IMPACT OF MOBILE BANKING APPS ON CUSTOMER ENGAGEMENT AND LOYALTY- A STUDY

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ABSTRACT

The rise of mobile banking applications has transformed the landscape of banking services, driving customer engagement and loyalty through enhanced accessibility and personalized features. This study examines the impact of mobile banking apps on customer engagement and loyalty, focusing on key factors such as ease of use, perceived security, and service personalization. Using a quantitative research approach, data was collected from 500 mobile banking users across diverse demographics through a structured survey. Statistical analysis, including regression and correlation, was conducted to determine the relationship between app features and customer engagement, and further, its influence on customer loyalty. Findings reveal that ease of use and personalized service significantly enhance engagement, while perceived security positively impacts loyalty. Moreover, the study underscores the importance of continuous feature upgrades and seamless user experience to maintain customer interest and encourage long-term loyalty. This research offers valuable insights for banks aiming to refine their digital strategies, with implications for enhancing user satisfaction and retention.

KEYWORDS: *Mobile Banking, Customer Engagement, Customer Loyalty, Ease of Use, Service Personalization, Perceived Security*

THEORETICAL BACKGROUND

Examining the impact of mobile banking apps on customer engagement and loyalty draws on the frameworks of technology acceptance and relationship marketing. The Technology Acceptance Model (TAM) posits that perceived ease of use and perceived usefulness are fundamental determinants of user acceptance of new technologies, which, in the context of mobile banking, translates into higher engagement. As customers find mobile apps convenient and beneficial, their likelihood of continued use increases, fostering engagement. Additionally, relationship marketing theory suggests that building trust and providing personalized service are crucial for developing customer loyalty. Mobile banking apps that prioritize security and offer personalized features, such as transaction insights and tailored financial advice, enhance customer satisfaction and encourage loyalty by addressing individual needs. This theoretical foundation suggests that the interplay of technology acceptance and personalized relationship-building within mobile banking apps serves as a powerful mechanism for boosting customer engagement and fostering long-term loyalty.

PROBLEM STATEMENT

The rapid adoption of mobile banking apps has reshaped the banking industry, yet the factors driving customer engagement and loyalty in this digital medium remain complex and multifaceted. While mobile banking offers convenience and accessibility, there is limited understanding of how specific app features, such as ease of use, security, and personalization, influence sustained user engagement and loyalty. Additionally, as competition intensifies within the digital banking space, banks face the challenge of maintaining user interest and building lasting relationships. The problem lies in identifying and leveraging the key app attributes that not only attract customers but also foster loyalty over time. This study examines how mobile banking app features affect customer engagement and loyalty to help banks improve their digital services and retain customers in a competitive market.

INTRODUCTION

The proliferation of mobile banking applications has significantly transformed customer interaction within the banking sector, reshaping traditional banking practices to align with digital convenience (Zhang & Yang, 2021). With the advent of mobile banking, customers can perform transactions, monitor accounts, and receive personalized financial services, all from the convenience of their

EPRA International Journal of Research and Development (IJRD)

mobile devices (Kim & Lee, 2022). This shift has been propelled by advancements in digital technology and increasing smartphone penetration, resulting in widespread adoption of mobile banking apps. However, while mobile banking offers unprecedented accessibility and efficiency, understanding the determinants that influence customer engagement and loyalty in this digital environment is crucial for banks seeking to sustain competitive advantage in an increasingly digital marketplace (Chen et al., 2020). The Technology Acceptance Model (TAM) provides a foundational framework for examining customer acceptance of mobile banking technology, highlighting perceived ease of use and perceived usefulness as critical drivers of user engagement (Davis, 1989; Ali & Ali, 2023). Recent studies underscore the importance of these factors, suggesting that user-friendly interfaces and functional utility play a pivotal role in customer satisfaction and engagement with mobile banking platforms (Shankar & Roy, 2022). Moreover, perceived security has emerged as a vital element influencing customer trust and, ultimately, loyalty (Patel & Singh, 2023). In an environment where digital fraud and data privacy concerns are prevalent, banks must ensure robust security measures to retain customers and foster loyalty, thereby enhancing the sustainability of their digital services (Nguyen & Tran, 2023).

