



Online Trust Determinants, Consumer Perception, and Purchase Intent in Saudi E-Commerce: Exploring Determinants and Evidence

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ABSTRACT

This study aimed to explore the growing use of the internet as a commercial sales channel, emphasising the pivotal role of trust in online consumer relationships. This research focused on Saudi e-commerce platforms (e.g. Amazon.sa, Noon, Namshi, and Shein), due to their remarkable growth over previous years, by investigating the effect of consumer trust on online purchase intentions. The study surveyed 449 Saudi online shoppers, using a structural equation model to analyse the factors that determine online trust (perceived information quality, company competency, security, and online consumer reviews) and their influence on consumer online trust and perceived risk. The results revealed significant relationships between consumer online trust and perceived information quality, company competency, and security, challenging expectations regarding the link between online consumer reviews and consumer online trust. Surprisingly, online consumer reviews primarily influenced perceived risk rather than consumer online trust, impacting purchase intention to a limited extent. The research underscores the substantial influence of consumer online trust on perceived risk and purchase intention, offering micro perspectives on online consumer behaviour. By identifying key influences, including information quality and security, this study provides theoretical and managerial insights for e-commerce platforms, guiding the development of responsible online channels.

KEYWORDS

company competency, consumer reviews, e-commerce antecedents, information quality, perceived security, Saudi consumers

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1. Introduction

Despite the advancement of e-commerce in many sectors of supply and demand, consumer online shopping has not met managers' expectations and has affected the reliability of enterprises' investments in e-commerce (Suprpto *et al.*, 2022). Online trust is one of the main obstacles to the success of online sellers; lack of trust reduces the likelihood of consumers' buying online (Suprpto *et al.*, 2022). Previous research has shown that many consumers browse online sellers' websites for information, but few complete purchases (Kimiagari and Malafe, 2021). One of the major reasons for this is consumers' distrust of the e-seller. Suprpto *et al.* (2022) showed that trust influences online purchase intention, but they recommended further investigation into the factors that influence this. While numerous methodologies have examined the correlation between online trust and purchase intention, the integration of consumer perceptions is markedly lacking.

The concept of online trust determinants refers to the factors influencing individuals' confidence in digital platforms that shape perceptions of credibility and security in online interactions (Grabner-Kräuter and Kaluscha, 2003). Elements such as website design, privacy policies, security features, and information authenticity contribute to trust (Grabner-Kräuter and Kaluscha, 2003). Additionally, platform reputation, user reviews, and website administrators' perceived competence play pivotal roles (McKnight *et al.*, 2002). This study explored such relationships in the context of Saudi Arabia, employing a comprehensive framework drawn from models like the technology acceptance model (TAM) and the unified theory of acceptance and use of technology (UTAUT) (Venkatesh *et al.*, 2012). Consumer perception was measured through user feedback, reviews, and perceived risks, using a quantitative approach with survey methods to gather empirical evidence (McKnight *et al.*, 2002). This study contributes insights into e-commerce in Saudi Arabia by offering valuable information on factors influencing

consumer trust and purchase intentions in the dynamic digital marketplace (Alanmi and Alharthi, 2023).

The Kingdom of Saudi Arabia has witnessed a remarkable surge in online shopping, indicative of a significant shift in consumer behaviour towards e-commerce (Al Hamli and Sobaih, 2023). This trend has been fuelled by factors such as increased internet penetration, widespread smartphone adoption, and the convenience offered by digital platforms. Moreover, the growth of e-commerce in the country has been notably driven by a rising middle class and an expanding base of tech-savvy consumers seeking the ease of digital transactions, with trust in e-commerce platforms strengthened by robust security measures and reliable payment gateways (Al Hamli and Sobaih, 2023). Government initiatives to promote a digital economy and enhance the regulatory framework for online transactions have also played a pivotal role in fostering consumer confidence (Al Hamli and Sobaih, 2023). As a result, the e-commerce landscape in Saudi Arabia is thriving, reflecting not only a transformation in shopping habits but also an increasing trust in the security and efficiency of online transactions. Projections have indicated that the Saudi Arabian e-commerce market is set to reach \$13.2 billion by 2024, with a robust compound annual growth rate of 13.72% from 2024 to 2032 (IMARC Group, 2023; Statista, 2022). Key market players contributing to this growth include Carrefour, Haraj, Jazp.com, and Noon (IMARC Group, 2023).

