. Data Analysis

To examine the study model, SmartPLS 3.2.8 was used. Prior studies have determined that SmartPLS is advantageous due to its ability to handle issues of normality and multicollinearity, making it suitable for both simple and complex models. This tool was chosen for its robustness and flexibility. The analysis involved two models: the measurement model and the structural model.

4.6. Measurement Model

The measurement model examines the theoretical connection between items and their respective constructs. Known as the outer model, it assesses the reliability and validity of the framework (Hair Jr, Hult, Ringle, & Sarstedt, 2016). The measurement model includes the following:

- Content Validity: Ensures that the measurement items cover the entire range of the concept.
- Convergent Validity: Assesses whether items that are theoretically related are actually related in practice.
- Discriminant Validity: Ensures that items that are not supposed to be related are indeed not related (Hair, Hult, Ringle, & Sarstedt, 2014).

The reliability and validity of the constructs were evaluated using these criteria to ensure the robustness of the measurement model.

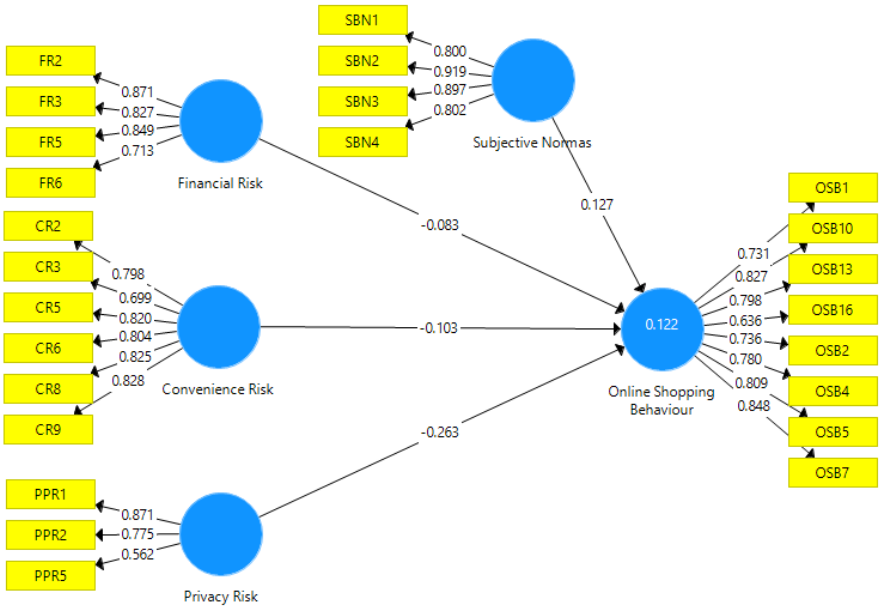

Figure 2: Measurement Model

Table 2: Convergent Validity

Variables	Items	Factor loading	AVE	CR	R^2
Convenience Risk	CR2	0.789	0.635	0.912	
	CR3	0.699			
	CR5	0.820			
	CR6	0.804			
	CR8	0.825			
	CR9	0.828			
Financial Risk	FR2	0.871	0.668	0.889	
	FR3	0.827			
	FR5	0.849			
	FR6	0.713			

Online Shopping Behaviour	OSB1	0.731	0.598	0.922	0.122
	OSB10	0.827			
	OSB13	0.798			
	OSB16	0.636			
	OSB2	0.736			
	OSB4	0.780			
	OSB5	0.809			
	OSB7	0.848			
Privacy Risk	PRR1	0.871	0.558	0.786	
	PRR2	0.775			
	PRR5	0.562			
Subjective Norms	SBN1	0.800	0.773	0.916	
	SBN2	0.919			
	SBN3	0.897			
	SBN4	0.802			

Source: Calculated by the Author

Content validity refers to a condition where the loading of a specific construct is greater than other construct items in the same rows and columns (Rehman, Bhatti, Mohamed, & Ayoup, 2019). Reliability can be assessed by Composite reliability (greater than 0.6) and validity assessed by AVE (should be at least 0.50), as mentioned in Table 2. Table 2 shows that CR and AVE meet the recommended criteria (Hair Jr, Hult, Ringle, & Sarstedt, 2016).

