The surprising influence of social commerce service quality on purchase intentions mediated by e-commerce

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ABSTRACT
Social commerce has become a recent phenomenon and is poised to grow rapidly in the next few years. To better address customer behavior on social commerce platforms, it is imperative to acquire a comprehensive understanding of social commerce from the perspective of service quality. The objective of this research is to examine the dimensions of social commerce service quality and to reveal the factors influencing purchase intentions among the expanding user population. This study identified seven critical dimensions of social commerce service quality (website design, fulfilment, customer service, communication, contact, credibility, and security) that influence purchase intention. This research adopts a questionnaire survey method to collect data from social commerce users. Using PLS-SEM, the findings from an empirical analysis, conducted with a sample of 411 social commerce users, demonstrate that all measured dimensions significantly impact the intention to purchase. The findings also demonstrate that e-commerce has considerable influence on customer purchase intention as a partial mediator in social commerce. The findings hold significant implications for social commerce enterprises to increase customer attraction by identifying the motivations behind their purchasing decisions.

Keywords: E-commerce, Purchase intention, Service quality, Social commerce

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1. INTRODUCTION
Social commerce, the immediate transaction through social media [1], [2], represents a significant evolution in e-commerce. This development has revolutionized commercial interactions, the accessibility of information, and the overall shopping experience [3]. Recently, social commerce has emerged as a formidable segment of e-commerce, offering emerging prospects for brands across a broad spectrum of types and sizes [4]. It delivers personalized services and product offerings, tailoring them to consumers’ preferences, interests, and online interactions [5]. In today’s digital landscape, engaging in social commerce is essential for businesses seeking to leverage marketing advantages effectively [6].

Commencing 2024, the number of social media users worldwide exceeded 5.04 billion, approximately 73.9% of these users utilized social media for shopping-related activities each month [7]. Companies and private individuals have initiated transactions of buying and selling on social media platforms [8], [9]. In Indonesia, social commerce emerged as the next commercial phenomenon, capturing a 79% share of the market’s shoppers [10]. For retailers to optimize their use of social networks as a marketing channel, it is imperative they gain insights into what motivates consumers to engage with brands via social media.

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platforms [11]. As social commerce continues its rise, understanding customer behavior in this evolving digital marketplace has become increasingly important for companies aiming to positively impact purchase decisions and leverage the influence of online social connections [12]. Research indicates the quality of services provided on a website significantly influences both users’ intention to engage with social commerce websites [13] as well as their purchasing behavior [14]. With service quality directly impacting consumer behaviors in the social commerce sphere, businesses must constantly evaluate and monitor their service quality. Limited research has been carried out to identify the dimensions of service quality within social commerce, especially concerning its impact on customer purchase intention [15]–[20]. Previous studies do not cover all its evolving dimensions of service quality on social media especially with the introduction of new features. In addition, there are a few studies focusing on developing contextualized frameworks for service quality in social commerce [21]–[23]. Hence, this study endeavors to fill this gap by developing and validating a set of comprehensive dimensions of service quality, reflecting the current trends in the social commerce landscape. The structure of this paper consists of five primary sections. Section 2 outlines the research hypotheses. Section 3 then outlines the methodology. In section 4 describes the results and the analysis. In section 5 presents discussions, limitation, and suggests areas for future research. Finally, section 6 provides the conclusion with a brief summary.

2. RESEARCH HYPOTHESES

In the modern digital age, where online platforms dominate, the quality of service extends to the digital realm. Factors such as website design, fulfillment, credibility, customer services, diversity of contact options, communication, and security play a pivotal role in influencing purchase intention [24]–[30]. The correlation is clear: higher service quality lead to a more favorable intent to purchase. These insights underscore the instrumental role of service quality in positively shaping consumers’ purchase intentions across various platforms and sectors, emphasizing the importance of businesses prioritizing and enhancing service quality to garner positive purchase intentions from their target audience.

− H1. Service quality influences purchase intention positively

Service quality holds an important role in determining the success or failure of an e-commerce business as customers are more inclined to participate in transactions on platforms that offer high-quality services. Previous research has demonstrated a strong positive correlation between e-service quality and online spending by consumers in e-commerce [31]. When online retailers provide high quality electronic services through their e-commerce website, it significantly impacts success [32]. Specifically, the perceived effectiveness of a retailer’s entire e-commerce activities is closely tied to how well they manage e-service quality on their website [33].

− H2. Service quality influences e-commerce positively

Online shopping has become increasingly popular, and e-commerce platforms have established procedures to curate vendors and provide recourse against fraudulent vendors [34], which can help alleviate concerns surrounding online transactions. These concerns include performance and psychological, financial, and payment risks [35], with financial risk being the main inhibitor for consumers [36]. While social commerce faces several challenges, including the inability to collect payments and process orders [37], the risk of fraud, delivery delays, defective products [38], and high seller uncertainty [39].