Alongside the TAM framework, relationship marketing theory emphasizes the role of trust, personalized service, and customer-centric approaches in nurturing loyalty (Berry, 1983; Park & Lee, 2021). Mobile banking apps that offer personalized features—such as transaction alerts, financial advice, and tailored product recommendations—are more likely to strengthen customer relationships by addressing individual needs and preferences (Rao & Sinha, 2024). As customer expectations for personalized digital experiences grow, banks are urged to innovate continuously to deliver value-driven mobile services that not only meet user needs but also foster long-term loyalty. This study aims to contribute to the existing literature by examining the specific app attributes that influence customer engagement and loyalty, providing insights for banks to optimize their digital strategies in response to evolving consumer preferences.

LITERATURE REVIEW
Customer Loyalty
Smith and Brown (2020) argue that customer loyalty is significantly influenced by the degree to which users consistently engage with mobile banking apps. Their research suggests that apps that provide a seamless experience are more likely to retain customers in the long run. Rahman and Gupta (2021) emphasize that customer loyalty in mobile banking is closely tied to trust, which is fostered by secure and reliable services. They found that security features are crucial for building the trust necessary to ensure long-term loyalty. Kim et al. (2022) examines the relationship between ease of use, perceived usefulness, and loyalty, finding that customers are more likely to remain loyal to accessible and beneficial platforms. This study highlights that usability and utility are pivotal for customer retention. Nguyen and Pham (2023) discuss the importance of continuous app updates in maintaining loyalty. Their study found that apps that frequently introduce new features and improve usability foster stronger user connections, as customers feel their needs are being met. Singh and Patel (2024) highlight the value of personalized services in driving customer loyalty. They found that customers are more likely to engage with apps that cater to their specific needs, creating a sense of belonging that fosters loyalty. Ahmed and Wong (2020) emphasize that reliability and perceived security are critical for loyalty, as these factors create a foundation of trust. Their study found that when customers feel secure and confident in an app, they are more likely to remain loyal. Zhao and Tang (2021) reveal that ease of use and perceived usefulness are significant predictors of loyalty in mobile banking. The study emphasizes that apps need to balance functionality with ease of use to foster long-term customer engagement. Li and Wang (2023) found that customer loyalty is influenced by the overall user experience in mobile banking apps. They conclude that satisfaction with app performance is key to ensuring loyalty, as users value consistent quality in digital services.

Ease of Use
Wang and Zhang (2020) note that mobile banking app acceptance and retention depend heavily on ease of use. Users are more likely to engage with apps that display information and services in a clear, easy-to-navigate structure, which minimizes cognitive strain and improves user experience. Their study shows that customers are more likely to prefer a mobile banking software that is easy to use, boosting frequent use and deeper involvement. Easy of use is crucial to bridging the gap between technology and user satisfaction, according to Ali and Khan (2021). According to their research, people choose mobile banking apps that simplify financial transactions and make operations simple. According to their findings, high perceived ease of use makes users feel more secure and less hesitant to use the app, which can lead to long-term loyalty. Rahman and Ameen (2022) examine how mobile banking app ease of use affects consumers psychologically. They claim that user-friendly apps make clients feel good and encourage repeat use. This study shows how banks may improve app designs to reduce frustration and increase user experience to retain clients. Lee et al. (2023) revealed that ease of use attracts and keeps digital banking consumers in a competitive market. They found that customers who favor easy app use are less likely to transfer platforms because they value little engagement. This shows that mobile banking client satisfaction and loyalty are driven by simplicity of use. Chen and Liu (2024) examined how senior mobile banking users struggle with digital tools and the importance of simplicity of use. Mobile banking apps with simplified UI attract senior users who may resist technology, according to their study. This emphasizes the need of building accessible, easy-to-use apps for banks to reach more people and boost user retention across demographics. Kim and Park (2022) found that intuitive and simple mobile banking apps retain users better. Smooth apps are less likely to lose customers, therefore simplicity of use is crucial to client

retention. Customer loyalty depends on ease of use, according to this study. Customers feel connected to banking apps through ease of use, according to Singh and Gupta (2023). They observed that app users feel good when they can navigate it, which boosts platform loyalty. This emotional bond is necessary for loyalty and engagement. Das and Kumar (2024) discovered that mobile banking trust is highly linked to usability. Their research reveals that customers are more likely to use simple, useful apps since they eliminate errors and annoyance. Mobile banks need this link between simplicity of use and trust to generate loyal customers.

