

Factors Influencing Cashless Transactions Behaviour in Malaysia Higher Education Institution

Hamidah Ab Rahman & Razali Hassan

Faculty of Technical & Vocational Education University Tun Hussein Onn Malaysia

To Link this Article: <http://dx.doi.org/10.6007/IJARBSS/v12-i10/15451> DOI:10.6007/IJARBSS/v12-i10/15451

Published Date: 17 October 2022

Abstract

The cashless transaction environment is growing tremendously with the current development of digital technology. These developments will create a cashless society that, with a diverse attitude, shapes consumer behaviour. The objective of this study is to explore the conceptual framework of the study on consumer beliefs in the sustainability of attitudes, intentions, and behaviours of cashless transactions. The main aims of this paper are also to explore the variables suggested by consumer beliefs to form the expected hypothesis to be implemented in these studies. The cashless transaction model will be studied based on attitudes to identify the value of beliefs and best practices among consumers. Based on this attitude, the conceptual framework of the cashless transaction focuses on cognitive value through the factors of belief in cashless transactions. This concept paper is also focused on the use of the Theory of Planned Behaviour and previous studies. Subsequently, this study was conducted to propose an attitude-based cashless transaction model to fit consumers of higher education institutions in Malaysia. It focuses on factors influencing behaviour in cashless transactions based on the conceptual framework. This paper, which specialises in cognitive aspects that will guide the study in the future, ranging from trustworthiness, usefulness, cybersecurity, transaction procedures, attitude, intention, and behaviour in cashless transactions. These factors will be the expected construct of influencing cashless transaction behaviour.

Keywords: Attitude, Cashless Transactions, Behaviour

Introduction

In Malaysia, the use of the internet shows a year-round increase in consumption as the increasing use of digital technology has become the main necessity of society. Through the Shared Prosperity Vision 2030 (SPV2030), Malaysia outlined that it strongly supports the growth of the digital economy in line with the formation of a harmonious country of goodwill through development for all levels of society (Jabatan Perdana Menteri, 2019). Cashless transaction practices are now essential in creating a society that collectively understands and trusts each other through virtual transactions. In line with the aim of the Malaysian government to establish a nation of unity and goodwill in a multiracial and cultural society. It

is the community's effort to explore and implement development for everyone to resolve the wealth gap and incomes by supporting and contributing to the value of attitude in cashless transactions to produce a country that is always united, prosperous, and dignified. SPV 2030 also supports the growth of the digital economy to achieve Industrial Revolution 4.0 (IR 4.0) aspirations and social stability at all levels of culture and race.

Indirectly, it helps the culture in a cashless society develop behaviours and attitudes. A country's growth through digital technology development is now concerned with the environment of the digital generation era that always needs to be digitally savvy (Mohammad et al., 2019). Traditional business transactions need to be connected to digital aspects, linking the dealings of customers as digital users in trading transactions. As usual, a business transaction is carried out through physical cash payments (Sivathanu, 2019). The existence of electronic payments involving cashless transactions made by electronic commerce has contributed to changes in digital technology (Khan, 2016; Wingreen et al., 2019). Social changes to the digital environment require all parties to cooperate.

The increase in electronic payment transactions occurred from year to year. There's an increase in households per capita in Malaysia to 144 electronic payment transactions in 2019, compared to just 125 transactions in 2018 (Bank Negara Malaysia, 2020). This perfectly indicates that cashless transactions are increasingly being used. Even the use of online electronic payment platforms has transformed conventional business dealings dramatically through online digital business transactions. Nevertheless, there is still a user mindset that still does not believe in cashless transactions in terms of cashless transaction use practices. It has also had an impact on different perceptions and practices among individuals from different social backgrounds to continue to deal traditionally.

As in 2018, 54.2% of respondents in Malaysia use online banking for cashless transactions and the remainder are still available to 45.8% of respondents who do not use online banking because they are more comfortable going to the bank; they are less confident or skilled; they have security issues; and some are not interested and do not have a savings account at the bank (Suruhanjaya Komunikasi Dan Multimedia Malaysia, 2018). In reality, Malaysia's 2018 Financial Stability and Payment Systems Report also stated that users who do not use cashless mobile banking and internet transactions are caused by factors that are less interested in their use, do not know how to use them, and misunderstand the cybersecurity of their use (Bank Negara Malaysia, 2018). Besides that, the study also shows that the attitude of the consumer confidence still shows concerns about the use of cashless transactions, as explained by the difference in the percentage of internet and online banking use (Suruhanjaya Komunikasi Dan Multimedia Malaysia, 2018). Factors that do not use such cashless transactions also affect consumers' attitudes towards not making cashless transactions. This provides an overview that the use of cashless transactions by the community members' practices is much less confident.

In this context, the cybersecurity risk of the passage of the digital age is also growing tremendously (Bank Negara Malaysia, 2020). It also can influence the consumer's attitude. In cashless transactions, security aspects of usage are crucial (Teng et al., 2020). If it is not safe to use, the consumers show the attitude of not doing cashless transactions. Thus, individual attitudes influence consumer behaviour in conducting cashless transactions.

