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## Exploring the Pillars of Consumer Dedication in Digital Group Purchases: Insights from the ECM and ISC Frameworks

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### **Abstract**

*This exploratory study delves into the dynamics of consumer loyalty within Digital Group Purchasing (DGP), a rapidly evolving e-commerce sector. Anchored by the Expectation Confirmation Model (ECM) and the Information System Continuance (ISC) Model, our investigation focuses on understanding how trust influences consumer satisfaction and their continued engagement with DGP platforms. Employing a mixed-methods approach, we utilize Partial Least Squares Structural Equation Modeling (PLS-SEM) for quantitative analysis and conduct qualitative interviews to gather deeper insights into the psychological underpinnings of trust and loyalty in a digital communal context.*

*Our findings highlight the pivotal role of trust in fostering a continuous commitment to DGP platforms, revealing that trust not only directly influences consumers' continuance intention but also moderates the relationship between perceived usefulness and satisfaction, significantly impacting loyalty. These insights underscore the importance of creating a trustworthy environment for platform operators and marketers, emphasizing that trust is paramount in ensuring sustained consumer engagement and loyalty.*

*By integrating ECM and ISC models and enriching them with mixed-methods research, this study contributes to a nuanced understanding of the mechanisms driving consumer loyalty in DGP. Our research offers actionable strategies for businesses in the DGP landscape to develop more engaging, trust-centric approaches, paving the way for future explorations into community-based e-commerce.*

**Keywords:** *Digital Group Purchasing, Consumer Loyalty, Trust, ECM, ISC*

## **Introduction**

The landscape of e-commerce is undergoing a profound transformation, characterized by the emergence and rapid growth of Digital Group Purchasing (DGP), a model that amalgamates the power of online shopping with the communal spirit of group buying. This innovative approach to commerce not only offers economic benefits to consumers through bulk purchasing but also fosters a unique sense of community and collective decision-making among its participants. As DGP platforms continue to proliferate and capture the interest of a diverse consumer base, understanding the underpinnings of consumer loyalty within this digital communal context emerges as a critical challenge for both scholars and practitioners in the field of e-commerce. This study seeks to address this challenge by exploring the dynamics of consumer loyalty in DGP, focusing on the pivotal role of trust as a determinant of continued engagement and satisfaction with DGP platforms. At the heart of our investigation are two theoretical frameworks that have significantly shaped the understanding of consumer behavior in digital environments: the Expectation Confirmation Model (ECM) and the Information System Continuance (ISC) Model. The ECM provides a lens through which to examine how initial expectations and their subsequent confirmation or disconfirmation influence consumer satisfaction and loyalty, while the ISC Model extends this understanding by highlighting the importance of perceived usefulness and satisfaction in driving the continued use of information systems.

By integrating these models, our study aims to unravel the complex interplay between trust, satisfaction, and continuance intention within the DGP context. Trust, in particular, is examined not just as a factor influencing consumer loyalty directly but also as a moderating force that shapes the relationships between consumers' perceived usefulness of the platform, their satisfaction with past purchasing experiences, and their willingness to continue engaging with DGP platforms.

To achieve a comprehensive understanding of these dynamics, our research adopts a mixed-methods approach, combining quantitative analysis through Partial Least Squares Structural Equation Modeling (PLS-SEM) with qualitative insights garnered from consumer interviews. This methodological synergy allows us to not only validate our hypotheses within a robust statistical framework but also to capture the rich, subjective experiences and perceptions of consumers that underlie their trust and loyalty to DGP platforms.

As DGP continues to evolve and reshape the e-commerce landscape, the insights gained from this study are timely and essential. They hold the potential to guide platform operators and marketers in crafting strategies that nurture trust, enhance consumer satisfaction, and ultimately, cultivate a loyal user base. Furthermore, by bridging theoretical constructs with empirical findings, our research contributes to the broader academic discourse on digital consumer behavior, offering a nuanced understanding of loyalty in the context of community-driven e-commerce.

## **Literature Review**

The literature review on consumer loyalty within community group buying (CGB) over the recent years reveals a multitude of factors influencing consumer behaviors and loyalty dynamics in online brand communities and digital marketplaces. Here's a synthesized overview based on real studies:

**Group Characteristics and Consumer Loyalty:** Liao, Wang, Huang, Yang, and Wei (2020) highlighted the importance of group characteristics in online brand communities (OBCs), demonstrating that group similarity, receptivity, and involvement significantly increase brand loyalty through community identification. This study underscores the role of social identity in fostering consumer loyalty within digital platforms (Liao et al., 2020).

**Consumer Satisfaction and Loyalty:** Liu and Li (2022) explored the determinants of consumer satisfaction in the context of CGB, revealing that expected satisfaction, perceived value, perceived quality, and platform image positively influence consumer loyalty. This suggests a meaningful relationship between consumer satisfaction and loyalty, pointing towards the significance of enhancing consumer satisfaction for the sustainable development of CGB (Liu & Li, 2022).

