

IJRTBT | A look at the Rising Popularity of Cashless Economies around the World

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Abstract

In recent years, there has been a notable acceleration in the global trend towards cashless economies. This phenomenon can be attributed to the progress made in technology and the evolving preferences of consumers. This study investigates the increasing prevalence of cashless economies globally and its ramifications for diverse stakeholders. The paper commences by elucidating the primary factors that contribute to the expansion of cashless transactions. The article examines the impact of digital payment technologies, including mobile wallets, contactless cards, and online payment platforms, on the convenience, security, and efficiency of financial transactions. Moreover, this study examines the advantages and obstacles linked to cashless economies. The text examines the benefits that consumers can derive from a particular subject, encompassing factors such as convenience, improved access to financial services, and decreased expenses associated with transactions. Additionally, this study investigates the potential advantages that businesses may experience, including enhanced operational efficiency and heightened customer engagement. Nevertheless, the present study also acknowledges various obstacles that need to be considered. These challenges encompass concerns related to privacy, disparities in digital infrastructure, and the potential exclusion of specific demographic groups. Finally, this paper provides a comprehensive analysis of the emergence of cashless economies on a global scale, focusing on exemplary instances from nations including Sweden, China, and India. The passage concludes by highlighting the importance of implementing comprehensive strategies that effectively tackle the obstacles and optimize the advantages associated with the shift towards cashless economies. These strategies aim to promote inclusive and sustainable financial ecosystems on a global scale.

Keywords: *Cashless Economies; Cashless Transactions; Customer Engagement; Financial Ecosystems; Mobile Wallets; Stakeholders*

Introduction

In recent times, there has been a notable global surge in the adoption of cashless economies, leading to a fundamental shift in the manner in which individuals, businesses, and governments participate in financial transactions (Raya & Vargas, 2022). The global transition towards cashless transactions has been driven by the widespread adoption of digital payment technologies and the evolving consumer preferences (Pandey, 2022). The objective of this paper is to conduct a comprehensive examination of the increasing prevalence of cashless economies, elucidating the underlying drivers of this phenomenon and the consequential implications for diverse stakeholders.

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According to Alzoubi *et al.* (2022), the proliferation of digital payment technologies has played a pivotal role in the growing prevalence of cashless economies. The advent of mobile wallets, contactless cards, and online payment platforms has brought about a significant transformation in the manner in which individuals engage in financial transactions, offering enhanced convenience, expediency, and robust security measures. The increasing prevalence of smartphones and internet connectivity has led to enhanced accessibility and user-friendliness of digital payment solutions (Sinaga & Suroso, 2023). Consequently, individuals are increasingly adopting the ease and efficiency of digital payment methods, thereby reducing their dependence on tangible currency for conducting transactions or transferring funds.

Government initiatives and regulatory frameworks have been instrumental in fostering the adoption of cashless economies (Raya & Vargas, 2022). Governments worldwide have acknowledged the advantages associated with the shift towards cashless transactions. These benefits include the mitigation of the shadow economy, the deterrence of tax evasion, and the facilitation of financial inclusion. As a reaction, policies and regulations have been enacted to incentivize the adoption of digital payment systems. Countries such as Sweden, Denmark, and Norway have made notable strides in their transition towards becoming cashless societies, as evidenced by certain establishments that have chosen to completely reject cash as a form of payment. India's demonetization initiative in 2016 was undertaken with the objective of mitigating corruption, fostering transparency, and stimulating the uptake of digital transactions, thereby facilitating the widespread adoption of cashless payment methods throughout the nation (Uwamariya & Loebbecke, 2019).

The emergence of cashless economies presents a multitude of advantages for consumers, businesses, and governments alike. Cashless transactions provide consumers with unparalleled convenience. By utilizing a single tap or swipe, individuals are able to efficiently finalize transactions, thereby obviating the necessity of carrying tangible currency or enduring delays in receiving change. In addition, digital payment systems offer enhanced security measures, as transactions generate a traceable digital record that can be monitored and traced, thereby mitigating the potential hazards associated with physical cash handling. In addition, cashless transactions contribute to the advancement of financial inclusion by facilitating the provision of financial services to individuals who may lack access to conventional banking services. The promotion of inclusivity facilitates the empowerment of individuals who lack access to traditional banking services, thereby enabling their increased engagement and involvement in economic activities.

Cashless transactions have been shown to enhance operational efficiency for businesses. Digital payments have the capacity to optimize the payment procedure by minimizing the necessity for manual cash handling, counting, and reconciling. Furthermore, enterprises have the opportunity to utilize customer data acquired through digital transactions in order to obtain valuable insights, customize experiences, and adapt marketing strategies accordingly. By embracing cashless payment methods, businesses have the opportunity to access the increasingly prominent group of consumers who exhibit a preference for digital transactions. This enables businesses to broaden their customer base and cultivate customer loyalty.

