REFAAD رفـــاد
www.refaad.com

Global Journal of Economics and Business (GJEB)
المجلة العالمية للاقتصاد والأعمال
Journal Homepage: https://www.refaad.com/Journal/Index/2
E-ISSN 2519-9293 | P-ISSN 2519-9285
Vol. 15, Issue 2, 2025, pp. 222 - 232

Digital Payments as a Digital Financial Service and its Relationship to Achieving Customer Satisfaction in Saudi Banks

المدفوعات الرقمية كخدمة مالية رقمية وعلاقتها بتحقيق رضا العملاء في البنوك السعودية

Waleed Abdulkareem AL-harkan[1*]
[1] Teaching Assistant in the Department of Accounting, Qassim University, Saudi Arabia
[*] Corresponding Author: Waleed AL-harkan (waleedalharkan24@gmail.com)

Received استلام البحث	Revised مراجعة البحث	Accepted قبول البحث
2024/9/18	2024/10/5	2024/12/4

DOI: https://doi.org/10.31559/GJEB2025.15.2.5

Abstract:
Objectives: The study aimed to analyze the impact of digital service quality on customer satisfaction in Saudi banks, focusing on elements such as ease of use, security, speed, and variety of options.
Methods: The study adopted a quantitative methodology using surveys distributed to a sample of 100 clients from various Saudi banks. Data were analyzed through statistical tools to explore the relationship between digital payment quality and customer satisfaction.
Results: The findings revealed a strong positive relationship between digital payments and customer satisfaction, with clients indicating that the ease, security, and speed of these services increased their overall satisfaction with banking services. The study showed that improving digital payment services in terms of ease of use, security, and diversity of options significantly contributes to enhancing customer satisfaction and loyalty.
Conclusions: The study concluded that improving the quality of digital payment services in Saudi banks is key to increasing customer satisfaction. It recommends enhancing security through stronger encryption and building customer trust, simplifying user interfaces, expanding available digital options, and supporting Saudi Vision 2030 by expanding digital payment infrastructure in rural areas.
Keywords*: Digital payments; digital financial services; customer satisfaction; Saudi banks.*

الملخص:
الأهداف: هدفت الدراسة إلى تحليل تأثير جودة الخدمات الرقمية على رضا العملاء في البنوك السعودية، مع التركيز على عناصر سهولة الاستخدام، الأمان، السرعة، وتنوع الخيارات.
المنهجية: اعتمدت الدراسة على منهجية كمية باستخدام استبيانات وزعت على عينة مكونة من 100 عميل من مختلف البنوك السعودية، حيث تم تحليل البيانات عبر أدوات إحصائية لاستكشاف العلاقة بين جودة المدفوعات الرقمية ورضا العملاء.
النتائج: أظهرت النتائج أن هناك علاقة إيجابية قوية بين المدفوعات الرقمية ورضا العملاء، إذ أشار العملاء إلى أن سهولة استخدام هذه الخدمات وأمانها وسرعتها زادت من رضاهم العام عن الخدمات المصرفية. وبيّنت الدراسة أن تحسين خدمات الدفع الرقمية من حيث سهولة الاستخدام، الأمان، وتنوع الخيارات يسهم بشكل كبير في تعزيز رضا العملاء وولائهم.
الخلاصة: أوصت الدراسة بأن تعزيز جودة خدمات الدفع الرقمية في البنوك السعودية يُعدّ مفتاحًا لزيادة رضا العملاء. وتوصي الدراسة بتحسين الأمان عبر تشفير أقوى وزيادة ثقة العملاء، وتبسيط واجهات المستخدم، وتوسيع الخيارات الرقمية المتاحة، بالإضافة إلى دعم مبادرة رؤية السعودية 2030 من خلال توسيع البنية التحتية للمدفوعات الرقمية في المناطق الريفية.
الكلمات المفتاحية: *المدفوعات الرقمية؛ الخدمات المالية الرقمية؛ رضا العملاء؛ البنوك السعودية.*

Citation
AL-harkan, W. (2025). Digital Payments as a Digital Financial Service and its Relationship to Achieving Customer Satisfaction in Saudi Banks. *Global Journal of Economics and Business*, 15 (2), 222-232. https://doi.org/10.31559/GJEB2025.15.2.5

1 Introduction

1.1 Overview

The rapid advancements in digital technology and ongoing innovation within the financial services sector have dramatically transformed the global banking industry (Kafetzopoulos & Psomas, 2022). In particular, digital payments, which encompass financial transactions conducted electronically via devices such as smartphones, tablets, and personal computers, have become a critical component of modern banking services (Oliveira & Tam, 2020). As digital payment systems evolve, they form the cornerstone of digital financial services that customers in Saudi Arabia increasingly rely upon for their day-to-day transactions (Alharbi & Alturki, 2021).

