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Unlocking the Cashless Revolution: Understanding its Pros and Cons in Transforming University Transactions

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Abstract: *Universities worldwide are actively working towards establishing a cashless society through the implementation of cashless payment systems. The objective is to reduce reliance on physical currency and promote digital transactions as the primary mode of payment. This transition offers numerous advantages to individuals and organizations. However, it also presents challenges, including the need for widespread access to digital payment infrastructure and addressing data privacy concerns. This article aims to emphasize the benefits, challenges, and strategies necessary for successful implementation of cashless transactions in universities. Understanding these advantages and disadvantages is crucial for developing effective strategies that maximize benefits while mitigating risks and challenges. By implementing these strategies, universities can create an inclusive, secure, and technologically advanced environment that encourages student acceptance and integration of cashless transaction systems.*

Keywords: cashless transactions, university

1. Introduction

In the past two decades, technology and innovation have made significant advancements. Governments and businesses worldwide are working towards creating a cashless society by implementing rules and efforts that encourage electronic transactions instead of cash. In Malaysia, the central bank, Bank Negara Malaysia (BNM), has introduced policies to promote the adoption of electronic payment products and services. The latest Financial Sector Blueprint (FSBP) 2022-2026 sets an even more ambitious goal. According to a report by Ernst and Young in 2022, the current goal of the FSBP is to achieve an annual increase of at least 15% in the number of e-payment transactions. The aim is to have over 400 e-payment transactions per capita by the year 2026 (Ernst & Young, 2022). The Global Findex 2021 report by the World Bank revealed that around 79% of adults in Malaysia utilized e-payments during the pandemic. Additionally, according to ACI Worldwide's 2021 Real-Time Report of Payments, Malaysia ranked as the third fastest-growing market for real-time payments, experiencing a compound annual growth rate (CAGR) of 83.9%. Therefore, electronic transactions have emerged as a significant aspect of modern society, playing a crucial role in facilitating various financial activities.

A well-known banking institution in Malaysia, Bank Islam, has adopted the idea of cashless transactions. In January 2019, they launched the ground-breaking SnapNPay app in partnership with a FinTech firm. This pioneering app enables users to conveniently fulfill their zakat fitrah obligations, making Bank Islam a trailblazer in this domain (The Star, 2018). Moreover, with the SnapNPay application, individuals have the capability to conveniently carry out payments for a wide array of services, encompassing local authorities, governmental organizations, educational establishments, healthcare facilities, Joint Management Bodies (JMB), and retail establishments. These mobile payment applications are integrated into the electronic payment system, which aims to promote the acceptance and adoption of this payment mode among customers. Through the utilization of e-payment, customers can unlock an assortment of advanced and significant solutions, leading to enhanced operational efficiency (Soomro, 2019).

The empirical study in this research focuses on UniSHAMS as the setting, as it requires a supportive infrastructure for the improvement of the electronic payment system. Although the SnapNPay apps were intended to be implemented in UniSHAMS in 2019, the Malaysian Movement Control Order (MCO) delayed their usage until December 2020. However, it is essential to note that the implementation of this payment mode often overlooks the user, who plays a central role in utilizing and embracing the payment system. The success of any payment system relies heavily on user acceptance and adoption. Neglecting the user perspective during the implementation process can result in a lack of alignment with user needs, preferences, and behaviors. This, in turn, may lead to a suboptimal user experience, low adoption rates, and even resistance towards the payment system.

Furthermore, as emphasized by Malik, Suresh, and Sharma (2019), understanding and analyzing user attitudes are crucial in comprehending the factors that influence the acceptance and adoption of electronic payment systems. Users' attitudes shape their willingness to engage with these systems, and studying these attitudes enables researchers and practitioners to develop strategies that promote a positive user experience and encourage widespread adoption of electronic payment systems. By recognizing the importance of user attitudes, stakeholders can design and implement effective interventions and initiatives to overcome barriers and enhance acceptance of electronic payment systems in various domains.

The primary objective of this study is to delve into the concept of cashless transactions within university settings, thoroughly examining their benefits, challenges, and the essential strategies required for successful implementation. However, in this article, we will not delve into the details of the empirical results. This study has the potential to contribute to and enhance scholarly knowledge by providing a deeper understanding of the extent of e-payment technology acceptance among UniSHAMS students, particularly in light of government initiatives aimed at ensuring widespread adoption of this technology. The findings of this study may offer valuable insights and reinforce strategies, particularly for university management and financial institutions, enabling them to formulate effective and cost-effective plans to promote the utilization of e-payment methods. Furthermore, the evolution and expansion of payment systems have led to the inevitable establishment of a cashless society, where cashless transactions have become the prevailing norm.

