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# ASSESSING THE CRITICAL FACTORS INFLUENCING BANK CARD USAGE IN INTERNATIONAL TRANSACTIONS: A PRISMA APPROACH

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## Abstract

This study systematically evaluates the critical factors influencing bank card usage on international transactions using the PRISMA (Preferred Reporting Items for Systematic Reviews and Meta-Analyses) approach. Despite the increasing significance of bank cards in facilitating cross-border transactions, there is a gap in understanding the determinants shaping consumers' decisions to use bank cards internationally. Hence, the research objective is to address this gap by synthesising existing literature to identify common themes, patterns, and gaps related to bank card usage in international settings. A systematic review of relevant studies was conducted following the PRISMA guidelines, including a comprehensive search strategy, study selection, data extraction, and synthesis. Through the synthesis of existing literature, common themes such as convenience, security, cultural influences, regulatory frameworks, and consumer barriers were identified. The study highlights the emergence of contactless payment technologies as a significant driver of bank card usage globally. Practical implications derived from these findings suggest the need for tailored strategies by financial institutions, policymakers, and businesses to enhance the accessibility, security, and efficiency of cross-border payment systems. Recommendations include fostering collaboration among stakeholders to maximise the potential of contactless payment technologies, addressing cultural, demographic, and socioeconomic factors in international contexts, and implementing forward-looking regulatory frameworks to promote trust and innovation in cross-border transactions.

**Keywords:** Credit card usage, debit card usage, international transactions, financial institution, payment platform security, financial inclusion

## INTRODUCTION

In today's globalised world, the use of bank cards for international transactions has become increasingly prevalent, offering individuals and businesses a convenient and secure means of conducting cross-border financial activities (Shirai & Sugandi, 2019). Bank cards, including credit and debit cards, have revolutionised the way people make payments and manage their finances, providing access to funds and facilitating transactions across different countries and currencies. With the proliferation of e-commerce and online shopping platforms, the demand for bank cards for international transactions has surged as consumers seek to purchase goods and services from overseas vendors with ease and efficiency (Taher, 2021).

The widespread adoption of bank cards for international transactions has been fuelled by advancements in payment infrastructure and technology, these advancements include the establishment of global payment networks and the implementation of secure authentication protocols (Wang et al., 2021). These developments have streamlined cross-border transactions, enabling cardholders to effortlessly make purchases abroad and withdraw cash from international ATMs without the hassle of currency exchange or extensive paperwork. Consequently, bank cards have become indispensable tools for travellers, expatriates, and international businesses, facilitating cross-border trade and financial integration on a global scale (Li et al., 2021).

The prevalence of bank fraud poses a significant threat to the use of bank cards in international transactions, impacting consumer trust and confidence in transaction security (Badejo et al., 2018). Various types of bank card fraud, including card skimming, phishing scams, and identity theft, present serious risks to cardholders engaging in cross-border transactions, for instance, card skimming involves criminals installing devices on ATMs or point-of-sale terminals to illicitly obtain card information (Obi, 2023). Similarly, phishing scams use deceptive emails or websites to dupe individuals into disclosing sensitive information (Carroll et al., 2022). Additionally, identity theft occurs when fraudsters acquire personal information to impersonate legitimate cardholders and conduct unauthorised transactions (Shakadwipi et al., 2023). Such fraudulent activities can lead to financial losses for both cardholders and financial institutions, resulting in reduced card usage for international transactions as consumers become more cautious about potential risks. Therefore, combating bank frauds through enhanced security measures and consumer awareness initiatives is imperative to maintain trust and ensure the continued use of bank cards in cross-border transactions (Amoh et al., 2021).

Understanding the critical factors influencing bank card usage holds significant importance in the realm of finance and consumer behaviour. By understanding these factors, financial institutions and policymakers can develop their strategies and policies that better meet the needs and preferences of consumers (Mogaji et al., 2021). Moreover, insights into these factors enable businesses to develop targeted marketing campaigns and innovative services that enhance the user experience and drive customer satisfaction (Alzoubi et al., 2022; Yeh et al., 2019). Additionally, a deeper understanding of the determinants of bank card usage can contribute to the development of more efficient and secure payment systems, ultimately fostering economic growth and financial inclusion on a global scale (Karjaluoto et al., 2020). Therefore, research focusing on unravelling the critical factors influencing bank card usage not only enriches academic knowledge but also has practical implications for industry stakeholders and policymakers alike.