The banking sector has experienced a profound shift due to the technological revolution, fundamentally changing how banks operate and interact with their customers (Nambiar, 2021). This transformation aims to improve the efficiency and performance of banks while enabling them to adapt to rapidly changing market conditions. A focus on electronic banking services, including online and mobile platforms, is essential for addressing the evolving needs of customers, who now demand more personalized and innovative services (Javed & Kalia, 2022). This shift is a response to significant changes in consumer behavior, as banking institutions increasingly focus on customer-centric approaches to remain competitive (Ali & Raza, 2020).

Globally, the financial sector has become an essential driver of national economic growth and development (Haruna & Amiri, 2023). As financial institutions, especially banks, are compelled to assess the quality of their services, understanding customer expectations and perceptions has become vital (Shahbaz & Ullah, 2022). In Saudi Arabia, the Kingdom's Vision 2030 initiative has emphasized the development of a robust digital financial ecosystem. The Financial Sector Development Program, launched in 2017, aims to position Saudi Arabia among the top ten global financial centers, focusing on enhancing financial inclusion, fostering innovation, and supporting the growth of small and medium enterprises (SMEs) (SAMA, 2021).

Recent years have witnessed significant growth in digital transactions in Saudi Arabia, driven by collaborative efforts from both the public and private sectors to digitize services and enhance accessibility (Alharbi & Alturki, 2021). Since the implementation of Vision 2030, there has been a notable increase in foreign direct investment, and the contribution of SMEs to the gross domestic product (GDP) has expanded (Vision 2030 Reports, 2021).

However, the rapid technological advancements have also presented new challenges for the banking sector. The globalization of banking activities and the liberalization of financial services have intensified competition, placing pressure on banks to continuously innovate while maintaining high service quality standards (Khan & Saiti, 2021). As highlighted by Oliveira and Tam (2020), banks must leverage technology to enhance service quality, thereby staying competitive in an increasingly digital landscape.

The emphasis on service quality in banking is no longer solely about meeting regulatory standards but also about ensuring customer satisfaction and loyalty. High-quality digital services play a crucial role in shaping customer attitudes and fostering long-term loyalty (Carlson & O'Cass, 2010). Factors such as usability, security, and speed are significant determinants of customer satisfaction and behavioral intentions (Javed & Kalia, 2022). Additionally, the continuous assessment of service quality helps banks optimize resource allocation to better align with customer demands (Fadhila, 2010).

The shift towards digital banking services, from ATMs to online and mobile banking, has transformed the way customers interact with banks (Najm, 2010). Customers are now at the center of strategic planning, and their feedback is essential in shaping the future of banking services (Al-Radaideh, 2011). Given the growing reliance on internet-based services, the focus on enhancing digital service quality remains critical for banks looking to meet the expectations of tech-savvy customers in a competitive market (Haruna & Amiri, 2023).

1.2 Research Problem and Research Question

Given the economic and social challenges that banks face, coupled with the increasing importance of banking services in driving economic growth and private sector investment, understanding the quality of banking services has become essential. The competitive nature of the banking sector, alongside the standardization of many banking services, presents a challenge in differentiating banks from one another. The banking industry in Saudi Arabia also suffers from a shortage of research focused on service quality and customer satisfaction, making it difficult for banks to address critical customer needs and expectations.

This lack of focus on service-oriented strategies and customer satisfaction has led to weakened customer loyalty and a failure to retain customers. As customer satisfaction is a critical indicator of business success, this

study aims to address the following key research question: ***How does the provision of digital payment services as part of digital financial services impact customer satisfaction in Saudi banks?***
From this main question, several sub-questions emerge:

- What is the impact of ease of use of electronic banking services on customer satisfaction?
- How does timesaving when using electronic banking services influence customer satisfaction?
- What role does confidentiality and security play in the quality of electronic banking services, and how do they affect customer satisfaction?
- Is the quality of electronic banking services a major factor in achieving customer satisfaction?
- How can the provision of digital payment services be improved to enhance customer satisfaction in Saudi banks?