Table 3: Discriminant validity

Variables	CR	FR	OSB	PPR	SBN
Convenience risk	**0.797**				
Financial risk	-0.029	**0.817**			
Online shopping behavior	-0.157	-0.084	**0.773**		
Privacy risk	0.134	-0.002	-0.291	**0.747**	
Subjective norms	-0.164	-0.034	0.176	-0.0112	0.856

Source: Calculated by the Author

Table 3 indicates that we meet the standards for discriminant validity, as recommended by (Fornell & Larcker, 1981).

Table 4: Cross Loadings

Variables	Items	CR	FR	OSB	PRR	SBN
Convenience risk	CR2	**0.789**	-0.016	-0.083	0.077	-0.122
	CR3	**0.699**	0.699	0.014	0.108	-0.073
	CR5	**0.820**	0.820	-0.021	0.074	-0.134
	CR6	**0.804**	0.804	-0.056	0.145	-0142
	CR8	**0.825**	0.825	-0.036	0.161	-0112
	CR9	**0.828**	0.828	-0.005	0.091	-0.157
Financial risk	FR2	-0.007	**0.871**	-0.076	-0.021	-0.031
	FR3	0.002	**0.827**	-0.037	-0.056	-0.008
	FR5	-0.026	**0.849**	-0.080	0.052	-0.051
	FR6	-0.054	**0.713**	-0.064	-0.015	-0.007
Online shopping behavior	OSB1	-0.082	-0.140	**0.731**	-0.172	0.122
	OSB10	-0.118	-0.104	**0.827**	-0.254	0.137
	OSB13	-0.071	-0.093	**0.798**	-0.217	0.125
	OSB16	-0.025	-0.078	**0.636**	-0.227	0.144
	OSB2	-0.117	-0.103	**0.736**	-0.192	0.099
	OSB4	-0.197	-0.028	**0.780**	-0.186	0.187
	OSB5	-0.169	-0.015	**0.809**	-0.291	0.124
	OSB7	-0.164	0.014	**0.848**	-0.237	0.150
Privacy risk	PRR1	0.141	-0.021	-0.277	**0.871**	-0.058
	PRR2	0.101	0.011	-0.214	**0.775**	-0.137
	PRR5	0.027	0.019	-0.129	**0.562**	-0.065
Subjective norms	SBN1	-0.114	-0.085	0.111	0.012	**0.800**
	SBN2	-0.156	-0.016	0.185	-0.122	**0.919**
	SBN3	-0.153	-0.028	0.160	-0.134	**0.897**
	SBN4	-0.132	-0.004	0.133	-0.107	**0.802**

Source: Calculated by the Author

As Table 5 determines, the cross-loadings are in line as suggested by (Hair Jr, Hult, Ringle, & Sarstedt, 2016).

4.7. Structural Model

The structural model (inner model), discussed the hypotheses direct and indirect. In influential significant standards of the loadings plus, path co-efficient authors recommended that accomplishing bootstrap with 5000 subsamples (Hair Jr et al., 2016). Table 6 and Fig 3 illuminate the outcomes of the structural model.

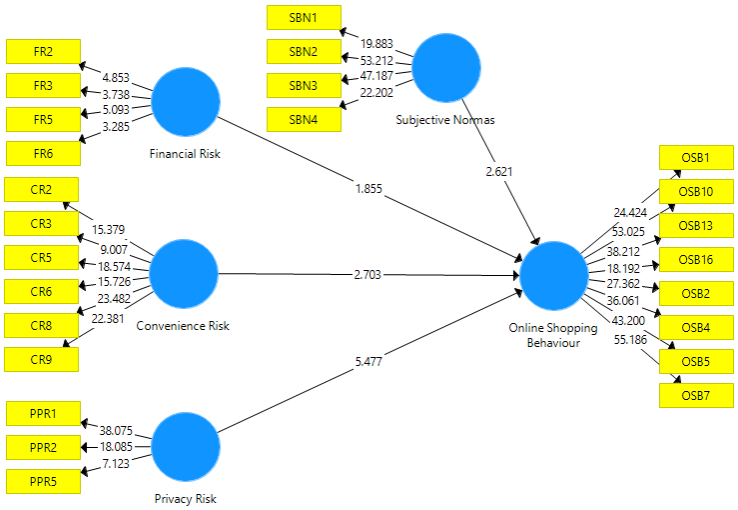

Figure 3: Structural Model (Without Moderator)