The purpose of this study is to systematically evaluate and analyse the critical factors that influence bank card usage in international transactions, using the PRISMA (Preferred Reporting Items for Systematic Reviews and Meta-Analyses) approach. By employing a systematic and rigorous methodology, this study aims to provide a comprehensive understanding of the various factors that shape consumers' decisions to use bank cards for international transactions. Through synthesising existing research findings, this study seeks to identify common themes, trends, and gaps in the literature, thereby contributing to the advancement of knowledge in the field of international banking and finance. Ultimately, the findings of this study are expected to comprehensively understand offer valuable insights for financial institutions, policymakers, and researchers, informing the development of strategies and interventions aimed at promoting the use of bank cards in cross-border transactions and enhancing the efficiency and effectiveness of international payment systems. This study will be guided by the following research questions (RQ) which will involve a detailed systematic literature review (SLR) with the aid of PRISMA approach:

**RQ 1.** What factors influence individuals' decisions to use bank cards for international transactions?

**RQ 2.** What are the key barriers and challenges faced by consumers when using bank cards for cross-border transactions, and how do these factors vary across different regions or countries?

**RQ 3.** How do regulatory frameworks and policies influence bank card usage in international transactions, and what are the implications for financial institutions and policymakers?

## METHODOLOGY

The PRISMA approach is a widely recognised and rigorous methodology for conducting systematic reviews and meta-analyses in research literature (Page et al*.,* 2021). It provides a structured framework for conducting comprehensive literature searches, selecting relevant studies, extracting data, and synthesising findings, thus ensuring transparency and reproducibility in the review process. The PRISMA approach consists of a checklist of items that researchers follow to systematically document each step of the review process, including the identification of research questions, search strategy, study selection criteria, data extraction, and quality assessment (Page et al., 2021). By adhering to the PRISMA guidelines, researchers can minimise bias, enhance the reliability of their findings, and facilitate the comparison and replication of their studies.

In the context of the study 'Assessing the critical factors influencing bank card usage on international transactions: A PRISMA Approach,' the PRISMA approach is particularly relevant due to its systematic and transparent nature (Page et al., 2021). Given the complexity and breadth of the topic, conducting a systematic review using the PRISMA approach allows for a comprehensive examination of existing literature on the critical factors influencing bank card usage in international transactions. By systematically synthesising and analysing relevant studies identified through a predefined search strategy, this approach enables researchers to identify common themes, patterns, and gaps in the literature, thus providing valuable insights into the determinants of bank card usage across different international contexts. Moreover, the PRISMA approach enhances the credibility and validity of the study findings, allowing for informed decision-making by stakeholders, policymakers, and practitioners in the banking and finance sector (Page et al., 2021). The search was limited to articles published in the English language and included studies published from 2018 to 2024. This comprehensive search strategy ensured that a wide range of relevant literature was identified and included in the systematic review process, thus enhancing the robustness and comprehensiveness of the study findings (Sarkis-Onofre et al., 2021). The included studies in this systematic review exhibited diverse characteristics in terms of geographic scope, methodology, and focus. A total of 45 studies met the inclusion criteria, with publication dates ranging from 2018 to 2024. Figure 1 contains the distribution of the selected literatures based on publishers. Geographic coverage varied, with studies conducted in regions including Africa, Asia, Europe, North America, and Russia. Methodologically, the included studies employed a range of research designs, including quantitative surveys, qualitative interviews, meta-analysis and document analysis approaches.

