

Examining the Role of Customer Autonomy and Perceived Security in Shaping E-Trust and Purchase Intention in Online Platforms

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Abstract

The swift expansion of online markets has led to the necessity to understand the influencing factors of e-trust and purchase intention. This research is based on the theoretical framework of the Protection Motivation Theory (PMT) and explores how customer autonomy and perceived security affect e-trust, which subsequently impacts purchase intention. By exploring these constructs, this study seeks to determine the psychological aspects of consumers that facilitate the process of shaping their online intentional behavior. In order to test the hypothesis, N=190 e-commerce users were taken into consideration. The research study findings indicate that customer autonomy and perceived security have a positive impact on e-trust. These findings suggested that customer should be empowered in decision-making and give them a sense of security to increase their confidence with e-commerce platforms. Based on the results of a survey (N=190), this study found that customer autonomy and perceived security are significantly predictive of e-trust and purchase intention; e-trust also predicts purchase intention positively. The findings reiterate the critical importance of trust-building processes in e-commerce and that e-commerce platforms must focus more on customer autonomy and security concerns to trigger customer trust and consequently, their intention to buy. The implications of the research are that managers and online retailers ought to develop consumer-centric platforms that would balance between autonomy and security to attain sustainable growth.

Keywords: Customer Autonomy, E-Trust, Online Platforms, Perceived Security, Purchase Intention, Protection Motivation Theory.

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1: Introduction

The dynamic of business environment has been changed drastically in last decade. Particularly the rapid shift in digital technologies and digital disruption have significant impact on the marketplace (Sanchez Garcia et al., 2024). The consumer preferences of online shopping have increased the footprints on e-commerce platforms. Where initially, e-commerce was considered as a mere form of trade has expanded globally to new heights. COVID-19 is also a major factor in changes in consumer preferences towards shopping in e-commerce platforms along with other environmental factors (Mazhar et al., 2022). As these trends in consumer online shopping behavior are on the rise, one should also comprehend the concerns that consumers are having towards online shopping (Eger et al., 2021). Similarly, privacy and security challenges were also remained critical with the improvement of digital technologies (Wang et al., 2024). In such scenario, firms must put their efforts to counter these digital challenges in order to gain competitive advantage.

Along with other important factors, customer autonomy in the realm of digital shopping can be defined as the ability of an individual to make independent purchase choices. The enhancement of autonomy requires e-commerce websites to ensure that communication is clear and interfaces are user-friendly (Srisathan et al., 2024). Along with consumer autonomy, their security concern also led to an impact on their online shopping behavior. Perceived security refers to the protection of customers' personal and financial information (Almaiah et al., 2023). These factors appear to be a decisive factor in online buying intentions.

Customer autonomy, perceived security, and purchase intention are highly relevant relationships that should be examined largely in the context of customer e-trust on online platforms (Handoyo, 2024; Martínez et al., 2023; Miao et al., 2022). The interdependence of e-trust, Security and Autonomy indicate the complexity of consumer behavior in e-marketplaces. Customers who have established loyalty will be more inclined to revisit or refer the e-platform in future. As loyal customer have gained e-trust to support the long-term existence or success of a business on this platform (Al Adwan et al., 2020; Almaiah et al., 2023). Integrating all these research streams, this study aims to develop the mechanism to examine the consumer decision-making process, specifically in the context of e-commerce platforms. Furthermore, by understanding these constructs, firms can effectively develop their e-commerce strategies to develop their customer equity.

The growing number of consumers on e-commerce platforms develop the need to understand customer autonomy. Customer autonomy is characterized by the

