Journal of Liberty and International Affairs | Volume 8 · Number 2 · 2022 | eISSN 1857-9760
Published online by the Institute for Research and European Studies at www.e-jlia.com

(*) Corresponding author
Peer review method: Double-blind
Received: 30.03.2022
Accepted: 04.04.2022
Published: 14.06.2022
Original scientific article
DOI: https://www.doi.org/10.47305/JLIA2282061a

How to cite:
Ahmeti, Faruk, and Nazmi Zeqiri. 2022. "SWITCHING FROM CASH TO CASHLESS PAYMENTS: CONSUMER BEHAVIOR EVIDENCE FROM KOSOVO". Journal of Liberty and International Affairs 8 (2):61-74. https://e-jlia.com/index.php/jlia/article/view/598.

SWITCHING FROM CASH TO CASHLESS PAYMENTS: CONSUMER BEHAVIOR EVIDENCE FROM KOSOVO

Faruk Ahmeti[1], Nazmi Zeqiri[2*]

[1]University "Isa Boletini" - Mitrovice, Kosovo https://orcid.org/0000-0003-3529-7919 ✉ faruk.ahmeti@umib.net
[2]University for Business and Technology, Kosovo https://orcid.org/0000-0001-5537-1982 ✉ nazmi.zeqiri@ubt-uni.net

Abstract: *This paper investigates the readiness of customers to shift toward cashless payment by identifying the main factors that impact that shift. The sample consisted of randomly selected individuals identified as potential users of cashless payment and are considered more likely to continue using the new technology. Five hundred eighty-six questionaries were returned and considered complete for the research. The outcomes were assessed employing CFA for validity and determined using Cronbach's alpha for the reliability of the research, which was stratified by seven regions throughout the country was applied, by covering all levels of the society. The findings show that the perceived risk is connected to the level of correct and believable information offered to customers. It has been confirmed that the respondents trust cashless payment technology, and at the same time, self-efficacy had a lower impact on usage continuance intention. Consequently, the growth of self-efficacy would strengthen the intention to use cashless technologies. Several segments in the financial market may benefit from the results and develop more appropriate and reliable systems and the proper approach toward customers with needed information and insurance related to the security and benefits they may have by adopting the cashless technology.*

Keywords: *Cashless; Perceived Safety; Perceived Risk; Facilitating Conditions; Self-Efficacy; Developing Countries*

INTRODUCTION

Is cashless payment new, or has it become crucial in pandemics? Why are people changing so fast, as cashless payment was introduced long ago (Rahman *et al.* 2020)? Many ask what the future will look like regarding cashless payment and mobile and online payment usage, especially in developing countries. New technological development and improvement related to money transfers and payments are seen as a significant shift toward cashless payment (Świecka *et al.* 2021). However, as the developing countries have embraced and adopted online and cashless payment, the developing countries were struggling to convince their population of the adoption of new ways of payment (Ligon *et al.* 2019). Many indicators have triggered the use of cash-less payment technology. However, the most important is the latest issue with the Covid-19 pandemics and the action of many merchandisers by refusing physical contact and avoiding any social engagement with their customers. It was evident that the cash payment was not welcome, even in some cases not possible (Huterska *et al.* 2021).

Compared to e-banking, cashless was not so popular, especially within the emerging economies (Cwynar *et al.* 2021), due to many individuals being active in the grey economy and the level of incoming financial assistance from abroad mainly brought personally by migrants in the form of remittances. The money needed to be spent in cash as they were not transferred through any official systems, such as banks or other financial institutions.

This study primarily intends to examine the level of adoption and the use of cashless payment before the outbreak of Covid-19 and after, whereas the identification of factors that have impacted the consumer payment behavior shift toward the acceptance of new technology in Kosovo. Additionally, in the specific region set to be examined (Kosovo), the research tends to compare data with data related to customer payment habits in the region, which has the same history, cultural background, and economic development level (Kotkowski and Polasik 2021), by examining the range to which the specificities of certain states have resulted on behavioral payment patterns changes.

In this regard, the following hypothesis is developed, which will be tested:

H1: Perceived Safety positively impacts the intention to adopt cashless payment.
H2: Perceived Risk positively impacts the intention to adopt cashless payment.
H3: Facilitating Condition positively impacts the intention to adopt cashless payment.
H4: Self-efficacy positively impacts the intention to adopt cashless payment.