From a governmental standpoint, cashless economies offer potential advantages in terms of enhanced tax compliance and diminished corruption. Digital payment systems possess the advantageous feature of generating an audit trail, thereby facilitating the task of tax authorities in monitoring transactions and detecting individuals who may be engaging in tax evasion. Furthermore, the implementation of cashless transactions serves to mitigate the circulation of unregulated currency, thereby diminishing the opportunities for illicit activities such as money laundering and the facilitation of terrorism financing. Governments can also reap advantages from the operational efficiencies that arise from cashless economies, as the expenses linked to the production, distribution, and administration of physical currency are considerably diminished.

Nevertheless, in conjunction with the advantages, there exist certain obstacles that are linked to the emergence of cashless economies. The proliferation of digital payment systems has led to heightened apprehensions regarding privacy, owing to the accumulation and retention of a greater volume of personal data. The protection of this data becomes crucial in order to safeguard individuals from potential cyber threats and instances of identity theft. Furthermore, the reliance of cashless transactions on digital infrastructure and connectivity poses a potential risk of excluding specific societal segments that lack access to these technologies. It is imperative to prioritize the resolution of these disparities in digital infrastructure in order to establish fair and inclusive access to cashless transactions.

In conclusion, the increasing prevalence of cashless economies is revolutionizing the manner in which financial transactions are conducted on a global level. The proliferation of digital payment technologies, in conjunction with evolving consumer preferences and governmental efforts, has facilitated this transition. Cashless economies provide a range of advantages for both consumers and businesses. Consumers enjoy the convenience, security, and efficiency that comes with conducting transactions without physical currency (Lai & Liew, 2021). On the other hand, businesses experience enhanced operational processes and heightened customer engagement as a result of embracing cashless payment systems. Governments perceive the potential to mitigate corruption, bolster tax compliance, and promote financial inclusion. Nevertheless, it is imperative to acknowledge and tackle obstacles such as privacy apprehensions and disparities in digital infrastructure in order to guarantee the comprehensive and enduring nature of cashless economies.

This paper aims to provide a comprehensive analysis of cashless economies, examining successful case studies from different regions and scrutinizing the underlying factors that contribute to their widespread adoption. This study will additionally analyse the advantages and obstacles linked to this transition, taking into account the viewpoints of consumers, businesses, and governments. By comprehending the fundamental mechanisms of cashless economies, policymakers, businesses, and individuals can adeptly navigate this dynamic terrain, thereby optimizing the extensive capabilities of digital payment systems. The primary objective is to cultivate financial ecosystems that are inclusive, secure, and sustainable, thereby driving economic progress in the digital age.

Literature Review

The increasing prevalence of cashless economies has garnered considerable interest among scholars, policymakers, and professionals in the field. This section provides a comprehensive examination of the current body of literature pertaining to the subject matter at hand. It primarily centres on the determinants that propel the transition towards cashless transactions, the advantages and obstacles linked to cashless economies, and noteworthy instances of successful implementation observed globally.

Factors Influencing the Transition Towards Cashless Transactions:

The rising prevalence of cashless economies can be attributed to a number of factors that have been identified. The integration of technological advancements within digital payment systems has been instrumental in facilitating smooth and secure transactions (Afolayan, 2021). The advent of mobile wallets, contactless cards, and online payment platforms has significantly facilitated the process of digital transactions for consumers, offering enhanced convenience and efficiency.

Moreover, the acceleration of cashless transactions has been driven by shifts in consumer preferences. Research findings indicate that individuals belonging to the millennial and Gen Z cohorts, characterized by their adeptness in technology and strong digital connectivity, demonstrate a greater inclination towards utilizing digital payment mechanisms. The increasing prevalence of cashless transactions can be attributed to their alignment with individuals' lifestyles and preferences, as they offer convenience, speed, and accessibility. This has resulted in a gradual shift away from physical cash.

Government initiatives and regulatory frameworks have played a crucial role in facilitating the adoption of cashless economies. Governments acknowledge the potential advantages associated with these measures, such as the mitigation of informal economic activities, the deterrence of tax avoidance, and the facilitation of broader access to financial services. Governments foster the adoption of cashless transactions among businesses and consumers by enacting policies that offer incentives for digital payments and creating a regulatory framework that is conducive to such transactions.