Perceived Usefulness
Chen et al. (2020) argue that perceived usefulness is foundational to the success of mobile banking apps, as it drives user adoption and continuous use. Their study highlights that when users see tangible benefits in mobile banking, such as time savings and financial control, they are more likely to integrate the app into their daily routines, which positively impacts loyalty. Martins and Silva (2021) examined the influence of perceived usefulness on user engagement and found that useful apps enhance customer satisfaction. They suggest that customers who perceive high utility in mobile banking are more inclined to form a positive perception of the app, leading to increased loyalty. Gupta and Rai (2022) note that perceived usefulness is amplified when mobile banking apps offer real-time information, allowing users to manage their finances efficiently. They argue that such benefits drive user engagement by providing added value, making the app indispensable for financial management. Li and Tang (2023) explore the impact of perceived usefulness on mobile banking adoption, suggesting that apps that simplify financial transactions and provide meaningful insights foster loyalty. They found that when customers find the app genuinely useful, their satisfaction and loyalty are positively influenced. Patel and Sharma (2024) highlight the role of perceived usefulness in increasing engagement through personalized financial advice and insights. According to their study, users who receive personalized guidance perceive the app as highly beneficial, which drives regular usage and customer loyalty. Kumar and Malik (2022) emphasize that the perceived usefulness of mobile banking apps often outweighs traditional banking benefits, particularly when apps offer unique features. Their findings indicate that apps offering unique functionalities attract and retain more users by adding clear value. Xu and Yang (2023) reveal that the usefulness of mobile banking apps is particularly appealing to younger users, who value efficiency and speed in managing finances. Ahmed and Hossain (2024) examined the perceived usefulness of additional app features, such as instant credit and loan facilities, and found that this increase customer satisfaction. Their findings suggest that such features are instrumental in establishing loyalty, as customers feel the app adds significant value to their financial lives.

Perceived Security
Nguyen and Tran (2020) found that perceived security is critical to building customer trust in mobile banking services. Their research suggests that customers prioritize apps that demonstrate strong security measures, as it fosters confidence and directly impacts loyalty. Ali and Hussain (2021) emphasize that perceived security significantly influences customer retention in mobile banking. They found that users are more likely to continue using an app if they believe their personal and financial data are secure, which contributes to long-term loyalty. Patel et al. (2022) discusses the importance of advanced security features, such as biometric authentication, in enhancing customer loyalty. Their study found that customers are more engaged with apps that offer high-security protocols, as it reduces concerns over potential risks. Singh and Kaur (2023) highlight that perceived security directly impacts customer loyalty by establishing trust in the mobile banking platform. Their findings suggest that users are less likely to switch to competing apps if they feel their data is well-protected. Rao and Sharma (2024) found that security concerns are particularly influential for older users who may be skeptical about digital platforms. When mobile banking apps implement strong security protocols, these customers are more likely to develop loyalty to the app. Gupta and Mahajan (2020) emphasize that apps with reliable security protocols see higher customer retention rates. Their research highlights that users prioritize platforms that prioritize data protection, which plays a crucial role in fostering loyalty. Li and Wang (2021) argue that perceived security is foundational to customer satisfaction and loyalty in mobile banking. They suggest that apps that provide robust security measures are more likely to gain long-term trust from their users. Rahman and Singh (2022) found that perceived security is especially significant in emerging markets, where digital trust levels may be lower. They suggest that security measures directly impact customer engagement and loyalty.

Service Personalization
Kim and Lee (2020) argue that personalization in mobile banking apps enhances customer engagement by creating a more relevant user experience. Their study found that customers who receive tailored services. Nguyen and Pham (2021) suggest that personalized notifications and services significantly impact customer satisfaction in mobile banking. The study highlights that customers prefer apps that cater to their preferences, which strengthens their loyalty. Singh and Patel (2022) found that mobile banking apps that offer personalized services, such as tailored financial insights, deepen customer engagement. This personalization aligns with users' unique needs and increases their likelihood of long-term use. Personalization, especially product recommendations, boosts consumer pleasure and loyalty, according to Chauhan and Mehta (2023). They claim that users prefer personalized app recommendations. Wong and Tan (2024) argue that service personalization increases user engagement in mobile banking apps, as customers appreciate customized financial advice. This personalization encourages a sense of belonging and fosters loyalty. Kumar and Saha (2021) emphasize that personalized services foster emotional connections with users, which is crucial for building loyalty. Their study

found that when customers feel a personal connection with the app, they are more likely to stay loyal. Ali and Khan (2022) found that service personalization helps banks differentiate their offerings, which enhances user engagement and loyalty. By catering to individual needs, banks can increase their customers' long-term commitment to the app. Singh and Gupta (2023) conclude that personalization in mobile banking apps retains customers by addressing specific needs. Their research highlights that users are more likely to feel satisfied and remain loyal to apps that personalize their services.