Research Background

To ensure that behaviours in cashless transactions are accomplished, certain efforts need to be made to enhance the value of firm belief among consumers. The behavior of not doing cashless transactions is such issue that must be addressed for this study to improve customer attitudes and beliefs. In order to create a best practise model for behaviour in cashless transactions based on potential attitudes, a study of cashless transactions should also be conducted. It is still difficult to move toward a cashless society, and it is important to recognise the freedom that cash provides (David & Gantori, 2018). In accordance with the Financial Sector Blueprint 2011-2020, the Malaysian government is making great efforts to realise its vision of a cashless society (Bank Negara Malaysia, 2011). As the need to enhance public awareness of cashless payment systems and cultural change interventions for the people as ASEAN member countries work together to accomplish the ASEAN Economic Community (AEC) 2025 agenda (Hinayon, 2020). Additionally, the majority of Malaysians continue to use cash-based services and transactions (Alam et al., 2021). This circumstance emphasises the need to keep up the ongoing efforts to influence consumer behaviour in cashless transactions.

Additionally, previous research have demonstrated that students at public higher education institutions continue to employ cashless transactions on a moderate scale (Zuroni Md Jusoh & Teng, 2019). As such, further comprehensive study should be conducted among community members of public higher education institutions to identify characteristics related to the significance of consumer beliefs and attitudes for performing out cashless transactions. In higher educational institutions, a culture for cashless transactions between students, lecturers, and staff must be created. To put it another way, Malaysia needs to be changed its behaviour toward cashless transactions in order to maintain a cashless society in the context of higher education institutions.

Therefore, in a learning environment that emphasises the digital value of IR4.0, studies on factors that affect consumer behaviour are strongly tied to the current needs to establish a cashless society. To support the Malaysian government's aspiration of transforming the country into a cashless society, the study formed a conceptual framework based on the literature review on the factors that influence behaviour to form a hypothesis that is expected to be implemented in this study at the Kolej Komuniti, Malaysia.

Literature Review*Behaviour in Cashless Transactions*

Various views need to be explained in this study relevant to behaviour in cashless transactions. Cashless transactions were exchange transactions of goods using barter systems in the early stages of the generation but were eventually defined as the use of debit, credit, and electronic money without the use of physical money such as coins and cash (David & Gantori, 2018). Other views also include using online banking, mobile banking, prepaid instruments, credit cards, debit cards, and electronic payment systems for use of cashless transactions (Rahadi et al., 2020; Ramya et al., 2017). Without the use of physical cash and only using electronic money, cashless transactions are digitally exchanged between dealing parties (Brahma & Dutta, 2018). All transactions using debit or credit cards, the use of digital devices (such as point-of-sale terminals, digital wallets), and even the limited use of physical cash are present in the cashless economic environment (Pande, 2019). Also, there is a perception that users of cashless transactions are the community using online digital payment

methods without using cash (Zhao, 2019). Overall, cashless transactions are carried out electronically and digitally by the consumer and seller communities without the use of physical money during the sale and purchase of products and services.

Various digital payment methods in Malaysia are used to perform cashless transactions through instruments or applications. The use of credit cards and debit cards is best established in the early stages of cashless transactions because the community is now using electronic money, electronic wallets, internet banking and mobile banking in its transactions (Ishak, 2020). Even cashless transactions are not only done by face to face but can also be done at the in-store sales counter and it can be paid using mobile tools through Quick Response (QR code) (Lu, 2018). In addition, the use of payment terminals to facilitate cashless transactions is often used at the sales counter (Taylor, 2016). Electronic wallets are used in cashless transactions to perform financial transactions using mobile devices (Amoroso & Magnier-Watanabe, 2012). Alipay, Maybank QRPay, WeChat Pay, Boost, Big Pay, Razer Pay, CIMB Pay, Samsung Pay, GrabPay, Touch 'n Go eWallet, BigPay, FavePay and more are among the electronic wallets available in Malaysia (Jin et al., 2020). This shows that to ensure the sustainability of a cashless society among consumers, Malaysia must be equipped with digital application facilities and also cashless transactions behaviour.

Consumer behaviour has changed as a result of digitalization, which has introduced great (Yang et al., 2021). As in China, e-wallet users in Malaysia were still in the early stages of only 22% of their usage in 2018, which makes e-wallet a consumer lifestyle in the largest global market (Pricewater House Coopers, 2018). Thus, the position of Malaysia is much lower than that of China, which makes it a lifestyle behaviour. Therefore, the practise of cashless behaviour needs to be further intensified in today's digital activities.

The use of cashless transactions in e-commerce platforms is also very well known as digital activities. E-commerce is a way of selling and purchasing transactions utilizing internet lines used by buyers and sellers (Chaffey, 2015) use specific networks and systems (Sharma & Aggarwal, 2019). Moreover, e-commerce represents the main model of business transactions, selling and purchasing products, services and providing information on the internet (Turban et al., 2015). Most of the transactions required by e-commerce platform services are used for cashless transactions. It is hoped that the behaviour of implementing cashless transactions that can be done in various ways will be implemented as one of the necessary practices in digital society.

As such, to maintain a cashless society ecosystem, the sustainability of consumer behavior in cashless transactions is required. Additionally, that to form a cashless society, consumer behavior is also crucial to support digital entrepreneurship ecosystem.

Cashless Transactions Behaviour In Higher Education Institutions

The importance of the use of cashless transactions is part of the practices required in the environment of higher education institutions in Malaysia, especially in adopting the IR 4.0 environment through the digital entrepreneurial ecosystem. Consumer beliefs should be practised in society in the educational institutional environment in the shaping of consumer attitudes, intentions, and behaviour. The users in higher education institutions include lecturers, management staff, financial staff, and students in higher education institutions. For

the continuous and sustainable development of an attitude of practice, belief factors among users in educational institutions are needed to inculcate cognitive value to shape behaviour in cashless transactions. In carrying out cashless transactions, the need to create cognitive, affective, and behavioural value is important in shaping user attitude.