Exemplary Instances of Success:

Numerous nations have made notable advancements in the process of transitioning towards economies that rely less on cash transactions. Sweden is frequently referenced as a prominent illustration, wherein the utilization of cash is experiencing a rapid decline and numerous enterprises are opting to decline cash-based transactions. The shift has been facilitated by the country's strong digital infrastructure, widespread adoption of smartphones, and favourable government policies (Vassilakopoulou & Hustad, 2021).

The rapid expansion of mobile payments in China has been fuelled by the widespread adoption of platforms such as Alipay and WeChat Pay. The prevalence of mobile payments has emerged as the primary method of conducting transactions, leading to significant changes in multiple facets of everyday existence, encompassing retail acquisitions and transportation.

According to the study of Victor *et al.* (2021), the demonetization initiative implemented by India in 2016 expedited the acceptance and utilization of digital payment methods, thereby propelling the nation towards the realization of a cashless economy. The government's endorsement of digital payment platforms, exemplified by the Unified Payments Interface (UPI), has resulted in a notable upswing in digital transactions and an augmented level of financial inclusivity.

Several other nations, including Singapore, South Korea, and Denmark, have also made notable advancements in transitioning towards cashless economies. These countries have achieved this by effectively utilizing technology, encouraging consumer acceptance, and implementing supportive policies.

The literature review elucidates the determinants behind the increasing prevalence of cashless economies, encompassing technological progress, evolving consumer preferences, and governmental endeavours. Cashless economies provide a multitude of advantages, including enhanced convenience, heightened security, improved operational efficiency, and increased financial inclusion (Abdul-Rahim *et al.*, 2022). Nevertheless, it is imperative to acknowledge and tackle obstacles such as privacy apprehensions and disparities in digital infrastructure in order to guarantee the comprehensive and enduring nature of cashless transactions.

The transformative potential of cashless economies is exemplified by successful case studies conducted in countries such as Sweden, China, and India. These nations have effectively utilized technology, governmental backing, and consumer acceptance to expedite the shift towards cashless transactions.

Research Methodology

This study conducted a comprehensive review of relevant scholarly literature to analyse the advantages and disadvantages associated with cashless payment methods on a global scale. A comprehensive analysis of various forms of cashless payments was conducted by referencing multiple peer-reviewed articles, theses, and electronic books. This article examines the worldwide proliferation of cashless payment systems, along with the perceived advantages and challenges linked to their implementation.

The study employed specific keywords to conduct a search on Google Scholar in order to retrieve relevant information pertaining to cashless payments, with the intention of extracting specific knowledge on the subject matter. The papers resulting from the search were carefully scrutinized to determine their alignment with the research objectives. Subsequently, they were either incorporated into this study or excluded. Several terms have been employed to characterize the emerging financial environment, encompassing concepts such as cashless transactions, scan-to-pay systems, mobile money platforms, non-cash methods, banking cards, and the digital realm. A decision was made to acquire a selection of scholarly articles and analyse them in alignment with the research objectives. Upon conducting an extensive literature search, it was observed that several articles with attention-grabbing titles were found to be similar to the present study. However, upon closer examination, it was revealed that these articles provided limited substantive content that could contribute to the current research. A

comprehensive assessment was conducted on a total of 57 papers, and subsequent to undergoing the evaluation process, all of them were found to meet the criteria for inclusion in this review. In order to examine the situation analysis, the different types of cashless techniques, and the challenges and opportunities related to alternative payment methods, a comprehensive review of the pertinent literature was undertaken.

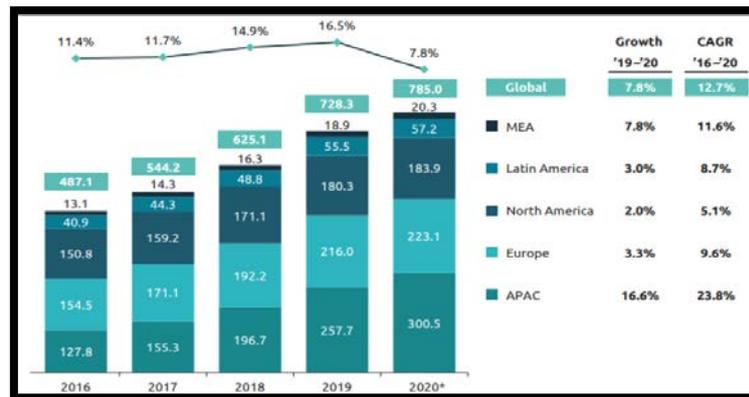
Adoption of Cashless Payments in the World

Analysis of the Situation Regarding Cashless Payments:

The proliferation of technology has exerted a profound influence on various facets of human existence across the world, encompassing domains such as communication, education, commerce, agriculture, and healthcare, among others. One of the unanticipated ramifications of technological advancement is the potential for an expansion in the range of opportunities for illicit behaviour. Furthermore, it should be noted that technological innovation has the potential to yield beneficial outcomes. The advent of technological advancements has significantly transformed the operational landscape of businesses, particularly in relation to the daily financial transactions that take place.

