



# A Cashless Society: Consumer Perception towards the Use of Digital Transactions

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## **Authors' contributions**

*This work was carried out in collaboration between both authors. both authors read and approved the final manuscript.*

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## **ABSTRACT**

With the advancement of technology, the acceptance the digital electronic transaction systems among the Bhutanese consumers have increased over the years. This paper examines the level of awareness among the Bhutanese consumers about digital transactions and investigates the factors affecting Bhutanese households' perception of digital transactions. Primary data were collected by using multi-stage sampling technique from 100 Bhutanese household across twenty districts in the country for the year 2021-2022. Data were analyzed using mean, standard deviation, skewness, kurtosis and regression model to draw the results. The results showed that the respondents are more aware in terms of using ATMs and mobile apps mode of payments as compared to the latest modes of digital payments.

*Keywords: Consumers; cashless society; digital payments; technology.*

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## 1. INTRODUCTION

“Bhutanese payment systems have evolved from currency notes and coins first issued in 1974 to the increasingly cashless and paperless payment systems of the digital era, and significant progress has been achieved mainly in the electronic payment (e-payment) infrastructure in Bhutan” [1]. “The gradual shift from paper-based to electronic forms of e-payments in Bhutan began with the adoption of the digital payment system in the country. The evolution of e-payments in Bhutan began with the introduction of the Online Banking Services, followed by the launch of Mobile Banking System Services, followed by implementation of e-Wallet” [2]. “The use of available banking technology has helped to improve efficiency in payment systems significantly. E-payments enable consumers to benefit in term of convenience and lower transaction costs. The other contributing factor that has encouraged consumers to use e-payments utilising the online banking service is the confidence conferred inspired by security measures of e-payment instruments implemented by all card issuers (banks) that provide protection against theft and fraud”.

The medium of exchange that has brought a significant improvement in the form of non-cash transactions such as online, debit/credit cards and other such methods has replaced paper currency as the general medium of exchange. While the medium of exchange brought a significant improvement over the barter system, the usage of only digital methods may bring about a consequence in the form of a cashless society, where paper cash would barely be in circulation in the economy. And while this cashless society has its own benefits and intrinsic worth, it is one in which there would be a loss of security in handling money, a removal of privacy from transactions, as well as an increase in the dependency on technology and the internet (in which any issue these technologies face could halt the economy) [3].

Therefore, this paper will focus on the trend of Bhutanese consumers towards the usage of digital transaction methods in their daily transactions and examine the factors affecting Bhutanese consumers’ perception of digital transactions in the country.

### Objectives of the Study

The main objectives of this paper are:

- To examine the Bhutanese household awareness regarding different modes of digital transactions.
- To assess the perception of usage of different modes of digital transactions among Bhutanese households.
- To investigate the factors influencing Bhutanese households’ perception of digital transactions

“The shift towards a cashless society has been a prominent trend in the global financial landscape, driven by advances in technology, changes in consumer behavior, and policy initiatives aimed at promoting electronic payments. This literature review provides an overview of existing research on consumer perceptions towards the use of digital transactions in the context of a cashless society. Technological changes move faster than the media that consumers that traditionally rely on to inform of and influence their choices” [4]. “Due to that, most business and manufacturing sectors must keep pace with technological changes to remain competitive in the market. For instance, the banking sector has implemented a large-scale technology adoption in Internet banking and mobile banking to increase service efficiency” [5]. “The advancement internet and mobile banking mode of payments is aggressively overtaking the traditional banking service model” [6,7,8]. The current world is in its stage of digitalizing everything possible for convenience, and it is without a doubt that the way we do trade would also follow this trend. Hence, transactions have been digitalized and this has brought forth a whole range of conveniences that paper currency lacks. Hence, it would be quite practical to keep track of whether economies of interest are showing signs of having a paradigm shift in making less use of cash and more use of online and digital means of making payments. Allix & Aliyev [9] studied on transaction methods to study cashless transactions. They found that the increasing difficulty for consumers to have cash on hand, by presenting data which shows that the number of ATMs across European Union countries have been facing a steady decrease, which limits cash withdrawals. It was also found that even some businesses and public administrations refuse cash payments. The paper then goes on to detail out the possible ramifications of the total phasing out of paper money.