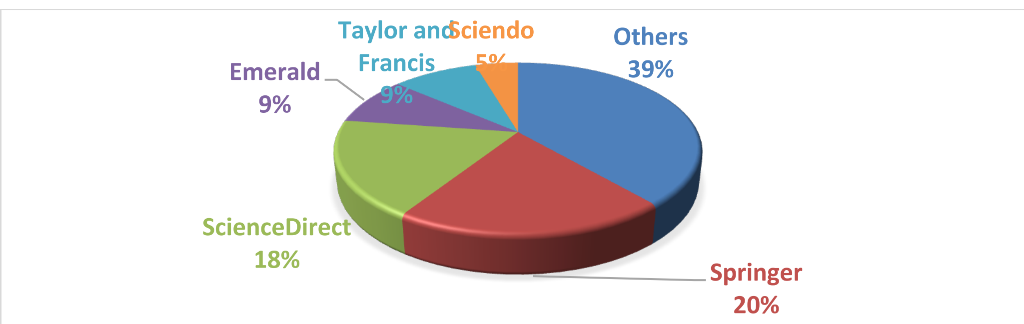


***Figure 1. Distribution of the selected literatures based on publishers***

**Summary of Findings Related to Critical Factors Influencing Bank Card Usage on International Transactions**

This section presents the articles included in this study. Some studies focused specifically on consumer behaviour and attitudes toward bank card usage in international transactions, while others examined technological innovations and regulatory frameworks influencing cross-border payment systems. Despite this diversity, all the included studies Table 1 contributed valuable insights into the critical factors shaping bank card usage in international transactions, thereby enriching our understanding of this complex phenomenon. Table 1 presents the articles selected for the study.

**Table 1: Extract from selected literature for this study**

| SN | Author | Year | Title | Research Methodology | Country | Journal |
|---|---|---|---|---|---|---|
| 1 | Agárdi and Alt | 2022 | Do digital natives use mobile payment differently than digital immigrants? A comparative study between generation X and Z | Quantitative | Hungary | Electronic Commerce Research |
| 2 | Ahmed et al. | 2021 | Security in next generation mobile payment systems: A comprehensive survey | Survey | Pakistan | IEEE Access |
| 3 | Almaiah et al. | 2022 | Investigating the Effect of Perceived Security, Perceived Trust, and Information Quality on Mobile Payment Usage through Near-Field Communication (NFC) in Saudi Arabia. | Quantitative | Saudi Arabia | Electronics |
| 4 | Amoh et al. | 2021 | Customers' awareness and knowledge level of fraudulent acts in electronic banking in Ghana: evidence from a universal bank | Qualitative | Ghana | Journal of Financial Crime |
| 5 | Anyangwe et al. | 2022 | Determinants of financial inclusion: does culture matter? | Quantitative | South Africa | Cogent Economics & Finance |
| 6 | Arauz | 2021 | The international hierarchy of money in cross-border payment systems: Developing countries' regulation for central bank digital currencies and Facebook's stablecoin | Quantitative | Mexico | International Journal of Political Economy |
| 7 | Arner et al. | 2020 | Sustainability, FinTech and Financial Inclusion | | China | European Business Organization Law Review |
| 8 | Arshad and Ibrahim | 2019 | Uncertainty avoidance, risk avoidance and perceived risk: A cultural perspective of individual investors | Quantitative | Pakistan | Hasanuddin Economics and Business Review |
| 9 | Badejo et al. | 2018 | Fraud detection in the banking system in Nigeria: Challenges and prospects | Quantitative | Nigeria | Shirkah: Journal of Economics and Business |

| SN | Author | Year | Title | Research Methodology | Country | Journal |
|---|---|---|---|---|---|---|
| 10 | Baggs et al. | 2018 | Exchange rates, cross-border travel, and retailers: Theory and empirics | Quantitative | Canada | Journal of International Economics |
| 11 | Bailey et al. | 2020 | Exploring factors influencing US millennial consumers' use of tap-and-go payment technology | Quantitative | USA | The International Review of Retail, Distribution and Consumer Research |
| 12 | Berg | 2020 | Electronic invoicing: The first step towards digital B2B payment modernisation | | USA | Journal of Digital Banking |
| 13 | Bojjagani and Sastry | 2019 | A secure end-to-end proximity NFC-based mobile payment protocol | | India | Computer Standards & Interfaces |
| 14 | Buchak et al. | 2018 | Fintech, regulatory arbitrage, and the rise of shadow banks | Meta-analysis | USA | Journal of Financial Economics |
| 15 | Carroll et al. | 2022 | How good are we at detecting a phishing attack? investigating the evolving phishing attack email and why it continues to successfully deceive society | Quantitative | UK | SN Computer Science |
| 16 | Cham et al. | 2022 | I am too old for this! Barriers contributing to the non-adoption of mobile payment | Quantitative | China | International Journal of Bank Marketing |
| 17 | D'Onofrio et al. | 2019 | Banking development, socioeconomic structure and income inequality | Quantitative | Italy | Journal of Economic Behavior & Organization |
| 18 | Derecskei | 2018 | Relations between risk attitudes, culture and the endowment effect | Quantitative | Hungary | Engineering Management in Production and Services |
| 19 | Godfrey-Welch et al. | 2018 | Blockchain in payment card systems | | USA | SMU Data Science Review |
| 20 | Guo et al. | 2018 | To sell or not to sell: Exploring sellers' trust and risk of chargeback fraud in cross-border electronic commerce | Quantitative | China | Information Systems Journal |
| 21 | Gupta and Narayan | 2020 | A survey on contactless smart cards and payment system: Technologies, policies, attacks and countermeasures | | India | Journal of Global Information Management |

