

A CONCEPTUAL FRAMEWORK ON THE ASSESSING FACTORS THAT INFLUENCE THE EFFECTIVENESS OF CASHLESS AMONG UITM STUDENTS IN KOTA BHARU

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Abstract: *This study aims to develop a conceptual framework to identify the factors that influence the effectiveness of cashless usage among students at Universiti Teknologi MARA (UiTM). In today's digital era, cashless payment systems are gaining ground as a more efficient and secure alternative to cash payments. However, the level of effectiveness of using this system among students is still not clear. This quantitative study will focus on several key factors such as technological awareness, ease of use, security, and infrastructure support. Data will be collected through a questionnaire distributed to UiTM students. Statistical analysis will be used to identify the relationship between these factors and the effectiveness of using the cashless system. The results of this study are expected to provide guidance to educational institutions in empowering cashless payment systems and understanding the factors that contribute to its acceptance among students.*

Keywords: *Cashless, UiTM students, effectiveness, influencing factors, conceptual framework*

Introduction

"Electronic payment (e-payment) which offers a more expedient and cost-effective means of moving funds over paper-based payments" (Bank Negara, 2010, p. 1). Cashless payment is one of the most widely utilized electronic payments in the world. According to Sanrach, (2021), customers would appreciate the independence of not having to carry cash in their pockets, and with the simplicity of high-tech equipment, the transaction may be done effortlessly using wireless technologies via mobile device (smartphones). A cashless society is an economic condition in which financial transactions are completed without the use of money in the form of actual banknotes or coins, but rather through the exchange of information between transacting parties (Raj et al., 2024). This study aims to develop a conceptual framework to identify the factors that influence the effectiveness of cashless usage among students at Universiti Teknologi MARA (UiTM). In today's digital era, cashless payment systems are gaining ground as a more efficient and secure alternative to cash payments. However, the level of effectiveness of using this system among students is still not clear. This quantitative study will focus on several key factors such as technological awareness, ease of use, security, and infrastructure support. Data will be collected through a questionnaire distributed to UiTM students. Statistical analysis will be used to identify the relationship between these factors and the effectiveness of using the cashless system. The results of this study are expected to provide guidance to educational institutions in empowering cashless payment systems and understanding the factors that contribute to its acceptance among students.

In other words, cashless payment is a consumer behavioral change in which customers can eliminate their use of money as a means of exchange for goods and services by permitting electronic transfer payments such as digital cash and e-wallet. Mukaria (2013) argues in his research on "Plastic Money is a Way for Cash Less Payment System" that using a credit card was considered a luxury and has now become necessary.

The adoption of cashless systems in society is driven by consumer behavior, which prefers technology that provides quick, convenient, and beneficial services (Singh, Sinha, & Liébaná-Cabanillas, 2020). Meanwhile, the Asian Development Bank Institute (2019) finds that e-wallet mobile can help small and medium-sized firms (SMEs) accomplish greater targets. By utilizing digital payment platforms such as PayPal, Venmo, and Alipay, the platform offered can penetrate their goods into the global market. As a result, it may aid in increasing the productivity of SMEs. Meanwhile, Gichuki and Mulu Mutuku (2018) discovered that 94.7% of female microentrepreneurs utilized mobile money transfer, whereas 46.4% used payment for services. This indicates that mobile network availability allows micro-entrepreneurs to minimize business transaction costs and boost efficiency.

Background of The Study

With the development of digital technology, the worldwide landscape of financial transactions has experienced tremendous modification in recent years. One noticeable trend is the growing usage of cashless transactions, in which people perform financial transactions without using real currency (Rahman et al., 2020). The increased usage of digital payment methods, mobile wallets, and online banking platforms has aided the transition to a cashless society. Students represent a group that is particularly adaptive to technological improvements in the setting of educational institutions. Cashless transactions have gained popularity among students because

to their perceived ease, efficiency, and conformity with the digital lifestyle that this group embraces (Rahadi et al., 2021). The use of cashless payment systems in educational contexts has the potential to simplify a variety of financial activities, like tuition payments, cafeteria purchases, bookstore sales, and peer-to-peer transfers among students.