This research addresses a crucial gap in the current literature by investigating the intricacies of online trust in the rapidly expanding e-commerce sector in Saudi Arabia. While prior studies have explored various aspects of online trust and consumer behaviour globally, there is a shortage of research focusing specifically on the unique sociocultural dynamics of the Saudi Arabian market (e.g. Alanmi and Alharthi, 2023). However, based on an extant review of prior research, limited empirical studies have been conducted to examine the effect of online consumer reviews on both consumer online trust and the perceived risk of e-commerce platforms. Hence, this study aimed to fill this void by comprehensively identifying determinants of

online trust, analysing consumer perceptions, and assessing their impact on purchase intent in the Saudi e-commerce landscape. By incorporating evidence from Saudi Arabia, this research considered cultural nuances and local factors that influence online trust, providing a more contextually relevant understanding. This study also endeavoured to explain the antecedents of online trust among Saudi consumers, addressing questions regarding the extent of trust in e-commerce transactions and the contribution of trust to shaping risk perception and purchase intention. The primary objective was to validate and elucidate a recently developed instrument while exploring the facets associated with Saudi consumers' trust in online shopping, particularly concerning purchase intention. Furthermore, this study scrutinised factors influencing online trust and their consequential effects on purchasing intentions within the Saudi e-commerce landscape. The sub-objectives of the study were as follows:

- Investigate the effects of various factors (perceived information quality, perceived company competency, and perceived security) on consumer online trust.
- Evaluate the effect of online consumer reviews on consumer online trust and perceived risk.
- Evaluate the relationship between consumer online trust and the perceived risk associated with e-commerce platforms.
- Assess the impact of consumer online trust and the perceived risk of e-commerce platforms and their influence on purchase intentions.

2. Literature Review

This study investigated the impediments to online purchasing and focused on the pivotal roles of online security, company reliability, and website technology intertwined with consumer, website, and firm characteristics (Alkhalil and Siddiqui, 2018). Scholarly consensus has underscored the significance of online trust as a determinant of website success in the marketplace (Trivedi and Yadav, 2020). Defined as 'the willingness to be vulnerable to the actions of another party' (Mayer *et al.*, 1995, p712), trust, when elevated, mitigates uncertainty and perceived risks in online transactions. Heightened consumer trust correlates with increased purchasing intention, and enhanced consumer retention gives companies an advantage when planning marketing strategies (Darmawan and Gatheru, 2021).

2.1. Perceived Information Quality:

Perceived information quality significantly influences online trust, as users rely on it to establish trust on digital platforms. Understanding this relationship is crucial for researchers, practitioners, and policymakers in improving the credibility and reliability of digital information ecosystems. By recognising the profound impact of information accuracy and timeliness on user experiences, this research underscores the connection between information quality and trust in e-commerce contexts. This study introduces the 'social commerce construct', which encompasses interactions with verified consumers and emphasises its relevance to trust building (Ginting *et al.*, 2023). Recent studies have underscored the critical influence of perceived information quality on trust in online environments, highlighting profound implications for user engagement, satisfaction, and loyalty. Such arguments led to the following hypothesis:

H1: Perceived information quality has a significant influence on consumer online trust on e-commerce platforms.

2.2. Perceived Company Competency:

In the rapidly evolving digital landscape, the nexus between consumers and businesses hinges on the perceived competency of the latter. Attar *et al.* (2021), Othman (2021), and Müller *et al.* (2021) underscore the pivotal role of company competency in shaping online trust and

purchasing intentions. Factors such as company size, reputation, and interactions with online consumers wield a significant influence on consumer trust (Pennington *et al.*, 2003). Additionally, consumers assess competency through website design, user interfaces, and other cues. A seamless and secure online experience is underscored as pivotal for fostering trust, a critical determinant of consumers' decision-making and willingness to engage in transactions. In the competitive digital marketplace, understanding and augmenting perceived company competency are imperative for businesses aiming to establish and sustain trustful relationships with their online clientele. These arguments led to the following hypothesis:

H2: Perceived company competency has a significant effect on consumer online trust on e-commerce platforms.

2.3. Perceived Security:

Perceived security in online financial transactions involves ethical considerations (Matemba and Li, 2018) and concerns about unauthorised access, viruses, and malicious software (Sarkar *et al.*, 2020). Consumer trust relies on the assurance of information confidentiality and transaction security, impacting online engagement decisions (Mittal, 2013). Recent studies, however, have suggested that e-service quality factors, such as perceived security, may not directly impact purchasing decisions (Aslam *et al.*, 2020). As global cybersecurity concerns rise, consumers' hesitancy in completing e-transactions using credit and debit cards underscores the critical importance of perceived security. Cognitive assessments of security measures impact users' perceived safety online (Mahliza, 2020). Acknowledging that this is crucial for providers and policymakers in cultivating a secure digital environment, the following hypothesis was proposed:

H3: Perceived security has a significant effect on consumer online trust on e-commerce platforms.