Designers are currently observing a significant transformation in the business sector with regards to the methods employed for making and receiving payments. Aldaas, (2021) stated that, there is a prevailing shift observed in the domain of financial transactions, whereby the utilization of physical currency is diminishing in favour of non-cash payments or cashless transactions. Bheemaiah, (2017) argued that physical currency is not employed for any form of financial transactions, encompassing the acquisition of commodities or the settlement of obligations, the society is commonly characterized as being cashless. Individuals have the capability to initiate direct transfers between accounts through electronic payment methods, including debit cards, credit cards, charge cards, cheques, pay cards, and mobile banking. These payment methods enable users to conduct all transactions in an electronic format. Although the ongoing transition towards a cashless society is underway, there exists a notable resistance within influential circles to fully adopt an exclusively cashless economic framework. This phenomenon persists despite the ongoing transition. This phenomenon can be attributed to the desire of individuals to retain centralized power. Nevertheless, the findings of the study indicate that consumer acceptance is influenced by various factors, including convenience and compatibility, whereas factors such as hazards, pricing, and insecurity serve as impediments. The global volume of transactions exhibits a consistent annual increase, as depicted in Figure 1, notwithstanding the presence of several barriers impeding the widespread adoption of cashless payment methods.

Figure 1: Worldwide Non-Cash Transactions Volumes (billions), and Year-on-Year (YoY) Growth (%) 2016-2020



Source: (Sacchi & Sezer, 2019)

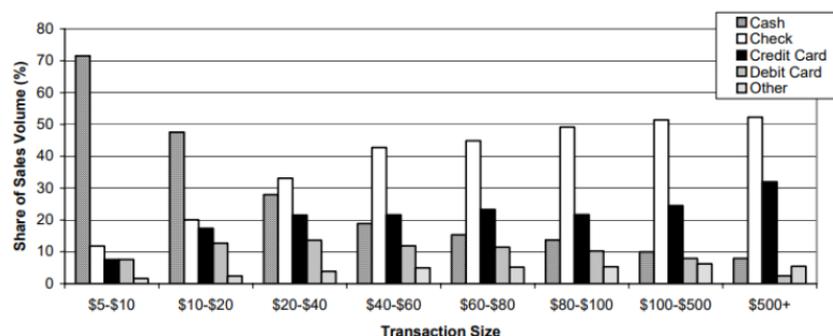
Note: MEA-Middle East and Africa, and APAC-Asia Pacific Countries

Based on the results of this investigation, there has been a deceleration in the yearly growth rate of transaction volume when compared to preceding fiscal periods. This is a direct consequence resulting from the global pandemics caused by the COVID-19 virus. The COVID-19 pandemic has resulted in a deceleration of economic activities, specifically a decrease in consumer spending due to the implementation of lockdown measures. However, there was a significant increase of 20.8% in the total volume of cashless transactions conducted in Tanzania during the fiscal year of 2019/2020 compared to the previous fiscal year of 2018/2019. The aforementioned outcome is a direct result of the supplementary measures implemented by the Bank of Tanzania (BoT) with the aim of mitigating the repercussions of the COVID-19 pandemic (Mugabe *et al.*, 2022). These measures are primarily focused on promoting the adoption of non-cash payment methods.

Types of Cashless Payment Methods

Banking Cards, Unstructured Supplementary Service Data (USSD), Aadhaar Enabled Payment System (AEPS), Unified Payments Interface (UPI), Mobile Wallets, Banks Pre-Paid Cards, Cheques, Crypto Currency, We Chat, Ali pay, Internet Banking, and Micro ATMs are all examples of the different types of digital payment methods that are currently available. For instance, the proportion of total sales volume that is held by each form of payment mechanism in the United States is illustrated in figure 2, which can be found here.