| SN | Author | Year | Title | Research Methodology | Country | Journal |
|---|---|---|---|---|---|---|
| 22 | Harasim and Klimontowicz | 2018 | Regulations as a tool to increase consumer protection on the European retail payment market | Document Analysis | Poland | Journal of Economics and Management |
| 23 | Hove | 2021 | Mobile wallets and consumer spending in Singapore: Agarwal et al. revisited | | Singapore | The Singapore Economic Review |
| 24 | Johnson et al. | 2018 | Limitations to the rapid adoption of M-payment services: Understanding the impact of privacy risk on M-Payment services | Quantitative | USA | Computers in Human Behavior |
| 25 | Kabakova and Plaksenkov | 2018 | Analysis of factors affecting financial inclusion: Ecosystem view | Quantitative | Russia | Journal of Business Research |
| 26 | Karjaluoto et al. | 2020 | Examining consumers' usage intention of contactless payment systems | Quantitative | Finland | International Journal of Bank Marketing |
| 27 | Kodongo | 2018 | Financial regulations, financial literacy, and financial inclusion: Insights from Kenya | Quantitative | Kenya | Emerging Markets Finance and Trade |
| 28 | Korauš et al. | 2019 | Analysis of respondents' opinions and attitudes toward the security of payment systems | Quantitative | Slovak Republic | Entrepreneurship and Sustainability Issues |
| 29 | Li et al. | 2021 | Customer satisfaction with bank services: The role of cloud services, security, e-learning and service quality | Quantitative | China | Technology in Society |
| 30 | Migliore et al. | 2022 | Antecedents to the adoption of mobile payment in China and Italy: an integration of UTAUT2 and Innovation Resistance Theory | Quantitative | China and Italy | Information Systems Frontiers |
| 31 | Mogaji et al. | 2021 | Marketing bank services to financially vulnerable customers: evidence from an emerging economy | Qualitative | Nigeria | International Journal of Bank Marketing |

## THEMES OF THE STUDY

The articles (45) selected for this study as presented in Table 1 were further represented in themes and sub-themes according to the research objectives of the study. Table 2 presents the themes and sub-themes of the study.

**Table 2: Thematic analysis of the findings**

| Themes | Sub-themes |
|---|---|
| **THEME 1:**<br>Factors influencing individuals' decisions to use bank cards for international transactions | • Convenience and accessibility<br>• Widespread acceptance<br>• Proliferation of online shopping platforms and e-commerce<br>• Perceived security and fraud protection |
| **THEME 4:**<br>The key barriers and challenges faced by consumers and how these factors vary across different regions | • Foreign transaction fees<br>• Security concerns<br>• Currency exchange rates<br>• Limited access to banking services<br>• Data privacy concerns |
| **THEME 5:**<br>Impacts of regulatory frameworks and policies on bank card usage and implications for financial institutions and policymakers | • Enhances security, transparency and efficiency.<br>• Mandates for strong authentication and data protection standards.<br>• Impacts the affordability of bank card usage for international payments.<br>• Financial burdens and operational challenges for financial institutions and payment processors.<br>• Facilitates investments in technology, infrastructure, and human resources for banks.<br>• Fosters trust in cross-border payment systems.<br>• Facilitates international trade and investment.<br>• Promotes innovation and competition in the banking sector. |

## DISCUSSION OF RESEARCH RESULTS

This section presents a summary of the discussion of the themes of the study as presented in Table 2 above. The discussion was done following the order of research questions of the study.