The study is organized as follows: introduction, literature review that incorporates information from the secondary sources and highlights developments that are evident during the given period, the data and discussions regarding the methodology used to collect the data; discussion of results and empirical data, and last section is the conclusion.

LITERATURE REVIEW

The cashless payment system is significantly affected and dependent on technological advances in individual means throughout its advance. Alswaigh and Aloud (2021) noted that the expedition of broader usage of cashless and creating a more adaptive society entails the attention of other factors, including local market potential and size, development of technological adoption, and income level payment infrastructure, legal infrastructure, and strategic government involvement.

Nowadays, technological development and new technologies are seen as new opportunities for many financial institutions and customers. Concerning this, the advancement of cashless transaction systems is shifting simultaneously with technical development (Dinh *et al.* 2018). Both users and offerors (companies) are continually seeking new ways of introducing new alternatives and promoting the adoption of cashless technologies. One of the major issues was the security of cashless payment systems and how that was precepted within the broader audience (clientele). As noted by Falco *et al.* (2021), more transparency of information regarding the introduced systems is required to increase the trust level, information which is related to privacy, account safety, technology, and any possibility to address any issues that customers may have (Dinh *et al.* 2018). As further noted by Dinh *et al.* (2018), the overall usage of technology has changed the level of adoption of online services, including online payment and

cashless payment systems. Despite this, the newly created reality with Covid-19 pandemics has shown that a more reliable and sustainable technologic system should be set and ready for customers (Zhao and Bacao 2021).

Different studies show that cashless technology was embraced differently in different regions and countries. More developed countries have shown a higher adoption and implementation than developing countries (Ligon *et al.* 2019). As the developed countries have already established the infrastructure (technological and legal aspects), developing countries are yet to be aware of many issues they may face, firstly the legal infrastructure and additional investment in money and time that may be difficult to reach. In this regard, Kosovo has only partially achieved push the cashless technology among its population. It is crucial to know consumer payment behavior. It is considered an essential element of the real economy, which would provide companies with other possibilities to be more efficient in developing and applying new appropriate and suitable payment systems (Zhang *et al.* 2019). Customer payment habits depend on many factors and changes surrounding the buying space, which tend to be incremental (Greene and Stavins 2020). However, newly imposed restrictions from different states in response to the Covid-19 pandemics have significantly affected customer payment behavior. This situation has resulted in an enormous increase in customers' implementation and adoption of cashless payment systems and methods (Greene and Stavins 2020).

As highlighted by different studies, many developed countries, despite the level of cashless payments already in place and as a norm for those countries, show an additional increase in cashless adoption (Alswaigh and Aloud 2021). Although the overall consumption level was (is) declined during the Covid-19 pandemic, it is evident that most payments have been made through or with cashless payments technology and online systems/tools. Different methods and tools were used in different countries and regions. In contrast, new mobile applications were developed and presented, although the traditional credit card is the most used cashless tool (Kotkowski and Polasik 2020). Whereas, in the developing countries, the issue of the shift toward cashless payments needed yet to be developed, as there was and still is a relatively undeveloped system in place, a lack of legal infrastructure, and most importantly, the lack of customer awareness and information regarding the safety of cashless.

Difficulties that challenge developing countries (including the region assessed, Kosovo) predominantly are related to banking services and robust government legal infrastructure regarding income transactions and cash availability (Yang *et al.* 2021). Developing countries are characterized by a high level of cash available in the market due to a high level of grey market and remittances that are delivered through non-institutional channels, unfamiliarized with new internet and mobile applications and electronic payment possibilities, and lack of trust in the overall payment system, etc. (Yang *et al.* 2021). However, there is a change seen in Kosovo's market regarding the cashless payment adoption, where the immediate impact comes from the investment in new technology from diverse economic entities, if example, the usage of credit cards, mobile applications, online payment, which resulted in many developing countries due to the changes imposed by the pandemics and consequences in that regard (Yang *et al.* 2021). At the current time, the globe is facing the Covid-19 pandemics, which has pushed many stakeholders to undergo a substantial transformation and are still trying to develop the best possible solutions, in specific the implementation of new technological infrastructure, which