Problems Statement

The success of cashless payments can be evaluated by looking at the many issues and problems that arise as a result of their adoption. Cashless payments are vulnerable to cyberattacks and data breaches because they rely on a sophisticated network of digital services. Privacy is also an issue since, unlike cash purchases, cashless transactions leave a digital trail. Cashless payments necessitate dependable infrastructure, such as internet connectivity and digital payment systems, which are not always available. Individuals who are unbanked or underbanked may find it difficult to access digital payment systems (Dinh, 2024), resulting in exclusion from the cashless economy. Cashless payments are dependent on the reliability of the technology that supports them, and disturbances such as power outages or system breakdowns can bring the system to a halt. Credit card and mobile payments frequently incur processing fees of up to 3%, eroding small profit margins and making it harder for independent stores and small-scale specialist outlets to compete. Because customers do not feel the impact of spending actual money, the simplicity of using cashless payments may lead to overspending. Some individuals and businesses may struggle to adjust to digital payments, making participation in the cashless economy challenging (Tiwari & Singh, 2019). Finally, while cashless payments have significant advantages, they also have a number of obstacles and drawbacks. To ensure the efficacy of cashless payments, these challenges must be addressed and solutions developed to mitigate their negative effects on consumers and enterprises.

Research Objective

This study tries to achieve a variety of objectives, all of which must be evaluated to ensure that the results are consistent with what the researchers are attempting to learn. The following are the study's objectives:

- i. To examine the relationship between personal factor influence and cashless transactions.
- ii. To examine the relationship between family factor t and cashless transactions.
- iii. To examine the relationship between Social factor and cashless transactions.
- iv. To examine technology advancement influence the effectiveness of cashless among students?

Research Question

The following are the study's research questions:

- i. Does personal factors influence the effectiveness of cashless among students?
- ii. Does family factors influence the effectiveness of cashless among students?
- iii. Does social factors influence the effectiveness of cashless among students?
- iv. Does technology advancement factors influence the effectiveness of cashless among students?

Scope of The Study

The scope of this study is focused on students at University Technology Mara, Campus Kota Bharu, Kelantan. This is because we want to know how many students on this campus use cashless payment as well as the factors that affect the effectiveness of cashless payment. Nowadays the use of cashless transactions is becoming more and more widespread, but we do not know how and what are the biggest factors that contribute to it. So, this study can help the

University identify the number of students who use cashless transactions and how often they use them in their daily lives.

Literature Review

Effectiveness of Cashless

The purpose of the study is to see how effective cashless transaction among UiTM student. The respondent is from Universiti Teknologi Mara Kota Bharu Campus. Our group have success collect around 100 respondents for this study. Cashless transactions provide various advantages to university students. For starters, it enhances health and safety because no currency is exchanged, which can contain germs and viruses. Second, by eliminating cash transactions, it streamlines payment operations and improves financial management. Third, it lowers the danger of theft and fraud while also improving security standards. Fourth, it gives increased convenience and flexibility for students, faculty, and parents by allowing them to make payments quickly and simply without carrying cash or writing cheques. Finally, it enhances income by promoting larger payment quantities and frequency, saves resources, and aids in the maintenance of a positive cash flow. Ever since pandemic, people nowadays prefer cashless transaction or online payment. It is because it is more easy and convenient to them. cashless payment also more secure than cash payment.

Cash is filthy, difficult to clean, and can harbour germs and viruses. Researchers swabbed \$1 notes from a bank in New York City to examine what was living on paper currency in a 2017 study published in the journal PLOS ONE, and they discovered hundreds of kinds of bacteria. Although it is doubtful that COVID-19 would be transmitted through the use of currency, several colleges, like Miami University, took advantage of the option to go cashless. Geno Svec, their executive director of campus services and chief hospitality officer, stated in an email to the student publication that the institution decided to prohibit the sharing of objects such as banknotes and coins, which are readily distributed and difficult to clean. This cashless transition might benefit both health and safety.

Many institutions are dealing with shrinking budgets and resources while yet being expected to be productive and efficient. Cash transactions may be time-consuming since they require multiple processes to execute, protect, and maintain. Whereas cashless transactions are becoming the norm since they are speedy and can eliminate fraud and human error because debit/credit card payments account for every dollar. The University of North Carolina School of the Arts is intending to become totally cashless, but will do it in phases to give students time to acclimatise to a new payment system. They currently accept online payments, so being entirely cashless throughout campus is one approach to make better use of their financial and administration resources.