2.4. Online Consumer Reviews:

The online consumer review, defined as a user-generated text, image, or video assessment (Zheng, 2021), has emerged as an influential tool in shaping consumer perceptions of products and services. Encouraging consumers to share positive opinions is advocated as a strategy to enhance trust and stimulate online purchasing (Ventre and Kolbe, 2020). Recent research (Chen *et al.*, 2019) has underscored the positive link between consumer reviews and sales. However, a critical gap exists in understanding how these reviews impact perceived risk and purchase intention. Therefore, this study addressed this gap by exploring the intricate interplay between online reviews, trust, and perceived risk, extending prior investigations. This research emphasised the pivotal role of reviews in shaping trust dynamics in the evolving e-commerce landscape, encompassing product evaluations, service quality, shipping reliability, and vendor credibility. In the absence of face-to-face interactions, consumers rely heavily on the collective wisdom embedded in online reviews to inform digital purchasing decisions. As the digital landscape evolves, understanding the dynamics of online trust becomes imperative for scholars and practitioners navigating the complexities of contemporary e-commerce. This research provides insights that go beyond the conventional understanding of the impact of consumer reviews, shedding light on the mechanisms influencing trust in an increasingly virtual consumer environment. Based on this discussion, the following hypotheses were proposed:

H4a: Online consumer reviews have a positive effect on consumer online trust on e-commerce platforms.

H4b: Online consumer reviews have a significant effect on perceived risk on e-commerce platforms.

2.5. Consumer Online Trust:

Consumer trust plays a pivotal role in shaping users' propensity for online transactions (Ginting *et al.*, 2023; Suprpto *et al.*, 2022). This study delved into the intricacies of online trust and its antecedents in influencing purchasing intentions. Trust can be impacted by many aspects, including personality and cognitive and institutional factors (Suprpto *et al.*, 2022). Trust is a key factor in e-commerce transactions, because consumers will make fewer purchases online if they do not trust the websites from which they are buying (Alkhalil and Siddiqui, 2018; Ginting *et al.*, 2023; Huang and Chang, 2019; Suprpto *et al.*, 2022). Trust in e-commerce platforms is influenced by factors such as website design, security features, transaction transparency, and online reviews (Kang *et al.*, 2022). In the e-commerce landscape, consumer trust, perceived risk, and purchase intention are critical for online business success (Gefen *et al.*, 2011). It could be argued that online consumers' diminished trust may lead to an increased perceived risk in using e-commerce platforms. Based on this discussion, the following hypotheses were proposed:

H5a: Consumer online trust has a significant influence on perceived risk on e-commerce platforms.

H5b: Consumer online trust has a significant influence on purchase intention on e-commerce platforms.

2.6. Perceived Risk:

Perceived risk, defined as the perception of uncertainty in and potential adverse consequences from an activity, is a critical factor in terms of consumer behaviour, particularly in the context of online purchasing. It is influenced by financial risk, privacy concerns, and seller credibility. Higher perceived risk in online transactions, attributed to limited physical contact with products, necessitates that consumers seek trustworthy sellers (Hong, 2015). Thus, lower perceived risk corresponds to consumers' higher trust in sellers.

Trust influenced by perceived risk has been explored in various studies (Sarkar *et al.*, 2020). E-commerce platforms build trust through secure payment gateways, transparent communication, and data privacy. Personalised experiences, responsive customer service and technology, such as AI and chatbots, further enhance trust by mitigating perceived risks through proactive measures, including clear communication and robust cybersecurity. Moreover, establishing and sustaining trust is vital, given its acknowledged role as a primary driver of purchasing intention. Nonetheless, challenges arise as consumers contend with perceived risks tied to online transactions, including privacy concerns, security issues, and uncertainties about product or service quality. Recent research has emphasised the multifaceted nature of online trust, encompassing elements such as website credibility, perceived security, and vendor reliability (Flavián and Guinalíu, 2006). As consumers increasingly navigate the digital marketplace, understanding the interplay between online trust, perceived risk, and purchasing intention is crucial for businesses seeking to optimise their online presence and enhance consumer satisfaction (Gefen *et al.*, 2011). Based on this discussion, the following hypothesis was proposed:

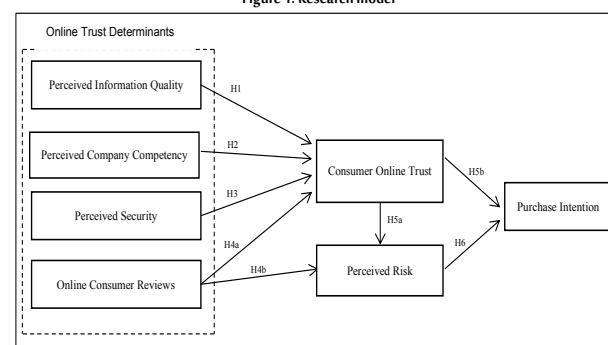
H6: Perceived risk has a significant influence on purchasing intention on e-commerce platforms.