− H3. E-commerce influences purchase intentions positively

3. METHOD

This study aimed to understand the behaviors of social commerce users in Indonesia, a country with the world’s fourth-largest social media presence [40], yet underrepresented in studies [41]. Utilizing a survey methodology the study collected data from various users to generalize the findings. The questionnaire was distributed via online platforms such as WhatsApp, Telegram, and Instagram, initially gathering 445 responses. After screening for discrepancies and verifying respondents’ experience with social commerce purchases, 34 responses were disqualified for inadequacy, resulting in 411 valid responses for analysis.

Among the respondents, 193 were male, while 218 were female. The largest demographic group within the sample, comprising 50% of the total, aged between 11 and 28 years, with a total of 206 participants. A significant majority of the respondents, totalling 293 individuals, held university degrees, constituting 71.3% of the sample.

For each construct, the items were mainly taken from earlier research with modifications to incorporate aspects of social commerce. The primary constructs used: website design [42], [43], fulfillment [42], [43], credibility [44], [45], customer service [19], [46], communication [47], contact [48], security [49], [50], e-commerce [51], [52], and purchase intention [53]. All the constructs were assessed employing a Likert scale, spanning from 1 to 6, with 1 indicating “strongly disagree” and 6 denoting “strongly agree”.

The analysis of the model was conducted using SmartPLS 4.0. This method was chosen due to the presence of formative indicators and the primary goal of assessing the predictive validity of the designated paths [54]. In addition, PLS-SEM accommodates the estimation of intricate models with numerous constructs, indicators, and model relationships [55], [56]. In this study, encompassing ten constructs, the choice of PLS-SEM aligns with its capacity to handle such complexity.

4. RESULTS

4.1. Convergent validity and reliability

All computed outer loading values exceeded the threshold of 0.7, while the AVE and CR values also surpassed their critical benchmarks of 0.50 and 0.70, respectively as shown in Table 1. It demonstrates that the survey adequately and reliably measured each individual variable, as evidenced by the sufficient levels of internal consistency.

<table>
<thead>
<tr>
<th>Construct</th>
<th>Item</th>
<th>Loading</th>
<th>Cronbach’s a</th>
<th>C.R.</th>
<th>AVE</th>
</tr>
</thead>
<tbody>
<tr>
<td>Website design</td>
<td>Social commerce provides exactly the information I require to complete my tasks.</td>
<td>0.844</td>
<td>0.792</td>
<td>0.865</td>
<td>0.616</td>
</tr>
<tr>
<td></td>
<td>The social commerce satisfactorily provides the information that meets my needs.</td>
<td>0.849</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>The design of social commerce is visually pleasing.</td>
<td>0.787</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>The social commerce has a visually appealing appearance.</td>
<td>0.800</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>The social commerce presents its content in a visually attractive and simple to read.</td>
<td>0.795</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Understanding the labels and the tags in social commerce are effortless.</td>
<td>0.780</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Social commerce enables personalized interaction for tailored information.</td>
<td>0.817</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Through social commerce, I can engage and obtain information customized to my specific requirements.</td>
<td>0.841</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Fulfillment</td>
<td>Social commerce ensures items are delivered within an appropriate timeframe.</td>
<td>0.835</td>
<td>0.635</td>
<td>0.845</td>
<td>0.732</td>
</tr>
<tr>
<td></td>
<td>Social commerce ensures fast delivery of my orders.</td>
<td>0.778</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Social commerce ships the ordered items.</td>
<td>0.729</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Social commerce is honest in presenting its offerings.</td>
<td>0.807</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Customer service</td>
<td>Social commerce offers convenient return options for items.</td>
<td>0.781</td>
<td>0.656</td>
<td>0.853</td>
<td>0.744</td>
</tr>
<tr>
<td></td>
<td>Social commerce efficiently manages product returns.</td>
<td>0.715</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Social commerce provides a significant guarantee.</td>
<td>0.715</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>The social commerce informs users precisely when service will be performed.</td>
<td>0.838</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>The social commerce always responds to my request.</td>
<td>0.823</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Communication</td>
<td>The communication process with other users and/or owners through the platform is adequate.</td>
<td>0.815</td>
<td>0.440</td>
<td>0.781</td>
<td>0.641</td>
</tr>
<tr>
<td>Contact</td>
<td>I can give my opinion on the different services on the platform itself.</td>
<td>0.786</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Social commerce made available all types of contact information.</td>
<td>0.795</td>
<td>0.616</td>
<td>0.792</td>
<td>0.559</td>
</tr>
<tr>
<td></td>
<td>Social commerce enabled contacting customer service through both telephone and chat options.</td>
<td>0.737</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Credibility</td>
<td>The social commerce provided reliable email contact.</td>
<td>0.709</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>This social commerce is widely recognized.</td>
<td>0.766</td>
<td>0.303</td>
<td>0.741</td>
<td>0.589</td>
</tr>
<tr>
<td></td>
<td>This social commerce has a good reputation in the market.</td>
<td>0.769</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Security</td>
<td>The social commerce has adequate security measures.</td>
<td>0.787</td>
<td>0.649</td>
<td>0.810</td>
<td>0.587</td>
</tr>
<tr>
<td></td>
<td>I feel secure conducting transactions on the social commerce.</td>
<td>0.768</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>The social commerce ensures the protection of customers’ information and privacy.</td>
<td>0.743</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>E-commerce</td>
<td>Making purchases on e-commerce platforms, I am reassured by the existence of protective measures against potential risks (e.g., disclosing private information, products not received) should my purchase encounter issues.</td>
<td>0.747</td>
<td>0.594</td>
<td>0.785</td>
<td>0.549</td>
</tr>
<tr>
<td></td>
<td>I am confident in my protection against exploitation (e.g., disclosing private information, products not received, etc.) when making purchases on e-commerce platforms.</td>
<td>0.742</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>I am convinced that external entities (e.g., your credit card company, your delivery logistics company, your e-wallet company) bear the responsibility to guard me against any potential pitfalls of e-commerce transactions if my purchase encounters problems.</td>
<td>0.733</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Purchase intention</td>
<td>I plan to buy products through social commerce if the product is appealing.</td>
<td>0.820</td>
<td>0.443</td>
<td>0.782</td>
<td>0.642</td>
</tr>
<tr>
<td></td>
<td>I am interested in buying products through social commerce.</td>
<td>0.782</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Table 1. Construct reliability and validity
4.2. Discriminant validity