The epidemic hastened the use of digital transactions. Contactless payment usage is increasing across numerous nations, generations, and economic levels, according to Dynata study. Before the pandemic, 52 percent of customers favored contactless; today, 59 percent do. At the same time, the global preference for cash fell to only 15%. And as the use of contactless payments grows, so does the demand for increased security including at higher education institutions. Because of the quantity of personal and financial data they hold, higher education institutions are prime targets for ransomware attacks. Making it an excellent moment to invest in contactless smart cards or even applications like Nelnet Campus Commerce's Campus Key. Touch-free and cashless alternatives like these can help universities provide more secure and accessible on-

campus credentialing and payment choices to their students. Smart cards and applications should have layered security, such as Campus Key, which allows for data encryption and the construction of different application-specific protocols all in one location. Campus Key may be used not just for payments, but also as a digital student ID and message Centre.

Students nowadays use their student ID as a Debit card. In Malaysia, University and College student use their matric card as a Debit card. It is easy for students to pay their university bill toward that account. The card is also convenient because they don't need to carry another card just to pay for their meal or anything else. Cashless transactions are those that do not include the use of currency, such as credit/debit cards, digital wallets, and other online payment methods (Abdullah et al., 2020; Chern et al., 2018; Jain & Jain, 2017; Khando et al., 2022; Misbah, 2022; Rahman et al., 2020, 2022; Sanrach, 2021). These transactions have grown in popularity due to the multiple advantages they provide to both clients and enterprises.

Independent Variable

Use Cashless For Daily Transaction

Most of the student in UiTM Kota Bharu, Kelantan, Malaysia agree that they use the cashless as daily basic. It is show that most of student in UiTM Kota Bharu use Cashless transaction to bpay for their meal or buying daily basis. Because of the ease, efficiency, and cost-effectiveness they provide, cashless payments for daily consumption have grown increasingly popular. This move has been helped by various cashless payment technologies such as credit transfer payments, credit cards, e-wallets, and mobile banking applications. Cashless payments provide benefits such as greater transaction tracking, lower expenses, higher security, and better financial management. Businesses and organizations, including colleges, are also embracing cashless initiatives in order to improve responsibility, control, and visibility, as well as boost income, reduce risk, and improve resource management. As cashless transactions gain traction, consumers and organizations must adapt to a range of cashless payment options to ensure quick and safe payment processing.

A cashless society is one in which money is exchanged digitally rather than with actual banknotes or coins (Anyaegebunam, 2014; Batiz-Lazo et al., 2014; Lupo-Pasini, 2020; Moon, 2017; Rivera, 2019). In practice, this would seem like consumers going about their business—buying coffee, paying bills, going grocery shopping without ever touching a bill or coin. This concept is not new, but its popularity has grown as a result of the advent of new technology such as credit cards, internet transfers, and mobile wallets (Misbah, 2022). All payments in a cashless world are conducted through digital networks. Banks preserve an electronic record of transactions, and customers use electronic systems to access their funds. Cashless societies may benefit from less physical crime since there is no actual money to take, cheaper transaction costs, and the convenience of not having to carry cash.

Cashless Transaction are Safer Than Traditional Transaction

The safety of cashless purchases in comparison to conventional transactions is debatable. While cashless payments include advantages such as encryption, data security, and decreased theft risk, they also raise issues about privacy, system vulnerability, and the potential economic consequences of cyberattacks. Among the obstacles of a cashless society include identity theft, compromised personal information, and the necessity for a solid digital infrastructure. Regardless of the security safeguards in place, the reliance on digital systems, as well as the possibility of system failures or cyberattacks, are concerns that contribute to the ongoing debate

regarding the safety of cashless transactions. As a result, while cashless transactions provide numerous security features, it is critical to examine the possible dangers and obstacles connected with the cashless shift (Rahman et al., 2022).

Contactless payments are a type of cashless transaction in which there is no physical touch between a consumer's credit card and a vendor's POS (point of sale) device. When a customer's card is held close to the payment scanner device, contactless systems employ NFC (near-field communication) technology to communicate with it. The security of cashless transactions is ensured by encryption and two-factor authentication. Backing up your system with a dependable trust anchor, such as the Atalla AT1000 HSM, will offer the required security.

Cashless Transaction Is Popular To Young Generation

The trend towards cashless transactions is gaining traction, especially among the younger population. This transformation is being driven by Generation Z and Millennials, who prefer digital alternatives such as contactless payments, digital wallets, banking applications, and cryptocurrencies. Cashless payments have revolutionized the way people do business, with many firms now offering cashless transactions to suit to the tastes of these tech-savvy generations. The ease, quickness, and accessibility of cashless payment methods coincide with Gen Z and Millennials' technical abilities and preferences, leading to the rising popularity of cashless transactions among the younger demographic.