1.3 Purpose of the Study

The primary aim of this study is to examine the relationship between the quality dimensions of electronic banking services -including ease of use, timesaving, confidentiality, and security- and customer satisfaction within Saudi Arabian banks. In addition to this main objective, the study seeks to achieve the following:

1. **Analyze the Concept of Digital Payments:**
   - Investigate the nature of digital payments as a digital financial service.
   - Explore the various types of digital payments currently offered by Saudi banks, such as online banking, mobile banking, and other digital payment platforms.
   - Assess how these services are integrated into the financial ecosystem and their impact on customer behavior.
2. **Understand the Importance of Digital Payments:**
   - Examine the significance of digital payments in enhancing the customer banking experience.
   - Focus on the benefits of digital payments, including convenience, speed, and accessibility, in improving banking operations for both banks and their customers.
3. **Evaluate Customer Experience in Digital Payments:**
   - Assess customer perceptions and interactions with digital payment services provided by Saudi banks.
   - Collect feedback on customer satisfaction levels, identify common challenges, and understand customer expectations regarding service quality.
4. **Analyze the Relationship Between Digital Payments and Customer Satisfaction:**
   - Investigate the correlation between the ease of use, speed, confidentiality, and security of digital payments and customer satisfaction.
   - Determine how these factors influence customer retention and whether customer expectations align with the services provided by banks.
5. **Provide Recommendations for Service Improvement:**
   - Develop practical recommendations for enhancing the user experience of digital payment services.
   - Focus on areas for improvement, such as user interfaces, security protocols, and customer support, to increase customer satisfaction and foster loyalty.

1.4 Importance of the Study

The significance of this study lies in its contribution to understanding how the quality of electronic banking services -particularly digital payments- impacts customer satisfaction. As the banking industry continues to embrace digital transformation, the findings of this study can help banks identify critical areas for improvement, ensuring that their services meet the growing expectations of their customers. The study's importance is highlighted in several ways:

- Enhancing the Customer Experience: By analyzing the dimensions of service quality, this study can offer valuable insights into how banks can improve the customer experience, ensuring that electronic services are user-friendly, secure, and efficient. Enhancing customer satisfaction in these areas can lead to increased customer loyalty, which is essential for long-term business success in the banking industry.
- Providing Strategic Guidance: The findings of the study can offer banks strategic insights into how to better meet customer expectations, especially in the competitive digital environment. By focusing on customer satisfaction, banks can refine their service offerings, differentiate themselves from competitors, and enhance their overall market position.
- Improving Competitiveness: In the face of intensified competition within the banking sector, the study's results can help banks understand how to maintain a competitive edge by delivering high-quality digital

payment services. The study can also assist banks in formulating effective strategies to meet the evolving demands of their customer base and attract new customers.

- Contributing to Academic Research: This study fills an important gap in the academic literature by exploring digital payments and customer satisfaction within the Saudi banking sector. The findings can serve as a foundation for future research, helping to expand the body of knowledge on the topic and encouraging further investigation into the digital transformation of financial services.

1.5 Research Hypotheses

The study is built around several key hypotheses that aim to clarify the relationship between digital payments and customer satisfaction. These hypotheses are based on previous research and observations within the banking sector and are formulated to guide the research methodology. They include:

- Heavy reliance on digital payments in Saudi banks increases customer satisfaction.
- This hypothesis suggests that customers who frequently use digital payments are more likely to report higher levels of satisfaction due to the convenience and accessibility these services offer.
- Providing multiple options for digital payments is positively correlated with customer satisfaction in Saudi banks.
- The availability of various payment methods, such as mobile payments, online banking, and credit transfers, allows customers to choose the option that best suits their needs, thereby enhancing their overall satisfaction.
- Security and privacy in digital payments are major factors in achieving customer satisfaction in Saudi banks.
- Customers are increasingly concerned about the security of their financial transactions. The hypothesis posits that strong security measures and robust privacy protocols are essential to achieving and maintaining customer satisfaction.
- Continuous support for digital payments can increase customer satisfaction in Saudi banks.
- The hypothesis suggests that providing ongoing technical support, updates, and maintenance for digital payment platforms can positively impact customer satisfaction, as it ensures a seamless and reliable experience.
- Training and awareness about digital payments can lead to increased customer satisfaction in Saudi banks.
- Educating customers about the benefits, functionalities, and security features of digital payment services can lead to a better user experience and higher satisfaction rates, as customers become more confident in using these services.

1.6 Contribution of the Study

The study's contribution extends beyond the immediate practical implications for banks. It also offers theoretical insights into the relationship between digital payment technologies and customer satisfaction. Given the scarcity of research in this area, especially within the Saudi Arabian context, the study addresses a critical gap in the literature and provides a basis for future investigations. The key contributions of the study include:

- Understanding Digital Payments as a Vital Component of Digital Transformation: The study highlights the importance of digital payments in the broader context of digital transformation in the financial services sector. By examining how these payments contribute to customer satisfaction, the study sheds light on their role in shaping the future of banking services.
- Insights into the Saudi Banking Sector: The research provides a comprehensive analysis of how digital financial services are being implemented and used in Saudi banks, offering valuable data that can inform both practitioners and researchers. It also offers a framework for understanding how digital payments can influence customer behavior and loyalty in a rapidly evolving digital landscape.
- Addressing the Gap in Existing Literature: This study fills a critical research gap, particularly in the context of Saudi Arabia, where there has been limited research on the relationship between digital payment services and customer satisfaction. It provides a foundational understanding that future studies can build upon, potentially extending the research to other regions or service sectors.

