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# PRODUCT QUALITY AND SERVICE QUALITY ON PURCHASE DECISIONS FOR FASHION PRODUCTS ONLINE THROUGH PERCEIVED RISK IN SOCIAL COMMERCE

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**Abstract.** This study aims to examine the influence of product quality and service quality on online fashion purchase decisions, with perceived risk serving as a mediating variable in the context of social commerce. The rapid growth of online shopping through social media platforms, particularly Facebook and Instagram, has transformed consumer behavior and introduced new dimensions of trust, risk perception, and purchase decision-making. This research investigates how consumers evaluate the reliability of products and services when making purchase decisions in digital environments where physical interactions are absent. Using a quantitative explanatory method, data were collected through questionnaires distributed to students of the Master of Management Program at Pakuan University who actively use Facebook and Instagram for online fashion transactions. A total of 120 valid responses were analyzed using Partial Least Squares–Structural Equation Modeling (PLS-SEM) to test both direct and indirect effects among variables. The findings indicate that both product quality and service quality have significant positive effects on consumers' purchase decisions. Moreover, perceived risk partially mediates the relationship between these variables, suggesting that higher product and service quality can reduce consumer uncertainty and enhance confidence in online purchasing. This implies that building perceived reliability and minimizing transaction risk are critical strategies for increasing customer engagement and satisfaction in social commerce. The study contributes to the growing literature on digital consumer behavior by integrating quality dimensions and risk perception into a unified model of online purchase decision-making. Practically, it provides managerial insights for social media entrepreneurs and e-commerce marketers to strengthen consumer trust through superior product offerings and responsive online services.

**Keywords:** product quality; service quality; perceived risk; purchase decision; social commerce

## I. INTRODUCTION

The rapid advancement of digital technology and social media platforms has transformed global consumer behavior, reshaping the way individuals search for information, evaluate products, and make purchase decisions [1]. In the modern digital economy, social commerce (s-commerce)—a hybrid form of e-commerce integrated with social media interactions—has emerged as a major driver of online consumption patterns [2]. Platforms such as Facebook and Instagram allow users to not only view product information and interact with sellers but also to engage in peer recommendations, reviews, and trust-based exchanges that influence purchase decisions [3]. The online fashion industry, in particular, has benefited from the proliferation of social commerce platforms, as consumers increasingly rely on visual content and peer validation when choosing apparel and accessories [4]. However, despite the convenience and accessibility of online shopping, consumer decisions remain highly dependent on perceived product quality, service reliability, and perceived risk [5]. Unlike traditional retail transactions, online purchases eliminate physical product inspection and face-to-face interaction, creating uncertainty about product authenticity, payment safety, and after-sales service [6]. Product quality is a critical determinant of consumer satisfaction and loyalty in digital marketplaces. It encompasses tangible and intangible attributes such as durability, design, functionality, and compliance with consumer expectations [7]. In the online fashion context, product descriptions, images, and customer reviews serve as substitutes for physical inspection; thus, discrepancies between expected and actual quality often result in negative experiences and reduced purchase intention [8]. In parallel, service quality, defined as the seller's ability to provide efficient, responsive, and reliable online services, plays an equally vital role in enhancing customer confidence [9]. Elements such as prompt communication, delivery accuracy, and complaint resolution strengthen customer trust and reduce hesitation in online transactions [10]. In social commerce, the perception of risk remains one of the most significant barriers to online purchasing. Perceived risk refers to consumers' subjective evaluation of the uncertainty and potential negative consequences associated with a purchase decision [11]. These risks may include financial loss, product mismatch, delivery issues, or misuse of personal data [12]. High levels of perceived risk negatively affect consumers' attitudes and willingness to engage in online transactions. However, prior research indicates that high product and service quality can mitigate perceived risk by signaling reliability, transparency, and commitment to customer satisfaction [13].

Several empirical studies have analyzed these relationships in different contexts. For example, Nguyen et al. (2022) found that product quality and service quality significantly influence purchase intention through trust and satisfaction in Vietnamese e-commerce markets [14]. Similarly, in Indonesia, Fitria and Sari (2023) observed that perceived risk mediates the effect of service quality on repurchase intention among Shopee users [15]. Nevertheless, limited research has examined these relationships within social commerce environments, where interactions occur primarily through social media features such as likes, comments, and private messaging. Therefore, this study aims to investigate the influence of product quality and service quality on online fashion purchase decisions through perceived risk among Facebook and Instagram users. The study focuses on graduate management students as digital consumers who are actively engaged in online shopping and social media usage. By employing a quantitative explanatory design with PLS-SEM, this study seeks to fill the research gap in understanding the psychological and behavioral mechanisms that drive purchase decisions in social commerce settings. The findings are expected to contribute to both theoretical and managerial discussions by offering insights into how risk perception mediates consumer decision-making and how businesses can enhance trust and purchase likelihood through superior product and service strategies.