autonomy of the people in the selection of their own purchasing choices without the interference of any external factors (Yang et al., 2022). A high perceived level of autonomy is associated with the consumer participation and satisfaction. However, the opposite is also true since it contributes to decision fatigue and confusion (Hu and Krishen, 2019; Lucia-Palacios and Perez-Lopez, 2023). In similar, the perceived security level of the consumer is another key determinant of e-trust in the online platforms. It provides customer with brief idea of how safe their personal and financial data while using this platform. Inadequate levels of perceived security can lead to a drastic decrease in e-trust and eventually it negatively impacts sale transaction (Suh and Han, 2003). Past studies also suggested that online purchase intentions have been highly dependent on e-trust (Mofokeng, 2022). E-Trust lowers the perceived risk of online transactions, which forms a secure and empowering environment among the customers. Saoula et al. (2023) suggested that e-trust can minimize the customer perceived risks. There is a significant role of e-trust in creating customer participation, developing long-term loyalty and brand advocacy (Yang et al., 2022). Similarly, user interface design is also a critical factor of e-trust, as an easy-to-use and visually pleasant interface can make consumers feel more confident (Srisathan et al., 2024).

Customer autonomy and perceived security have significant role in developing online shopping behavior. However, limited research has examined the duo of these variables in effecting consumer behavior. Along with that, the role of e-trust has not been explored well in the combination of both these variables to examine the consumer purchase intention. Thus, the present research identifies this research gap, especially in the spheres where the dynamics of innovative technology influence online shopping behavior.

In contrast with prior studies, this research demonstrates the dual character of Customer Autonomy: a strength that grants users power but, simultaneously, is linked to such complications as decision fatigue (Yang et al., 2022). This study also examines how a lack of communication about security measures increases privacy stress. Addressing such fine-tuned challenges, this study provides a broader framework to understand online consumer behavior, highlighting ways of initiating e-trust-building mechanisms and strong security protocols to promote long-term participation. Among other key variables, the feeling of Autonomy, Perceived Security, and e-trust make a significant contribution for firms to gain a competitive advantage. This study advances the literature by jointly examining customer autonomy and perceived security within a PMT lens in a post-pandemic, emerging-market context (Pakistan). While prior work often treats these antecedents

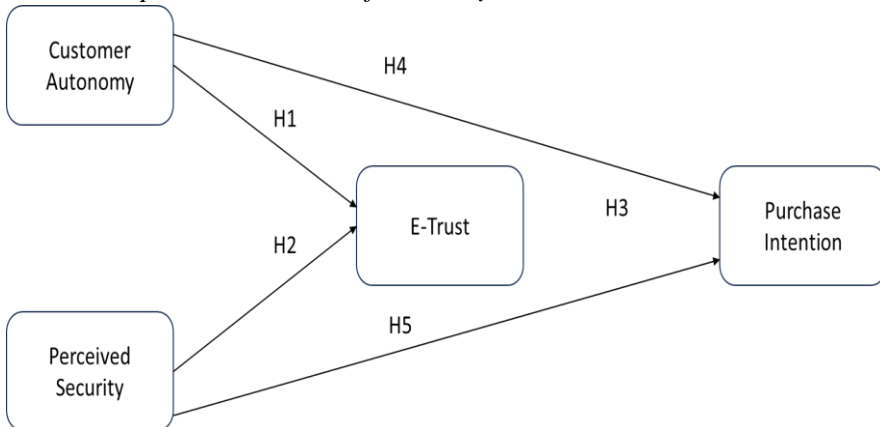
separately, we test their concurrent and unique effects on e-trust and purchase intention.

2: Literature Review and Hypotheses Development

2.1: Conceptual Framework

The conceptual framework of this study is mentioned in Figure 1. The framework posits a direct relationship between customer autonomy and perceived security, and their impact on e-trust and purchase intention. Customer autonomy is the independent choice-making ability without external pressure; it is the sense of being in control that leads to trust in e-platform (Bhatnagr et al., 2025) and also towards the purchase decision (Hale et al., 2022). In similar, the perceived security comprises the customer belief and confidence on e-commerce platform, that data privacy must be fulfil (Almaiah et al., 2023; Suh & Han, 2003). By enhancing perceived security, e-commerce platforms can capture customer trust and eventually develop their purchase intention. Here trust on e-commerce platform portray customer reliability and their belief in security measures.