1.7 Research Terms

The following are key terms used throughout this study, defined to ensure clarity and understanding:

- Electronic Payments: This term refers to the modern method of transferring cash payments electronically via the Internet. It involves the transfer of funds from the payer’s account to the recipient’s account, facilitating fast and secure transactions. As defined by Investopedia (2020), electronic payments are a vital component of digital banking services.

- Digital Financial Services: These refer to the financial services delivered through digital platforms that provide value to customers by offering convenience, security, and accessibility. As defined by Median (1996), financial services include any activity of a financial nature provided by one entity to another under the regulatory framework of a given country.
- Customer Satisfaction: Customer satisfaction is defined as the psychological feeling that reflects the gap between the perceived performance of a product or service and the customer's expectations. Nour El-Din (2007) describes satisfaction as a key metric for measuring the success of services, particularly in the banking sector. In this study, satisfaction is operationally defined as the level of contentment experienced by Saudi bank customers following their digital payment transactions.

2 Method

This research aims to analyze the relationship between digital payment service quality dimensions and customer satisfaction in Saudi banks. A quantitative approach was used to collect and analyze the data.

2.1 Research Design

The research utilized a quantitative cross-sectional survey design to evaluate the impact of electronic banking service quality on customer satisfaction. The study specifically targeted customers of various Saudi banks to understand their perceptions of digital payment services, focusing on key factors such as ease of use, security, time savings, and overall satisfaction.

2.2 Data Collection

Data were collected through structured questionnaires designed to capture customer ratings on different aspects of digital payment services. The questionnaire contained 26 items divided into two main axes:

Service Quality Dimensions (12 items)

Customer Satisfaction (14 items)

Each item was rated on a Likert scale to quantify customer experiences and perceptions. The survey also gathered demographic information such as age, gender, education level, job role, and monthly income.

Sample:

A sample of 100 clients was selected from different Saudi banks, ensuring a representative cross-section of the population. The demographic breakdown included:

- Gender: 70% males and 30% females.
- Education Level: 50% Bachelor's, 30% Master's, 10% PhD, and 10% Secondary education.
- Employment Status: 50% employed, 20% students, 20% freelancers, and 10% unemployed.
- Age: Mean age of 36.4 years.

2.3 Statistical Analysis

Data were analyzed using descriptive statistics, correlation analysis, and t-tests. The following steps were undertaken:

1. **Descriptive Analysis:**
   - Central Tendency: Mean, median, and mode were calculated for key demographic variables (e.g., age, monthly income).
   - Distribution: The frequency and percentage distribution for categorical variables like gender, education, and job roles.
2. **Correlation Analysis:**
   - Pearson Correlation Coefficient was used to measure the relationship between service quality dimensions (ease of use, security, and time-saving) and overall customer satisfaction.
   - Interpretation: The value of the correlation coefficient R was analyzed to determine the strength and direction of the relationships:

     Ease of Use and Overall Satisfaction: $r = 0.85$.

     Security and Overall Satisfaction: $r = 0.78$.

     Time Savings and Overall Satisfaction: $r = 0.82$.
3. **Reliability Testing:**

- Cronbach's Alpha was used to assess the internal consistency of the questionnaire items, with reliability coefficients exceeding 0.90 for all study axes:
  Service Quality Dimensions: 0.9889.
  Customer Satisfaction: 0.9231.

4. **T-test Analysis:**
   - Significance Testing: T-tests were conducted to identify significant differences in customer satisfaction based on high and low levels of perceived service quality.
   - Results: Significant differences were found with p-values < 0.000, indicating the discriminative ability of the scale.

2.4 Software and Tools

Statistical analyses were conducted using statistical software like SPSS and Excel to calculate descriptive metrics, correlation coefficients, and t-tests.

2.5 Data Interpretation

- Correlation Results: A strong positive correlation was found between the dimensions of service quality (ease of use, security, and time savings) and overall customer satisfaction.
- Reliability Analysis: High internal consistency was confirmed, demonstrating the robustness of the questionnaire.
- T-tests: Indicated significant discriminative validity between high and low satisfaction groups.