Product quality is one of the most important determinants of consumer purchase behavior, especially in online retail environments where consumers cannot physically inspect the product before purchase. Kotler and Keller (2022) define product quality as the ability of a product to perform its functions, including durability, reliability, precision, and other performance attributes that satisfy customer needs [7]. High-quality products increase consumers' confidence, reduce uncertainty, and influence repeat purchase intention [16]. In the context of online fashion retail, product quality is closely associated with the accuracy of product descriptions, visuals, and materials shown on digital platforms. Research indicates that discrepancies between the product displayed and the item received negatively affect customer satisfaction and trust [17]. Consequently, high product quality not only enhances customer satisfaction but also mitigates perceived risk by signaling reliability and professionalism in digital marketplaces [18].

Service quality refers to the degree to which a service meets or exceeds customer expectations. Parasuraman et al. (2022) conceptualized it through the E-SERVQUAL model, which includes responsiveness, reliability, assurance, empathy, and tangibles as core dimensions [9]. In online settings, service quality encompasses prompt communication, secure payment systems, timely delivery, and effective after-sales support [19]. Several studies have demonstrated a significant relationship between service quality and consumer trust. When online sellers provide responsive communication and efficient problem-solving, they build perceived credibility, which encourages purchase decisions [20]. Moreover, in social commerce environments, service quality extends beyond transactional interactions—it includes the social engagement element, such as how sellers interact with customers via comments, direct messages, or virtual consultations [21]. Perceived risk represents a consumer's subjective evaluation of potential losses or uncertainties related to online transactions [11]. It is multidimensional, encompassing financial, performance, privacy, and time risks [22]. In digital purchasing, consumers often face uncertainty due to lack of physical verification and concerns about product authenticity or payment security. The higher the perceived risk, the lower the likelihood of a purchase decision [12]. However, research suggests that perceived risk is not always negative; it can be mitigated through mechanisms of trust, reputation, and information transparency [23]. When sellers consistently deliver high-quality products and provide reliable services, consumers' perceived risk decreases, leading to greater willingness to engage in online transactions. Thus, perceived risk acts as a mediating factor that explains how product and service quality influence purchase intentions in online marketplaces [24].

A purchase decision is the culmination of a consumer's cognitive and emotional processes in selecting, evaluating, and deciding to buy a product or service [25]. According to Engel, Blackwell, and Miniard's consumer decision model, this process involves five stages: problem recognition, information search, evaluation of alternatives, purchase, and post-purchase evaluation. In online contexts, these stages occur digitally and are heavily influenced by online reviews, user-generated content, and platform trustworthiness [5]. In social commerce, the decision-making process is distinct because it integrates social interaction and peer influence as determinants of perceived value. Peer recommendations, likes, and comments often function as social proof that reinforces purchasing confidence. Hence, consumers' purchase decisions are shaped not only by rational evaluation (e.g., product and service quality) but also by emotional responses mediated through perceived risk and trust.

The reviewed literature consistently demonstrates that product quality and service quality are fundamental predictors of purchase decisions in online marketplaces. However, their influence is not direct but largely mediated by perceived risk, which captures consumers' psychological evaluation of uncertainty. While previous studies have analyzed these variables in traditional e-commerce contexts, limited research has focused on social commerce platforms such as Facebook and Instagram, where social interactions, visual content, and community trust play crucial roles in shaping consumer decisions [2], [3], [21]. This study fills that research gap by examining the mediating role of perceived risk in the relationship between product quality, service quality, and purchase decisions within social commerce environments. The conceptual framework posits that high product and service quality reduce perceived risk, thereby increasing consumers' likelihood of making online fashion purchases. This model integrates cognitive and affective dimensions of decision-making, offering both theoretical insights and managerial implications for online retailers and social media marketers.

## II. RESEARCH METHODS

This study employed a quantitative explanatory research design to empirically test the relationships among product quality, service quality, perceived risk, and purchase decision in the context of social commerce. The explanatory approach was chosen because it enables the identification of causal relationships among variables and the measurement of direct and indirect effects within a structural model [26]. The population of this research consisted of students enrolled in the Master of Management Program at Pakuan University, who actively use Facebook and Instagram to purchase online fashion products. This population was selected because graduate students represent digital-native consumers who are familiar with social media-based commerce. Using the Slovin formula with a 5% margin of error, a total of 120 respondents were determined as the appropriate sample size. The respondents were selected using purposive sampling, with inclusion criteria being: (1) users who have purchased fashion products through Facebook or Instagram in the past six months, and (2) users who have experience evaluating online sellers' quality and service reliability.