When evaluating discriminant validity, it is imperative to subject the relevant constructs to rigorous scrutiny. Adhering to established assessment methodology such as the Fornell-Larcker criterion [57]. The three primary constructs under investigation in this study emerge as being fully compliant with the discriminant validity criteria see in Table 2.

<table>
<thead>
<tr>
<th>Constructs</th>
<th>Fornell-Larcker criterion</th>
</tr>
</thead>
<tbody>
<tr>
<td>E-commerce</td>
<td>0.741</td>
</tr>
<tr>
<td>Purchase intention</td>
<td>0.801</td>
</tr>
<tr>
<td>Service quality</td>
<td>0.589</td>
</tr>
</tbody>
</table>

4.3. Goodness of model fit

The AVE values for the constructs of service quality, e-commerce, and purchase intention are determined to be 0.347, 0.549, and 0.642, respectively, leading to a computed geometric mean of 0.512. Simultaneously, the determination coefficients (R² values) for the e-commerce and purchase intention constructs stand at 0.201 and 0.481, generating an average R² value of 0.341. With these requisite values at hand, the GoF can be derived using the prescribed formula \( \sqrt{\text{AVE} \times \text{R}^2} = \sqrt{0.341 \times 0.341} = 0.418 \). This result signifies the model’s adequacy in terms of goodness of fit, thereby affirming the existence of statistically significant relationships between the constructs of service quality, e-commerce, and purchase intention within the overarching framework.

4.4. Results of hypotheses testing

Table 3 presents that service quality exerts a substantial and statistically significant positive influence on both e-commerce (\( \beta=0.448, p<0.001 \)) and purchase intention (\( \beta=0.639, p<0.001 \)), while e-commerce similarly exerts a statistically significant positive influence on purchase intention (\( \beta=0.107, p<0.001 \)). The results provide support for H1, H2, and H3 see in Figure 1.

<table>
<thead>
<tr>
<th>Hypothesis and path</th>
<th>Original sample</th>
<th>Mean</th>
<th>S. D</th>
<th>T statistics</th>
<th>P values</th>
<th>Result</th>
</tr>
</thead>
<tbody>
<tr>
<td>E-commerce ( \rightarrow ) purchase intention</td>
<td>0.107</td>
<td>0.109</td>
<td>0.052</td>
<td>2.084</td>
<td>0.037</td>
<td>Supported</td>
</tr>
<tr>
<td>Service quality ( \rightarrow ) e-commerce</td>
<td>0.448</td>
<td>0.452</td>
<td>0.055</td>
<td>8.121</td>
<td>0.000</td>
<td>Supported</td>
</tr>
<tr>
<td>Service quality ( \rightarrow ) purchase intention</td>
<td>0.639</td>
<td>0.638</td>
<td>0.038</td>
<td>16.698</td>
<td>0.000</td>
<td>Supported</td>
</tr>
</tbody>
</table>

Figure 1. The structural equation modelling results
4.5. The mediating effect of e-commerce on customer purchase intention

The outcome of the study indicates a significant mediating role of e-commerce (EC) in linking service quality (SQ) and customer purchase intention (PI) see in Table 4. This mediation is supported by a path coefficient of 0.048, t-statistic (1.983>1.96). Additionally, the p-value 0.047<0.05 with 95% confidence intervals.