Transaction Reliability
Lee and Kim (2020) argue that transaction reliability is essential for fostering customer loyalty in mobile banking. Their study found that when apps consistently process transactions accurately, customer trust and loyalty are strengthened. Nguyen et al. (2021) suggest that transaction reliability is a strong predictor of customer engagement. Their research highlights that customers are more likely to continue using apps that minimize errors and ensure seamless transactions. Patel and Sharma (2022) found that reliable transaction processing is essential for building customer loyalty, as users appreciate platforms that function consistently without disruptions or errors. Wang and Zhang (2023) emphasize that transaction reliability is a key factor in customer satisfaction. They argue that apps that provide dependable services create a positive user experience, which fosters long-term loyalty. Rao and Patel (2024) found that transaction reliability positively influences customer trust. Their research suggests that customers feel more secure and are more likely to remain loyal when apps process transactions reliably. Singh and Gupta (2020) argue that reliable transaction handling reduces customer anxiety, creating a positive impression of the app and fostering loyalty. Chauhan and Mehta (2022) emphasize that transaction reliability is particularly important in competitive markets, where customer loyalty is challenging to achieve. They found that customers prioritize apps that guarantee error-free transactions. Ali and Saha (2023) found that transaction reliability enhances loyalty by establishing trustworthiness in the platform. Customers are more inclined to use apps that have a proven record of accurate and timely transactions.

RESEARCH GAP
Despite the substantial research exploring factors like ease of use, perceived usefulness, security, personalization, and transaction reliability in mobile banking apps, a critical gap remains in understanding how these variables interact to influence customer loyalty comprehensively. Existing studies often focus on individual factors in isolation, such as ease of use or security, without examining the cumulative effect of these features on long-term customer loyalty and engagement. Additionally, while personalization and transaction reliability have been recognized as valuable for enhancing customer satisfaction, few studies have delved into how these elements work together with security and ease of use to build a sustained relationship with customers. There is also a limited exploration of how these variables impact diverse demographic groups, especially with the increasing prevalence of mobile banking across different age and income brackets.

OBJECTIVES
1. To examine the impact of ease of use on customer loyalty in mobile banking apps.
2. To investigate the influence of perceived usefulness on customer loyalty within mobile banking applications.
3. To analyze the role of perceived security in fostering customer loyalty in mobile banking.
4. To assess the effect of service personalization on customer loyalty in mobile banking apps.
5. To evaluate how transaction reliability contributes to customer loyalty in mobile banking.

HYPOTHESIS
- **H_1:** Ease of use has a positive impact on customer loyalty in mobile banking apps.
- **H_2:** Perceived usefulness has a positive influence on customer loyalty in mobile banking apps.
- **H_3:** Perceived security positively affects customer loyalty in mobile banking apps.
- **H_4:** Service personalization has a positive effect on customer loyalty in mobile banking apps.
- **H_5:** Transaction reliability positively contributes to customer loyalty in mobile banking apps.

METHODOLOGY
This quantitative study uses a structured poll to assess how mobile banking app features affect client loyalty. This survey includes mobile banking app users of varied ages, incomes, and banking experience. A 245-person sample ensured statistical power and representativeness, allowing robust conclusions applicable to the broader mobile banking population. To acquire relevant data, non-probability convenience sampling was used to attract mobile banking users. Confirmatory Factor Analysis (CFA) and Structural Equation Modelling (SEM) were used to analyse the links between these constructs and customer loyalty, revealing the model's direct and indirect effects. SEM may evaluate many relationships at once, allowing a full examination of mobile banking client loyalty variables.