would support maintaining a rather stable economic situation (He *et al.* 2021). Changes resulting due to the Covid-19 pandemics are critical to tracking the landscape of new guiding principles and measures, particularly when it comes to the cases of imposed regulations regarding the social and physical distance and restrictions that have been imposed (Dwivedi *et al.* 2020). Concerning the new technology and systems required in pandemic situations (due to new limitations imposed), it is clear that crises have increased the pressure on all parties to find solutions and accordingly switch to a new cashless system (Ahmed and Sur 2021). This is consistent with claims made decades ahead, as stated by Friedman (1999), who claims that the development of IT would have implications on payment habits and that cash payment will lose its importance. In this regard, the study applies the concept of rational action as the concept and evaluation variable by suggesting that trust affects the customer's attitudes, which subsequently influences behavioral intents in new standard habits.

As noted by Coppola *et al.* (2021), perceived security and safety seem to be a crucial element in substituting the intent into the necessity to use something, which in turn results in trust or untrust of customers to use or adopt any other form besides the one that is used or has already gain their trust. Additionally, to foresee and enlighten perceived security, the outcomes of the inter-subject research disclosed that perceived security might be augmented. This logic of security regarding the payment can be defined mainly due to the lack of experience and the lack of proper information that would support the intention of customers to change their habits and adopt (use) the cashless payment methods (technologies).

Besides the security, studies have revealed that self-efficacy, together with easy-to-use tools developed for mobile phones (in recent years) dedicated to cashless payments, are considered crucial elements that impacted the shift and supported the level of adoption of cashless systems (Wang 2020). To best highlight the strong point of the relationship consequence among hypotheses, the standard Structural Equation Modelling (SEM) analysis solution is applied, as shown in Figure 1.

METHODOLOGY

Questionaries were developed and distributed to respondents for hypothesis testing in two forms, online (via email), and also some of them were distributed in physical form. A validated scale from the literature was incorporated in the questionaries, which have also considered the current context of the overall situation created due to issues with pandemics. The questionnaire consists of two main parts: the respondents' socio-demographic characteristics and their intention for behavior shift or change toward cashless payment method adoption. The outcomes were assessed employing confirmatory factor analysis (CFA) for validity and determined using Cronbach's alpha for the reliability of the research instrument through STATA. The validity was tested to ensure the questions could be used to measure a concept precisely and correctly. With high validity are believed to have the ability to explain the research problem according to actual circumstances or events.