2. Literature Review

This section is focused to providing a comprehensive explanation and detailed discussion of the concept of e-payment.

2.1 E-Payment

Researchers and information system designers have given electronic payment systems noticeably more attention and focus during the past few decades. This has led to significant and extensive research that has produced a variety of viewpoints on, among others, the definitions of e-payment. Scholars in different fields have all investigated these definitions from various angles. The broad use of the term e-payment system is sometimes equated with a type of financial transaction that involves both buyers and sellers in electronic communication (Dennis, 2004; Nasr, Farrag, & Nasr, 2020). A further definition is given by Kim et al. (2010) who describes e-payment as the process of sending money electronically from a payer to a payee using an e-payment system. This definition is close to those of Ravi and Kiran (2021), who define e-payment as the execution of financial transactions using electronic means instead of traditional physical methods like cash or checks. They suggested that e-payment involves the transfer of funds electronically from one party to another, facilitated by digital platforms or systems. This process eliminates the need for physical cash and relies on digital systems and platforms to securely transfer funds between parties, providing a convenient and secure alternative to traditional payment methods (Li & Zheng, 2021).

According to a definition provided by Briggs and Brooks (2011), e-payment is the connection of businesses and individuals by banks and inter-switch companies to facilitate electronic financial transactions. The term ‘e-payment’ is also used by Turban, Volonino and Wood (2022) in the context of electronic commerce, who suggest that e-payment encompasses the electronic exchange of funds, utilizing digital platforms and systems for efficient and secure transactions. By embracing e-payment methods, both individuals and businesses can engage in electronic financial transactions, thereby enhancing convenience and security in the process of fund exchange. Sreenu, (2020) writes that e-payment serves as the foundational mechanism for facilitating cashless transactions, enabling the seamless transfer of funds electronically. By embracing e-payment methods such as mobile wallets, online banking, or card payments, individuals can engage in cashless transactions, revolutionizing the way financial exchanges occur in modern society. In a cashless transaction, financial exchanges occur without the use of physical cash. Instead, digital data and electronic systems are employed to facilitate the transfer of funds between the parties involved.

In summary, based on the aforementioned definitions, an e-payment system can be described as a combination of components and processes that enable two or more parties to engage in transactions and exchange monetary value using electronic methods.

3. Benefits of Cashless Transactions

Although cashless transactions have many benefits, they also have some inherent disadvantages (Jaiswal, Mohan, & Deshmukh, 2023). Understanding these pros and cons is essential for developing strategies that maximize benefits while minimizing risks as well as challenges.

Extensive literature has extensively explored the benefits of cashless transactions, with particular attention given to studying their acceptance within university environments. This research has shed light on the advantages of cashless transactions, including improved operational efficiency, heightened security, enhanced consumer behavior understanding, promotion of financial inclusion, and alignment with technological trends. By focusing on universities, these studies provide valuable insights into the unique dynamics and preferences

of students, enabling the development of tailored strategies and services to optimize the implementation of cashless transactions in educational settings.

By conducting an early investigation of students' attitudes, preferences, and behaviors towards cashless transactions, researchers can gain valuable insights into consumer behavior in the context of digital payments. This knowledge is crucial for various stakeholders such as financial service providers, policymakers, and universities, as it allows them to develop targeted strategies and services that align with the specific needs and preferences of students. Understanding how students engage with cashless transactions enables the design of effective solutions that enhance user experience, address potential barriers, and promote greater acceptance and adoption of digital payment systems. Rahman, Ismail, and Bahri (2020) emphasize the significance of their research in guiding the development of student-centric approaches and ensuring that the benefits of cashless transactions are optimized for the student community.

Furthermore, research conducted by Kandpal and Mehrotra (2019) demonstrates that cashless transactions play a significant role in promoting financial inclusion. By offering convenient and accessible payment options, cashless transactions have the potential to extend financial services to all students, including those who may lack access to traditional banking services. This inclusionary approach ensures that a broader student population can participate in seamless and secure financial transactions. By studying student acceptance, researchers can develop solutions to ensure that cashless payment systems are inclusive and cater to the diverse needs of university students.

Moreover, cashless transactions contribute to the enhancement of efficiency and security by providing advantages such as improved operational efficiency, decreased administrative workload, and heightened security compared to traditional cash-based systems (Raj, Amilan, Aparna & Swaminathan, 2023). Gaining insights into student acceptance enables universities and financial institutions to evaluate the effectiveness of cashless payment solutions, identify areas for enhancement, and bolster the overall efficiency and security of financial transactions within university settings.