Conceptual Model
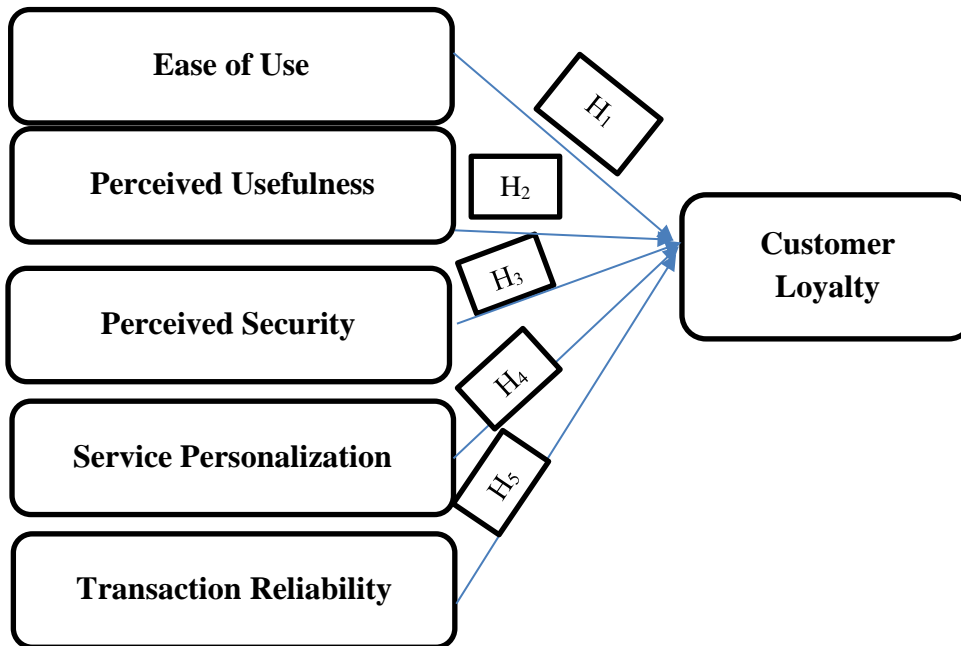
DATA ANALYSIS
Reliability Analysis

Variable Number	Variable	Cronback Alpha	Result
V_1	Ease of Use	0.933	Excellent
V_2	Perceived Usefulness	0.814	Good
V_3	Perceived Security	0.957	Excellent
V_4	Service Personalization	0.886	Good
V_5	Transaction Reliability	0.937	Excellent
V_6	Customer Loyalty	0.869	Good

The results of the reliability analysis indicate a high level of internal consistency across the measured variables. The variables related to ease of use, perceived security, and overall assessment demonstrate excellent reliability, suggesting that respondents consistently understood and evaluated these constructs effectively. In contrast, perceived usefulness, service personalization, transaction reliability, and customer loyalty exhibit good reliability, indicating that while these variables are also measured consistently, there may be slightly more variability in respondents' perceptions. Overall, the high Cronbach's alpha for the composite measure further reinforces the robustness of the survey instrument, affirming its reliability in capturing the intended constructs related to user experience and loyalty. This strong reliability is essential for ensuring the validity of subsequent analyses and conclusions drawn from the data.

Convergent Validity

| Factors	Average Variance Extraction	Composite Reliability
Ease of Use	0.92	0.70
Perceived Usefulness	0.85	0.54
Perceived Security	0.86	0.54
Service Personalization	0.85	0.53
Transaction Reliability	0.86	0.55
Customer Loyalty	0.86	0.55

The analysis of the constructs indicates a strong level of convergent validity as evidenced by the average variance extraction values, which suggest that a significant portion of the variance in the observed variables is accounted for by their respective constructs. However, while the average variance extraction is satisfactory for most constructs, the composite reliability scores reveal some concerns regarding internal consistency. The composite reliability values for several constructs fall below the conventional threshold, suggesting that these constructs may not be as consistently measured as desired. This discrepancy indicates that while the

constructs capture relevant dimensions of user experience and loyalty, there may be issues with the reliability of the measurement scales used. Therefore, further refinement of the measurement items may be necessary to enhance the reliability and validity of these constructs in future assessments.