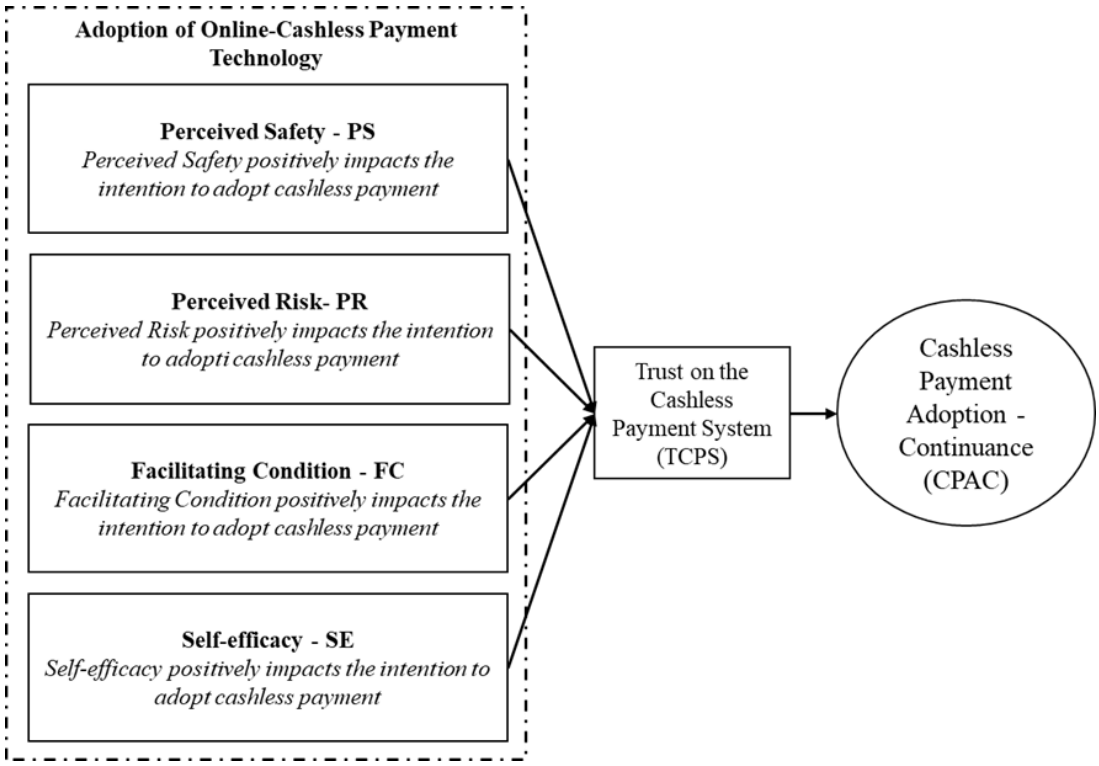

Figure 1: Research Framework (Source: Authors' depiction)

The sample of this research is randomly selected and comprises all levels of specimens that provide more comprehensive results as it gathers information from different society members. The sample consists of individuals who are more likely to use the cashless payment method and can provide a comprehensive evaluation compared to the pre-pandemic situation. For this study, there were 650 questionaries sent and from which 586 were returned and are considered completed and usable, and their characteristics were quite heterogeneous. Table 1 presents the demographic characteristics of respondents.

RESULTS

The standard SEM analysis solution in Figure 1 presents the research framework used in this study and exhibits the relationship between strength and effect among constructs. After testing the FIT model, it has been revealed that 2 of the criteria met the requirements according to the model implemented to test the hypothesis. Root means the square error of approximation (RMSEA), namely reached a value of 0.063 (cut-off value ≤0.08), which is an acceptable and reliable outcome. The second testing criteria that met the requirements is GFI with a satisfactory fit of 0.921 (cut-off value ≥0.90) (Xia and Yang 2019).

The demographic information of respondents that participated in this research is presented in Table 1. Seemingly, most questionaries returned were from male respondents (54.8%), even if it was attempted that the distribution of questionaries to be equally among males and females. The predominant age of respondents was 18-24 years old (29.90%), while

25-34 years old represented 24.9%, and 35-44 years old represented 21.7% of respondents. These groups represent the majority as they are considered the generation with better technical knowledge and are more open to new technologies. As shown in Table 1, most of the respondents are bachelor's degree holders (46.80%), whereas 28.20% of respondents were high school graduates who were either continuing at BSc or were already engaged in their profession. However, a minority of respondents had Ph.D. degrees (1.90%), yet their opinion is considered necessary due to their knowledge of the topic treated in this study.

Table1: Demographic Data of Respondents (Source: Authors' depiction 2021)

Demographics	Categories	Frequency	%
Gender	Male	321	54.8%
	Female	265	45.2%
Education	PhD	11	1.9%
	MSc	86	14.7%
	BSc	274	46.8%
	Profession	46	7.8%
	High School	169	28.8%
Age	18-24 years old	175	29.9%
	25-34 years old	146	24.9%
	35-44 years old	127	21.7%
	45-54 years old	96	16.4%
	>55 years old	42	7.2%
Profession	GOV sector	51	8.7%
	Unemployed	42	7.2%
	Education sector	57	9.7%
	Entrepreneur	31	5.3%
	Employee	73	12.5%
	Student	284	48.5%
	Others	48	8.2%
Total		**586**	**100.0%**

Whereas regarding the employment status, the majority with 48.50% of respondents are students, employees from the Government sector represent 8.7%, unemployed is around 7.2%, employees engaged in the educational sector at all levels represent 9.7%, self-employed and/or company owners (entrepreneurs) represent 5.3%, respondents that have only marked that they are employed represent around 12.5%, and others that have not given any status regarding their employment represent 8.2% of respondents. In this regard, the validity and reliability measurements were summarized in Table 2.