3 Results

This section presents the main findings of the study, detailing the demographic factors, job positions, and professional qualifications of the participants. It also includes the statistical analysis results, such as correlation coefficients and descriptive statistics for customer satisfaction in digital payment services.

3.1 Demographic Factors

Table 1 illustrates the demographic factors of the participants, including their education level, job positions, and professional qualifications.

Table 1: Demographic Characteristics of the Participants

Demographic Factors	Count	Percentage
Education		
Graduation	50	50%
Master	30	30%
PhD	10	10%
Secondary	10	10%
Total	**100**	**100%**
Job Positions		
Employees	50	50%
Student	20	20%
Freelance Work	20	20%
Unemployed	10	10%
Total	**100**	**100%**
Professional Qualifications		
Fellowship of Accountants	N/A	N/A
Fellowship Actuarial	N/A	N/A
Other	N/A	N/A
N/A	N/A	N/A
Total	**N/A**	**N/A**

Source: Survey Data Collected from Participants.

3.2 Correlation Analysis

The Pearson correlation coefficient was used to measure the relationships between different variables, such as ease of use, security, time savings, and overall customer satisfaction. The correlation coefficients are summarized in Table 2.

Table 2: Correlation Coefficients Between Service Quality and Customer Satisfaction

Variable 1	Variable 2	Correlation Coefficient r
Ease of Use	Overall Satisfaction	0.85
Security	Overall Satisfaction	0.78
Time Savings	Overall Satisfaction	0.82

Source: Statistical Analysis Results.

3.3 Descriptive Analysis

The descriptive statistics of key variables related to digital payment services and overall customer satisfaction are presented in Table 3.

Table 3: Descriptive Statistics of Study Variables

Variable	Mean	Standard Deviation
Ease of use of electronic banking services	4.3	0.93
Time-saving in using electronic banking services	4.3	0.97
Confidentiality in electronic banking services	3.7	1.20
Security in electronic banking transactions	3.875	1.02
Overall satisfaction with electronic banking services	3.9	0.98
Continuous improvement of electronic banking services	3.8	1.11
Recommendation of electronic banking services to others	4.18	0.86

Source: Survey Data Collected from Participants.

3.4 T-test Analysis

The t-test analysis showed significant differences between the high and low categories for customer satisfaction and service quality dimensions, indicating the discriminative ability of the scale. The results are summarized in Table 4.

Table 4: T-test Analysis for Significant Differences

Variable	Category	Mean	Std. Deviation	T-value	P-value
Independent Variable: Service Quality Dimensions	High	4.49	7.20	6.67	0.000
Low	3.27	0.54			
Dependent Variable: Customer Satisfaction	High	4.67	0.24	5.82	0.000
Low	3.74	0.55			

Source: Statistical Analysis Results.

4 Discussion

4.1 Significance of Results

The study's findings highlight a significant positive relationship between digital payment services and customer satisfaction in Saudi banks. Key aspects such as ease of use, security, and time-saving were found to have a strong positive correlation with overall customer satisfaction, with correlation coefficients of 0.85, 0.78, and 0.82, respectively. These findings align with the results of other studies that have emphasized the importance of digital banking services in enhancing customer experiences and satisfaction. For instance, AlHaliq and AlMuhirat (2016) found that trust, ease of use, and quality of customer support are critical factors influencing customer satisfaction with electronic banking services.

4.2 Comparison with Previous Studies

The current research's findings are consistent with several prior studies in both Arabic and non-Arabic contexts, which have explored the relationship between digital financial services and customer satisfaction. For example:

- Arabic Literature: Salah al-Din Moftah Saad al-Bahi (2016) investigated the impact of electronic banking services quality, including dimensions such as ease of use and security, on customer satisfaction in

Jordanian Islamic banks. The study found a high level of satisfaction with electronic banking services, resonating with this study's findings regarding the importance of ease of use and security in digital payment services.

- Non-Arabic Literature: Tiba Ahmadi Muhammed Taha Narci (2022) explored the impact of mobile banking services on customer satisfaction in Turkey's banking sector, revealing a significant positive relationship between mobile banking services and customer satisfaction. This aligns with the current study's findings, indicating that the adoption and enhancement of digital banking services contribute to higher customer satisfaction.

4.3 Context of Saudi Banks and Vision 2030

The emphasis on digital payment services in Saudi Arabia is strongly linked to the country's Vision 2030, which aims to diversify the economy and enhance the financial sector's efficiency. The Kingdom's drive toward digital transformation has resulted in increased adoption of digital payment services, supported by initiatives from the Saudi Arabian Monetary Authority (SAMA). Studies like AlHaliq and AlMuhirat (2016) and Ali and Salameh (2023) further emphasize the growing importance of performance, security, and user experience in determining customer satisfaction with digital services in Saudi banks.