Previous studies at the University of Bahrain show that trust and awareness influence the intention to use cashless transactions (Aljawder & Abdulrazzaq, 2019). However, universities in the United Arab of Emirates (UAE) study report that trust has not been a major factor in electronic payment use, influencing the intention (Salloum et al., 2019). Both studies have shown differences in findings that remain related to the value of consumer beliefs.

However, studies on the use of e-wallet transactions show concerns regarding technology usage, self-control, risk of use, and subjective norms affecting their use, based on research among students conducted in Politeknik Shah Alam, Malaysia (Syawani et al., 2019). The previous study was also carried out at one of Malaysia's universities, which shows that the risk is one of the most frequent and influences consumers attitudes to cashless transactions by online purchases (Zendehdel et al., 2015). Indeed, case studies at Universiti Kebangsaan Malaysia show that cashless transactions through the use of e-commerce to purchase from students were high, but the percentage of people involved with online business remained low, due to their prevention of use, for example, online fraud, hackers, cybersecurity, and financial issues (Mat et al., 2016). Other studies have also been done on the factors that influence online shopping behaviour, including attitudes towards online shopping, trust and benefits among students of Universiti Utara Malaysia (UUM), as well as 41.9 per cent of respondents having experienced financial fraud at least once during online transactions (Rashid et al., 2019).

In this regard, beliefs must be a key factor to establish the attitude that shapes consumer behaviour by using cashless transactions, as it is clearly stated in previous studies. However, Kolej Komuniti Malaysia lacks of study to perform out previous behaviour research in cashless transactions to identify the belief variables that influence consumers' attitudes, intentions, and behaviour. Besides that, previous studies in higher education institutions across Malaysia focused more on the acceptance of the use of certain technologies and their impact on behaviour specific to cashless transactions applications. However, this study is aimed to determining factors that may influence behaviour in cashless transactions and also to exploring the variables to form the expected hypothesis to be implemented in these studies. In addition to explaining the conceptual behavior in the cashless transaction model study framework. To support the Malaysian government's aspiration of transforming the country into a cashless society, the study formed a conceptual framework based on the literature review on the factors that influence behaviour to form a hypothesis that is expected to be implemented in this study at the Kolej Komuniti, Malaysia.

Factors Influencing Behaviour in Cashless Transactions

Behaviour in cashless transactions desperately requires the element of belief that can affect the attitude of digital users. Beliefs in various issues vulnerable to the problem and required by the parties are necessary (Hosmer, 1995). Trustworthiness, perceived usefulness, cybersecurity, transaction procedures, attitude, intention and behavior element discussed in this study as proposed preliminary conceptual framework element.

Trustworthiness

Consumers highlight the trust aspect when using cashless transactions applications. It's like an ethical issue and needs genuine integrity from either the seller or the bank, especially because it has a deep relationship with user confidence in cashless transactions (Halim, 2012). Even ethics in sharing benefits in business should not be disputed as it also contributes to mutual benefits between the seller and the cashless buyer (Richter et al., 2015). It contributes to the norm of belief between them. The trustworthiness of cashless transactions is strongly influenced by the value of ethics and integrity. The impact of integrity greatly influences the values of users trustworthiness (Oliveira et al., 2017). Results from previous studies have also shown that trustworthiness has a significant effect on the attitude of consumers as the user to carry out cashless transactions using mobile wallets (Chawla & Joshi, 2019). Therefore, to ensure a commitment to conducting cashless transactions, the value of integrity and user ethics is crucial. As high trust influences customers through online purchases to conduct cashless transactions (Oliveira et al., 2017). It also can shape the continuous attitude in shaping the intention and behaviour to conduct cashless transactions. Therefore, the present study proposes the hypothesis that the trustworthiness construct is likely to have a positive influence on attitudes towards behavior in cashless transactions.

Usefulness

Usefulness can be defined as a person's degree of trust in the use of a specific system can improve his performance (Davis, 1989). The usefulness of cashless transactions also affects the attitude of consumers to feel comfortable with the benefits of cashless transactions being usable. Likewise, the bank's strategies and policies to provide user-friendly and comprehensive internet banking services that can give customers as the user feel full confidence (Ho & Yahya, 2015). In a cashless community environment, cashless application usage factors also look at facilities and compatibility with mobile payment applications, which can also be a barrier to the use of mobile payment applications (Taasim & Yusoff, 2017). Usefulness factors also have a significant impact on consumer attitudes when using mobile wallets for cashless transactions (Chawla & Joshi, 2019). Therefore, the perceived usefulness of cashless transactions by continuously being fully confident of adapting to digital situations and of setting aside barriers to facilities in the digital environment is particularly impressed by the consumer attitude. This also indicates that the usefulness construct is likely to have a positive influence on attitudes towards behavior in cashless transactions.

Cybersecurity

Security is one of the factors that users worry about, especially in cashless transactions mostly through mobile payment transactions (Kar, 2020). Security plays a major role for consumers, merchants and payment systems in a digital environment (Mallat, 2007). Even security factors are often a highly subjective consumer assessment, particularly in electronic payment security systems (Kim et al., 2010). In cashless transactions, cybersecurity has therefore become one of the critical factors. As with the risk of cybercrime in terms of internet online fraud, the acceptance of cashless transactions by society is impacted (Angrisani et al., 2018). In addition, security factors in electronic transactions are also crucial (Ardiansah et al., 2020). When using cashless transactions through internet banking, users consider the security factors associated with the efficiency of banking operations when using information and communication technology (Felix et al., 2015). Consumers also feel that paying in cash during the delivery of products purchased online seems to be safer than entering personal information during

shopping online (Sundharavadivel & Dharani, 2017). Therefore, security factors also affect the attitude of consumers to use cashless transactions mostly through mobile wallets (Chawla & Joshi, 2019). As people move towards the cashless systems, there is the need for security in cyber space to sustain the interest of participants (Apau et al., 2019). This shows that to make cashless transactions, security have an impact on consumer attitudes. This also indicates that the cybersecurity construct is likely to have a positive influence on attitudes towards behavior in cashless transactions.