Additionally, cashless transactions align with the ongoing digital transformation observed across various industries (Mezghani & Aloulou, 2019). As a significant component of this technological shift which has redefine the way businesses and organizations operate, recent evidence suggests that studying student acceptance enables universities to remain up-to-date with emerging trends and align their services with the digital preferences and expectations of today's students (Gonçalves & Capucha, 2020; Noman et al. 2023). By embracing cashless transactions, studies of Chelvarayan, Yeo, Yi, and Hashim, (2022), Chotai, et al. (2023) and Shang and Chiu (2022) show that universities can adapt to the evolving technological landscape and provide seamless, modern financial services to their student community, leading to a more technologically advanced and student-centric university environment.

Moreover, as cashless transactions become increasingly prevalent in society, it is crucial for students to develop the necessary digital skills and financial literacy to navigate this digital landscape. Studying student acceptance offers valuable insights into students' readiness and willingness to adopt cashless transactions, enabling universities to design educational programs and initiatives that foster financial literacy and enhance digital competence among students. This prepares them for the future and equips them with the necessary skills to thrive in an

increasingly cashless society. The table 1 below provides a comprehensive overview of the benefits associated with cashless transactions in university settings.

Table 1: Comprehensive Overview of Cashless Transaction Benefits

No.	Benefits	Author(s)
1	Understanding Consumer Behaviour	- Rahman, Ismail, & Bahri (2020); Sitompul et al. (2022)
2	Promoting Financial Inclusion	- Kandpal & Mehrotra (2019); Mouna, & Jarboui (2022); Ogbeide (2019)
3	Efficiency and Security	- Ahmad et al. (2019); Raj, Amilan, Aparna & Swaminathan (2023)
4	Aligning with Technological Trends	- Gonçalves & Capucha, (2020); Noman et al. (2023)
5	Preparing Students for the Future	- Chelvarayan, Yeo, Yi, & Hashim (2022); Chotai, et al. (2023); Shang & Chiu (2022)

4. Challenges of Cashless Transactions

Implementing cashless transactions in university settings can come with its fair share of challenges. Previous studies have reported these challenges include factors such as technological infrastructure, accessibility and inclusivity, security and privacy concerns, change management and user acceptance, financial education and awareness and transactional fees and costs.

A number of studies have reported that a robust and reliable technological infrastructure is required to support cashless transactions (Alam, Awawdeh, & Muhamad, 2021; Lambert, 2020; Moon et al., 2022; Shishah & Alhelaly, 2021). Therefore, universities need to invest in appropriate payment systems, secure networks, and user-friendly platforms that can seamlessly handle transactions. As noted by Alam, Awawdeh, and Muhamad (2021), the process of upgrading existing systems and ensuring compatibility with diverse devices and operating systems can be intricate and expensive. Consequently, various challenges arise when utilizing technology, such as the need for suitable infrastructure, difficulties in adopting e-payment methods, concerns regarding cybersecurity and privacy, as well as compliance with fintech regulations.

Lambert (2020), however felt that while cashless transactions offer convenience, it is important to ensure that all students can participate in this system. Universities must address potential barriers such as limited access to smartphones or digital devices, internet connectivity issues, and ensuring support for students with disabilities or those who may not be technologically proficient. It is crucial to consider the needs of all students to prevent exclusion or unequal access to essential services.

The challenges of cashless transaction are clearly supported by the current findings. Cashless transactions according to Bojjagani et al. (2023), involve the exchange of personal and financial information, therefore raising concerns about data security and privacy. Universities must prioritize implementing robust security measures, encryption protocols, and data protection policies to safeguard students' sensitive information. Building trust among students regarding the security of their transactions plays a vital role in fostering acceptance and adoption of cashless transactions (Latif et al., 2023). When students perceive a high level of security in the payment system, they are more likely to trust the technology and feel confident in using it for their financial transactions. This trust factor positively influences their acceptance and adoption

of cashless transactions within university settings. A study by Al-Sabaawi, Alshaher, and Alsalem (2023) supports this notion, stating that trust is a critical determinant of user acceptance and adoption of mobile payment systems. The study found that when users perceive the payment system to be secure and reliable, their trust in the system increases, leading to greater acceptance and adoption. Therefore, universities must prioritize implementing robust security measures, ensuring data privacy, and communicating transparently about the security features of the cashless payment system to build trust among students.

Others have highlighted that introducing a new payment system such as in university environment requires effective change management strategies to ensure smooth transition and user acceptance (Correani, 2020; Lee, & Lee, 2020). The formulation of these strategies becomes essential as students exhibit varying degrees of familiarity and comfort with cashless transactions, consequently influencing their inclination towards adopting the system. Some evidence suggests that facilitating a smooth transition and promoting student acceptance can be achieved through several measures (Latif et al., 2023; Tran, & Tran, 2023). For example, providing comprehensive training programs that impart necessary skills and knowledge, coupled with clear and effective communication about the benefits and processes of cashless transactions, can help alleviate concerns and doubts among students. By proactively addressing students' apprehensions and mitigating potential barriers, universities can cultivate a conducive environment that promotes student acceptance and facilitates the seamless integration of cashless transaction systems (Abdullah, Redzuan, & Daud, 2020).