Figure 1: *Conceptual Framework of the Study*



2.2 Theoretical Basis

The current study is based on the Protection Motivation Theory (PMT) as it was initially described by Rogers (1975). PMT argues that people are driven to protect themselves against threats they perceive. According to Yang et al. (2022), customer autonomy refers to the extent to which the consumer feels empowered and has the freedom of choice on the online platform. The resulting effect of this perception is the feeling of control and consequently the reduction of the perceived vulnerability. Customer autonomy helps them to perceive the e-commerce platform's ability to protect their data and personal information (Al Adwan et al., 2020; Almaiah et al., 2023). Improving this perception will help to reduce the

probability of data breaches, which will consequently reduce the general risk. Additionally, e-trust helps to overcome psychological obstacles to online purchases and strengthens the purchase intention by creating a sense of safety and reliability (Chetioui et al., 2021). By combining this relationship, this research employed the PMT framework to investigate the role cognitive factors (Customer autonomy, perceived security) and emotional factor (E-trust) in influencing online purchase behavior. Within the framework of PMT, it was suggested that perceived security lessen the customer vulnerability (threat appraisal), while customer autonomy indicate coping capacity (coping appraisal). By integrating them, it will eventually increase the e-trust, which avoid perceived customers' risk and lead to purchase intention.

2.3 Customer Autonomy (CA) and E-Trust (ET) on E-Platform

Customer autonomy is a fundamental psychological need of customers that creates motivation, which enables customers to make decisions (Srisathan et al., 2024). The main concept of customer autonomy is that it creates freedom and independence for customers, allowing them to feel free while purchasing products online, and it also fosters a relationship between customers and companies (Kim & Lee, 2020). The concept of customer autonomy has gained considerable attention in recent years in the field of consumer behaviour. Moreover, it creates a positive effect on customer satisfaction, their loyalty, and also creates a brand perception (Mittameedi et al., 2025).

Similarly, while having financial transactions on e-commerce platforms, trust, reliability and security are found to be critical factors in consumer decision making (Abbas & Talat, 2023; Handoyo, 2024; Soleimani, 2022). Consumers are unaware of the individual they are dealing with due to a lack of face-to-face interactions. Trust in e-commerce platforms can be built through payment security, transparent policies, and original user feedback about products (Abbas & Talat, 2023; Albshaier et al., 2024). The relationship between customer autonomy and e-trust has significant importance on e-commerce platforms, as trust can be easily influenced if the customer feels that they have limited control or feels that their decision is under their control. The autonomy of a customer helps a brand develop customer trust. The higher the level of customer autonomy, the higher the e-trust. It helps customers to explore the platform without any perceived security risk. Based on the above-mentioned discussion, the following hypotheses have been proposed:

H1: Customer autonomy has a positive influence on e-trust.

2.4 Perceived Security (PS) and E-Trust (ET) on E-Platforms

Perceived security refers to the customer's feeling of confidence and comfort that their personal information and financial transactions are safe when ordering from online companies or platforms (Almaiah et al., 2023). There are several aspects including sensitive data, reliability of the platforms, data encryption and different privacy policies of the online platforms (Morić et al., 2024; Saeed, 2023). Customers feel more trustworthy towards a business and trust their privacy protection system when they believe their information is secure on digital platforms (Dinulescu et al., 2022). Past studies have shown the significant importance of customers' perceived security on their online shopping behaviour (Choudhuri et al., 2024; Dinulescu et al., 2022). The majority of online customers considered the security of the platform as a primary and prominent factor in their platform selection. Moreover, the two-factor authentication and SSL certificates are the strong security features which has proved to increase the trust of customers towards online platforms (Miao et al., 2022).

Along with the perceived security, platform e-trust is also found to be a significant predictor of online shopping behavior. Past research shows that purchase intentions are generated when a consumer feels no risk and is more likely to engage (Choudhuri et al., 2024). This confidence of security can be increased by having privacy policies and secure and trusted transaction channels (Dinulescu et al., 2022). Additionally, customers who trust an online retailer are less likely to switch to competitors. Several studies have highlighted that positive past experiences, website reputation, and social proof (such as reviews/ratings) contribute to trust-building (Choudhuri et al., 2024; Dinulescu et al., 2022). However, a breach in security or perceived risk can negatively impact trust and deter future transactions. Based on the argument above, the following hypothesis is proposed:

H2: Perceived security has a positive effect on e-trust.