According to a recent poll, 35% of 18-24-year-olds have boosted their use of digital banking services since the outbreak of Covid-19, demonstrating that Generation Z is leading a transition away from traditional payment methods. They are abandoning cash in favors of contactless payments, digital wallets, banking applications, and cryptocurrencies. Countries that have traditionally relied on cash, such as Brazil, are embracing the digital payment revolution. 85% of Brazilians now have access to financial services, up from 55% in 2012, with cash use falling from 60% in 2012 to slightly more than 40% this year. Meanwhile, European countries such as Norway are on the verge of being cashless, with 95% of the population using mobile payment applications in 2023 and just 3-5% of point-of-sale transactions being paid for with cash, while the UK plans to reach the mark by 2026, with only 17% reliant on cash. Traditionally cash-driven nations are opting to digitise, with Generation Z fueling the fire. Many individuals believe that Generation X is connecting the digital and conventional economies.

Cashless Transaction Will Impact The Environment And Economy

The move to a cashless society will have both environmental and economic consequences. Going cashless has the potential to lower the carbon footprint associated with the creation, transit, and disposal of physical currency (Aldrich, 1999; Goldstein & O'Connor, 2000; Mann et al., 2000). Coins and banknotes have been connected to considerable carbon emissions, and cashless payment alternatives, such as QR code systems, are viewed as a more ecologically friendly option. However, the environmental effect of cash alternatives such as debit card payments, as well as the energy consumption of digital payment systems, is now being debated. Overall, the transition to a cashless society is viewed as an important step towards decreasing the environmental effect of traditional currency transactions.

From an economic viewpoint, the transition to a cashless society has both advantages and disadvantages. On the plus side, electronic and contactless payments may save money, boost efficiency, and minimise dependency on physical infrastructure. Concerns have been expressed, however, concerning the fragility of digital networks, potential cyberattacks, and the impact on

privacy and financial inclusion. Furthermore, small firms may incur credit card and mobile payment processing fees, reducing their profit margins. As a result, while the transition to a cashless society has many advantages, it also raises serious concerns about system stability, privacy, and financial inclusion.