Table 5: Hypotheses testing Direct

Sr.	Hypotheses Paths	Beta value	Sample Mean	Std. Dev.	T-values	P-values	Results
H_1	CR --> OSB	-0.103	-0.111	0.038	2.703	0.007	Significant
H_2	FR --> OSB	-0.083	-0.092	0.045	1.855	0.064	Insignificant
H_3	PRR --> OSB	-0.263	-0.265	0.048	5.477	0.000	Significant
H_4	SBN-> OSB	0.127	0.130	0.049	2.621	0.009	Significant

Source: Calculated by the Author

In the current study four direct hypotheses between dependent and independent variables. Table 5. And fig 3 demonstrates that H1 (CR--->OSB, β= -0.103, t= 2.703, p= 0.007) is accepted. In addition, H2 (FR--->OSB, β= -0.083, t= 1.855, p= 0.064) is not accepted. Furthermore, H3 (PRR--->OSB, β= -0.263, t=5.477, p= 0.000) is accepted andH4 (SBN--->OSB, β= 0.127, t= 2.621, p= 0.009) is accepted.

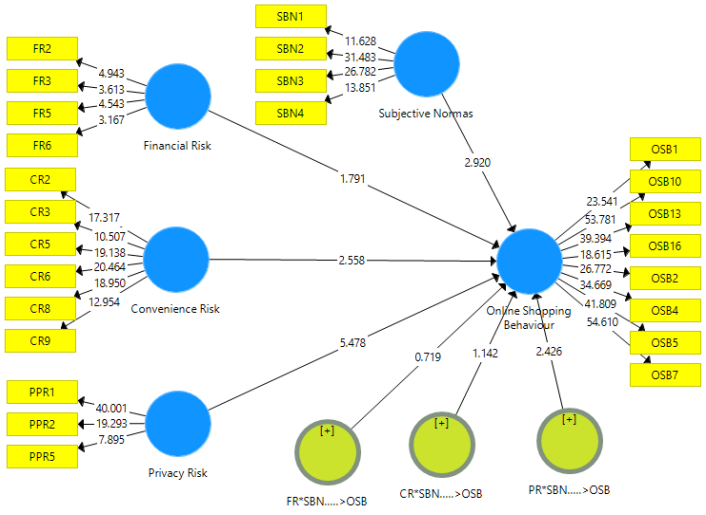

Figure 4: Structural Model (With Moderator)

Table 6: Hypotheses testing Indirect

Sr.	Hypotheses Paths	Beta value	Sample Mean	Std. Dev.	T-values	P-values	Results
H_5	CR*SBN --> OSB	-0.060	-0.057	0.053	1.130	0.259	Insignificant
H_6	FR *SBN--> OSB	-0.037	-0.036	0.052	0.726	0.468	Insignificant
H_7	PRR*SBN --> OSB	-0.127	-0.120	0.054	2.357	0.019	Significant

Source: Calculated by the Author

There are three indirect hypothesis H5 (CR*SBN--->OSB, β=-0.060, t= 1.130, p= 0.259) is not accepted. Meanwhile, H6 (FR*SBN--->OSB, β=-0.037, t= 0.726, p= 0.468) is also not accepted. In addition, H7 (PRR*SBN--->OSB, β=-0.127, t= 2.357, p= 0.019) is accepted.

5. Discussion

The findings of this study provide significant insights into the impact of financial risk, privacy risk, and convenience risk on online shopping behavior (OSB) in Pakistan, with subjective norms as a moderating factor.