2.5 E-Trust (ET) and Purchase Intention (PI)

E-Trust has become an important factor for the effectiveness of social media, e-platforms and e-commerce online websites, service providers, in the modern digital society (Abbas & Talat, 2023). The role of e-trust on ecommerce platforms can be seen in positively in business performance (Miao et al., 2022; Mittameedi et al., 2025). It has been found that 81% of consumers pursue the platforms they feel are more trustworthy (Mittameedi et al., 2025). Trust influences how likely someone is to recommend the platform to others, taking into account loyalty and purchasing decisions. Trust has been found to increase the probability of both initial and repeat purchases, which means that trust is not just an initial process

in e-commerce, but rather an ongoing one (Saoula et al., 2023; Srisathan et al., 2024).

Also, the design of the e-platform can affect trust and purchase intention. A clean and user-friendly interface with easy navigation, proper product descriptions and high-quality images is a trust builder (Saoula et al., 2023). It is the opposite with a poor design of the website or where important information is lacking; this creates uncertainty and may prevent consumers from completing their purchases. Trust in e-commerce platforms has a positive impact on purchase intention as shown by previous empirical studies (Srisathan et al., 2024). When consumers are trustworthy of the platform, they are more likely to make a purchase, be loyal to the brand and advise their friends and families to use the platform. Based on the above-mentioned arguments, the following hypothesis is proposed:

H3: *Customer autonomy positively influences purchase intention.*

2.6 Customer Autonomy (CA) and Purchase Intention (PI)

Past studies have shown that when a customer feels autonomous, they are more likely to make purchases because they do not face any decisional fatigue (Lucia-Palacios & Pérez-López, 2023). The change in marketing, personalization, and customization has increased the level of customer autonomy, and customers are eventually making purchases on an e-platform (Coelho & Henseler, 2012; Saniuk et al., 2023).

As consumers feel autonomous and secure, they can compromise on price sensitivity and pay more in return for autonomy (Hyman et al., 2023; Sandberg et al., 2022). By providing customer with the decision-enabling environment, e-platforms empower them and enhance their autonomy. These facilitations enable platforms to develop positive purchase intention among customers. There is no linear relationship between customer autonomy and purchase intention (Mazhar et al., 2022; Taheri & Gravand, 2024). As a rule, the greater the autonomy, the greater the purchase intention, but the level of impact is controlled by factors like the complexity of the products, consumer preferences, and extrinsic factors, including price sensitivity or time (Cao et al., 2022). In the light of above-mentioned discussion, the following hypothesis is proposed:

H4: *Perceived security positively influences purchase intention.*

2.7 Perceived Security (PS) and Purchase Intention (PI)

Perceived security has a pivotal role in shape consumers' attitude toward online platforms. It consists of the systems including data safety and protection, regarding personal data and other financial information (Almaiah et al., 2023). There are multiple factors that impact customer perception towards perceived security

including security features, technology encryption and creation of trust worthy platforms (Chen & Qasim, 2021). Customers who develop perceptions that online platforms offer increased degrees of protection are apt to make purchase choices (Handoyo, 2024). On the other hand, when a consumer feels that an e-platform is not secure enough, it is more likely that they will change to other brands (Suh and Han, 2003; Wang et al., 2024).

Past studies also highlight numerous factors that affect consumer choice behaviour regarding online platform purchases (Abbasi et al., 2022; Dinulescu et al., 2022). These include consumer trust, clarity in privacy policy and transparent data usage (Choudhuri et al., 2024). Along with the platform user-experience, past studies also emphasise consumer perception of security while making an online purchase decision (Mazhar & Hooi, 2021; Mittameedi et al., 2025; Saeed, 2023). Based on the above arguments, the following hypothesis is proposed:

H5: *E-Trust positively influences purchase intention.*

3: Research Methodology

3.1 Sampling Strategy and Data Collection

A deductive research approach was chosen based on the research objectives. This strategy was implemented based on hypotheses created from theory, with data gathering and analysis (Saunders et al., 2019). A web-based survey methodology was employed for data collection, and the unit of analysis for this study was the customers who purchased products or services from web stores. This study used purposive sampling as the right choice for the research (Creswell, 2014). Purposive sampling is used for data collection through questionnaires. The respondent purposively chooses only if they answered the following question positively: “I have been purchasing online in the past six months.” However, not all respondents are part of the study; only those respondents who fulfil the inclusion criteria are selected for final analysis.