Table 2: Confirmatory Factor Analysis Statistics (Source: Authors' depiction 2021)

Indicators	FL	CR	AVE
A. Perceived Safety (Coppola *et al.* 2021)			
1. Cashless is safer.	.789	.817	.691
2. Cashless payment is the future.	.719		
B. Perceived Risk (Falco *et al.* 2021)			
1. The risk of cashless payment is higher regarding the transfers.	.807	.966	.902
2. Cashless may offer others access to my private information.	.773		
3. There is a lack of information regarding cashless payments.	.670		
C. Facilitating condition (Yang *et al.* 2021)			
1. I possess the essential requirements to use cashless payment.	.919	.821	.644
2. I possess the needed knowledge to use cashless technology.	.882		
3. I am familiar with the technology needed.	.821		
D. Self-efficacy (Wang 2020)			
1. I need assistance when using cashless technology.	.637	.840	.529
2. I prefer to ask for assistance only from trusted individuals when needed.	.624		
3. I can learn if demonstrated form others.	.671		
E. Trust in the online payment (Sampet *et al.* 2017)			
1. I have confidence in a forthcoming switch to cashless payment.	.670	.799	.569
2. I have confidence in the privacy of my information.	.690		
3. The social distancing is achieved through cashless technology.	.439		
F. Usage continuance intention (Setyanto and Sunarjo 2021)			
1. I plan to carry on with cashless payments in the future.	.862	.839	.655
2. Main reasons to adopt future cashless payments are security and reliability.	.847		
3. If possible, I would use cashless payment in all cases due to the lower risk for containment of Covid-19.	.681		

Construct Reliability: ≥0,70
Variance Extract: ≥0,50
Alpha Coefficient (Variable alpha): ≥0,60

To test the validity of the data, a Confirmatory Factor Analysis (CFA) was conducted. The results have confirmed that the measurement model showed satisfactory criteria, as they all loaded variable values above ≥0.5, which confirms that selected variables for testing the hypothesis are considered valid. Regarding the reliability value results, it has been confirmed that all observed variables are valid, as the CRV was ≥0.70 and the EV was higher than the minimum set of 0.50. AVE for the respective variable was higher than 0.50, and the LF value was also ≥0.5. Whereas the significance was at the 5% level, the outcomes remained in line with the reliability of the indicator level.

As per the results shown in Table 2, hypothesis testing was conducted, and the elaborative description of those results shows their confirmation or rejection. H1 stated that there is a positive relationship between Perceived Safety and the adoption of cashless payment

in the region that was analyzed. Hence, PS has a positive effect on trust in cashless technology and its adoption, which confirms that the more secure the customers feel when using cashless payment technology, the higher is the trust level and the possibility of adopting the cashless payment technology, which is also in accordance with claims made by Coppola *et al.* (2021).

The H2 claimed a positive relationship between privacy level and the adoption of cashless payment. The results show that Perceived Risk (PR) had no significant effect on trust in cashless adoption, meaning that as the consumer doubt the sectary of using cashless payment, the lower the trust in cashless technology usage and adoption, which is also supported by studies made by Falco *et al.* (2021).

H3: Facilitating Circumstances (FC) - There is a positive relationship between Facilitating Circumstances that offer cashless payment and the adoption of cashless payment. FC had a substantial and positive effect on customers' trust in cashless usage. Hence, the higher the customers see facilitating conditions provided by the cashless technology, the higher consumer trust in those technologies, and the level of acceptance seems to be higher too and is in accordance with Yang *et al.* (2021).

H4: Self-efficacy (SE) - There is a positive relationship between Self-efficacy and the adoption of cashless payment. SE had a positive and significant effect on trust in cashless technology, so increasing SE would directly increase the belief in cashless and online technology that is offered to customers, which is in harmony with claims made by Wang (2020)

DISCUSSION

This study aimed to identify the changing payment habits of customers regarding classless payment and how the customers see cashless payment for the future as an opportunity or rather as a threat or uncertainty. The study applied empirical testing methods to identify and measure the reasons (variables) that may support customers changing their payment habits and adopting cashless payment or rejecting it. Compared to the developed country that has already developed their cashless payment systems, developing countries are yet struggling to implement new technologies, develop new payment system, adopt legislation, and increase the acceptance level of their inhabitants, which is due to the lack of the correct information regarding the cashless payment safety. Many reasons have been identified, but the main would be the lack of financial investments and many grey zones on legalizing financial transactions. As a result, cash payment is the dominant payment option. The main result of this study was the identification of factors affecting the cashless payment adoption in the future or the level of contumacy intent of cashless payment systems and technologies within developing countries, with a specific focus on Kosovo, by addressing the current issue of whether the cashless payments will be used at this level in an after-pandemic era, which is still to be determined if this was a temporary situation or the new operativity will be embraced regardless the situation with pandemics.