Figure 2: The Usage of Different Payment Methods in USA



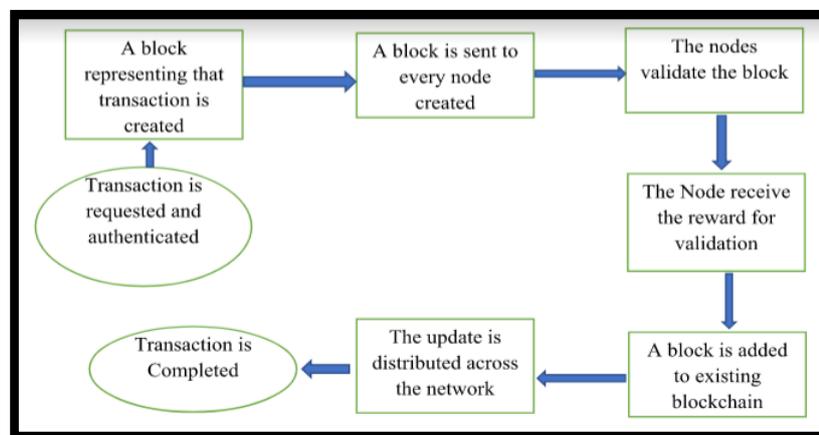
Source: (de Luna *et al.*, 2019)

Figure no. 2 shows that consumers make their payment method decisions based on the total amount that needs to be paid; nevertheless, when the total amount that needs to be paid grows, customers pick non-cash payment methods rather than cash payment methods.

Crypto Currency (Block chain Technology)

Perkins, (2018), a cryptocurrency is a type of digital currency that functions through the utilization of a cryptographic protocol. The process of transferring funds using cryptocurrency occurs within a decentralized and encrypted network (Perkins, 2018). This eliminates the necessity of external entities to authenticate and confirm the transactions conducted through cryptocurrency. This currency provides a high level of security and represents the most up-to-date alternative to government-issued cash. Currently, there exists a diverse range of cryptocurrencies, such as Ethereum, Litecoin, Cardano, Polkadot, Bitcoin Cash, and Stellar, among others, which offer various alternatives for users to choose from. The underlying blockchain technology of these digital currencies enables them to operate in a similar manner. In contrast to government-owned cash, digital currency offers several advantages, such as the absence of a daily transaction limit, secure transactions, peer-to-peer payments without intermediaries, enhanced privacy, cost-effective transactions, and reduced volatility compared to conventional currency. Figure 3 presents a visual representation of the sequential operations encompassed within the transactional procedures of blockchain-based cryptocurrencies, specifically focusing on Bitcoin.

Figure 3: Transaction Process of Bit Coin



Source: (Amsyar et al., 2020)

The concept of decentralization has been propelled forward through the emergence of Bit Coin and other cryptocurrencies, as they provide a mechanism for facilitating reliable interactions among parties who harbor mutual distrust within an open network. The term "blockchain" encompasses a system that possesses the potential for broader application beyond cryptocurrency transactions (Miraz & Ali, 2018). Furthermore, the inclusion of data integrity, privacy, and security in transactions, coupled with the absence of intermediaries, renders the adoption of this technology highly appealing. The verification procedure, commonly referred to as the mining process, for cryptocurrency is notably slow due to the requirement of proof of work. The protracted nature of this delayed procedure poses a significant impediment to the

widespread adoption of the technology across various sectors, primarily due to its time-intensive nature.

WeChat Payment

We Chat payment is a novel form of mobile payment that emerged from a collaborative endeavor between WeChat, a social communication platform owned and operated by Tencent, and Ten Pay, an autonomous cashless payment network. This particular product represents a novel advancement in the realm of mobile payment systems. In addition to Ali Pay, Ten Pay is widely regarded as one of the most prevalent electronic payment methods in China. The AliPay systems store the customer's card information, such as the card number, cardholder's name, and expiration date, to enable efficient payment processing. In recent years, the adoption of AliPay as a prevalent electronic wallet option for banking card transactions has experienced significant growth. The Scan-to-Pay technology enables WeChat to facilitate payment transactions by utilizing QR codes. Cashless payment methods such as WeChat or Ali Pay have facilitated the ability to make payments in China without the use of physical currency, enabling individuals to conveniently pay for goods and services at any given time, location, or place. WeChat, a highly popular application in China, combines the functionalities of various well-known apps such as WhatsApp, Facebook, Twitter, and Instagram into a single, robust platform (Haenlein *et al.*, 2020). It boasts a user base exceeding one billion individuals. This phenomenon persists despite the prevailing perception that the utilization of mobile payment methods is accompanied by inherent risks.

Challenges and Benefits of Cashless Payments

Benefits of Non-Cash Payments Methods

Recently introduced cashless payment techniques help a digital global economy. Cashless systems will reduce money distribution and storage costs for all economic organizations (Fabris, 2019). Money is reaching more people faster as the cashless economy grows. Due to its efficiency and accessibility, a cashless society would increase financial inclusion. This decreases the danger of cash-related security issues such as bank robberies, theft, fraud, and money loss.