3. Theoretical Framework and Proposed Research Model

Understanding the relationships among consumer online trust, perceived risk, and purchase intention is crucial for businesses in optimising their online presence and improving consumer satisfaction, as trust in online transactions encompasses security,

platform credibility and information reliability. Concurrently, perceived risk in the online context involves uncertainties related to transaction security, product quality, and the credibility of the virtual marketplace. Scholars have argued that consumers' trust and perceived risk significantly influence their purchasing intentions in online environments. Therefore, the theoretical framework guiding this study drew on TAM and the trust–commitment theory (Mayer *et al.*, 1995). TAM, first introduced by Davis (1989), serves to predict to what extent consumers will accept new information technologies. The model includes two aspects: perceived ease of use and perceived usefulness. An *et al.* (2023) stated that the electronic technological acceptance model (ETAM) can be applied to help describe new technology and can be a useful tool for predicting technology acceptance. For instance, the acceptance of new technologies, such as mobile apps and e-commerce platforms, was evaluated based on this model as well as users' innovation. Personal innovation is the tendency to embrace new ideas or experiences and innovative products or services (Rogers, 1995). It integrates these perspectives to comprehensively elucidate the dynamics governing consumers' online behaviours (Figure 1).

Figure 1. Research model



4. Research Methodology

4.1. Methods:

The present study used primary and secondary data. Secondary data were collected from the internet and various published sources, such as books, magazines, and research articles. Primary data were collected from respondents using survey instruments. A quasi-experimental design was adopted to determine a causal relationship between independent and dependent variables, thereby resembling a true experiment but lacking random assignment. In contrast to experimental designs, quasi-experiments assign subjects to groups using non-random criteria. The approach is pragmatic when randomisation is impractical or unethical. Despite their limitations, quasi-experimental designs provide valuable insights into causal relationships, emphasising external validity.

4.2. Measures:

In this study, a survey questionnaire was used to collect quantitative data, exploring the intricate relationship between the dimensions of perceived security, information quality, company competency, and online reviews in the context of consumer trust. This research investigated the impact of consumer online trust on purchasing intention, emphasising the role of perceived risk in Saudi e-commerce platforms (e.g. Amazon.sa, Noon, Namshi, and Shein). The questionnaire included demographic inquiries and measured variables using multi-item scales adapted from the existing literature. The construct was identified based on a review of related literature, and further measurement variables were developed based on the research of Azam *et al.* (2012), Fu Tsang *et al.* (2010), Roy *et al.*

(2023), and Tseng and Wang (2016). The constructs and associated measurement variables were further modified according to the study context and objectives. Convenience and snowball sampling techniques were used to collect the data.

The online questionnaire, developed on Google Forms, was distributed to prospective online customers, who were requested to circulate the questionnaire to their known fellows. The survey questionnaire was first written in English and then translated into Arabic by the Nusaiba Center for Accredited International Translation in Jeddah, Saudi Arabia to facilitate the respondents who were strictly of Saudi origin. To ensure that both versions were written correctly and had the same meaning, the back-translation technique was employed.

Initially, a pilot test was conducted on a sample of 30 respondents. After assuring reliability, the full-scale data were collected over 10 weeks from 1 September to 30 November 2023. All items were measured using a five-point Likert scale (where 1 = strongly disagree and 5 = strongly agree). We received 495 responses. After editing, 449 responses were judged to be acceptable (46 incomplete and insincerely answered questionnaires were excluded) and used to determine the hypothesised relationships.

To address potential shortcomings, the face and content validity of the questionnaire were assured through expert evaluation. Collaborative validation from a panel of experts and using Cronbach's alpha coefficients ensured reliability. Iterative refinement, literature exploration and preliminary testing with random consumer samples enhanced methodological rigor (Creswell and Creswell, 2017). To ensure the robustness and generalisability of the study's findings, statistical methods were employed to measure consumers' trust dimensions, online trust, perceived risk, and purchasing intentions. As emphasised by Creswell and Creswell (2017), the selection of an appropriate sample size and type was pivotal in our quantitative research and enabled the extrapolation of results from our sample to the broader population. The data received were systematically arranged, tabulated, and analysed using IBM SPSS version 22 and Smart PLS version 4.0.