Transaction Procedures

Transaction procedures defined to assist individuals to eliminate their security concerns (Hwang et al., 2007). This is because transaction procedures the most important factors influencing trust (Barkhordari et al., 2017). Likewise, users may have certain concerns including the transaction procedure (Su et al., 2021).

Sophisticated transaction procedures and process interactions should be developed in order to minimise and/or eliminate consumers' perceived security and trust concerns (Kim et al., 2010; Laudon & Traver, 2018). Transaction procedures are critical for individuals to be able to use electronic payment system safely and efficiently. However, some of previous study mentions that transaction procedures complicate cashless payments (Brahma & Dutta, 2018; Podile & Rajesh, 2017). The transaction procedure requires the user to understand certain steps to perform a transaction. It also common procedures employed during a transaction, include authentication of participants, clear steps through the transaction and explicit confirmation of successfully terminating each step (Guan & Hua, 2003).

Transaction procedures have been shown in previous studies to have a positive impact on perceived security and trust, which influences the intention of continuing using an electronic payment system (Gui et al., 2021). This shows that transaction procedures affect customer attitudes. With payment transaction procedure, consumer's can perform payment confidently with enhanced security features (Abu Bakar et al., 2020). Thus, transaction procedures are essential in shaping consumer's attitude to conduct cashless transactions. In addition, it can create a sense of trust and affect the safety of using cashless transactions. Cashless transactions could be predicted by the transaction procedures construct that might influence attitudes towards behavior in cashless transactions.

Attitude towards Cashless Transactions

Attitude refers to the degree of a person's favourable or unfavourable evaluation or appraisal of the behaviour in question and also refer to an individual's positive or negative feeling associated with performing a specific behaviour (Fishbein & Ajzen, 1975). In other words, an individual will also have a favourable attitude toward a particular behaviour if he/she believes that the behaviour's performance will lead to mostly positive results (Ajzen & Fishbein, 1980). The important factors for determining whether or not individual users use the system are users' attitude towards using any specific information technology and application (C.C Yang, 2005). Attitude is also an emotional response which is either positive or otherwise demonstrated (Greenwald, 1968) or the level of a psychological object's liking or dislike over something that will also clarify human behaviour (Ajzen & Fishbein, 2000).

Thus, the attitude described in this study focuses on the attitude of users relating to cashless transactions in the digital entrepreneurial environment to create a high trustworthiness value of integrity among the relevant parties. Moreover, three classes of evaluative response have been identified by attitude. In attitude, the components are affective, behavioural and cognitive (Ostrom, 1969). Attitude is also defined as a complex and multi-dimensional construct consisting of cognitive, affective and behavioural components (Rosenberg & Hovland, 1960). Therefore, the value of beliefs that influences attitudes are associated with cognitive components. From the perspective of social cognitive theory, the relationship between trust and Theory of Planned Behavior (TPB) components can be examined (Bandura, 1986). The social cognitive theory states that the expectation of the outcome is an individual's that a particular behaviour will lead to a specific outcome, this belief affects the attitudes of a person towards the behaviour.

Concluded that attitude has a significant influence significantly positive on the intention to use mobile payment (Teng et al., 2018). As such, attitudes play a role in ensuring that the behaviour of cashless transactions is feasible. This indicates that the attitude construct is likely to have a positive influence on intention towards cashless transactions.

Intention Towards Cashless Transactions

Intention describes the individual goal of accomplishing something (Zhao & Md Nor Othman, 2011). An individual does not act without the intention of possible behaviour. According to Ajzen, intentions are supposed to capture the motivational factors that affect behaviour, they are indications of how challenging people are willing to try, how much effort they plan to exert to perform the behavior (Ajzen, 1991). Intention refers to the intent of users to use cashless transactions in this study. Previous studies show that attitude, subjective norm and perceived behavioural control are positively predicted by the beliefs of the factor and also have a positive impact on intentions (Ting et al., 2016). In this regard, it is anticipated in the review that the intention is to affect the conduct of cashless transactions. The attitude shown by an individual can also influence the intention of conducting cashless transactions. This indicates that the intention construct is likely to have a positive influence on behaviour in cashless transactions.

Behaviour in Cashless Transactions

In a given situation, the behaviour is the manifest, observable response concerning a given target. To generate a more broadly representative measure of behaviour, single behavioural observations can be aggregated across contexts and times (Ajzen and Fishbein 1980). The intention is the best predictor of behaviour (Ilham, 2012). Previous studies have shown that there is an important connection between intention and behaviour (George, 2002; Tiara & Usman, 2020). Therefore, the behaviour is the effect of the intention to perform cashless transactions as an act of conducting cashless transactions. The conduct of cashless transactions is also a process of conducting cashless transactions using a variety of applications or cashless appliances influenced by different aspects of cashless transaction belief in the digital environment. Thus, the study of behavior is important in determining the existence of sustainability of cashless transactions.