### RQ 1. What factors influence individuals' decisions to use bank cards for international transactions?

A reoccurring observation in many studies is the convenience and accessibility provided by bank cards in facilitating cross-border payments (Li et al., 2021; Tu & Shangguan, 2018). Bank cards provide a convenient means for individuals to make purchases and withdraw cash while travelling abroad, eliminating the need to carry large amounts of cash or exchange currencies at unfavourable rates. Additionally, the widespread acceptance of bank cards by merchants and financial institutions globally enhances their utility and appeal to consumers seeking seamless and hassle-free payment experiences (Mogaji et al., 2021; Nambiar & Bolar, 2023). Moreover, the proliferation of online shopping platforms and e-commerce websites has further fuelled the demand for bank cards for international transactions, as consumers increasingly rely on digital channels to make purchases from overseas vendors (Nambiar & Bolar, 2023; Tu & Shangguan, 2018). Thus, the convenience and versatility of bank cards emerge as the primary drivers influencing individuals' decisions to use them for cross-border transactions.

Another significant factor influencing individuals' decisions to use bank cards for international transactions is the perceived security and fraud protection offered by these payment instruments (Almaiah et al., 2022; Korauš et al., 2019). Bank cards come with sophisticated security features like chip technology, encryption, and fraud detection algorithms to protect customers' financial information and reduce the possibility of fraudulent transactions (Godfrey-Welch et al., 2018). Compared to cash or alternative payment methods, bank cards offer greater protection against theft, loss, and counterfeit currency, providing consumers with peace of mind when making purchases abroad (Ahmed et al., 2021; Almaiah et al., 2022). The perceived security and reliability of bank cards for overseas transactions are further increased by the numerous banks and card issuers that provide liability protection and dispute resolution services to cardholders. Therefore, the perceived security and fraud protection associated with bank cards play a crucial role in influencing individuals' decisions to use them for cross-border payments.

**RQ 2. What are the key barriers and challenges faced by consumers when using bank cards for cross-border transactions, and how do these factors vary across different regions or countries?**

One notable barrier identified across multiple studies is the issue of foreign transaction fees imposed by banks, which can significantly increase the cost of international purchases for consumers (Phan et al., 2019). Additionally, concerns regarding the security of transactions and the risk of fraud when using bank cards abroad emerged as a prevalent challenge, particularly in regions with high rates of financial crime and cyberattacks (Badejo et al., 2018; Carroll et al., 2022; Obi, 2023; Shakadwipi et al., 2023). Moreover, variations in currency exchange rates and transaction processing times were highlighted as practical obstacles that consumers face when conducting cross-border transactions, impacting the convenience and affordability of using bank cards internationally (Baggs et al., 2018).

Furthermore, the review revealed notable differences in the barriers and challenges faced by consumers across different regions or countries. For instance, studies conducted in developing economies highlighted issues related to limited access to banking services and inadequate financial literacy among consumers, which hindered the widespread adoption of bank cards for international transactions (Kodongo, 2018; Mogaji et al., 2021). In contrast, in developed economies, concerns such as data privacy and compliance with regulatory requirements were more prominent, reflecting the heightened awareness and scrutiny surrounding financial transactions in these regions (Vučinić, 2020). These regional variations underscore the importance of considering contextual factors and local market dynamics when designing strategies to address the barriers to bank card usage in cross-border transactions, emphasising the need for tailored approaches that account for the specific challenges faced by consumers in different parts of the world.

**RQ 3. How do regulatory frameworks and policies influence bank card usage in international transactions, and what are the implications for financial institutions and policymakers?**

Regulatory frameworks and policies play a crucial role in shaping the landscape of bank card usage in international transactions. These regulations often determine the level of security, transparency, and efficiency in cross-border payment systems, directly impacting consumer confidence and behaviour. For instance, regulations mandating the implementation of strong authentication measures and data protection standards enhance the security of bank card transactions, reducing the risk of fraud and unauthorised access to sensitive financial information (Harasim & Klimontowicz, 2018; Sinigaglia et al., 2020). In addition, regulatory requirements related to interchange fees and cross-border transaction fees influence the cost of using bank cards for international payments. This, in turn, affects consumer preferences and adoption rates (Phan et al., 2019). Moreover, regulations governing cross-border remittances and currency exchange may affect the accessibility and affordability of bank card services for individuals and businesses operating across different countries (Arner et al., 2020).