5.1. Direct Effects

Convenience Risk (CR) The study found that convenience risk negatively influences online shopping behavior (H1: β= -0.103, t= 2.703, p= 0.007). This indicates that as consumers perceive higher convenience risks, their likelihood of engaging in online shopping decreases. These results align with previous studies by Adnan (2014), Bhatti, Saad, & Gbadebo (2018), and Haider & Nasir (2016), which also highlight the adverse effect of convenience risks on online shopping behaviors.

Financial Risk (FR) Contrary to expectations, the financial risk did not have a significant impact on online shopping behavior (H2: β= -0.083, t= 1.855, p= 0.064). This result suggests that financial risk might not be a primary concern for online shoppers in Pakistan, potentially due to increased familiarity with online payment systems or effective risk mitigation strategies by e-commerce platforms. This finding contrasts with earlier research, such as Rehman (2018), which suggested financial risk as a crucial deterrent.

Privacy Risk (PRR) Privacy risk was found to have a significant negative effect on online shopping behavior (H3: β= -0.263, t=5.477, p= 0.000). This strong negative impact indicates that concerns about data security and privacy substantially deter consumers from engaging in online shopping. This finding is consistent with prior studies by Chaudary, Rehman, & Nisar (2014) and Masoud (2013), which identified privacy risk as a major barrier to online shopping.

Subjective Norms (SBN) Subjective norms positively influence online shopping behavior (H4: β= 0.127, t= 2.621, p= 0.009). This implies that social influences and pressures can encourage consumers to participate in online shopping despite the perceived risks. This result underscores the importance of social context in shaping consumer behavior in Pakistan.

5.2. Indirect Effects

Convenience Risk with Subjective Norms (CR*SBN) The interaction between convenience risk and subjective norms was not significant (H5: β=-0.060, t= 1.130, p= 0.259). This suggests that subjective norms do not significantly alter the impact of convenience risk on online shopping behavior.

Financial Risk with Subjective Norms (FR*SBN) Similarly, the interaction between financial risk and subjective norms was also not significant (H6: β=-0.037, t= 0.726, p= 0.468). This finding indicates that subjective norms do not significantly moderate the relationship between financial risk and online shopping behavior.

Privacy Risk with Subjective Norms (PRR*SBN) The interaction between privacy risk and subjective norms was found to be significant (H7: β=-0.127, t= 2.357, p= 0.019). This significant negative interaction suggests that subjective norms can intensify the adverse effect of privacy risk on online shopping behavior. In other words, even when social influences support online shopping, strong privacy concerns can still deter consumers.

6. Conclusion

The way information is shared has fundamentally transformed both domestically and globally, largely due to the advent of e-commerce. E-commerce has revolutionized our lives, providing smoother and more efficient solutions for various needs. This study contributes significantly to the body of knowledge by adopting a deductive approach and employing quantitative methods to understand the influence of financial, convenience, and privacy risks on online shopping behavior, with subjective norms as a moderating factor. The primary aim was to examine how these risks impact online shopping behavior in Pakistan.

7. Limitations and Future Recommendations

While this study makes significant contributions to understanding online shopping behavior, it has certain limitations. The focus was primarily on online users, neglecting non-users. Future research should consider both consumers and non-users to provide a more comprehensive understanding. Additionally, while this study used subjective norms as a moderator, future studies could explore other moderating or mediating variables to provide deeper insights.

7.1. Practical Implications

The findings of this study have several practical implications. Policymakers and online retailers can benefit from understanding the impact of financial, convenience, and privacy risks on online shopping behavior. By addressing these risks and leveraging subjective norms, they can enhance consumer confidence and encourage more online shopping. This research is particularly valuable for government bodies looking to formulate policies that promote e-commerce, as well as for sellers aiming to improve their strategies to attract and retain customers.

7.2. Theoretical Implications

The present study focuses on the variables of convenience, financial, and privacy risks, online shopping behavior, and subjective norms. It sets a foundation for future researchers interested in exploring these areas further. By highlighting the importance of these variables, this study provides a framework for subsequent research to build upon, offering insights into how different risks and social influences affect consumer behavior in the online shopping context.

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