Conceptual Framework

The conceptual framework that the reviewer proposes is part of the implementation attitude-based cashless transaction model. This study also adapted from cashless transactions based on the Theory of Planned Behavior (TPB). TPB is a well-planned theory of behaviour that explains human social behaviour by emphasizing behavioural desires influenced by attitudes, subjective norms and perceived behaviour control (Ajzen, 1991). This study will help analyze the recommendations of the research proposed to be implemented based on the TPB. However, in this conceptual framework, it only focuses on the factors of the beliefs that affect the value of attitudes through intention to the sustainability of cashless transactions behaviour. The cognitive value of beliefs in cashless transactions is a factor in the impact on the attitude to be implemented that will have a positive or negative relationship effect. In this study, the cognitive value of attitude will be analyzed by beliefs factors in trustworthiness, perceived usefulness, cybersecurity, transaction procedures and perceived hidden costs that affect the attitude and behaviour of implementing cashless transactions.

Figure 1 is the proposed framework of the proposed study to explain the factors of beliefs that affect the attitude towards sustainability of cashless behaviour to be tailored in the digital entrepreneurial environment at the Kolej Komuniti Malaysia.

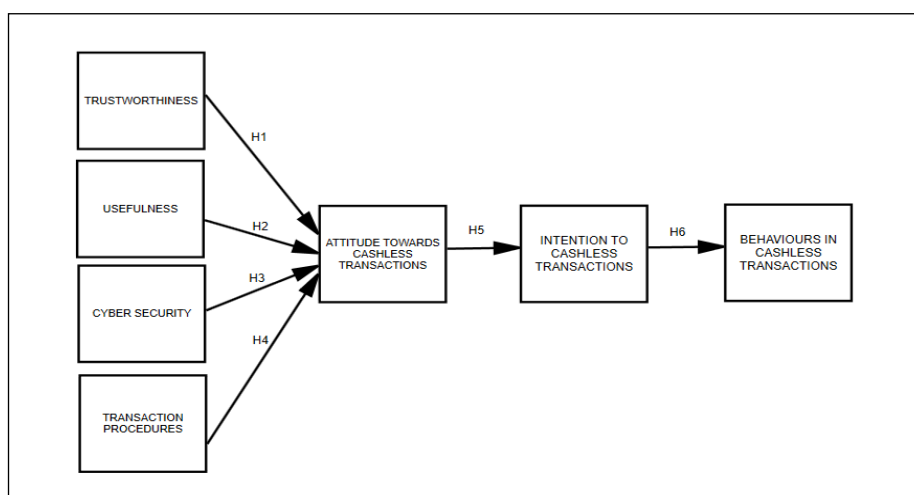


Figure 1: Proposed Preliminary Conceptual Framework

In this regard, the following are the hypothesis recommendations that have been developed to be studied in determining the factors of the behaviour beliefs that affect the attitude of consumers through the intention and cashless transactions behaviour:

H1: Trustworthiness has a significant effect on attitude toward cashless transactions.

H2: Usefulness has a significant effect on attitude toward cashless transactions.

H3: Cybersecurity has a significant effect on attitude toward cashless transactions.

H4: Transaction procedures has a significant effect on attitude toward cashless transactions.

H5: Attitude has a significant effect on the intention to cashless transactions.

H6: Intention has a significant effect on behaviour in cashless transactions.

Discussion

Factors influencing the attitude of consumers through the intention of conducting behaviour in cashless transactions, particularly in higher education institutions. The effect of such behaviour has an impact and consequences on the establishment of community members practices in the digital entrepreneurial environment of higher education institutions. The value of attitudes is not seen mostly in groups, but they can be specified individually. The belief of the digital community can therefore be a cause for change in attitude or not, depending on the individual's attitude itself.

Nevertheless, if there is still no high value of belief, the behavior of conducting cashless transactions can not be performed optimally. In today's digital entrepreneurial environment, cashless transactions should be a community need. The optimal practice of its use is the result of an increase in the value of high-attitude cognitive beliefs among users. User attitudes also are crucial in developing the sustainability of a country's digital behaviour and culture to form a cashless society. In this regard, the conceptual paper is expected to highlight a model of behavior in cashless transactions based on attitudes in different social contexts. In addition, Kolej Komuniti Malaysia community members who emphasize digital elements in line with the implementation of IR 4.0 in higher education institutions are proposed to be applied in a focused study.

Conclusion

In this research paper, the proposed conceptual framework of the study is expected to be used as a new guide and knowledge in cashless transactions based on attitudes that can cross different disciplines and at higher education institutions in Malaysia. Using the conceptual framework for this cashless transactions behavior model, it is hoped that it will help to increase the value of belief in influencing practices and culture to conduct cashless transactions that can also be done through the use of e-commerce platforms, electronic wallets, QR codes and other electronic or digital payment methods. Consumer behaviour's sustainability will guarantee that cashless transactions practices can be conducted out holistically.

The culture of doing cashless transactions should educate consumers in the higher education institutions by adopting a high value of belief in trustworthiness, usefulness, cybersecurity, and transaction procedures influencing attitudes, intentions and behaviour to conduct cashless transactions. The review is therefore an opportunity to study the behaviour of higher education institutions community members at the Kolej Komuniti Malaysia on cashless transactions based on the issues discussed in this article. The conceptual framework subsequently serves as a guide and drives studies to be carried out to assist the researcher in writing the thesis for developing behaviour through cashless transaction model.

Acknowledgements

The authors would like to acknowledge the support of Universiti Tun Hussein Onn, Malaysia (UTHM) & Ministry of Higher Education, Malaysia.