5. Analysis and Results

The current study began with a review of the literature to evaluate the link between the variables of the suggested research model. A set of questions based on the literature and past research was presented to investigate these variables. The supplied data were examined at the 0.05 level of significance. For hypothesis testing, factor analysis of variable confirmation, path analysis, and structural equation modelling analysis methods were used. The structural equation approach in SPSS and AMOS 22.0 was used to analyse the data and evaluate the hypotheses.

The demographic characteristics of the respondents are presented in Table 1, offering insights into key categories, such as age, gender, education level, and annual income. In terms of age distribution, most of the sample (50.6%) were 26–35 years old, and 25.8% were 25 years old or younger. Male respondents accounted for 70.6% of the sample. Educational attainment was diverse, but the majority achieved undergraduate (67.3%) or post-graduate (16.9%) education. Lastly, the distribution of respondents across different income brackets revealed that 43% earned up to SR 15,000 per annum, 35.4% earned SR 15,001–25,000 per annum, and 9.8% earned SR 25,001–35,000 per annum, indicating a varied socioeconomic profile within the surveyed population.

Table 1: Demographic characteristics of respondents

Category	Description	Frequency	Percent
Age	≤ 25 years	116	25.8
	26–35 years	227	50.6
	35–44 years	48	10.7
	45–54 years	17	3.8
	≥ 55 years	41	9.1
Gender	Male	317	70.6
	Female	132	29.4
Education Level	High school/Diploma	39	8.7
	Undergraduate	302	67.3
	Postgraduate	76	16.9
	Professional qualifications and others	32	7.1
Monthly Income	≤ SR 15,000	193	43.0
	SR 15,001–25,000	159	35.4
	SR 25,001–35,000	44	9.8
	SR 35,001–50,000	22	4.9
	≥ SR 50,001	31	6.9

A comprehensive analysis was performed of the factors influencing consumer online trust, perceived risk, and purchasing intention in the context of Saudi online shopping platforms. Descriptive statistics were employed, and the mean and standard deviation (SD) values were used to gauge the respondents' perceptions across key constructs (Table 2). Participants reported a mean perceived information quality value of 3.8311 (SD = 0.66415), indicating positive sentiments regarding the availability, depth, and reliability of information on Saudi online shopping platforms. The perceived company competency construct exhibited a mean of 4.1962 (SD = 0.48706), emphasising the significance of website presence, reputation, and responsiveness in encouraging consumers' trust. The construct of perceived security yielded a mean of 4.1421 (SD = 0.61211), indicating that secure payment methods and transparent transaction details contribute to a heightened sense of security. Online consumer reviews generated a mean of 4.1206 (SD = 0.57631), underscoring the relevance of online product reviews in influencing purchasing decisions. Consumer online trust garnered a mean of 3.7873 (SD = 0.76956), suggesting moderate levels of trust in the ethical conduct of Saudi online shopping platforms. Perceived risk exhibited a mean of 3.0652 (SD = 0.98512), indicating a relatively low level of perceived risk associated with online interactions. Finally, purchase intention displayed a mean of 4.1500 (SD = 0.63993), reflecting a positive inclination towards purchasing, recommending, and making future transactions on Saudi online shopping platforms. Combined, these findings provide valuable insights into the intricate dynamics of consumer behaviour in the online shopping landscape.

Table 2: Descriptive statistics of factors influencing consumers' online shopping behaviour (N = 449)

Constructs	Mean	Standard Deviation
Perceived Information Quality (PIQ)	3.8311	0.66415
Perceived Company Competency (PCC)	4.1962	0.48706
Perceived Security (PS)	4.1421	0.61211
Online Customer Review (OCR)	4.1206	0.57631
Consumer Online Trust (COT)	3.7873	0.76956
Perceived Risk (PR)	3.0652	0.98512
Purchase Intention (PI)	4.1500	0.63993

5.1. Factors Influencing Consumer Online Trust, Perceived Risk and Purchasing Intention: PLS-SEM:

This study used partial least squares structural equation modelling (PLS-SEM) to analyse the dynamics of consumer behaviour in the digital marketplace. Trust is a key factor in online transactions, and this study examined how trust is maintained in the virtual domain. This study also explored perceived risk and the various dimensions that contribute to consumers' apprehension when engaging in online transactions. PLS-SEM provides a robust analytical framework for understanding the relationships among these variables. This research contributes to the evolving discourse on consumer behaviour in the digital age by offering insights to enhance trust, mitigate risk, and boost purchase intentions in the online marketplace.