Theoretical Farmework

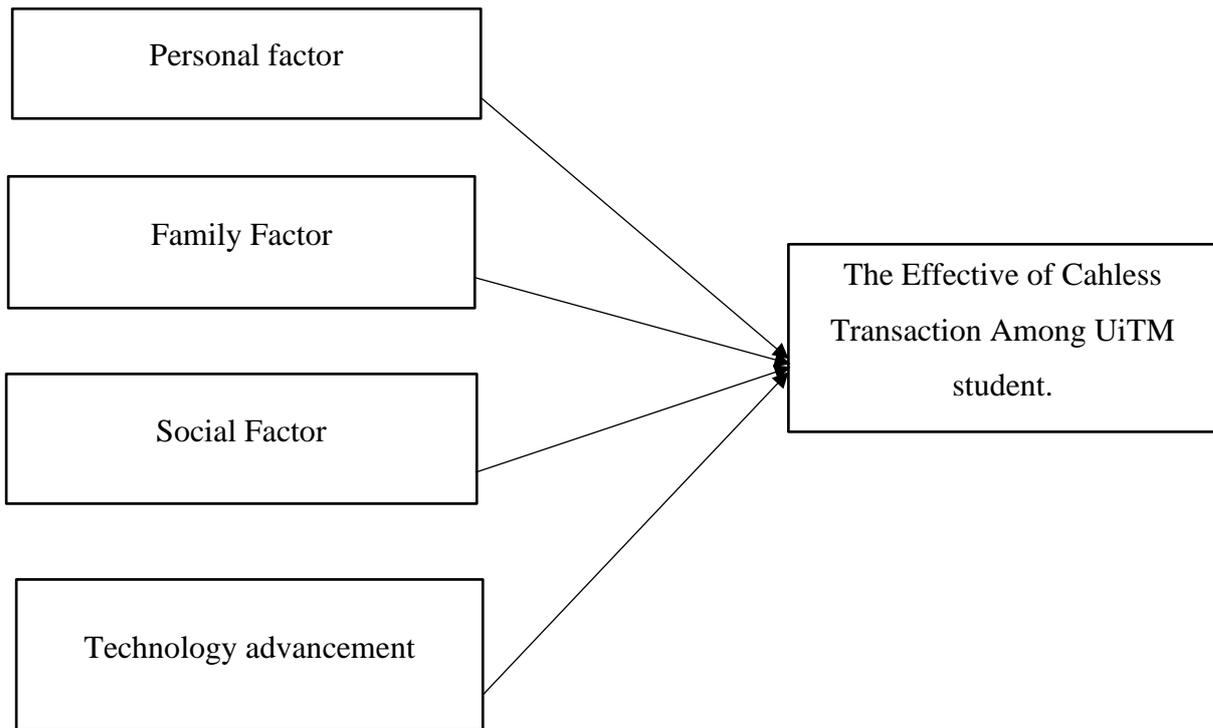


Figure 1: Conceptual Framework

There are four independent variables which is use cashless for daily transaction, cashless transaction is safer than traditional transaction, cashless transaction is popular to young generation, and cashless transaction will impact the environment and economy.

Hypotheses 1

H0: There are positive relationship between Use cashless for daily transaction and the effective cashless transaction among UiTM student.

H1: There are no positive relationship between Use cashless for daily transaction and the effective cashless transaction among UiTM student.

Hypotheses 2

H0: There are positive relationship between Cashless transaction is safer than traditional transaction and the effective cashless transaction among UiTM student.

H1: There are positive relationship between Cashless transaction is safer than traditional transaction and the effective cashless transaction among UiTM student.

Hypotheses 3

H0: There are positive relationship between Cashless transaction is popular to young generation and the effective cashless transaction among UiTM student.

H1: There are positive relationship between Cashless transaction is popular to young generation and the effective cashless transaction among UiTM student.

Hypotheses 4

H0: There are positive relationship between Cashless transaction will impact to environment and the effective cashless transaction among UiTM student.

H1: There are positive relationship between Cashless transaction will impact to environment and the effective cashless transaction among UiTM student.

Development of Hypotheses

Use cashless for daily transaction and the effective cashless transaction among UiTM student.

According to the findings, there is a link between the use of cashless for daily transactions and the effectiveness of cashless transactions among UiTM students. Cashless transactions are convenient, and most UiTM students use debit cards since it saves them time. According to the study, UiTM students are aware of cashless transactions and frequently utilise them in daily activities like as purchasing meals, paying bills, and so on. As a result, UiTM students frequently employ cashless transactions, such as their debit card and RHB matric card. They know the advantages and benefit of using cashless transaction in their daily life.

H0: There are positive relationship between Use cashless for daily transaction and the effective cashless transaction among UiTM student.

H1: There are no positive relationship between Use cashless for daily transaction and the effective cashless transaction among UiTM student.

Cashless transaction is safer than traditional transaction and the effective cashless transaction among UiTM student.

According to the result, there is relationship between cashless transaction is safer than traditional transaction and the effective cashless transaction among UiTM student. As we can see the student realize that using cashless transaction is safer than offline transaction. They did not need to carry the money everywhere as they can carry their debit card or credit card. It is also lower the risk to be robbed while walking alone or so on. According to the research the students are aware of the safety of cashless transaction and they prefer using it as it is safer and convenient.

H0: There are positive relationship between Cashless transaction is safer than traditional transaction and the effective cashless transaction among UiTM student.

H1: There are positive relationship between Cashless transaction is safer than traditional transaction and the effective cashless transaction among UiTM student.

Cashless transaction is popular to young generation and the effective cashless transaction among UiTM student.

According to the result, we can see that there is relationship between cashless transaction is popular to young generation and the effective cashless transaction among UiTM student. As we all know UiTM student is young generation and in their 20s. the young generation is preferring to use cashless transaction. It is because they do not need to carry cash with them everywhere. Young generation usually do not like to carry many stuffs with them. As cash transaction can be use by online banking website such as Maybank online banking, Bank Islam Internet Banking and many more online platform websites. They can also use debit card as it is easy to bring anywhere.

H0: There are positive relationship between Cashless transaction is popular to young generation and the effective cashless transaction among UiTM student.

H1: There are positive relationship between Cashless transaction is popular to young generation and the effective cashless transaction among UiTM student.

Cashless transaction will impact to environment and the effective cashless transaction among UiTM student.