Table 4. Specific indirect effect

<table>
<thead>
<tr>
<th>SQ-&gt;EC-&gt;PI</th>
<th>O</th>
<th>M</th>
<th>STDEV</th>
<th>T statistics</th>
<th>P values</th>
<th>Confidence intervals 2.5%</th>
<th>97.5%</th>
</tr>
</thead>
<tbody>
<tr>
<td>0.048</td>
<td>0.049</td>
<td>0.024</td>
<td>1.983</td>
<td>0.047</td>
<td>0.005</td>
<td>0.009</td>
<td></td>
</tr>
</tbody>
</table>

4.6. Effect size mediation test

Table 5 indicates that the role of e-commerce in mediating the indirect impact of service quality on customer purchase intention at the structural level is small. However, it’s worth noting that even though the effect sizes are small, Gaskin and Lowry [58] contend that such small effects can still provide valuable insights. These insights contribute to our understanding of the phenomenon.

Table 5. Statistic uppsilon

<table>
<thead>
<tr>
<th>Service quality-&gt;e-commerce-&gt;purchase intention</th>
<th>Statistic uppsilon (v)</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>(0.448)*(0.107)=0.002</td>
<td>Small effect</td>
<td></td>
</tr>
</tbody>
</table>

5. DISCUSSION

This study investigated the effects of service quality and e-commerce on purchase intention in the context of social commerce. While earlier studies have explored the impact of service quality and e-commerce on purchase intention, they have not explicitly addressed the interconnectivity between social commerce, service quality, and e-commerce, nor their joint influence on purchase intention. This study found that service quality positively correlates with purchase intention. Specifically, the dimensions of website design, fulfillment, customer service, communication, contact, credibility, and security significantly influence purchase intention. This result is consistent with previous studies, underscoring that service quality bolsters the intention to make a purchase [32], [59]. Additionally, higher service quality was found to positively impact e-commerce performance. This echoes previous findings (e.g., in [32], [33]) that the prosperity of an e-commerce activities hinges critically on the management of e-service quality, with a good electronic service quality website being a key determinant of success.

This study also found that a well-developed e-commerce platform encourages consumers to purchase more, emphasizing e-commerce’s role in motivating buying decisions. Consumers are more likely to intend to buy a product or service when they interact with it through an e-commerce platform. The findings somewhat align with the results of prior research (e.g., in [60], [61]) claiming that the features of e-commerce influence customer purchase intentions. Additionally, the study revealed that e-commerce acts as a mediator between service quality and customer purchase intention. Previous studies explored the influence of social commerce on e-commerce outcomes (e.g., in [62]–[65]), this study takes a novel approach by examining the reciprocal relationship where e-commerce influences social commerce outcomes.

This study explored a comprehensive set of service quality dimensions using a cross-sectional design. However, further and more in-depth studies may be needed to confirm the relationships revealed in this study, especially regarding changes within individuals or populations over time. The cross-sectional design can collect data on multiple variables simultaneously at a specific point in time. Future studies might explore a longitudinal approach to better understand how service quality dimensions impact purchase intentions over time.

Recent observations indicated that service quality plays a pivotal role in improving purchase intentions among consumers within the field of social commerce. Our research findings provide conclusive evidence supporting the idea that improvements in service quality are directly linked to notable changes in customer behavior. These changes reflect broader trends in the social commerce landscape, where consumers increasingly value seamless, responsive, and personalized shopping experiences. This effect is not merely due to the increasing number of online transactions over time; rather, it stems from a deeper transformation in how consumers interact with companies.

The surprising influence of social commerce service quality on purchase ... (Bukky Suwarno)
6. CONCLUSION

With the rise of social commerce, investigating the determinants of consumer purchase intentions in the context of social commerce is essential. Through the lens of service quality, this research examines the determinants influencing purchase intention. This study proposes website design, fulfillment, customer service, communication, contact, credibility, and security that affect purchase intentions. Further, e-commerce is also proposed as a mediator that affects customers’ purchase intention. The findings indicate that all the measured dimensions had significant effects on purchase intention. In addition, the findings also demonstrate that e-commerce has considerable influence on customer purchase intention as a partial mediator. This study enriches the current body of knowledge surrounding social commerce service quality by concentrating on purchase intention, an area that has thus far received comparatively limited attention. By focusing on purchase intention, addressing diverse service quality dimensions, and recognizing the interplay between these digital domains, businesses can adjust their strategies, services, and overall business models to better serve their customers and prosper in this dynamic digital marketplace ecosystem.

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