Although the factors that impact the cashless payment habit of customers in the future are tested and elaborated, the results require additional scientific implications for future research and tangible implications for both cashless payment customers on one side and the offers of those technologies on the other side. The following results are generated based on the

research. Perceived safety has positively affected trust in cashless payment by confirming that the higher the security level is sensed, the higher the level of adoption of cashless payment. Facilitating conditions positively affected the customers' trust in cashless technology and its adoption. Hence, the higher the confidence in facilitating benefits, the customers' trust will increase. Also, self-efficacy has positively affected the trust level. Increasing self-efficacy would also increase consumer trust in cashless payments and technology.

A general result that may give an overall idea of the future cashless payment adoption is the level of trust in cashless payment technology and systems, which shows to positively impact the usage continuance intention, which is in accordance with Setyanto and Sunarjo (2021). It has been confirmed that the respondents (customers) from the given region in this research (Kosovo) trust cashless payment technology, and the entire process increases the future usage of cashless payments. At the same time, self-efficacy had a lower impact on usage continuance intention. Consequently, the growth of self-efficiency would strengthen the intention to use cashless technologies, which is also in line with claims made by Wang (2020) in his research study.

The hypothesis can be considered representative of several countries in the region of the Balkans, which have similar economic development, cultural background, political issues, and overall characteristics within those countries. However, the sample size may be considered small to generalize customer behavior regarding the adoption of cashless payments. A more significant number of respondents ought to be included to create a more comprehensive result. The study, which would also include more rural regions and diverse profiles of respondents, includes professionals that are offering the services.

The survey was done in rather un-normal circumstances due to the Covid-19 situation; hence, the respondents may have reacted and provided answers on the effect of perceived safety related to pandemics. It would also be helpful to gather data from other perspectives, which may be related to emotional and cultural background factors that can only be conducted after the end of the pandemic (Zhang *et al.* 2018). Another factor that may have affected the respondent's reaction to the questionnaires is the lack of proper information, directly affecting trust in new technology adoption (Singh and Srivastava 2020). Developing countries are also struggling with providing proper banking infrastructure. Integrating peripheral variables related to value co-creation should be the following field of research, which would add valuable information to the issue treated in this study (Mostafa 2020). However, it remains to see and measure the level of adoption only after the pandemic issue is gone or when it is realized that this situation is a new reality; hence, Covid-19 will be part of the future.

CONCLUSION

This study assessed the level of acceptance and the intention of continuity of usage of cashless payment. Several indicators have been identified and applied to the study and tested through quantitative methodology with a specific focus on the Kosovo region. One of the primary intentions of this study was to assess customers' readiness to use a cashless payment method, which corresponds with the pandemic situation, and if the cashless usage could be sustainable in the post-Covid-19 era as 'a new normal'. Many individuals in developing countries

are active in the grey sector. The extensive support from the diaspora through remittance deliveries also increases the level of cash outside the legal financial system. Hence, many customers were struggling and hesitated to embrace cashless technology for payments as they would be forced to deposit their money in the bank and report their income source. In other words, cashless seems to be something new compared to developing countries where this technology was adopted earlier (Grzelczak and Pastusiak 2020).

As Covid-19 closed the entire globe, customer awareness increased by pushing countries to implement lockdown and strict distancing measures. The perceived risk is seen as a fundament toward changes and adoptions, including the adoption of cashless payment. As such, by identifying new possible benefits that cashless payment offers, the cashless will further face a continuance increase in usage level. Besides other more general benefits, cashless and internet-based payments are cost-efficient, more time-efficient, and relatively safe (Falco *et al.* 2021), mainly as they provide higher health security. Several hypotheses were developed based on the identified variables (factors) and consequently tested to complete the study's objectives. A total of 650 questionaries were sent, and received 586 completed and considered to provide sufficient information from different customer profiles in the Kosovo region.