Alternatively, Mohd and Pal [10] studied on the perception of people on digital transactions in Himachal Pradesh, India with the intention of

assess if India was ready for the paradigm shift from cash to cashless methods of making transactions. It was discovered that there was a general agreement amongst the respondents that there were many complications faced in making cashless transactions such as poor network connectivity, problems of illiteracy, lack of digital awareness and many more. Additionally, there was a rather noticeable amount of people who lack awareness about the latest digital modes of making payments. A similar kind of study was conducted on the public perception of the effectiveness of a cashless society by Aslinawati, Wulandari, & Sosoco [11] in the village of Tanggulturus in Indonesia, in which the conclusions made were similar to the previously mentioned study in Himachal Pradesh i.e., the lack of knowledge and awareness, in addition to the old-fashioned way of thinking in these places make for an incompatibility with the implementation of a digitalized method of payment.

Another study was done in India, with a focus on perception of rural and urban customers towards online payment systems, conducted by Mallesha [12] showed results which also states that the people who live in rural areas need to build awareness on online transaction methods. This implies a minimal usage in those rural areas. Be that as it may, the overall frequency of the usage of online payment methods is found to have a rising trend in both rural and urban areas. This rising trend is evident despite the concerns and reservations the general public has on using online methods. This study goes on to provide recommendations in improving awareness in rural areas, in order to have maximum utilization of technological advancements. Another study, which was conducted by Vij et al. [13], had aimed to look at the general opinion that the people of the internet had on cashless transactions. It was found that a majority of people (66.8%) were indifferent to this method, however, from the two polarizing viewpoints, it seems that there were more people who held a positive opinion (24.9%) in comparison to those who held a negative one (8.3%).

The adoption and acceptance of digital transactions have been extensively studied in the literature. Rogers' Diffusion of Innovation Theory [14] provides a theoretical framework for understanding how innovations, including digital payment systems, are adopted by individuals over time. Research by Venkatesh et al. [15] in the context of the Technology Acceptance Model

(TAM) emphasizes the importance of perceived ease of use and perceived usefulness in influencing consumers' intentions to use digital payment methods [16,17]. Additionally, study by Pateno et al. (2015) highlight the role of subjective norms and social influence in shaping consumers' attitudes towards adopting new technologies.

Adoption of digital transactions has been studied extensively worldwide, and many studies conclude that digital transactions should be emphasized. Past studies [18] examined the technology acceptance model (TAM) to predict users continues use of the e-payment system. A very few studies [19,20,21] has focused on users' adoption, acceptance, and satisfaction with e-payment services. Only a few studies [22,23] have considered consumer's perception of e-payment systems. This study focused more on consumers' perception of digital transactions e-payment systems among Bhutanese households.

Trust and security concerns are critical factors influencing consumers' willingness to engage in digital transactions. Literature has identified the significance of perceived security and privacy in shaping consumer trust in digital payment systems [24,25]. Studies have also highlighted the role of institutional trust, which refers to the confidence consumers have in the organizations and entities facilitating digital transactions [26]. Additionally, research by Gefen et al. [27] emphasizes the importance of trust as a mediating factor in the relationship between perceived risk and consumer intention to use digital payment methods.