5.2. Measurement Model:

Table 3 presents the reliability and validity measures for online

consumer behaviour factors. The Cronbach's alpha values showed high internal consistency for each construct, surpassing the 0.7 threshold. Composite reliability was consistently high across constructs, indicating the robustness of the measurement model. The average variance extracted (AVE) values exceeded the recommended threshold, indicating convergent validity. The collinearity matrix values provided insights into potential multicollinearity issues. The purchase intention construct demonstrated strong reliability and validity, with a Cronbach's alpha of 0.913, the average inter-item correlation (rho_a) of 0.914, the composite reliability (rho_c) of 0.945, and AVE of 0.852. These findings highlight the robust psychometric properties of the measurement model, substantiating the reliability and validity of the constructs in the context of online consumer trust, reviews, perceived risk, company competency, information quality, security, and purchase intention.

This study used the heterotrait–monotrait ratio matrix to assess discriminant validity in an online consumer environment. The results showed satisfactory discriminant validity, with values below the recommended threshold of 0.85. The latent constructs exhibited discriminant validity, affirming their distinctiveness. These findings support the robustness of the measurement model and the reliability of the study's conceptual framework, reinforcing the validity of the relationships investigated in the online consumer context. Further discriminant validity assessment of the constructs in online consumer behaviour was conducted using the Fornell–Larcker criterion. The diagonal elements represent the AVE for each latent construct, while the off-diagonal elements display inter-construct correlations. The constructs demonstrated discriminant validity, indicating that each latent variable was more strongly associated with its own indicators than with other constructs. This supports the distinctiveness of the measurement model and strengthens the constructs' reliability in studying the factors influencing online consumer behaviour.

Table 3: Construct reliability and validity

	Cronbach's Alpha	Composite Reliability (rho_a)	Composite Reliability (rho_c)	Average Variance Extracted (AVE)	Collinearity Matrix
Consumer online trust	0.907	0.920	0.934	0.781	1.012
Online consumer reviews	0.880	0.891	0.905	0.577	1.717
Perceived risk	0.951	0.988	0.960	0.774	1.012
Perceived company competency	0.909	0.915	0.926	0.581	2.269
Perceived information quality	0.917	0.921	0.934	0.669	1.770
Perceived security	0.851	0.864	0.893	0.626	2.284
Purchase intention	0.913	0.914	0.945	0.852	1.012

The results presented in Tables 4 and 5 offer valuable insights into the relationships among key variables in the context of online consumer behaviour. Table 4 reports the R-square values, indicating the proportion of variance in the dependent variables explained by the independent variables. Notably, consumer online trust demonstrated substantial explanatory power with an R-square value of 0.556, suggesting that this construct significantly contributed to understanding variations in the model. Similarly, purchase intention exhibited a noteworthy R-square value of 0.502, emphasising its significance in predicting consumer behaviour.

Table 4: R-square values

	R-square	R-square Adjusted
Consumer online trust	0.556	0.552
Perceived risk	0.005	0.003
Purchase intention	0.502	0.500

The structural model and hypothesis testing results are presented in Table 5, showcasing regression coefficients (β), standard deviations (SD), T-statistics ($|O/SD|$), and p-values for various relationships in the study. These findings are critical for understanding the impact of different factors on consumer online trust and purchase intentions. For example, perceived information quality demonstrated a substantial positive influence on consumer online trust, as indicated

by a β of 0.415. The T-statistics of 8.550 and the p-value of 0.000 suggest a highly significant relationship, supporting the hypothesis. Perceived company competency had a negative impact on consumer online trust, with a β of -0.107 . The T-statistics of 1.965 and the marginally significant p-value of 0.050 led to the acceptance of this relationship, albeit with caution due to its borderline significance. Perceived security significantly contributes to consumer online trust, with a β of 0.464. The robust T-statistics of 8.089 and a p-value of 0.000 affirm the statistical significance, supporting the acceptance of the hypothesis. Regarding the relationship between online consumer reviews and perceived risk, a significant positive impact was observed, with a β of 0.187. The T-statistics of 3.529 and a p-value of 0.000 validate the significance of this relationship, supporting the hypothesis. Finally, consumer online trust was found to have a substantial negative impact on perceived risk ($\beta = -0.214$, T-statistics = 4.424, p-value = 0.000) and a highly positive influence on purchase intention ($\beta = 0.700$, T-statistics = 22.745, p-value = 0.000), confirming the significance of these relationships and supporting the acceptance of the associated hypotheses.