According to the result, we can see the link between Cashless transaction will impact to environment and the effective cashless transaction among UiTM student. From an environmental perspective, going cashless can reduce the carbon footprint associated with the production, transportation, and disposal of physical cash. Coins and banknotes have been linked to significant carbon emissions, and the use of cashless payment methods, such as QR code systems, is seen as a more environmentally friendly alternative. The student realizes the benefit of using cashless. There no need to print the money as cashless do not use that.

H0: There are positive relationship between Cashless transaction will impact to environment and the effective cashless transaction among UiTM student.

H1: There are positive relationship between Cashless transaction will impact to environment and the effective cashless transaction among UiTM student.

Research Methodology

The survey technique method, a quantitative research method, was employed by the researcher in this study. Primary data, or the first information or data originally received by the researcher on the variable, is obtained by questionnaires survey with the selected samples.

A cross-sectional study with a quantitative design was carried out with students at the UITM Kota Bharu Campus. This approach was used because it allowed the researcher to gather data cheaply and efficiently from a large number of people at one time. This study employed the convenience sampling method. This method was implemented with consideration for their availability during the data collection phase. Additionally, because of the time constraints, this approach was thought to be the most effective one to use at that specific moment.

This study has recruited one hundred five (n=105) students. Based on the inclusion and exclusion criteria established for this study, the respondents who are involved are those who voluntarily participate. The questionnaire was submitted with consent. Each participant received assurances of confidentiality and was made aware of the study's purpose.

Conclusion

To sum up, this study advances the theory domain by offering empirical evidence of the relationships between consumers' experiences using e-wallets, perceived usefulness and ease of use, social influence, facility condition, and lifestyle compatibility. This helps to explain why young consumers may purchase and repurchase products, while perceived trust helps to explain why consumers have faith in the products (Nam & Kannan, 2020; Rosário & Raimundo, 2021). Finally, this study addressed the dearth of research on young consumers' usage of e-wallets to make online purchases, particularly in the event of a pandemic. As a result, this study adds to the body of knowledge already in existence, especially when it comes to emerging nations. The study's findings may help managers in developing nations create strategies that will effectively develop, market, and encourage the use of e-wallets. These strategies may involve collaborating with banks, other suppliers of online platforms, or businesses that provide online-based selling to enable informed decision-making. Additionally, businesses in developing nations should find out how customers feel about and utilize e-wallets. In essence, this survey looks into how consumers feel about e-wallets being used to make transactions easier, faster, cheaper, and safer.

Future youthful generations, as well as businesses and customers with an awareness of and familiarity with digital environments, are projected to have an impact on the availability of online selling products and consumption patterns as developing countries move closer to becoming developed nations (Aldrich, 1999; Goldstein & O'Connor, 2000; Mahmood et al., 2004; Mann et al., 2000; Nam & Kannan, 2020). Future young generations will use more cashless transactions to buy products and even repurchase them in the future, as this study demonstrates the positive effects of perceived usefulness, perceived ease of use, social influence, facilitating condition, lifestyle compatibility, and perceived trust on intention to use and adoption of e-wallet.

Recommendation

The effectiveness of cashless payment systems among uitm students Kota Bharu can be analyzed based on various aspects, such as convenience, security, cost savings, and social benefits. Here are some key points to consider:

Convenience

Students no longer need to carry cash or visit ATMs during the day in order to make payments thanks to cashless payment systems, which provide a quick and easy option. Students participating in free or reduced-price lunch programmes can also benefit from this, as it allows them to pay for their lunches without requiring them to turn in documents or cards indicating their financial situation.

Security

Since transactions on cashless systems can be easily tracked and registered, they are more secure than cash. By doing this, bullying, theft, and lunch money loss may be avoided. Cashless solutions can also lessen the possibility that students will misplace or forget their payment methods, which can save time and ease the workload for school administrators.

Savings

Since schools won't need to pay fees for processing payments or buy and maintain expensive point-of-sale equipment, a cashless payment system can help them cut expenses. Additionally, this may result in less waste and more efficient budget management.

Social Benefits

By lessening the stigma attached to free or reduced-price lunch program, cashless systems can benefit students enrolled in them. Additionally, they can facilitate parents' communication with the school regarding delinquent payments or low balances.

Technological Considerations

Although cashless payment methods have numerous advantages, they may also encounter technological challenges, such as servers falling down, which could cause payment procedures to be disrupted. To reduce these problems, you must invest in a reputable and trustworthy system.

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