The transition towards a cashless society carries significant socio-economic implications. Existing literature addresses issues such as financial inclusion and exclusion, where the move towards digital transactions may potentially exclude certain segments of the population who lack access to or familiarity with digital payment methods [28]. Additionally, studies have examined the impact of a cashless society on financial stability, with some research highlighting potential benefits in reducing costs associated with cash handling and mitigating risks related to illicit activities [29]. Cross-sectional research survey approach has been widely employed to gather quantitative data on consumer perceptions of digital transactions. Various studies Prakash [30], Mokhtar [31], Yuvaraj and Sheila [32] have employed surveys based on

established theoretical frameworks like the Technology Acceptance Model (TAM) to assess factors influencing consumer acceptance of digital payment methods. Survey-based approaches allow for large-scale data collection and statistical analysis, enabling researchers to identify significant predictors of consumer behavior.

## 2. METHODOLOGY

The main purpose of this study was to study the household awareness regarding digital transactions and perception of usage of different modes of digital transactions among Bhutanese household. The study employed quantitative research approach. The study was based on primary data sources. Primary data have been gathered from participants with the help of a survey questionnaire. A total sample of 100 respondents was taken from 20 districts in the country. Useful responses of the participants were taken for making study more effective. Based on the requirement of the study, multi-stage sampling technique was employed to collect the required information from the participants. For the purpose of data analysis, descriptive analysis approach involving Likert scale, mean, standard deviation, skewness, kurtosis, and multiple linear regression technique were employed in the study. The data was coded and entered using Statistical Package for Social Science (SPSS) software version 23.

## 3. RESULTS AND DISCUSSION

Table 1 presents the demographic profile of the sample respondents of the study. It is observed that the majority of the respondents are male and belong to the age group of 30-40 years. 46 percent of the respondents have an undergraduate degree qualification with lowest in illiterate group with 18 percent.

Table 2 depicts regarding knowledge of different modes of digital payments. As shown in the table, knowledge regarding about debit cards since the mean value estimated on 5-point Likert scale is 2.98 with standard deviation as 1.31 it can be concluded that the knowledge about banking card especially debit cards is up to moderate extent and it varies between moderate to high extent. Negative value of skewness depicts the response is towards higher side of mean value. The value of mean regarding ATMs and mobile apps is 3.87 and 4.23 respectively which indicates that there is high extent of knowledge among the users. The knowledge about e-com merchants is up to some extent and it varies from to some extent and not at all. Since the value of skewness is positive in both modes of digital payments which indicates that responses are inclined towards the moderate extent users. A similar kind of findings was found in the research literature of Chan et al. [33], Mohd, Sharif. [10].

**Table 1. Demographic profile of respondents**

<b>Gender</b>	<b>Frequency</b>	<b>Percentage</b>
Male	67	67.0
Female	33	33.0
Total	100	100.0
<b>Age</b>		
20-30	16	16.0
30-40	34	34.0
40-60	26	26.0
Above 60	24	24.0
Total	100	100.0
<b>Education</b>		
Illiterate	18	18.0
High school	21	21.0
Undergraduate	46	46.0
Postgraduate	15	15.0
Total	100	100.0
<b>Resident</b>		
Urban	62	62.0
Rural	38	38.0

Source: Author's compilation

Table 3 represents the respondents' responses regarding their level of usage of cashless transactions. From the table, it is revealed that mean score has been worked out of the use of different modes of payment between 1.3 to 3.1 at five points Likert scale with high standard deviation which means most of the respondents are using modes of digital payments for their daily transactions. The mean value pertaining to use of credit card is 1.3 with standard deviation of 1 indicates respondents are using credit card moderately. This is valid because introduction and implementation of credit card happen much later than other digital payment method in the country. The positive value of skewness in net banking, credit card, e-Wallet indicates that responses are inclined toward lower side of mean.

Table 4 represents correlations result between the different benefit factors. It is observed in the correlation matrix that there are significant correlations between benefits and ease of use, trust, and self-efficacy. Trust and ease of use are some of the significant factor in determining the adoption of digital transactions preference among Bhutanese consumers. It can be observed that the correlation between

security and self-efficacy was not significant in the study.

Table 5 shows regression output between consumers' perception of digital transactions and its determining factors. The findings show that factors benefit, security, and consumer self-efficacy are all found to be statistically significant at 1 percent level of significance in the study. A similar finding was observed by Goh [22], Ming-Yen Teoh et al. [23] on the previous research studies related to the digital transactions.