Implications of regulatory frameworks and policies impact financial institutions operations and strategies, affecting their pricing strategies, profit margins, and investment decisions. This, in turn, influences the overall performance of the financial sector. Compliance with regulatory requirements often entails significant costs and administrative burdens for banks and payment processors, affecting their pricing strategies, profit margins, and investment decisions (Buchak et al., 2018; von Solms, 2021). Moreover, regulatory changes and updates may necessitate adjustments to banking systems and infrastructure, requiring investments in technology and human resources (von Solms, 2021). Financial institutions must also navigate the complexities of cross-border regulatory regimes, ensuring compliance with multiple jurisdictions while maintaining operational efficiency and competitiveness in the global market (Ngwu et al., 2019).

Effective regulation can promote trust and confidence in cross-border payment systems, facilitating international trade and investment (Arauz, 2021; Guo et al., 2018). Policymakers must balance the need for regulatory oversight with the promotion of innovation and competition in the banking and payments sector, ensuring that regulations are flexible and adaptable to evolving technological and market trends (Nicholls, 2019). By adopting a forward-looking regulatory approach that fosters collaboration between industry stakeholders and policymakers, governments can create an enabling environment for sustainable growth and development in the global payments ecosystem.

## IMPLICATIONS OF IDENTIFIED CRITICAL FACTORS FOR THEORY AND PRACTICE

The identification of critical factors influencing the use of bank cards for international transactions has important ramifications for consumer behaviour and finance, both theoretically and practically. The study's results theoretically add to the body of knowledge by enhancing our comprehension of the variables influencing people's choices to use bank cards for international transactions. Practically speaking, the implications of the critical factors that have been identified are numerous and provide insightful advice to financial institutions, governments, and companies that conduct business internationally. Armed with insights into consumer preferences, attitudes, and behaviours related to bank card usage, financial institutions can tailor their marketing strategies, product offerings, and customer service initiatives to better meet the needs and expectations of their target markets. Similarly, policymakers can use the findings of this study to inform the development of regulations and policies aimed at promoting the adoption and usage of bank cards in cross-border transactions, thereby fostering financial inclusion and economic growth.

## CONTRIBUTIONS AND NOVELTY OF THE STUDY

Through the PRISMA approach, a conceptual framework was developed to identify the critical factors influencing bank card usage in international transactions. The study presents a comprehensive examination of the influences on individuals' decisions to use bank cards for cross-border transactions. Through the examination of themes such as convenience, security, cultural issues, regulatory frameworks, and consumer barriers, the research provides a holistic understanding of the factors shaping bank card usage in international settings. Through a structured approach (PRISMA) that integrates specific research questions, the study effectively synthesises theoretical insights and empirical findings which offers a systematic exploration of the dynamics surrounding bank card usage in cross-border transactions. Moreover, the study contributes novel insights by shedding light on emerging technologies like contactless payment methods and their impact on bank card usage globally. It also highlights the importance of cultural, demographic, and socioeconomic factors in influencing consumer behaviour which motivates customers on the adoption and utilisation of bank cards in international contexts. Beyond theoretical contributions, the research presents practical implications for financial institutions, policymakers, and businesses engaged in international transactions. The identification of barriers such as the burden on foreign transaction fees, security issues, currency exchange rates, limited access to banking services, and data privacy concerns will inform strategic decision-making and policy formulation aimed at enhancing the accessibility, security, and efficiency of cross-border payment systems.