The primary data were collected using a structured questionnaire, divided into five sections: respondent profile, product quality, service quality, perceived risk, and purchase decision. All items were measured on a five-point Likert scale (1 = strongly disagree, 5 = strongly agree). The indicators were adapted from validated scales in previous studies: Product Quality items from Kotler and Keller (2022) and Wang & Zhao (2022) [7], [16]; Service Quality based on Parasuraman et al. (2022) and Othman (2023) [9], [20]; Perceived Risk adapted from Alam & Khan (2023) [22]; and Purchase Decision derived from Kotler, Keller, and Armstrong (2022) [25]. To ensure content validity, the questionnaire was reviewed by three academic experts specializing in marketing and consumer behavior. A pilot test was conducted with 30 respondents, and the reliability analysis using Cronbach's Alpha yielded coefficients above 0.80 for all constructs, indicating high internal consistency.

Data were analyzed using Partial Least Squares–Structural Equation Modeling (PLS-SEM) with SmartPLS version 4.0. This analytical technique was selected because it allows simultaneous estimation of complex relationships among latent constructs and is suitable for exploratory models with mediating variables [27]. The analysis involved two primary stages: (1) the measurement model (outer model) to test indicator reliability, convergent validity, and discriminant validity; and (2) the structural model (inner model) to examine hypothesis testing and assess the significance of relationships between variables.

Model evaluation was based on several criteria:
Average Variance Extracted (AVE) > 0.50 for convergent validity,
Composite Reliability (CR) > 0.70 for construct reliability,
Variance Inflation Factor (VIF) < 5.00 for multicollinearity,
Goodness-of-Fit indices including $R^2$, $f^2$, and $Q^2$ for predictive accuracy.

The significance of direct and indirect effects was evaluated using bootstrapping with 5,000 resamples at a confidence level of 95% ($p < 0.05$). The mediating role of perceived risk was tested using the Sobel test and indirect effect coefficient analysis. All statistical assumptions were met prior to interpretation, ensuring the robustness of the research model.

## III. RESULTS AND DISCUSSION

The results of the PLS-SEM analysis confirmed that the research model achieved a satisfactory level of fit, indicating strong validity and reliability. All indicator loadings exceeded 0.70, while composite reliability (CR) values ranged from 0.84 to 0.93, and Average Variance Extracted (AVE) values were above 0.50, confirming convergent validity. The Fornell–Larcker criterion and Heterotrait–Monotrait Ratio (HTMT) tests also indicated that discriminant validity was achieved, as all values were below the threshold of 0.85.

The results of the structural model revealed the following key findings:
Product Quality → Perceived Risk: $\beta = -0.312$, $p < 0.01$.
Service Quality → Perceived Risk: $\beta = -0.284$, $p < 0.05$.
Product Quality → Purchase Decision: $\beta = 0.351$, $p < 0.01$.
Service Quality → Purchase Decision: $\beta = 0.296$, $p < 0.05$.
Perceived Risk → Purchase Decision: $\beta = -0.278$, $p < 0.01$.

The indirect effects showed that perceived risk partially mediates the relationship between both product quality and service quality toward purchase decisions (Sobel test, $z = 2.84$, $p < 0.01$). The $R^2$ value of 0.63 indicates that 63% of the variance in purchase decision is explained by product quality, service quality, and perceived risk. This suggests a robust explanatory power of the model in predicting online consumer behavior.

The findings demonstrate that product quality has a significant positive influence on online fashion purchase decisions while simultaneously reducing consumers' perceived risk. This supports the argument by Wang and Zhao (2022) that product quality acts as a cognitive cue that enhances consumer trust and lowers uncertainty in online shopping environments [16]. When the displayed product images, descriptions, and reviews align with actual outcomes, customers develop stronger confidence in their purchasing decisions. In the context of social commerce, high product authenticity and visual accuracy are essential in reducing consumers' anxiety about potential losses [17].

Similarly, service quality was found to exert both a direct and indirect effect on purchase decisions. High-quality service reflected through quick response times, clear communication, and reliable delivery was associated with lower levels of perceived risk and greater satisfaction. This finding aligns with Othman (2023), who emphasized that efficient customer support in online platforms significantly improves trust and purchase likelihood [20]. The dual effect of service quality in this study confirms that consumers in social commerce environments value both transactional efficiency and relational interaction (e.g., responsiveness via chat or social media comments).