Corresponding Author

Hamidah Binti Ab Rahman

Faculty of Technical & Vocational Education, University Tun Hussein Onn Malaysia, Johor, Malaysia

Email: hamidahkktj@gmail.com

References

- Ajzen, I. (1991). The Theory Of Planned Behavior. *Organizational Behavior and Human Decision Processes*. [https://doi.org/10.1016/0749-5978\(91\)90020-T](https://doi.org/10.1016/0749-5978(91)90020-T)
- Ajzen, I., & Fishbein, M. (1980). Understanding attitudes and predicting social behaviour. *Englewood Cliffs*.
- Ajzen, I., & Fishbein, M. (2000). Attitudes and the attitude-behavior relation: Reasoned and automatic processes. *European Review of Social Psychology*, 11(1), 1–33. <https://doi.org/10.1080/14792779943000116>
- Alam, M. M., Awawdeh, A. E., & Muhamad, A. I. B. (2021). Using e-wallet for business process development: challenges and prospects in Malaysia. *Business Process Management Journal*. <https://doi.org/10.1108/BPMJ-11-2020-0528>
- Amoroso, D. L., & Magnier-Watanabe, R. (2012). Building a research model for mobile wallet consumer adoption: The case of mobile suica in Japan. *Journal of Theoretical and Applied Electronic Commerce Research*, 7(1), 94–110. <https://doi.org/10.4067/S0718-18762012000100008>
- Angrisani, M., Foster, K., & Hitczenko, M. (2018). The 2016 and 2017 Surveys of consumer payment choice: Technical appendix. *Federal Reserve Bank of Atlanta Consumer Payments Research Data Reports*, May. <https://doi.org/10.29338/rdr2018-04>
- Apau, R., Obeng, E., & Darko, A. N. (2019). An Empirical Evaluation of Cashless Systems Implementation in Ghana. *International Journal of Business, Economics and Management*, 6(3), 159–173. <https://doi.org/10.18488/journal.62.2019.63.159.173>
- Bandura, A. (1986). Social foundations of thought and action: Social cognitive theory. In *Englewood Cliffs, New Jersey: Prentice Hall*.
- Bank Negara Malaysia. (2011). Financial Sector Blueprint 2011-2020. In *Strengthening Our Future: Vol. LXIX* (Issue 4). <https://doi.org/10.1080/00346764.2011.592329>
- Bank Negara Malaysia. (2018). Financial Stability and Payment Systems Report in 2018. *Bank Negara Malaysia*, 1–160.
- Bank Negara Malaysia. (2020). *Laporan Annual Report Tahunan 2019*. https://www.bnm.gov.my/ar2019/files/ar2019_bm_full.pdf
- Barkhordari, M., Nourollah, Z., Mashayekhi, H., Mashayekhi, Y., & Ahangar, M. S. (2017). Factors influencing adoption of e-payment systems: an empirical study on Iranian customers. *Information Systems and E-Business Management*, 15(1), 89–116. <https://doi.org/10.1007/s10257-016-0311-1>
- Brahma, A., & Dutta, R. (2018). Cashless transactions and its impact-A wise move towards digital India. *International Journal of Scientific Research in Computer Science, Engineering and Information Technology*, 3(3), 14–28.
- Chaffey, D. (2015). Digital business and e-commerce management: strategy, implementation and practice. In *Management and Marketing* (6 th). Pearson education Limited.
- Chawla, D., & Joshi, H. (2019). Consumer attitude and intention to adopt mobile wallet in India – An empirical study. *International Journal of Bank Marketing*, 37(7), 1590–1618. <https://doi.org/10.1108/IJBM-09-2018-0256>

- David, J., & Gantori, S. (2018). *The road to cashless societies Shifting Asia* (Issue April).
- Davis, F. D. (1989). Perceived usefulness, perceived ease of use, and user acceptance of information technology. *MIS Quarterly*, 13(3), 319. <https://doi.org/10.2307/249008>
- Felix, U. O., Rebecca, U. I., & Igbinoba, O. K. (2015). Appraisal of the Impact of e-Banking and Cashless Society in the Nigerian Economy. *Management and Economics Research Journal*. <https://doi.org/10.18639/merj.2015.01.162936>
- Fishbein, M., & Ajzen, I. (1975). *Belief, attitude, intention, and behavior: An introduction to theory and research*. Addison-Wesley Publishing Company. <https://people.umass.edu/aizen/f&a1975.html>
- George, J. F. (2002). Influences on the intent to make internet purchases. *Internet Research:Electronic Networking Applications and Policy Volume*, 12(2), 165–180. <https://doi.org/10.1108/10662240210422521>
- Greenwald, A. G. (1968). On defining attitude and attitude theory. In *Psychological Foundations of Attitudes* (pp. 361–388). <https://doi.org/10.1016/b978-1-4832-3071-9.50020-9>
- Guan, S.-U., & Hua, F. (2003). A Multi-Agent Architecture for Electronic Payment. *International Journal of Information Technology & Decision Making*, 02(03), 497–522. <https://doi.org/10.1142/s0219622003000781>
- Halim, Z. (2012). Usability based reliable and cashless payment system (RCPS). *International Journal of Innovative Computing*, 8(April 2012), 2747–2759.
- Rashid, H. N. A. N., Yusof, M. Z., Misiran, M., & Mahmuddin, M. (2019). Factors that influence online purchasing behavior among students in Universiti Utara Malaysia. *Asian Journal of Education and Social Studies*, 4(1), 1–10. <https://doi.org/10.9734/ajess/2019/v4i130111>
- Hinayon, D. E. (2020). Diffusion of Cashless Payment as Medium of Exchange in ASEAN Nations. *Journal of Educational and Human Resource Development*, 79, 71–79.
- Ho, W.-S., & Yahya, S. (2015). Consumers' perception towards the extent of internet banking usage in Malaysia. *Problems and Perspectives in Management*, 13(2), 288–295.
- Hosmer, L. T. (1995). Trust: The connecting link between organizational theory and philosophical ethics. *The Academy of Management Review*, 20(2), 379–403. <https://doi.org/10.2307/258851>
- Hwang, R. J., Shiau, S. H., & Jan, D. F. (2007). A new mobile payment scheme for roaming services. *Electronic Commerce Research and Applications*, 6(2), 184–191. <https://doi.org/10.1016/j.elerap.2006.07.002>
- Jabatan Perdana Menteri. (2019). *Wawasan Kemakmuran Bersama 2030*. Percetakan Nasional Malaysia Berhad. http://dbook.penerangan.gov.my/dbook/dmdocuments/ringkasan_wawasan_kemakmuran_bersama/mobile/index.html#p=28
- Jin, C. C., Seong, L. C., & Khin, A. A. (2020). Consumers' Behavioural Intention to Accept of the Mobile Wallet in Malaysia. *Journal of Southwest Jiaotong University*. <https://doi.org/10.35741/issn.0258-2724.55.1.3>
- Kar, A. K. (2020). What affects usage satisfaction in mobile payments? Modelling user generated content to develop the "Digital Service Usage Satisfaction Model." *Information Systems Frontiers*. <https://doi.org/10.1007/s10796-020-10045-0>
- Khan, A. G. (2016). Electronic commerce: A study on benefits and challenges in an emerging economy. *Global Journals Of Management And Business Research*, 16(1), 18–22.
- Kim, C., Tao, W., Shin, N., & Kim, K. S. (2010). An empirical study of customers' perceptions of