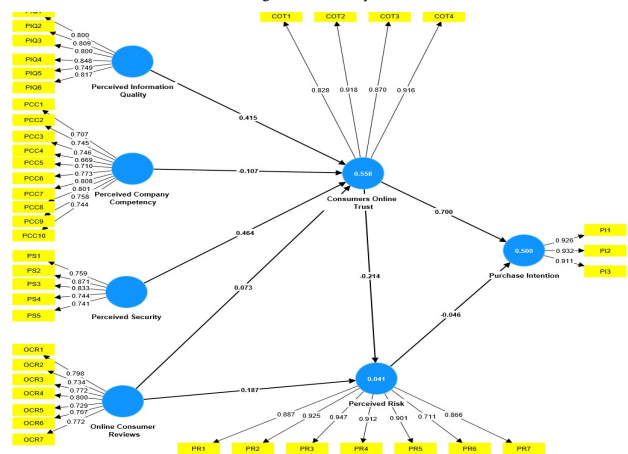
In contrast, the influence of online consumer reviews on consumer online trust was not statistically significant, as evidenced by a β of 0.073, T-statistics of 1.542, and a p-value of 0.123, leading to the rejection of the hypothesis. Furthermore, perceived risk failed to significantly affect purchase intention, with a β of -0.046 , T-statistics of 1.461, and a non-significant p-value of 0.144, resulting in the rejection of the respective hypothesis.

The structural model analysis revealed significant associations between certain factors and consumer online trust, offering valuable insights into understanding consumer behaviour in an online context (Figure 2).

Table 5: Structural model and hypothesis testing

	Regression Coefficient (β)	Standard Deviation (SD)	T-statistics ($ O/SD $)	P-values	Remarks
H1 (PIQ \rightarrow COT)	0.415	0.049	8.550	0.000	Accepted
H2 (PCC \rightarrow COT)	-0.107	0.055	1.965	0.050	Accepted
H3 (PS \rightarrow COT)	0.464	0.057	8.089	0.000	Accepted
H4a (OCR \rightarrow COT)	0.073	0.047	1.542	0.123	Rejected
H4b (OCR \rightarrow PR)	0.187	0.053	3.529	0.000	Accepted
H6 (PR \rightarrow PI)	-0.046	0.031	1.461	0.144	Rejected
H5a (COT \rightarrow PR)	-0.214	0.048	4.424	0.000	Accepted
H5b (COT \rightarrow PI)	0.700	0.031	22.745	0.000	Accepted

Figure 2: Path analysis



6. Discussion

The present study analysed the factors affecting consumer online trust and their effects on perceived risk and purchase intention. The results align with the existing literature, which emphasises the importance of specific factors in an online environment. Here, we discuss each relationship, drawing upon previous research to contextualise and support the reported findings.

First, the positive and statistically significant relationship between perceived information quality and consumer online trust aligns with prior research emphasising the importance of information quality in fostering consumer trust (Gefen *et al.*, 2011). This highlights the importance of accurate and reliable information in online transactions, underscoring the theoretical significance of information quality in shaping trust perceptions. The impact of perceived information quality on consumer online trust is critical in the digital landscape, and a statistically significant regression coefficient (β) of 0.398 indicates its relevance as a determinant of trust in the online context.

The negative relationship between perceived company competency and consumer online trust echoes the findings of prior research by Mayer *et al.* (1995). Moreover, Smith *et al.* (2019) found that consumers tend to trust companies that are perceived as competent in managing their online presence and transactions. In other words, consumers are more likely to trust online platforms when they perceive a higher level of competence from the companies with which they interact.

A noteworthy impact of perceived security on consumer online trust is congruent with established research on the significance of security perceptions during online transactions. The robust β of 0.462, along with a low p-value, reinforces the idea that consumers' trust in online platforms is intricately linked to their perceptions of the security measures implemented by these platforms.

The non-significant relationship between online consumer reviews and consumer online trust contradicts some previous findings. While this result deviates from studies that highlight the role of consumer reviews in building trust (Cheung and Lee, 2012), it is essential to acknowledge the nuanced nature of online consumer behaviour. Factors such as review source credibility and platform reputation may mediate the impact of online reviews on trust. Additionally, cultural variations or sample differences may explain this incongruity, emphasising the need for further investigation. However, the positive impact of reviews on perceived risk ($\beta = 0.187$) aligns with Kang *et al.* (2022), underscoring reviews as crucial informational cues that shape consumers' risk perceptions. The non-significant relationship found between perceived risk and purchase intention contradicts some prior research suggesting that increased perceived risk may deter consumers from making online purchases (Featherman and Pavlou, 2003). However, the complex interplay between perceived risk and other trust-related factors should be considered, as it might influence the overall decision-making process. Contrary to expectations, a non-significant relationship was found between perceived risk and purchase intention, challenging prior research suggesting that perceived risk negatively influences purchase intention (Featherman and Pavlou, 2003). This result prompts a re-evaluation and further study of the intricate dynamics between perceived risk and purchase intention in online settings.