According to Fabris (2019), Cashless payments increase tax income from all national transactions. Cashless payment removes cash transactions. Cashless payments are simpler to track and audit. The right revenue collection transactions may also be connected to any organization, business, or individual's total income. This allows money origin tracking. This is possible because the relevant organizations or individuals handled the transactions. Access to accounting records makes this possible. Central banks need to regulate vendors to ensure that everyone gets the services they need to manage market inflation, not currency notes or coins. This is because market inflation is not directly proportionate to the number of coins and notes in circulation. In a cashless economy, paying bills at home is easier than waiting in a bank queue. Because cashless payment services don't need pricey equipment, they're easy to obtain for topping up accounts or withdrawing money. This service may assist remote areas and

underdeveloped countries with poor infrastructure since it just requires a mobile device or point of sale system to execute a transaction.

It is beneficial because the government can effectively combat money-related crimes including money laundering and the black market. Cashless transactions will also stabilize exchange rates in any nation by removing cash from the equation. Because monetary authorities no longer need to monitor market currency fluctuations.

Challenges of Cashless Payments

Cashless payments offer several advantages and market trends, such as those shown in figures 1 and 2 of this article, which show a yearly growth in transactions, but various barriers limit its widespread adoption. Online payment scams have increased in recent years. This has reduced the use of such services. Phishing, pharming, worms, Trojan horses, denial of service attacks, viruses, spoofing, man-in-the-middle attacks, and transaction poisoning are the most common dangers to electronic payment systems. To reduce the number of network victims, several authentication steps are needed. Payment systems must include biometrics, two-factor authentication, cryptographic keys, digital signatures, and other security software that can establish multiple levels of authentication. Additionally, payment system authentication methods must provide at least one of the following:

Most countries' payment infrastructures need reliable internet connection and more places of sale to allow alternative payment methods. Some decision makers are wary of new technologies because they worry about cashless system infrastructure. Customers primarily care about physical and instrumental resource availability, connection, and information quality. A reliable technical infrastructure supports the systems. Infrastructure enhancements will increase payment service availability at any time and in any location.

Since they won't have a monopoly on cash and settlement balances, our central banks will suffer major financial losses if money is no longer needed. Our country will approach ceaselessness when it does. Most central banks are wary about cashless economies for this reason. A cashless economy means that cash transactions will be reduced to the minimum possible (Pankaj *et al.*, 2017). Keynes coined "cashless economy." Cashless payment systems are also hindered by stakeholders' lack of understanding about new technologies' advantages and their contentment with present methods.

Results & Discussion

Study Results

Digital payment mechanisms were examined in this research. Cheque-based cashless payments have been used worldwide since 1882, when checks were initially used as bills of exchange (Vines *et al.*, 2012). Countries worldwide are moving toward a cashless economy. Cash circulation is one of a central bank's most significant duties, therefore eliminating it would reduce its balance sheet. Central banks have slowed the transition to a cashless economy out of fear of losing control. They're obstructions. However, the COVID-19 pandemic's lockdown

has accelerated the shift away from cash-based systems since people can't travel anywhere to make payments.

Because of this, some central banks, including Tanzania's, are making more efforts to allow mobile payments. To promote the epidemic-induced economic slowdown, these efforts include boosting the daily transaction limit and establishing new monetary regulations. This hiatus is due to the pandemic. In recent years, China, Canada, Sweden, and England have all moved toward cashless economies. China pioneered the use of WeChat to replace cash purchases in all of its markets. This boosts China's global competitiveness. The world's second-largest economies, Canada and Sweden, are adopting cashless payment options. However, India's poor infrastructure and large population have hampered its efforts to encourage cashless payment options.

Billion-dollar investments have been made in the digital economy's bright future. Everything is becoming digital to take advantage of the newest technologies in every business. Instead than being driven by technology, economic trends toward digital payments should be driven by stakeholders' perceived advantages.

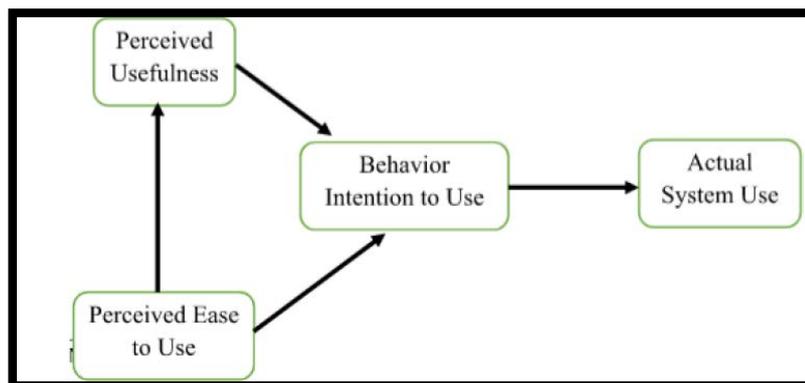
The majority of clients fear that they will make a mistake that will cost them their property, but they don't know what the threat is. Because of this, the user's desire to utilize the service is now decided by the apparent advantages and unforeseen threat. The customer will accept the services if the expected advantages outweigh the unknown hazards.