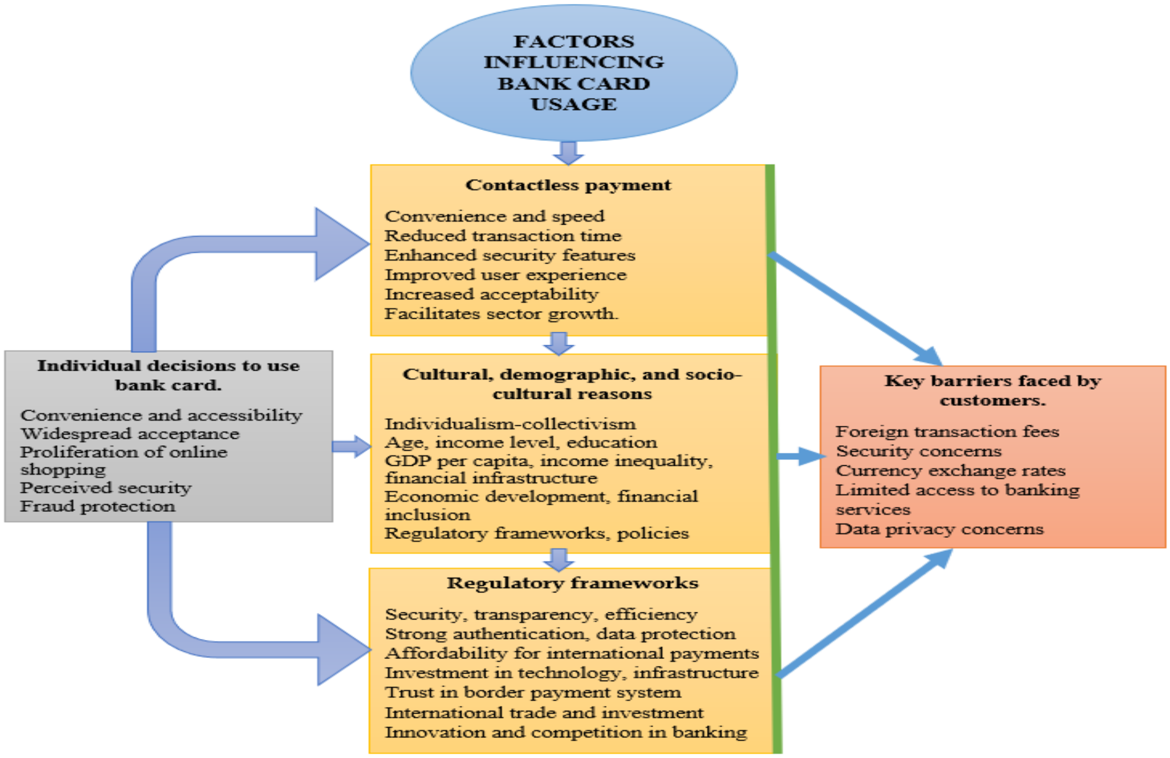


***Figure 2: Conceptual insights on factors enhancing bank card usage and barriers in international transactions.***

## LIMITATIONS AND CONCLUSION OF THE STUDY

While the PRISMA approach offers a systematic and robust framework for conducting literature reviews, this study is not without its limitations. Firstly, the quality and availability of existing literature may vary across different geographic regions and languages, potentially limiting the inclusivity of the review and introducing selection bias. The limitation of this study to published peer-reviewed research articles may overlook valuable insights from other sources, including grey literature, reports, and industry publications. While the PRISMA approach aims to minimise bias through transparent reporting and systematic methodology, the interpretation of findings may still be subject to researcher bias and subjective judgement, particularly during data synthesis and analysis. The methodology of this study also acknowledges any potential limitations of the PRISMA approach, such as the exclusion of non-English language studies or the potential for publication bias. Despite these limitations, this study aims to provide a comprehensive overview of the critical factors influencing bank card usage on international transactions. Thereby contributing to the existing body of knowledge in international banking and finance.

Key findings from the synthesised literature highlight various determinants such as demographic variables, technological factors, socioeconomic influences, and regulatory frameworks that shape consumers' decisions to use bank cards for cross-border transactions. These findings contribute to the existing body of literature by offering a comprehensive overview of the factors influencing bank card usage in international settings, thus filling gaps in understanding and providing a foundation for future research endeavours. The practical implications of this study are significant for financial institutions, policymakers, and businesses involved in international trade and finance. Stakeholders can develop targeted strategies and interventions to promote the adoption and usage of bank cards, enhance the efficiency and security of international payment systems, and facilitate financial inclusion on a global scale by understanding the factors driving bank card usage in cross-border transactions.

## ETHICAL CONSIDERATIONS

This study uses secondary data from publicly available information in the form of literature searches that are available to the public. These literature searchers were then synthesised and thus helped to generate a conceptual framework for the study, which can further be validated in an empirical study. Therefore, no informed consent would be required. The Protection of Personal Information Act (POPIA) 4 of 2013 is also not relevant to this study.

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