The challenge of implementing cashless transactions in relation to financial education and awareness has been extensively discussed by Balakrishnan and Shuib (2021) and Lusardi (2019). These researchers delve into the importance of equipping individuals with the necessary knowledge and understanding of financial concepts to effectively navigate and utilize cashless transaction systems. They also emphasize the significance of promoting financial literacy and awareness among users to ensure responsible and informed usage of cashless payment methods. A notable aspect to consider is that many students may have limited understanding of the financial implications or potential risks entailed in digital payments. Due to their relatively young age and limited exposure to complex financial transactions (Klapper & Lusardi, 2020), they may lack a comprehensive understanding of concepts such as transaction fees, potential fraud or data breaches, and the importance of safeguarding personal financial information. As a result, it becomes crucial to provide educational resources and guidance that enhance students' financial literacy and empower them to make informed decisions regarding digital payments.

A significant aspect that is frequently overlooked in discussions surrounding cashless transactions is the issue of transactional fees or charges imposed by payment service providers (Moghavvemi, Mei, Phoong, & Phoong, 2021). These fees can considerably impact the overall cost and affordability of cashless transactions, yet they often receive inadequate attention. Authors such as Chan et al. (2023) emphasize the importance of recognizing the significance of these charges and their potential implications for users. This recognition prompts the need for a more thorough examination of the fee structures employed by payment service providers, as well as the potential effects on consumer behavior and the adoption of cashless payment systems.

Payment service providers may charge transactional fees for processing cashless transactions, which can vary depending on the specific service, transaction amount, or type of payment

method used. These fees can add up, especially for frequent or high-value transactions, and may impact the overall cost-effectiveness of cashless transactions. Universities, therefore need to consider the financial implications for students and explore options to minimize or absorb these costs. Finding a balance between affordability and convenience is crucial to ensure that cashless transactions remain accessible and beneficial to students. Addressing these challenges requires collaboration among universities, financial institutions, technology providers, and students themselves. By proactively addressing these concerns, universities can create a cashless transaction environment that is secure, inclusive, and conducive to the needs and preferences of their student population.

Table 2 presents a summarized overview of the challenges associated with cashless transactions, covering various aspects including technological infrastructure, security and privacy concerns, change management and user acceptance, financial education and awareness, as well as transactional fees and costs, as discussed by different authors in the field.

Table 2: Summary of Challenges in Cashless Transactions

No.	Challenges	Author(s)
1	Technological Infrastructure	- Alam, Awawdeh, & Muhamad (2021); Lambert (2020); Moon et al., 2022; Shishah & Alhelaly, 2021
2	Security and Privacy Concerns	- Al-Qadi (2018); Al-Sabaawi, Alshaher, & Alsalem (2023); Latif et al. (2023); Sarkam, Izzah, & Linda (2021)
3	Change Management and User Acceptance	- Abdullah, Redzuan, & Daud (2020); Correani (2020); Latif et al. (2023); Lee, & Lee (2020); Tran, & Tran, 2023).
4	Financial Education and Awareness	- Balakrishnan & Shuib (2021); Klapper & Lusardi (2020); Lusardi (2019).
5	Transactional Fees and Costs	- Chan et al. (2023); Moghavvemi, Mei, Phoong, & Phoong (2021)

5. Conclusion

In conclusion, the research on student acceptance of cashless transactions within university settings is of paramount importance in multiple domains. It offers valuable insights into consumer behavior, enabling universities and financial institutions to tailor their strategies and services to meet students' specific needs and preferences. Additionally, it promotes financial inclusion by ensuring equal access to the convenience and accessibility of cashless transactions for all students, regardless of their banking services availability. The implementation of cashless transactions enhances operational efficiency and security, leveraging the advantages of digital payment systems. Moreover, it allows universities to align with technological trends and prepares students for a digitally-driven future by equipping them with necessary digital skills and financial literacy.

However, the implementation of cashless transactions also presents challenges. Inclusivity is a concern as not all students may have access to the required technology or financial resources. Privacy and security issues must be addressed through robust measures and user education. Despite these challenges, the benefits of cashless transactions in universities, such as convenience, efficiency, and financial transparency, make them worth pursuing. To successfully transition to cashless transactions, universities must strike a balance between addressing challenges and maximizing benefits, ensuring inclusivity, privacy, and security. By doing so, universities can create an environment that fosters student acceptance and integration of cashless transaction systems, paving the way for a more efficient and technologically advanced future within the university setting.

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