4.4 Impact of Digital Payments on Customer Satisfaction

Digital payments have become integral to modern banking operations in Saudi Arabia, providing customers with convenient, secure, and time-efficient transaction methods. The strong correlations between ease of use, security, and time-saving in digital payment services and overall satisfaction suggest that customers prioritize these aspects when evaluating their banking experiences. These results indicate that customers in Saudi banks are more likely to be satisfied when they perceive digital payment services as user-friendly, secure, and efficient.

Table 5: Summary of Key Correlation Results

Variable 1	Variable 2	Correlation Coefficient r
Ease of Use	Overall Satisfaction	0.85
Security	Overall Satisfaction	0.78
Time Savings	Overall Satisfaction	0.82

The positive correlations found in this study support previous research, such as Hamdan & E.S. Aldhaen (2023), which demonstrated that AI-driven digital payment systems significantly enhance customer satisfaction by providing faster, more secure, and user-friendly experiences. Furthermore, studies conducted on banking services in other regions, like Shanka (2012) in Ethiopia, found similar positive correlations between service quality dimensions (e.g., ease of use and security) and customer satisfaction.

4.5 Challenges and Areas for Improvement

While the results indicate general satisfaction with digital payment services in Saudi banks, some areas such as confidentiality and security could benefit from further improvements. Despite the high correlation between security and customer satisfaction, there is a need for continuous enhancement in cybersecurity measures to maintain and increase customer trust. Previous studies, such as Agrawal et al. (2014) and Omer Ali Babiker Eltahir & Nizar Ben Abdallah (2019), have emphasized that ensuring robust security and responsiveness in digital banking services is crucial for sustaining customer satisfaction and loyalty.

4.6 Implications for Banks in Saudi Arabia

The results have important implications for Saudi banks aiming to enhance customer satisfaction through digital payment services. By focusing on improving ease of use, security, and time-saving aspects, banks can significantly increase customer satisfaction levels. Furthermore, ongoing investment in advanced technologies, customer education on the use of digital services, and responsive customer support are essential strategies to sustain and enhance customer satisfaction. These findings support the recommendations made by previous researchers, such as Rifaa Lahlooh & Raham Zain Al-Din (2016) and Al-Naimat (2014), advocating for banks to focus on responsiveness and service quality improvements.

4.7 Limitations and Future Research

While this study offers valuable insights into the relationship between digital payments and customer satisfaction, it is limited to the banking sector in Saudi Arabia. Future research could expand to other regions and financial services to provide a more comprehensive understanding of digital payments' impact on customer satisfaction. Additionally, examining the role of emerging technologies such as AI and blockchain in enhancing digital payment services could provide further insights for the banking sector.

This discussion demonstrates that digital payment services have a significant impact on customer satisfaction in Saudi banks, particularly in terms of ease of use, security, and time efficiency. The findings align with previous studies and contribute to a broader understanding of how digital financial services influence customer satisfaction. Banks in Saudi Arabia can leverage these insights to enhance their digital payment services and foster a more customer-centric banking experience.

The master's thesis, "Digital Payments as a Digital Financial Service and its Relationship to Achieving Customer Satisfaction in Saudi Banks," explores the dynamic role of digital payments in enhancing customer satisfaction within the Saudi banking sector. The study's findings offer several key conclusions highlighting its novelty, significance, and potential avenues for future research.

4.8 Novelty and Significance of the Research

The study presents novel insights into the relationship between digital payment services and customer satisfaction in Saudi banks. It shows that digital payments have become a cornerstone of modern banking, driven by factors such as convenience, security, speed, and accessibility. In the context of Saudi Arabia, the adoption of digital payments aligns with the country's Vision 2030 initiative, which aims to modernize and diversify the economy, including the financial sector.

The study emphasizes that digital payments significantly enhance customer satisfaction by providing secure, efficient, and accessible banking services. It reveals that customers who use digital payments experience greater satisfaction due to the ease of conducting financial transactions.

The research fills a gap in the existing literature by specifically focusing on the Saudi banking sector, a region that has been underexplored in previous studies on digital payments and customer satisfaction. The inclusion of Saudi banks in the analysis provides a unique regional perspective on the impact of digital financial services.