There are several fields that the research can contribute to and provide valuable information, both in theory and practice, by showing that perceived risk is an essential element that impacts customer behavior toward the adoption of cashless payment technology. Another element that can be beneficial for many service providers in the field of cashless is that trust in new technologies can be developed by offering accurate information regarding safety and the facilitating condition. The more customers comprehend the perceived ease of using cashless technology, the more likely they are to continue using it in the future, and the more manageable and higher the level of its acceptance.

COMPLIANCE WITH ETHICAL STANDARDS

Acknowledgments:
Not applicable.

Funding:
Not applicable.

Statement of human rights:
This article does not contain any studies with human participants performed by any authors.

Statement on the welfare of animals:
This article does not contain any studies with animals performed by any authors.

Informed consent:
Informed consent was obtained from all individual participants included in the study.

REFERENCES

1. Ahmed, Shafique, and Sur, Samiran. 2021."Change in the uses pattern of digital banking services by Indian rural MSMEs during demonetization and Covid-19 pandemic-related restrictions". *Vilakshan – XIMB Journal of Management* ahead-of-print. https://doi.org/10.1108/XJM-09-2020-0138
2. Alswaigh, Noha Y., and Aloud, Monira E. 2021."Factors Affecting User Adoption of E-Payment Services Available in a mobile Wallets in Saudi Arabia". *International Journal of Computer Science and Network Security* 21 (6):222-230. https://doi.org/10.22937/IJCSNS.2021.21.6.29
3. Coppola,Pierluigi, Dell'Olio, Luigi, and Silvestri, Fulvio. 2021."Random-Parameters Behavioral Models to Investigate Determinants of Perceived Safety in Railway Stations." *Journal of Advanced Transportation* 2021:1-11. https://doi.org/10.1155/2021/5530591
4. Cwynar, Andrzej, Świecka, Berta, Filipek, Kamil, and Porzak. Robert. 2021."Consumers' knowledge of cashless payments: Development, validation, and usability of a measurement scale". *Journal of Consumer Affairs* 1-26. https://doi.org/10.1111/joca.12424
5. Dinh, Van Son, Nguyen, Hoang Viet, and Nguyen, The Ninh. 2018."Cash or Cashless?. Promoting Consumers' Adoption of Mobile Payments in An Emerging Economy".*Strategic Direction*55 (1):1- 4. https://doi.org/10.1016/j.ijinfomgt.2020.102211
6. Dwivedi, YogeshK., Hughes, D.Laurie, Coombs, Crispin, Constantinou, Ioanna, Duan, Yanqing, Edwards, S. John, Gupta, Babita, Lal, Banita, Misra, Santosh, Prashant, Prakhar, and Raman, Ramakrishnan. 2020."Impact of COVID-19 Pandemic on Information Management Research and Practice: Transforming Education, Work, and Life".*International Journal of Information Management* 55 (102211):1-39. https://doi.org/10.1016/j.ijinfomgt.2020.102211
7. Falco,Alessandra, Girardi, Damiano, Dal Corso, L.aura, Yıldırım, Murat, and Converso. Daniela. 2021. "The perceived risk of being infected at work: An application of the job demands-resources model to workplace safety during the COVID-19 outbreak".*PLoS ONE*16 (9):e0257197. https://doi.org/10.1371/journal.pone.0257197
8. Friedman, M.Benjamin. 1999."The Future of Monetary Policy: The Central Bank as An Army With Only A Signal Corps?" *International Finance* 2 (3):321–338. Https://Doi.Org/10.1111/1468-2362.00032
9. Greene, Claire, and Stavins, Joanna. 2020."Diary of Consumer Payment Choice". *Federal Reserve Bank of Atlanta Research Data Reports* 20 (4):1-18. http://dx.doi.org/10.29338/rdr2020-04
10. Grzelczak,Marlena, and Pastusiak, Radosław. 2020."Cashless Payments and Economic Growth in Selected European Countries". *AnnalesUniversitatisMariae Curie-Skłodowska, sectio H-Oeconomia*54 (3):33-46. http://dx.doi.org/10.17951/h.2020.54.3.33-46
11. He, Wu, Zhang, J.Zuopeng, and Li, Wenzhuo. 2021."Information technology solutions, challenges, and suggestions for tackling the COVID-19 pandemic". *International Journal*