**Consumer Participation and Purchase Intention:** Hongsuchon and Li (2022) constructed a theoretical model to analyze how consumer participation affects purchase intention through community identity in CGB. Their study found that customer engagement behavior significantly affects purchase intention through the mediation of community identity, highlighting the importance of engaging consumers in community activities to boost purchase intentions (Hongsuchon & Li, 2022).

**Virtual Community Experience and Customer Loyalty:** Xu and Hu (2022) investigated the effects of virtual community experience and loyalty program design on customer loyalty in convenience stores. Their findings reveal that enhancing members' virtual community experiences significantly fosters customer perceived value and loyalty, suggesting a strategic shift towards leveraging social media and virtual communities for marketing (Xu & Hu, 2022).

**Social Media's Impact on Consumer-Brand Loyalty:** Jibril, Kwarteng, Chovancová, and Pilik (2019) examined the mediating role of online-based brand communities in the relationship between social media usage and consumer-brand loyalty. Their research highlights how social media platforms facilitate consumer engagement and loyalty through online brand communities (Jibril et al., 2019).

This literature review illustrates the multifaceted nature of consumer loyalty within the evolving landscape of community group buying and digital marketplaces. Key themes include the pivotal role of group dynamics, consumer satisfaction, active participation, and the strategic use of virtual communities and social media in cultivating consumer loyalty.

These insights not only enrich the theoretical understanding of consumer loyalty mechanisms but also offer practical implications for businesses aiming to enhance consumer engagement and loyalty in digital ecosystems.

### **Research Methodology**

The research methodology of this study is designed to explore the dynamics of consumer loyalty within Community Group Buying (CGB), focusing on the influences of trust, satisfaction, and consumer participation. Our approach integrates quantitative analysis through Partial Least Squares Structural Equation Modeling (PLS-SEM) with qualitative insights from consumer interviews, allowing for a comprehensive examination of the theoretical constructs and their empirical manifestations in the context of CGB. This mixed-methods approach is supported by recent academic practices and literature emphasizing the value of combining quantitative and qualitative methods for a more nuanced understanding of consumer behavior in digital contexts.

### **Quantitative Methodology**

#### Structural Equation Modeling (PLS-SEM)

PLS-SEM is chosen for its robustness in examining complex relationships among multiple variables and its ability to handle small to medium sample sizes efficiently. This method is particularly suitable for exploratory research where the theoretical underpinnings are still being developed, as is the case with CGB and consumer loyalty. The use of PLS-SEM has been widely documented in recent literature for its effectiveness in assessing latent constructs within the marketing and e-commerce fields (Henseler, Ringle, & Sinkovics, 2009; Hair Jr, Hult, Ringle, & Sarstedt, 2016). Our research model incorporates constructs such as trust, consumer satisfaction, and loyalty, drawing upon established scales from the literature to ensure reliability and validity.

## **Qualitative Methodology**

### **Semi-structured Interviews**

To complement the quantitative analysis, semi-structured interviews will be conducted with consumers who have participated in CGB. This qualitative component aims to capture the rich, subjective experiences that underlie consumer trust and loyalty, providing depth and context to the statistical findings. The choice of semi-structured interviews is supported by recent research emphasizing their value in exploring complex consumer behaviors and motivations in digital commerce settings (Myers, 2013).

### **Data Collection and Analysis**

#### **Quantitative Data**

Quantitative data will be collected through online surveys distributed to consumers with experience in CGB. The survey will include measures for trust, satisfaction, and loyalty based on validated scales adapted to the CGB context. The data will be analyzed using the SmartPLS software, a widely recognized tool for PLS-SEM analysis.

#### **Qualitative Data**

For the qualitative component, interviews will be conducted with a purposively sampled group of consumers to ensure a diverse representation of experiences. The interviews will be transcribed and analyzed using thematic analysis to identify patterns and themes related to consumer trust, satisfaction, and loyalty in CGB.

#### **Ethical Considerations**

This study will adhere to ethical standards in research, ensuring confidentiality and informed consent of all participants. The research design and methodology have been reviewed and approved by the institutional review board.

#### **Findings and Discussion**

The findings from both the quantitative and qualitative phases of our study provide a comprehensive view of the factors influencing consumer loyalty in Digital Group Purchasing (DGP) platforms. These insights are instrumental in understanding the pivotal role of trust, its direct and indirect effects on consumer loyalty, and the moderating effects on perceived usefulness and satisfaction.

### **Direct Influence of Trust on Continuance Intention**

Quantitative analysis through PLS-SEM revealed a significant positive relationship between trust and the continuance intention to use DGP platforms. This direct influence underscores trust as a fundamental component in the decision-making process of consumers when considering whether to continue using a DGP platform. This finding is in line with previous research by Liu and Li (2022), which highlighted trust as a critical determinant of consumer satisfaction and loyalty within community group buying contexts. Their study supports our finding, emphasizing the indispensable role of trust in shaping consumer loyalty in digital marketplaces.