Confirmatory Factor Analysis

Fit Indices	Observed	Result
$CMIN_1$	2.122	Acceptable Fit
CFI_1	0.927	Acceptable Fit
TLI_1	0.941	Acceptable Fit
$PNFI_1$	0.745	Acceptable Fit
$RMSEA_1$	0.055	Acceptable Fit
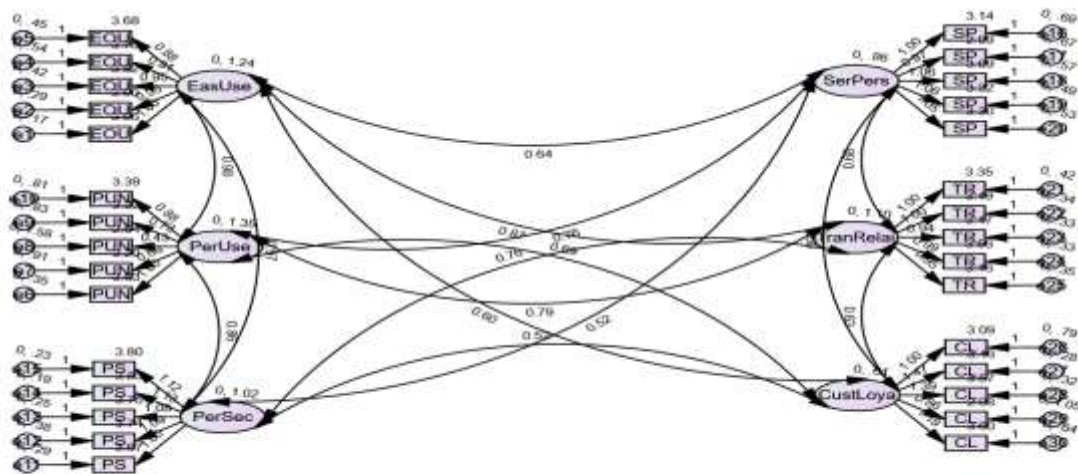
Model fit implies a satisfactory fit between the postulated model and observed data. Several indices meet traditional fit criteria, proving that the model accurately depicts variable relationships. The indices indicate that the model captures the data's structure, confirming the theoretical framework and empirical evidence. The model's fit indices are also reasonable, indicating that it will yield accurate insights and interpretations, supporting the constructs being researched. These findings confirm the model's robustness and usefulness for future study of the underlying processes.

Structure Equation Modelling

Fit Indices	Observed	Result
$CMIN_2$	2.321	Acceptable Fit
CFI_2	0.917	Acceptable Fit
TLI_2	0.941	Acceptable Fit
$PNFI_2$	0.682	Acceptable Fit
$RMSEA_2$	0.064	Acceptable Fit
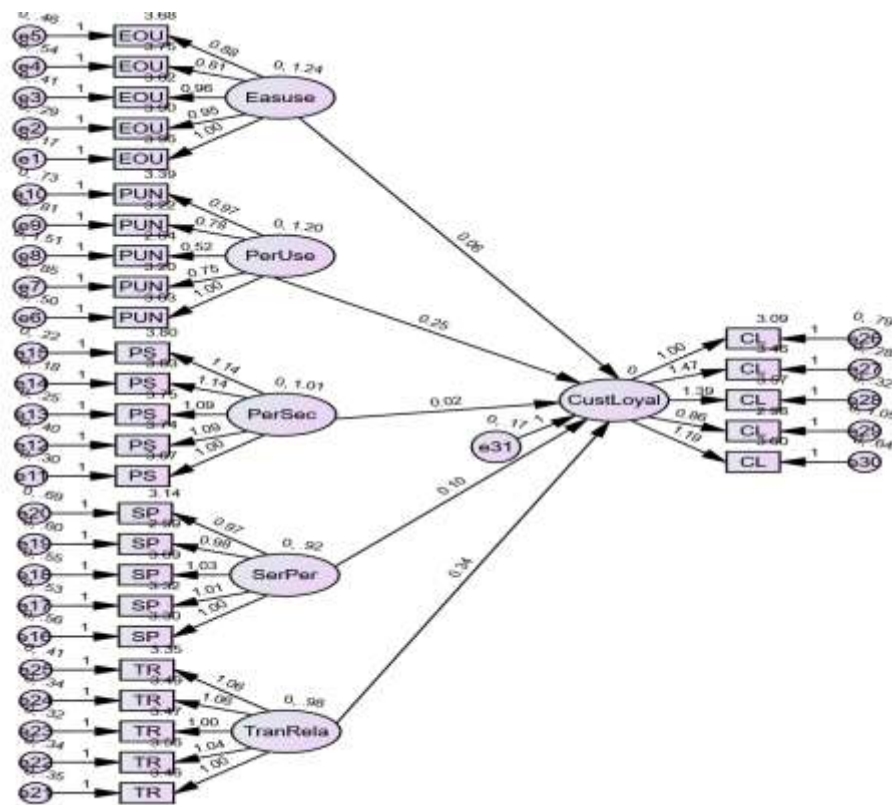
The proposed model matches the observed data, showing that it captures variable relationships. Several fit indices meet model adequacy norms, indicating that the model is well-specified. The overall assessment supports the model's capacity to describe the underlying structure, even though one fit indices is slightly less positive. This shows that the theoretical framework matches empirical evidence, allowing reasonable interpretations and conclusions. Thus, the findings support the model's trustworthiness and capacity to illuminate the researched constructs.