Because marketers don't grasp client decision-making, service providers' attempts to acquire customers by differentiating their services from their rivals often fail. There are several ideas and models that demonstrate the best way to adapt new technology. Because new technology may be adopted in many ways. Technology acceptance model is one of these hypotheses. The adoption success curve is one of these hypotheses and models. The Unified Theory of Acceptance and Use of Technology (UTAUT) and the Technology Acceptance Model (TAM) demonstrate this idea. These models and concepts have been extensively used by researchers to advise industries on how to accept new technologies. New technologies may be adopted anytime.

The Use of Technology Acceptance Model (TAM) in Adoption of Cashless Payments

The Technologies Acceptance Model (TAM) is a well-known concept that advises on how people may adopt new technologies (Silva, 2007). Technology Acceptance Model (TAM). TAM says the user's age, gender, and experience with the technology affect their willingness to utilize it. The user's desire to utilize technology is one. Financial institutions can advertise cashless payment as a new technology by focusing on age, gender, and experiences rather than just the technology. Because advertising influences these populations more than technology. Experienced users are more likely to accept new technology immediately, whereas older people without such expertise are more likely to resist. The TAM also suggests that young individuals, regardless of expertise, embrace new technologies first.

Figure 4: Technology Acceptance Model (TAM)



Source: (Kamal, Shafiq & Kakria 2020)

The perceived ease of use and usefulness of new technologies impact the motivation to utilize them, according to research. These companies should promote cashless payments by emphasizing their perceived benefit. Since cashless payments are growing, this should be done. This technical acceptance model must be included into the new payment method to promote user intention toward a cashless economy.

The Use of Unified Theory of Acceptance and Use of Technology (UTAUT) in Adoption of Cashless Payment

This idea suggests that technology usage may be influenced by more than age, gender, and experience, as suggested by TAM. These may include: These elements are: Other variables include social influence, an expectation of effort and performance, and favourable environmental circumstances. Prior to implementing a new method of payment, these factors must be given the highest attention to secure the worldwide acceptance of cashless economies. This would guarantee the widespread acceptance of cashless economies. To succeed, these activities must be focused on. The term "performance expectancy" is used interchangeably with "performance expectation" to describe people's belief that using the system will help them gain competitive advantages in their businesses' performance. This degree may vary. According to Yeh (2020), every endeavour to enhance cashless payments should include individual viewpoints on the predicted advantages. This perspective should focus on the predicted benefits. To be more explicit, this hypothesis suggests that this activity will have the following benefits: As a result, the financial institution will have to incorporate the new payment methods to achieve its aims and acquire a competitive edge over its competitors.

This model's Effort Expectation may also be interpreted as the systems' perceived simplicity and lack of complexity. The systems' relative simplicity may help achieve this. This shows that complicated payment systems that take more effort to understand are less likely to succeed on the market than simple ones. Because of this, the parties concerned should make more efforts to offer effective payment options that customers may rapidly accept. As a paradigm for technological inclusion, the UTAUT provides social effect and change elements. Advertising efforts for non-cash payment options should emphasize security to attract more people to utilize them.

Risk Mitigation Associated with Cashless Payments

As previously mentioned, there exist several risks associated with the utilization of payment methods other than physical currency. The prevalence of malicious software targeting online payment systems has experienced a notable escalation in recent years, leading to a corresponding decrease in the adoption and usage of such services. The prevalence of malicious programs designed to exploit online payment systems has experienced a notable escalation in recent years. The identification of critical assets, vulnerabilities, and threats, along with the selection of proactive control measures for risk mitigation, are integral components of the risk management process. This process assumes a vital role in addressing security risks. An integral component of the risk management process involves identifying appropriate proactive control measures for mitigating risks. Various strategies, including the implementation of artificial intelligence, machine learning, two-factor authentication, the deployment of biometric systems, and the utilization of encrypted systems, are presently being employed to address this problem (Sharma *et al.*, 2021). Numerous strategies for minimizing the potential hazards have been suggested, including the implementation of artificial intelligence, machine learning, two-factor authentication, the adoption of biometric systems, and the utilization of encrypted systems. Nevertheless, the unpredictability of attacks on electronic payment systems remains a prominent obstacle hindering the advancement towards a cashless economy. Further investigation is required in order to devise payment mechanisms that possess utmost security.