The results further confirmed that perceived risk negatively affects purchase decisions, consistent with prior studies by Alam and Khan (2023) and Kurniawan and Dewi (2023) [22], [23]. When consumers perceive high levels of uncertainty regarding product performance, payment safety, or privacy, their likelihood of completing a purchase decreases. Conversely, reducing perceived risk through transparency, reliable delivery, and positive online reviews enhances consumers' confidence and willingness to buy. This demonstrates that perceived risk serves as a critical psychological filter that determines the transition from intention to action in digital purchasing behavior.

From a theoretical perspective, these results provide empirical validation of the Stimulus Organism Response (S-O-R) model, where product and service quality act as external stimuli, perceived risk functions as an internal psychological response, and purchase decision serves as the behavioral outcome [28]. The mediation of perceived risk in this framework reinforces the importance of emotional and cognitive mechanisms in shaping consumer behavior in social commerce.

Moreover, the findings highlight that social commerce differs fundamentally from conventional e-commerce, as trust formation relies heavily on social interaction, peer recommendations, and online reputation. As suggested by Park and Kang (2022), social cues such as likes, comments, and influencer endorsements function as "trust signals" that reduce perceived risk and facilitate purchasing confidence [21]. In this study, respondents who engaged more actively with social media communities demonstrated higher trust levels and stronger purchase intentions.

From a managerial perspective, the results emphasize that online retailers must enhance both product quality assurance and digital service responsiveness to build trust and reduce perceived risk. Providing detailed product specifications, using authentic images, maintaining consistent communication, and ensuring timely deliveries are crucial for building long-term consumer loyalty. Marketers should also leverage social proof mechanisms—such as testimonials, user reviews, and interactive engagement—to reinforce product credibility and emotional connection with customers [29].

In conclusion, this study supports previous evidence that perceived risk mediates the relationship between quality dimensions and online purchasing decisions [24], [30]. The results expand existing literature by situating this relationship within social commerce platforms, where consumer decisions are influenced by both transactional trust and social interaction. This contributes to the theoretical integration of digital consumer behavior, online trust, and risk perception models, particularly in emerging economies such as Indonesia [31].

## IV. CONCLUSION

This study concludes that product quality and service quality significantly influence online fashion purchase decisions both directly and indirectly through the mediating role of perceived risk in the context of social commerce. The results of the PLS-SEM analysis revealed that higher product and service quality not only increase purchase likelihood but also reduce consumers' perceived uncertainty and anxiety related to online transactions. Product quality manifested through accurate descriptions, authentic visuals, and consistent product performance creates consumer trust, while service quality reflected through responsiveness, reliability, and empathy reinforces satisfaction and loyalty. Furthermore, perceived risk was found to have a negative and significant effect on purchase decisions, confirming that trust and confidence are critical elements in shaping online consumer behavior. The mediating role of perceived risk indicates that even when quality standards are high, consumers' psychological perceptions of safety and reliability remain key to their decision-making process. The integrated model proposed in this study successfully explained 63% of the variance in purchase decision, validating the theoretical relevance of combining cognitive (quality perception) and affective (risk perception) determinants in predicting digital consumer behavior. These findings extend the Stimulus–Organism–Response (S-O-R) theoretical framework by demonstrating how quality-related stimuli influence purchase behavior through the internal cognitive filter of perceived risk. The study contributes to the growing literature on digital marketing and consumer psychology, particularly within social commerce environments that rely heavily on social trust and peer interaction as drivers of purchasing decisions. Theoretically, this study contributes to the advancement of consumer behavior models by integrating product quality, service quality, and perceived risk into a unified framework applicable to social media-based commerce. The findings provide empirical support for the mediating role of risk perception in explaining how cognitive appraisals (quality) translate into behavioral outcomes (purchase decision). This offers a refined understanding of how trust formation and risk mitigation operate in digital consumption contexts, thereby enriching the academic discourse on online shopping behavior in emerging economies. Practically, the implications of this research emphasize the need for online retailers and social media entrepreneurs to strengthen product assurance systems and digital service excellence. Businesses should focus on building transparency through verified product information, customer reviews, and social proof mechanisms such as influencer endorsements and community feedback. Moreover, maintaining interactive engagement via chat support, prompt responses, and personalized follow-ups can significantly reduce perceived risk and enhance consumer confidence. Policy makers and platform developers should also consider designing trust-enhancing infrastructure, including secure payment gateways, product authentication tools, and consumer protection regulations to support sustainable social commerce ecosystems [33]. Future studies are encouraged to apply longitudinal and cross-cultural research designs to explore the evolving role of perceived risk and quality perception in various digital environments, such as live-streaming commerce and AI-driven retailing. Overall, this study underscores that reducing perceived risk through superior product and service quality is the cornerstone of successful online business strategies—especially in social commerce, where reputation, transparency, and engagement form the foundation of digital trust and consumer loyalty.

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