Finally, the confirmed impact of consumer online trust on both perceived risk and purchase intention aligns with established research emphasising trust's central role in shaping online consumer behaviour. The reported regression coefficients (β) of -0.214 and 0.700 for perceived risk and purchase intention, respectively, underscore trust's pivotal mediation between perceived risk and purchase decisions. The substantial influence of perceived security on consumer online trust aligns with the existing literature, highlighting the crucial role of security perceptions in trust formation (Kim *et al.*, 2008). Theoretical implications stress the importance of robust security measures to augment consumer trust in online environments. Trust, integral to online consumer behaviour, alleviates perceived risks and positively shapes intentions to make

online purchases, with user-generated content potentially introducing uncertainties. Structural model analysis enhances theoretical understanding and offers valuable insights for practitioners aiming to bolster trust and drive purchase intentions in the dynamic online marketplace.

7. Conclusion

This research employed PLS-SEM to investigate the multifaceted interplay of factors influencing consumer online trust, perceived risk, and purchase intention in the dynamic e-commerce landscape. Notably, the study underscored the pivotal role of trust in shaping perceptions of risk and influencing online purchasing decisions. Critical determinants of online trust, such as perceived information quality, perceived company competency, perceived security, and online consumer reviews, were identified. The reciprocal relationship between perceived risk and online consumer trust highlights a delicate equilibrium. These insights offer valuable guidance for businesses and policymakers in refining strategies to enhance consumer trust and alleviate perceived risks in the expanding realm of online transactions.

8. Theoretical and Managerial Implications

This study has significant theoretical and managerial implications that contribute to our understanding of consumer behaviour in the online marketplace. These findings underscore the multifaceted nature of online trust formation and its intricate interplay with perceived risk, which ultimately influences consumers' purchasing intentions. Theoretically, this study advances our knowledge by identifying the key factors that shape consumer online trust and shedding light on the complex relationships among these variables. The use of PLS-SEM enhanced the precision of the analysis, providing a robust framework for exploring the intricate dynamics of online trust, perceived risk, and purchase intention. However, based on the extant literature, limited studies have been conducted to examine the effect of online consumer reviews on both consumer online trust and the perceived risk of e-commerce platforms. Hence, the current study aims to fill this gap.

From a managerial perspective, the implications of this study are particularly pertinent for e-commerce businesses seeking to establish and maintain trustworthy online environments. Understanding the factors that influence consumer online trust is crucial for designing effective strategies to enhance the perceived reliability and security of online transactions. Managers can leverage the insights from this study to develop targeted interventions that address specific dimensions of online trust formation, thereby mitigating perceived risks and positively impacting consumers' purchase intentions. By prioritising and investing in factors identified as significant contributors to online trust, such as website security, online consumer reviews, and reliable product information, businesses can cultivate favourable online environments that encourage consumer confidence and loyalty.

9. Limitations of the Study and Future Scope

This study is not without its limitations. First, the research relied heavily on cross-sectional data, which may have restricted its ability to establish causal relationships among variables. Longitudinal studies could provide more insights into the dynamic nature of online consumer behaviour. Additionally, the sample size and demographic characteristics of the participants might have been limited, potentially affecting the generalisability of the findings. Furthermore, the study

predominantly focused on a specific industry or market, so the results may not be universally applicable. Future research endeavours should consider exploring diverse sectors (e.g. health food or beauty and personal care products) and cultural contexts (e.g. GCC or Middle Eastern countries) to enhance the external validity of the model.

Looking ahead, there are several promising avenues for future research in this domain. First, an in-depth investigation into the moderating effects of individual differences, such as personality traits and cultural factors, could offer a more nuanced understanding of the relationships among online trust, perceived risk, and purchase intention. Moreover, integrating emerging technologies into the model, such as artificial intelligence and virtual reality, could shed light on their impact on consumer perceptions and behaviours in the online environment. Additionally, exploring the role of online reviews, social media influences, and other contextual factors could contribute to a more comprehensive model. Lastly, employing mixed-methods research designs, and combining qualitative and quantitative approaches, would provide a richer understanding of the complexities inherent in online consumer decision-making processes. By addressing these limitations and embracing these future research directions, scholars can contribute to the advancement of knowledge in the realm of online consumer behaviour.

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