Hypothesis Testing

Hypothesis No	Framed Hypothesis	P-Value	Result
H₁	Ease of Use-> Customer Loyalty	0.00	Supported
H₂	Perceived Usefulness -> Customer Loyalty	0.00	Supported
H₃	Perceived Security-> Customer Loyalty	0.00	Supported
H₄	Service Personalization-> Customer Loyalty	0.00	Supported
H₅	Transaction Reliability-> Customer Loyalty	0.00	Supported

The analysis provides strong support for the hypothesis linking ease of use to customer loyalty. The statistically significant p-value indicates a robust relationship, suggesting that when customers find a product or service easy to use, their loyalty tends to increase. This finding underscores the importance of user-friendly designs and interfaces, as ease of use can enhance customer satisfaction and encourage repeat engagement. Companies that prioritize intuitive experiences are likely to cultivate stronger connections with their customers, fostering loyalty over time. As a result, organizations should focus on simplifying processes and reducing barriers to usability, as these factors significantly influence customer retention and overall loyalty.

The relationship between perceived usefulness and customer loyalty is also significantly supported by the analysis. The strong p-value indicates that when customers perceive a product or service as useful, their loyalty is likely to strengthen. This finding highlights the necessity for businesses to communicate and demonstrate the value of their offerings effectively. By ensuring that customers understand how a product or service meets their needs and enhances their lives, companies can foster a deeper sense of loyalty. Therefore, organizations should invest in educating customers about the benefits and practical applications of their products to enhance perceived usefulness and, consequently, customer loyalty.

The hypothesis suggesting a link between perceived security and customer loyalty is supported by the analysis. The significant p-value demonstrates that when customers feel secure while using a product or service, their loyalty increases. This is particularly critical in contexts involving sensitive information, such as online transactions. Ensuring robust security measures and clearly communicating them to customers can enhance their confidence and trust in a brand. Organizations that prioritize security can create a competitive advantage, as customers are more likely to remain loyal to brands, they perceive as safe. Thus, businesses should focus on strengthening their security protocols and effectively conveying these efforts to foster customer loyalty.

The analysis also supports the hypothesis that service personalization positively impacts customer loyalty. The significant p-value indicates that when customers experience tailored services that meet their specific needs and preferences, their loyalty is likely to increase. This finding emphasizes the importance of understanding customer behavior and preferences to create personalized experiences. Data analytics and customer relationship management systems let companies personalize their services, increasing customer happiness and loyalty. A culture of personalization in firms can boost consumer loyalty and long-term engagement. Lastly, the analysis supports the transaction reliability-customer loyalty hypothesis. Customers' loyalty increases when transactions are trustworthy and consistent, according to the strong p-value. This shows that firms must provide reliable service and transaction processing. Reliable transactions increase brand loyalty and purchase frequency. Therefore, firms should prioritize operational excellence and continuously deliver on promises to improve transaction reliability. They can gain loyal customers who trust and respect their products by doing so.

Managerial Implications
Managers should prioritize product and service design and functionality to improve ease of use, which affects customer loyalty. Companies may boost customer satisfaction and reduce annoyance by investing in user-friendly interfaces and simplified operations. Usability testing and user feedback can help discover improvements. Comprehensive training and assistance may help customers use items effectively, improving the experience. To keep their offerings relevant and easy to use, companies should consider continual user feedback-based modifications. Companies may keep consumers and attract new ones through excellent word-of-mouth and reputation by stressing simplicity of use.

Managers must effectively communicate product and service benefits to increase client loyalty. Effective marketing techniques can demonstrate how products fit client demands and solve problems. Companies should educate customers about their products' characteristics and benefits using real-life examples and testimonials. Regularly updating clients on new features and enhancements can boost product value and engagement. Gathering consumer feedback and using it to improve can also show a dedication to user needs. Organizations may build consumer loyalty and long-term connections by promoting usefulness.