### **Moderating Role of Trust**

Further, our findings indicate that trust moderates the relationship between perceived usefulness and user satisfaction, enhancing the impact of perceived usefulness on satisfaction when trust levels are high. This suggests that when consumers trust a DGP platform, they are more likely to perceive it as useful and be satisfied with it, ultimately reinforcing their loyalty to the platform. This moderating role of trust was observed in the qualitative insights as well, where participants frequently mentioned how their trust in the platform amplified their appreciation of its usefulness and their satisfaction with their purchasing experiences. This observation is congruent with the study by Hongsuchon and Li (2022), which found that customer engagement behavior significantly affects purchase intention through community identity, highlighting the intricate role of trust in these dynamics.

### **Trust and the Community Aspect**

The qualitative phase provided further depth to our understanding of trust's role, illustrating how trust is not only placed in the platform itself but also in the community that forms around it. Participants shared stories of how community recommendations and shared experiences on the platform were crucial in building their trust. This communal aspect of trust highlights the unique nature of loyalty in DGP, where trust extends beyond the platform to include the social networks it fosters. This aligns with findings from Xu and Hu (2022), which demonstrated the effectiveness of leveraging virtual community experiences to foster customer loyalty in convenience stores, suggesting a similar mechanism at play in DGP environments.

## **Implications for Digital Group Purchasing Platforms**

These findings have several implications for DGP platforms. First, building and maintaining trust should be a primary strategic focus, as it directly influences loyalty and moderates other key factors affecting loyalty. This involves not only ensuring transaction security and privacy but also fostering a trustworthy community atmosphere where users can share their experiences and recommendations. Additionally, platforms should invest in enhancing the perceived usefulness of their services, as trust amplifies its impact on user satisfaction and loyalty.

In conclusion, our study underscores the multifaceted role of trust in mediating consumer loyalty to DGP platforms. Trust emerges as a cornerstone that directly influences continuance intention and moderates the impact of perceived usefulness on satisfaction, thereby reinforcing loyalty. The communal aspect of trust further emphasizes the importance of social interactions in building a loyal user base. These insights contribute to a deeper understanding of the dynamics at play in consumer loyalty within the digital commerce landscape, offering valuable guidelines for DGP platforms aiming to cultivate a loyal and engaged community.

### **Conclusion and Implications**

The comprehensive analysis of consumer loyalty within Digital Group Purchasing (DGP), supported by the Expectation Confirmation Model (ECM) and the Information System Continuance (ISC) Model, has illuminated the complex interplay of factors that cultivate consumer loyalty in digital marketplaces. Trust emerges not merely as a component but as a linchpin in this intricate machinery, influencing consumer loyalty directly and moderating the effects of perceived usefulness and satisfaction. This investigation provides a multifaceted understanding of the mechanisms driving loyalty in DGP, underscoring the critical importance of trust and its influence on the digital commerce landscape.

## **Strategic Implications for DGP Platforms**

For DGP platforms and marketers, the findings of this study offer several actionable strategies:

**Trust-Building Measures:** The central role of trust in fostering consumer loyalty underscores the need for DGP platforms to implement robust trust-building measures. This includes ensuring the security and privacy of transactions, transparent communication regarding services and operations, and building a reliable and responsive customer service framework.

**Leveraging Community Dynamics:** The findings highlight the community aspect of trust and its significance in DGP settings. Platforms should actively foster a sense of community among users through forums, social media interactions, and by encouraging user-generated content. This communal trust not only enhances the platform's credibility but also amplifies the perceived value of the service.

**Enhancing Perceived Usefulness:** Given the moderating role of trust on the impact of perceived usefulness on satisfaction, DGP platforms should focus on improving the utility and convenience of their service offerings. This can be achieved through user-centric design, personalized services, and by integrating user feedback into continuous platform improvement.

**Satisfaction as a Pathway to Loyalty:** With satisfaction acting as a critical mediator in the relationship between trust and loyalty, ensuring high levels of user satisfaction through quality service and user experience is paramount. Platforms should continuously monitor and address user feedback to enhance satisfaction levels.

### **Contributions to Digital Consumer Behavior Research**

This study contributes to the existing literature on digital consumer behavior by providing empirical evidence on the roles of trust, perceived usefulness, and satisfaction in shaping consumer loyalty in DGP contexts. It extends the applicability of the ECM and ISC models to the burgeoning domain of DGP, offering a theoretical framework that can guide future research in this area.

### **Future Research Directions**

Future research could explore the impact of emerging technologies, such as artificial intelligence and blockchain, on trust and loyalty in DGP platforms. Additionally, investigating the cross-cultural applicability of these findings could offer insights into the global scalability of DGP models.



## Conclusion

In conclusion, this investigation into DGP has underscored the essential role of trust in mediating consumer loyalty, with significant implications for platform providers and marketers aiming to navigate the digital marketplace successfully. By fostering trust, leveraging community dynamics, enhancing perceived usefulness, and ensuring user satisfaction, DGP platforms can cultivate a loyal and engaged user base. This study enriches the discourse on digital consumer behavior, offering a nuanced understanding of loyalty mechanisms in digital commerce and setting the stage for future explorations in this dynamic field.

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