4.9 Key Findings

The study concludes that digital payments positively impact customer satisfaction in Saudi banks. Several factors contribute to this relationship:

- **Ease of Use:** Digital payment platforms that are user-friendly and intuitive significantly enhance customer satisfaction. The convenience of accessing banking services via digital channels leads to higher customer retention and loyalty.
- **Security**: Ensuring robust security measures for digital payment services is crucial for gaining customer trust. The study finds that customers value the security of their financial transactions and personal information, directly influencing their satisfaction with digital services.
- **Speed and Efficiency**: The ability to conduct quick and seamless transactions using digital payment platforms improves the overall customer experience. The research indicates that speed is a critical factor in customer satisfaction, as it aligns with customers' expectations for fast and reliable banking services.
- **Diversity of Services**: Offering a diverse range of digital payment options, including mobile banking, internet banking, and e-wallets, caters to the varied preferences of customers and enhances their satisfaction.

4.10 Challenges and Recommendations

While digital payments have numerous benefits, the study identifies challenges in their implementation in Saudi banks, including cybersecurity threats, consumer trust issues, and the need for a robust regulatory framework. To address these challenges, the study recommends the following:

- Enhancing Cybersecurity: Banks should invest in advanced security technologies, such as encryption and multi-factor authentication, to protect customer data and financial transactions from cyber threats.
- Consumer Education: Banks need to educate customers on the safety and advantages of digital payment services to build trust and increase adoption.
- Infrastructure Development: Expanding digital payment infrastructure, particularly in rural and remote areas, will promote financial inclusion and ensure that a broader segment of society can benefit from digital financial services.

4.11 Implications for Future Research

The study opens several avenues for future research. Potential areas include:

- Longitudinal Studies: Conducting longitudinal research to observe the evolving relationship between digital payments and customer satisfaction over time, especially as new technologies and regulations emerge.
- Comparative Analysis: Comparing the impact of digital payments on customer satisfaction across different regions or countries to identify best practices and tailor digital financial services to specific market needs.
- Customer Segmentation: Investigating how different customer segments (e.g., age groups, income levels) interact with digital payment services to provide more targeted solutions.

5 Recommendations

5.1 Enhancing Security Measures

- Improve Data Security: Implement advanced encryption techniques, multi-factor authentication (MFA), and compliance with international security standards like PCI DSS to ensure customer data protection.
- Increase Customer Trust: Regularly communicate security measures and protocols to customers to build trust in digital payment systems. This transparency will help alleviate concerns about data breaches and unauthorized access.

5.2 Improving User Experience:

- Simplify Digital Payment Interfaces: Ensure that digital payment platforms are user-friendly and intuitive. Regular usability testing and incorporating user feedback will enhance the ease of use, making these services accessible to a broader customer base.
- Offer Personalized Services: Use AI-driven solutions to provide personalized user experiences. Features such as AI chatbots can assist customers in real-time, making digital payment processes more seamless and responsive to individual needs.

5.3 Expanding Service Options:

- Diversify Digital Payment Methods: Provide a variety of digital payment options, such as mobile banking, internet banking, and e-wallets, to cater to different customer preferences. A diverse range of services can enhance convenience and accommodate varying user needs.
- Incorporate Emerging Technologies: Integrate digital payment systems with other technologies, such as the Internet of Things (IoT) and wearable devices, to improve utility and convenience. This integration will ensure that digital payments remain relevant and attractive to customers.

5.4 Continuous Improvement and Monitoring:

- Conduct Periodic User Feedback Surveys: Regularly gather user feedback to identify areas for improvement and ensure that the digital payment services evolve according to customer needs and expectations.
- Regular System Upgrades: Invest in infrastructure and perform regular updates to ensure optimal system performance, particularly during peak usage periods. This will prevent downtime, transaction errors, and slow processing times, thus maintaining customer confidence.
- Enhancing Financial Literacy and Support:
- Educate Customers: Develop educational programs and resources to improve customers' understanding of digital payment services. This initiative will empower customers to use these services confidently and securely.
- Provide Robust Customer Support: Offer round-the-clock customer support to address any issues or concerns related to digital payments promptly. Ensuring that customers can quickly resolve their problems will contribute to higher satisfaction levels.
- Aligning with National Initiatives:
- Support Vision 2030: Align digital payment strategies with Saudi Arabia's Vision 2030 by promoting financial inclusion and digital transformation. Ensure that digital payment services contribute to a modern, diversified economy and meet the evolving needs of the Saudi population.
- Expand Infrastructure in Rural Areas: Enhance digital payment infrastructure in remote and rural areas to promote financial inclusion, allowing a wider segment of the population to benefit from digital financial services.

References:

Alharbi, F., & Alturki, N. (2021). The impact of Vision 2030 on digital financial services in Saudi Arabia. *Journal of Banking and Financial Technology*, 5(1), 25-39.