The adapted questionnaire was disseminated to prospective consumers, resulting in 190 valid responses, who had purchased from web stores, to gauge the reliability of the questionnaire. Responses were captured on a 5-point Likert scale (1 = Strongly Disagree ... 5 = Strongly Agree). The Customer Autonomy was measured using the 3 items developed by (Han & Ko, 2025). The measures of Perceived Security and Purchase Intention were adapted from the scale developed by (Salisbury et al., 2001). This study adapted the scale to measure e-trust developed by (Kim et al., 2009). All participants were informed of the study’s purpose and assured of anonymity and voluntary participation. Informed consent was obtained prior to data collection, and procedures complied with institutional ethical guidelines.

3.2 Results and Analysis

Data analysis was conducted using SPSS version 25. Initially, data screening for the responses and the computation of descriptive statistics are done. The mean and standard deviation for each study variable is used. In Table 3.1, the demographic profile of the respondents was mentioned. In total 190 responses were used for data analysis purpose. The majority of respondents fall within the 20-30 age range, with 55% of data. It depicts the young consumers are the most significant sector of online shopping. Around 66.2% of respondents are female, and 33.8% are male. This gender distribution is key for online shopping, as different genders may respond to the online shopping experience differently. Similarly the most of the respondents are educated, where 32% and 34% of them have intermediate or bachelor degrees. As far as their shopping tendencies is concern 36% of them are engaged in online shopping on daily basis, and 33% of them used e-commerce platform on weekly basis. Similarly, majority of online shoppers are students and private job holders comprising 28.9% and 16.3% respectively. Similarly, the descriptive analysis was presented in table 3.2. The mean and the Standard deviation of the respective constructs were mentioned.

Table 3.1 *Demographic Profile of Respondents*

Demographic	Description	Frequency	Percentage
Gender	Male	64	33.8
	Female	126	66.2
Age	Below 20 years	25	13.0
	20-30 years	105	55.0
	31-40 years	45	24.0
	41-50 years	12	6.0
	Above 50 years	3	2.0
Qualification	Matriculation or below	30	16.0
	Intermediate	61	32.0
	Bachelor	65	34.0
	Masters	22	12.0
	M.Phil. or above	12	6.0
Frequency of online shopping	Daily Basis	69	36.3
	Weekly Basis	63	33.3
	Monthly Basis	34	17.7
	Occasionally	24	12.7
Working Sector	Student	55	28.9
	Government Job	25	13.2
	Private Job	31	16.3
	Businessman	13	6.8
	Housewife	30	15.8

Table 3.2 *Descriptive Statistics*

Construct	N	Minimum	Maximum	Mean	Std. Deviation
Customer Autonomy	190	1	5	4.1059	.78336
Perceived Security	190	1	5	3.2235	.86776
E- Trust	190	1	5	3.2588	.95622
Purchase Intention	190	1	5	3.6588	.87359

3.3 Reliability and Validity Analysis

Reliability and validity tests were carried out to guarantee the credibility and accuracy of the constructions used in the research. One often used gauge of internal consistency, Cronbach's Alpha, was used to assess dependability. Nunnally and Bernstein (1994) define a Cronbach's Alpha value of 0.70 or above as reasonable for verifying dependability. All the variables in this study showed good dependability; the alpha values exceeded the threshold. With regard to Customer Autonomy (CA), Perceived Security (PS), E-Trust (ET), and Purchase intentions (PI), Cronbach's Alpha values of 0.803, 0.831, 0.847, and 0.838, respectively, indicate that the measurement scales for each construct are internally consistent and reliable.