- security and trust in e-payment systems. *Electronic Commerce Research and Applications*, 9(1), 84–95. <https://doi.org/10.1016/j.elerap.2009.04.014>
- Laudon, K. C., & Traver, C. G. (2018). E-Commerce : Business, Technology, Society. In Pearson. Pearson.
- Lu, L. (2018). Decoding Alipay: mobile payments, a cashless society and regulatory challenges. *Butterworths Journal of International Banking and Financial Law*, 33(1), 40–43. <https://ssrn.com/abstract=3103751>
- Aljawder, M., & Abdulrazzaq, A. (2019). The effect of awareness, trust, and privacy and security on students' adoption of contactless payments: An empirical study. *International Journal of Computing and Digital Systems*, 8(6), 669–676. <https://doi.org/10.12785/ijcds/080614>
- Mallat, N. (2007). Exploring consumer adoption of mobile payments - A qualitative study. *Journal of Strategic Information Systems*. <https://doi.org/10.1016/j.jsis.2007.08.001>
- Mohammad, S., Rasoul, S. M., & Akbar, V. (2019). On the study of the role of capable teachers as the most efficient human capital in the process of transition into the stable communities. *Journal of Economic and Social Development*, 6(1), 7–14. <https://doi.org/10.26352/DJ02F5001>
- Syawani, M. A., Fauzi, M. A. Z., Azhar, M. H., & Mohamad, M. S. (2019). *The factor that effect intention to use e-wallet among students in Polytechnic Malaysia*.
- Abu Bakar, N., Sofian, R., & Kiyotaka, U. (2020). E-Wallet Transactional Framework for Digital Economy: A Perspective from Islamic Financial Engineering. *International Journal of Management Science and Business Administration*, 6(3), 50–57. <https://doi.org/10.18775/ijmsba.1849-5664-5419.2014.63.1005>
- Ardiansah, N. M., Chariri, A., Rahardja, S., & Udin. (2020). The effect of electronic payments security on e-commerce consumer perception: An extended Model of Technology Acceptance. *Management Science Letters*, 10(7), 1473–1480. <https://doi.org/10.5267/j.msl.2019.12.020>
- Mat, N., Marzuki, N., Alias, J., & Abdullah, N. A. (2016). Penglibatan mahasiswa dalam e-dagang : kajian kes di UKM. *Jurnal Personalia Pelajar*, 19(2), 59–69.
- Ishak, N. (2020). Overview of cashless payment in Malaysia. *International Journal of Accounting, Finance and Business*, 5(27), 11–18.
- Oliveira, T., Alinho, M., Rita, P., & Dhillon, G. (2017). Modelling and testing consumer trust dimensions in e-commerce. *Computers in Human Behavior*, 71, 153–164. <https://doi.org/10.1016/j.chb.2017.01.050>
- Ostrom, T. M. (1969). The relationship between the affective, behavioral, and cognitive components of attitude. *Journal of Experimental Social Psychology*, 5(1), 12–30. [https://doi.org/10.1016/0022-1031\(69\)90003-1](https://doi.org/10.1016/0022-1031(69)90003-1)
- Pande, J. (2019). Cashless transaction – Mobile transaction. *SSRN Electronic Journal*, 675–679. <https://doi.org/10.2139/ssrn.3309289>
- Podile, V., & Rajesh, P. (2017). Public Perception on Cashless Transactions in India. *Asian Journal of Research in Banking and Finance*, 7(7), 63. <https://doi.org/10.5958/2249-7323.2017.00069.4>
- Pricewater House Coopers. (2018). *Banking on the e-wallet in Malaysia*. <https://www.pwc.com/my/en/assets/blog/pwc-my-deals-strategy-banking-on-the-ewallet-in-malaysia.pdf>
- Rahadi, R. A., Nainggolan, Y. A., Afgani, K. F., Yusoff, Y. M., Muhammad, Z., Angelina, C., & Farooq, K. (2020). Conceptual model for cashless society: A literature synthesis.