of Information Management 57 (102287):1-8. https://doi.org/10.1016/j.ijinfomgt.2020.102287
12. Huterska, Agnieszka, Piotrowska, Anna, and Szalacha-Jarmużek, Joanna. 2021."Fear of the COVID-19 Pandemic and Social Distancing as Factors Determining the Change in Consumer Payment Behavior at Retail and Service Outlets".*Energies*14 (14):1-18. https://doi.org/10.3390/en14144191
13. Kotkowski, Radoslaw, and Polasik, Michal. 2021."COVID-19 pandemic increases the divide between cash and cashless payment users in Europe". *Economics Letters* 209:1-6, https://doi.org/10.1016/j.econlet.2021.110139
14. Ligon,Ethan, Malick, Badal, Sheth,Ketki, and Trachtman, Carl. 2019."What explains low adoption of digital payment technologies? Evidence from small-scale merchants in Jaipur".*India. PLoS ONE* 14 (7):e0219450. https://doi.org/10.1371/journal.pone.0219450.
15. Mostafa, B. Rania. 2020."Mobile banking service quality: a new avenue for customer value co-creation".*International Journal of Bank Marketing*38 (5):1107–1132, https://doi.org/10.1108/IJBM-11-2019-0421
16. Rahman, Mahfuzur, Ismail, Izlin, and Bahri, Shamshul. 2020."Analysing consumer adoption of cashless payment in Malaysia".*Digital Business* 1 (1):1-11. https://doi.org/10.1016/j.digbus.2021.100004
17. Sampet, Jomjai, Changchit, Chuleeporn, and Lonkani, Ravi. 2020."A Comparative Study of Mobile Banking Adoption: An Analysis of Banking Customers in U.S. and Thailand. 109-153, Https://Doi.Org/10.4018/978-1-7998-1786-4.ch005
18. Setyanto, Refius Pradipta, and Sunarjo, Wenti Ayu. 2021."Will cashless payment become consumer's transaction habit in the "new normal" era?" *Trikonomika* 20 (1):47-53. https://Doi.Org/10.23969/trikonomika.v20i1.3418
19. Singh,Sindhu, and Srivastava, R. K. 2020. "Understanding the intention to use mobile banking by existing online banking customers: an empirical study".*Journal of Financial Services Marketing* 25:86–96, https://doi.org/10.1057/s41264-020-00074-w
20. Święcka, Beata, Terefenko, Paweł, and Paprotny, Dominik. 2021. "Transaction factors' influence on the choice of payment by Polish consumers". *Journal of Retailing and Consumer Services*58:1-13. https://doi.org/10.1016/j.jretconser.2020.102264
21. Wang, Shih-Tse. 2020."The Effects of Risk Appraisal and Coping Appraisal on The Adoption Intention of M-Payment".*International Journal of Bank Marketing* 38 (1):21–33. https://Doi.Org/10.1108/IJBM-10-2018-0272
22. Xia, Yan, and Yang, Yanyun. 2019."RMSEA, CFI, and TLI in structural equation modeling with ordered categorical data: The story they tell depends on the estimation methods".*Behavior Research Methods* 51:409–428. https://doi.org/10.3758/s13428-018-1055-2
23. Yang, Marvello, Mamun, Abdullah, Mohiuddin, Muhammad, Nawi, C. Noorshella, and Zainol, Noor. 2021. "Cashless Transactions: A Study on Intention and Adoption of e-Wallets".*Sustainability*13 (2):1-18. https://doi.org/10.3390/su13020831
24. Zhang, Tingting, Lu, Can, and Kizildag, Murat. 2018."Banking "on-the-go": examining customers' adoption of mobile banking services".*International Journal of Quality and Service Sciences* 10 (3):279–295. https://doi.org/10.1108/IJQSS-07-2017-0067

25. Zhang, Yanying, Zhang, Gaiyan, Liu, Liuling, De Renzis, Tania De, and Schmiedel, Heiko. 2019."Retail payments and the real economy". *Journal Financial Stability* 44 ©:100690. http://dx.doi.org/10.1016/j.jfs.2019.100690
26. Zhao, Yuyang, and Bacao, Fernando. 2021."How Does the Pandemic Facilitate Mobile Payment? An Investigation on Users' Perspective under the COVID-19 Pandemic". *International Journal of Environmental Research and Public Health*18 (3):1016. https://doi.org/10.3390/ijerph18031016.