Table 3.3 *Construct Reliability*

Construct	Item	Cronbach's alpha
CA	3	0.803
PS	4	0.831
ET	4	0.847
PI	3	0.838

Note: CA = Customer Autonomy; PS = Perceived autonomy; ET = E-Trust; PI = Purchase Intention.

Using Kaiser-Meyer-Olkin (KMO) Measure of Sampling Adequacy and Bartlett's Test of Sphericity, construct validity was evaluated. The KMO value is 0.710 which above the threshold value of 0.60 Kaiser (1974) suggesting sample sufficiency for factors analysis. In similar Bartlett's Test of Sphericity was also found to be significant (Chi-square = 119.668, df = 6, $p = 0.001$). The results suggested that factor analysis and correlations among variable are strong. Hence findings fulfill the necessary criteria for reliable and valid factor structure, therefore recommending for next structural modeling process.

Table 3.4 KMO and Bartlett's Test

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		0.71
Bartlett's Test of Sphericity	Approx. Chi-Square	119.668
	df	6
	Sig.	0.001

3.4 Correlation Analysis

To investigate the relationship among customer autonomy (CA), perceived security (PS), e-trust (ET) and purchase intention (PI) Pearson correlation analysis is employed. The results are mentioned in table 3.5. There is a positive significant correlation at the 0.01 level, representing significant relationship among variables. CA demonstrated moderate positive correlations with PS ($r = .460, p < .01$), ET ($r = .356, p < .01$), and PI ($r = .519, p < .01$). These results suggested that increase in CA are associated with subsequent increase in PS, ET and PI. Along with that PS exhibited positive correlation with ET ($r = .650, p < .01$) and a moderate positive correlation with PI ($r = .506, p < .01$). Subsequently, ET was also found to be positively correlated with PI ($r = .620, p < .01$), reflecting a substantial linear association between these two variables.

Overall, the results indicate that while all variables are positively interrelated, the strongest associations are observed between PS and ET, and between ET and PI. These findings underscore the interdependent nature of the constructs, with ET and PI emerging as the most closely linked dimensions.

Table 3.5 Correlation Test

		CA	PS	PT	RI
CA	Pearson Correlation	1	.460**	.356**	.519**
	Sig. (2-tailed)		0	0.001	0
	N	190	190	190	190
PS	Pearson Correlation	.460**	1	.650**	.506**
	Sig. (2-tailed)	0		0	0
	N	190	190	190	190
PT	Pearson Correlation	.356**	.650**	1	.620**
	Sig. (2-tailed)	0.001	0		0
	N	190	190	190	190
RI	Pearson Correlation	.519**	.506**	.620**	1
	Sig. (2-tailed)	0	0	0	
	N	190	190	190	190

**. Correlation is significant at the 0.01 level (2-tailed).

Note: CA = Customer Autonomy; PS = Perceived Security; ET = E-Trust; PI = Purchase Intention.

3.5 Regression Analyses

Following the recommendation of Hair et al., (2022), the hypotheses testing was conducting using linear regression. The results of relationships are tabulated in Table 3.6. It revealed that customer autonomy is positively significant impact on platform trust (H1: $CA \rightarrow ET$, $\beta = 0.356$, $t = 3.474$ $p < 0.001$). Similarly, the was also found to have positive and significant impact on platform trust (H2: $PS \rightarrow ET$, $\beta = 0.650$, $t = 7.800$ $p < 0.001$). The results further revealed that platform trust positively and significantly trigger purchase intention (H3: $ET \rightarrow PI$, $\beta = 0.620$, $t = 7.199$ $p < 0.001$). it was also observed that customer autonomy has positive and significant effect on purchase intention (H4: $CA \rightarrow PI$, $\beta = 0.519$, $t = 5.528$ $p < 0.001$). Besides, was also found positive and significant towards purchase intention (H5: $PS \rightarrow PI$, $\beta = 0.506$, $t = 5.347$ $p < 0.001$).