- European Journal of Business and Management Research*, 5(3), 1–7.
<https://doi.org/10.24018/ejbmr.2020.5.3.343>
- Ramya, N., Sivasakthi, D., & Nandhini, M. (2017). Cashless transaction: Modes , advantages and disadvantages. *International Journal of Applied Research*, 3(1), 122–125. www.allresearchjournal.com
- Richter, C., Kraus, S., & Syrja, P. (2015). The shareconomy as a precursor for digital entrepreneurship business models. *International Journal of Entrepreneurship and Small Business*, 25(1), 18. <https://doi.org/10.1504/IJESB.2015.068773>
- Rosenberg, M. J., & Hovland, C. I. (1960). Cognitive, affective, and behavioral components of attitudes. In *Attitude Organization and Change: An Analysis of Consistency among Attitude Components*.
- Salloum, S. A., Al-Emran, M., Khalaf, R., Habes, M., & Shaalan, K. (2019). An innovative study of e-payment systems adoption in higher education: Theoretical constructs and empirical analysis. *International Journal of Interactive Mobile Technologies*. <https://doi.org/10.3991/ijim.v13i06.9875>
- Sharma, H., & Aggarwal, A. G. (2019). Finding determinants of e-commerce success: A PLS-SEM approach. *Journal of Advances in Management Research*, 16(4), 453–471. <https://doi.org/10.1108/JAMR-08-2018-0074>
- Sivathanu, B. (2019). Adoption of digital payment systems in the era of demonetization in India: An empirical study. *Journal of Science and Technology Policy Management*. <https://doi.org/10.1108/JSTPM-07-2017-0033>
- Su, B.-C., Wu, L.-W., & Yen, Y.-C. (2021). *Antecedents and Consequences of Trust and Loyalty in Physical Banks Affecting Mobile Payments*. <https://doi.org/10.3390/su132212368>
- Sundharavadivel, G., & Dharani, H. (2017). Study on impact among Consumer trust on digital/E-payment mode of transaction for online shopping. *International Journal of Advanced Scientific Research & Development*, 04(2), 1–10. <http://www.ijasrd.org/in>
- Taylor, E. (2016). Mobile payment technologies in retail: a review of potential benefits and risks. *International Journal of Retail and Distribution Management*. <https://doi.org/10.1108/IJRDM-05-2015-0065>
- Teng, P. K., Heng, B. L. J., Abdullah, S. I. N. W., Ping, W. T., & Yao, X. J. (2020). Consumer adoption of mobile payments: A distinctive analysis between China and Malaysia. *International Journal of Business Continuity and Risk Management*, 10(2–3). <https://doi.org/10.1504/IJBCRM.2020.108505>
- Teng, P. K., Ling, T. J., & Seng, K. W. K. (2018). Understanding Customer Intention to Use Mobile Payment Services in Nanjing. *China. International Journal of Community Development & Management Studies*, 2, 49–60.
- Tiara, O. R., & Usman, O. (2020). Effect of Trust, Perceived of Use, Consumer Perception, and Behavior Intention on the Use of Digital Wallet Among College Students. *SSRN Electronic Journal*. <https://doi.org/10.2139/ssrn.3509558>
- Ting, H., Yacob, Y., Liew, L., & Lau, W. M. (2016). Intention to Use Mobile Payment System: A Case of Developing Market by Ethnicity. *Procedia - Social and Behavioral Sciences*, 224, 368–375. <https://doi.org/10.1016/j.sbspro.2016.05.390>
- Turban, E., King, D. R., Lee, J. K., Liang, T.-P., & Turban, D. C. (2015). Electronic Commerce A Managerial and Social Networks Perspective. In *Springer texts in business and economics* (Eighth Edi). Springer International Publishing Switzerland. http://eprints.ukh.ac.id/id/eprint/192/1/2015_Book_ElectronicCommerce.pdf
- Wingreen, S. C., Mazey, N. C. H. L., Baglione, S. L., & Storholm, G. R. (2019). Transfer of

- electronic commerce trust between physical and virtual environments: experimental effects of structural assurance and situational normality. *Electronic Commerce Research*, 19, 339–371. <https://doi.org/10.1007/s10660-018-9305-z>
- Yang, M., Mamun, A. Al, Mohiuddin, M., Che Nawi, N., & Zainol, N. R. (2021). Cashless Transactions : A Study on Intention and Adoption of e-Wallets. *Sustainability*, 831(13), 1–18.
- Zendehdel, M., Paim, L. H., & Osman, S. B. (2015). Students' online purchasing behavior in Malaysia: Understanding online shopping attitude. *Cogent Business and Management*. <https://doi.org/10.1080/23311975.2015.1078428>
- Zhao, W., & Othman, M. N. (2011). Predicting and explaining complaint intention and behaviour of Malaysian consumers: An application of the planned behaviour theory. *Advances in International Marketing*, 21, 229–252. [https://doi.org/10.1108/S1474-7979\(2011\)0000021013](https://doi.org/10.1108/S1474-7979(2011)0000021013)
- Zhao, Z. (2019). *Cashless society: Consumer perceived value propositions of mobile payment* (Issue May). Tempere University.
- Jusoh, Z. M., & Teng, Y. J. (2019). Perceived security, subjective norm, self-efficacy, intention, and actual usage towards e-payment among UPM students. *Journal of Education and Social Sciences*, 12(2), 8–22.