Alhumoudi, H. (2023). Examining the Factors Influencing Consumer's Adoption of E-Payment Methods: The Era of Digital Accounting Technologies in the Saudi Arabian Context. *International Journal of Academic Research in Accounting, Finance and Management Sciences*, 14(2). [CrossRef]

Ali, M., & Raza, S. A. (2020). Service quality perception and customer satisfaction in Islamic banks: The role of digital banking and customer-centric services. *Journal of Islamic Marketing*, 11(4), 1105-1123.

Almaiah, M. A., Al-Rahmi, W. M., Alturise, F., Hassan, L., & Lutfi, A. (2023). The Effect of Perceived Security, Perceived Trust, and Information Quality on Mobile Payment Usage Through Near-Field Communication (NFC) in Saudi Arabia. *Electronics*, 11(23), 3926. [CrossRef]

Alnemer, H. A. (2022). Determinants of Digital Banking Adoption in the Kingdom of Saudi Arabia: A Technology Acceptance Model Approach. *Digital Business*, 2(2), 100037. [CrossRef]

Al-Rudaydah, R. T. H. (2011). *The impact of electronic banking service quality on strengthening the relationship between the bank and customers: A comparative study on a sample of Jordanian banks and foreign banks in Amman city*. Unpublished master's thesis, Middle East University, Amman, Jordan.

Ameerbakhsh, O. Z., Alfadli, I. M., & Ghabban, F. M. (2021). Factors Affecting Saudi Consumers' Acceptance Towards the Use of Electronic Payment. *Design Engineering.*

Arbore, A., & Busacca, B. (2009). Customer satisfaction and dissatisfaction in retail banking: Exploring the asymmetric impact of attribute performance. *Journal of Retailing and Consumer Services*, 16, 271-280. [CrossRef]

Bolton, R.N., & Drew, J.H. (1991). A multistage model of customers' assessments of service quality and value. *Journal of Consumer Research*, 17 (March), 375-384. [CrossRef]

Ben Msaie, I. (2017). *The Reality of Applying Electronic Payment Methods in Commercial Banks: A Case Study of Banque de l'Agriculture et du Développement Rural – Biskra Agency – and Gulf Bank Algeria – Biskra Agency*. Master's Thesis, University of Mohammed Khider, Biskra, 15.

Chen, A. N., & Thomas, J. Y. (2019). E-payment Adoption in Saudi Arabia. *Journal of Information Technology & Management*, 40(3), 223-237.

Haruna, M., & Amiri, N. (2023). The impact of service quality dimensions on customer satisfaction and loyalty in digital banking: A cross-sectional analysis. *Journal of Financial Services Marketing*, 28(1), 56-67.

Javed, M., & Kalia, P. (2022). Understanding customer satisfaction in digital banking: The role of service quality and digital experience. *Journal of Financial Services Marketing*, 27(3), 145-160.

Kafetzopoulos, D., & Psomas, E. (2022). Digital transformation in the banking sector: A systematic literature review. *Journal of Financial Services Research*, 60(3), 527-549.

Khan, M., & Saiti, B. (2021). Digital banking, competition, and customer satisfaction: Evidence from the GCC countries. *Journal of Economic and Financial Studies*, 44(5), 451-469.

Khan, R. (2021). Digital Payments: Barrier or Boon for Entrepreneurs' Success – A Case Study of Saudi Arabia. *International Journal of Advanced Engineering and Management*, 6(1), 12-19.

Khan, S., & Al-harby, A. S. A. (2022). The Use of Fintech and Its Impact on Financial Intermediation – A Comparison of Saudi Arabia with Other GCC Economies. *Intellectual Economics*, 16(1), 34-48.

Mujallid, S. M. (2019). Acceptance of E-payment in the KSA. *American Academic & Scholarly Research Journal*, 11(4), 78-85.

Nambiar, A. (2021). Digital disruption and the future of banking: How technology is reshaping the banking industry. *International Journal of Bank Marketing*, 39(2), 307-327.

Oliveira, T., & Tam, C. (2020). Consumer adoption of digital banking: Integrating trust, ease of use, and performance into the quality of service assessment. *Journal of Business Research*, 120, 390-398.

Sait, S., Al-Tawil, K., & Hussain, S. (2010). E-commerce in Saudi Arabia: Adoption and Perspectives. *Australasian Journal of Information Systems*, 12(1). [CrossRef]

SAMA (Saudi Arabia Monetary Authority). (2021). *Saudi Arabia Monetary Authority Report on Financial Sector Development and Digital Payments*. Available at: https://www.sama.gov.sa