Conclusion

The increasing prevalence of cashless economies has resulted in notable changes in the manner in which financial transactions are carried out globally. The shift has been driven by technological advancements, evolving consumer preferences, and government initiatives. This study has examined the determinants behind the increasing prevalence of cashless transactions, the advantages and obstacles linked to cashless economies, and noteworthy instances of successful implementation in various nations.

The existing body of literature suggests that the progression of technology in digital payment systems, including mobile wallets, contactless cards, and online payment platforms, has been instrumental in enabling the transition towards cashless transactions. These technologies provide a range of benefits including convenience, security, and efficiency, which are in line with the preferences of digitally engaged consumers. Furthermore, the implementation of government initiatives and regulatory frameworks has provided incentives for the widespread adoption of cashless transactions. These efforts are primarily aimed at mitigating the presence of the informal economy, addressing issues related to tax evasion, and fostering greater financial inclusivity.

Cashless economies present a multitude of advantages for consumers, businesses, and governments. Consumers derive satisfaction from the convenience and expediency of cashless transactions, as well as the augmented security measures and expanded availability of financial services. Business enterprises derive advantages from operational efficiencies, enhanced customer engagement, and the capacity to utilize customer data for the implementation of personalized marketing strategies. Governments recognize the potential benefits of enhanced tax compliance, diminished corruption, and cost efficiencies linked to the management of physical currency.

Nevertheless, the adoption of cashless economies also poses certain challenges that necessitate attention and resolution. The collection and storage of personal data in digital payment systems give rise to concerns regarding privacy. The maintenance of consumer trust is contingent upon the implementation of robust data protection measures and the provision of transparent privacy policies. In addition, disparities in digital infrastructure can result in the exclusion of certain societal segments that do not possess reliable internet connectivity and electronic payment systems. It is imperative to address these disparities in order to promote inclusivity within the realm of cashless transactions.

The transformative potential of cashless economies is exemplified by successful case studies from countries such as Sweden, China, and India. The advancement of Sweden in its transition towards a cashless society exemplifies the significance of a strong digital infrastructure and favourable governmental policies. The remarkable expansion of mobile payments in China underscores the prevalence of digital transactions and their profound influence on diverse facets of everyday existence. The demonetization initiative in India expedited the uptake of digital payment methods and facilitated the advancement of financial inclusion.

The ramifications of the increasing prevalence of cashless economies are extensive. It is imperative for policymakers to persist in their efforts to endorse and facilitate the implementation of digital payment systems. This can be achieved through the implementation of initiatives that provide incentives for their utilization, the establishment of regulatory frameworks that foster their growth, and the resolution of privacy-related apprehensions. Governments can also contribute to addressing disparities in digital infrastructure in order to promote equitable access to cashless transactions across all societal groups.

It is recommended that businesses adopt cashless transactions as a means to optimize operational efficiency, enhance customer experiences, and attain a competitive advantage. The implementation of resilient digital payment systems, advanced data analytics capabilities, and effective customer relationship management can enable businesses to optimize the advantages offered by cashless economies.

It is imperative for consumers to maintain awareness regarding the characteristics, advantages, and potential drawbacks pertaining to diverse digital payment modalities. Implementing optimal strategies for data security, such as employing robust passwords and exercising caution when disclosing personal information, can effectively mitigate potential vulnerabilities.

The increasing prevalence of cashless economies also carries implications for financial institutions. In order to remain relevant in the evolving financial environment, conventional banks are required to embrace digital payment solutions, enhance customer experiences, and engage in collaborative ventures with fintech enterprises. Collaborative endeavours and strategic alliances possess the potential to foster innovation and provide customers with improved financial services.

In summary, the increasing prevalence of cashless economies is fundamentally transforming the worldwide financial framework. The shift has been propelled by technological advancements, evolving consumer preferences, and government initiatives. Cashless transactions present a multitude of advantages; however, it is imperative to acknowledge and tackle the obstacles that arise, including apprehensions regarding privacy and the existence of gaps in digital infrastructure. In order to effectively address these challenges and promote the development of inclusive, secure, and sustainable cashless economies, it is imperative for

policymakers, businesses, and individuals to engage in collaborative efforts. By embracing the opportunities afforded by cashless transactions, stakeholders have the ability to shape a future in which digital payments are accessible, efficient, and advantageous for all parties involved.

Conflict of Interests

The authors have not acknowledged any conflict of interests.

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