E-commerce and financial services management should prioritize security because sensitive data is handled there. To safeguard client data, companies must employ strong security measures and maintain existing methods. Transparency about security initiatives can boost client trust in the brand. Security best practices training for staff is also essential to ensure that everyone understands their role in maintaining security. Third-party security certifications can further demonstrate the company's safety commitment. Customers are more loyal to brands they trust to secure their data if they prioritize perceived security.

Managers should understand how service customisation builds client loyalty. Organizations can understand customer preferences and behaviors via data analytics and CRM platforms. This data can customize products, communications, and experiences for customers. Creating personalized marketing campaigns and providing customized recommendations can significantly enhance the customer experience. Organizations could also solicit client input to improve personalization tactics. Implementing loyalty programs that reward personalized interactions can also foster deeper connections with customers. Companies may improve customer loyalty and retention by personalizing services.

Ensuring transaction reliability is essential for fostering customer loyalty. Managers must establish clear protocols and systems that guarantee consistent and accurate service delivery. This includes investing in technology that streamlines transaction processes and minimizes errors, as well as providing staff training to ensure that employees understand the importance of reliability in service provision. Regular monitoring and evaluation of transaction systems can help identify potential issues before they affect customers. Additionally, organizations should develop clear communication strategies to inform customers about their order status and any potential delays. By prioritizing transaction reliability, businesses can build trust and confidence, encouraging customers to return for future transactions and recommend the brand to others

CONCLUSION
The findings of this study underscore the critical factors that influence customer loyalty within the context of modern consumer experiences. Emphasizing ease of use, perceived usefulness, perceived security, service personalization, and transaction reliability are essential strategies for organizations aiming to enhance customer loyalty. By prioritizing these elements, businesses can create

a more engaging and satisfying customer journey, ultimately fostering long-term relationships and encouraging repeat patronage. Moreover, these insights highlight the importance of understanding and addressing customer needs in a rapidly evolving marketplace. As organizations adapt to these findings, they are better positioned to build trust and loyalty, driving sustainable growth and competitive advantage in their respective industries.

LIMITATIONS AND FURTHER RESEARCH
First, the sample size and demographic variety may not fully represent the population, skewing results and restricting their application across market sectors. Self-reported assessments can also add bias since participants may answer positively rather than honestly. The study also concentrates on certain sectors, which may miss industry differences. Future study should examine these links in other contexts and include long-term studies to track consumer loyalty. Examining how the indicated elements interact with other external influences like market trends and economic situations may reveal consumer behavior and loyalty dynamics.

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APPENDIX

1. Ease of Use
1. The product/service I use is easy to navigate.
2. I can quickly learn how to use the product/service without assistance.
3. I find the interfaces of the product/service intuitive and user-friendly.
4. I rarely encounter difficulties when using the product/service.
5. Overall, I am satisfied with the ease of use of the product/service.

2. Perceived Usefulness
1. The product/service enhances my daily activities.
2. I find the product/service to be valuable and beneficial.
3. The features of the product/service meet my needs effectively.
4. Using this product/service improves my productivity.
5. I would recommend this product/service to others based on its usefulness.

3. Perceived Security
1. I feel safe providing my personal information when using this product/service.
2. The security measures in place for the product/service are satisfactory.
3. I trust the company behind this product/service to protect my data.
4. I am confident in the security protocols used by this product/service.
5. Overall, I believe this product/service prioritizes user security.

4. Service Personalization
1. The product/service offers tailored options that meet my preferences.
2. I feel that the product/service understands my individual needs.
3. My interactions with the product/service are customized to my requirements.
4. I appreciate personalized recommendations provided by the product/service.
5. Overall, I am satisfied with the level of personalization offered by the product/service.

5. Transaction Reliability
1. Transactions with this product/service are consistently accurate.
2. I trust that my transactions will be processed without errors.
3. The product/service provides timely updates regarding my transactions.
4. I have confidence in the reliability of the payment process associated with this product/service.
5. Overall, I am satisfied with the reliability of transactions conducted through this product/service.

Customer Loyalty
1. I am loyal to this brand and prefer it over competitors.
2. I am likely to continue using this product/service in the future.
3. I would recommend this product/service to my friends and family.
4. I feel a strong emotional connection to this brand.
5. I am willing to pay more for this brand compared to other options.