Table 3.6 *Regression Analysis*

Hypothesis	Relationships	Beta	t-value	p-value
H1	$CA \rightarrow ET$	0.356	3.474	0.001
H2	$PS \rightarrow ET$	0.650	7.800	0.001
H3	$ET \rightarrow PI$	0.620	7.199	0.001
H4	$CA \rightarrow PI$	0.519	5.528	0.001
H5	$PS \rightarrow PI$	0.506	5.347	0.001

Note: CA = Customer Autonomy; PS = Perceived Security; ET = E-Trust; PI = Purchase Intention.

4: Discussion and Conclusion

This study investigates the factors that impact of consumer online purchase intention. The result of the study revealed that customer autonomy and perceived security directly impact on customer's purchase intention. Moreover, this study explores the impact of both customer autonomy and perceived customer on consumer e-trust. The findings also support the proposed hypotheses. The stated variables have been discussed and proven separately in previous literature. However, no research has explored combine effect of both these variables to explore the online purchase intention. Additionally, this study examines behavior of customers after going through a global pandemic (post-pandemic), which somehow forced consumers to shop online to fulfil needs and for safety of their health. Therefore, in light of the present circumstances, this study offers novel perspectives on consumers' ongoing purchasing intentions. Furthermore, it utilizes the Protection Motivation Theory (PMT), to explore how people evaluate threats and coping strategies in order to develop adaptive behaviors, especially within online consumer

environments. Incorporating a theoretical approach is crucial for explaining phenomena, and in this aspect, our research takes a vital role.

Initially, the result showed that customer's autonomy has a positive impact on the online purchase intention. Hence to H4 is supported. Secondly, the results of the study show that a positive relationship with online purchase intention, thus H5 supported. This study also shows that customer autonomy positively impacts on e-trust, hence supporting H1. Also, H2 is supported where Customer Autonomy positively impacts e-trust. Finally, this study found that e-trust positively influences online purchase intention, supporting H3. All hypotheses were proven accurate according to the findings of our study.

The study also provide practical guideline for marketer and policymaker, As findings of the study highlights that E- Trust remarkably influences Customer's Autonomy and towards online purchase intention, under the light of this study E-commerce businesses can formulate consumer's e-trust by keeping their customer's feedbacks updated, by highlighting their customer's privacy policies, by innovating continuously and lastly by follow ups so that consumer feels connected and valued by the platform. The findings provide practical implications for managers of online platforms: (1) enhancing user autonomy through transparent controls, (2) strengthening perceived security by implementing visible security features such as two-factor authentication and privacy assurances, and (3) leveraging trust-building mechanisms to reinforce purchase intention.

In conclusion, the study found that autonomy, perceived security and e-trust work closely with each other to shape online buying behavior. To become a successful e-commerce business, firms should enable the consumer, have secure transactions, and demonstrate e-trust, transparency and reliability. Once e-commerce companies focus on such dimensions, they maximize satisfaction among customers, address customer concerns about privacy, and encourage repeat buying. The findings are part of the explanatory framework of consumer behavior in online shopping and they are used to develop effective e-commerce strategies.

5: Limitations and Future Directions

Although the study provides useful information, it has a number of limitations. Its use is limited to the Pakistani setting; therefore, the results might not be applicable in the nations with various cultural practices, fiscal potentials, or information-technology systems. In addition, the findings are contingent on consumer self-reporting and it could be biased by response bias or the desire to give socially desirable responses. Lastly, the paper focuses mostly on exploring the determinants of purchase intention with autonomy, perceived security, and e-trust:

other factors, including prices, product variety or macroeconomic conditions, should be explored in the next round of research. Future researchers could handle these issues by including various types of consumers, looking at more influencing factors and tracking changes in consumer habits over time. Doing so would give us a wider and more general awareness of what affects people's choices to buy online. The future topics that can be explored are how the new different emerging technologies like artificial intelligence, augmented reality and block chain can affect the e-trust of consumer and their perceived risks towards online shopping, as these technologies have a great potential in enhancing the security at numerous levels and making the transactions transparent in Pakistan. Another topic for the research could be performing the cross-country studies to widely understand customer retention in online shopping all over the globe.

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