However, the results from the regression model show that factor security is not supported even if it is found to be a significant factor in the mean scoring. Luarn & Lin [34] however disagrees with this result and they found security as an important variable in their study. Likewise, consumer self-efficacy is the most crucial factor among all the related factors and it has a significant impact on consumers' perception of digital transactions. A consumer has a good experience with digital transactions and this has motivated consumers to adopt it [22]. Furthermore, positive comments from family, friends, and others who used digital transactions methods are effective and influence users' perception.

**Table 2. Knowledge of different modes of digital payments**

Sl. No	Mode of Payments	Mean	S.D	Skew.	Kurt.
1.	Debit cards	2.98	1.31	-.153	-0.142
2.	Credit cards	1.03	1.65	1.08	0.87
3.	ATMs	3.87	1.32	1.24	1.16
4.	e-com merchants	0.67	1.30	0.96	0.36
5.	Internet Banking	2.19	1.23	0.73	-0.27
6.	Mobile apps	4.23	1.76	0.97	0.74

Source: Author's Compilation

**Table 3. Use of the modes of the cashless payments of the respondents**

Sl. No	Mode of Payments	Mean	S.D	Skew.	Kurt.
1.	Net Banking	3.1	1.2	0.3	-0.76
2.	Debit Card	2.4	1.2	-0.1	0.9
3.	Credit Card	1.3	1.0	0.3	1.0
4.	e-Wallet	1.8	1.0	1.1	0.5

Source: Author's compilation

**Table 4. Correlations between the different factors**

Factors	Benefits	Security	Ease of Use	Trust	Self-efficacy
Benefits	1				
Security	0.108	1			
Ease of use	-0.672**	-0.126*	1		
Trust	0.076	0.254**	0.065	1	
Self-efficacy	-0.593**	0.480**	0.168*	0.565**	1

Note: \*\*denotes that correlation is significant at the 0.01 level (2-tailed) and \* denotes significant at the 0.05 level (2-tailed)

**Table 5. Linear Regression Result of Consumers’ Perception of Digital Transactions and Its Determinants**

Model		Unstandardized Coefficients		Standardized Coefficients	T	Sig.
		B	Std.Error	Beta		
Consumers' Perception of Digital Transactions	(Constant)	1.098	0.327		5.325	0.000**
	Benefits	-0.123	0.025	-0.232	-3.987	0.000**
	Security	0.231	0.041	0.231	5.016	0.000**
	Ease of Use	0.028	0.029	-0.019	-0.318	0.271
	Trust	-0.053	0.041	-0.001	-0.057	0.492
	Self-efficacy	0.321	0.376	0.387	9.012	0.000**

Note: The asterisks (\*\*, \*\*\*) indicates significance at the 5%, and 1% levels

**4. CONCLUSION**

As part of the promoting cashless digital transactions and gearing towards cash-less society, various modes of digital payments have been initiated by central bank, Royal Monetary Authority of Bhutan. The study reveals that people are highly aware of implemented digital transaction payment options in the country. There is less awareness about the mode of digital payments e-com merchants and credit cards. However, study result also shows a high awareness among Bhutanese users in the form of ATMs and mobile apps in the country. Study also revealed that the growing use of digital transactions mode of payments in the country. Therefore, the Royal government should promote cashless transaction by providing facilities of zero charges on digital transfers and facilities through using more of debit and credit cards free of cost in the country.

**COMPETING INTERESTS**

Authors have declared that no competing interests exist.

**REFERENCES**

1. Choki, Pema. Bhutan’s transition to a digital economy. The Bhutanese; 2023, July 22. Available: <https://thebhutanese.bt/bhutans-transition-to-a-digital-economy/>
2. Annual payment system report. Annual payment system report. Department of payment and settlement system, Royal Monetary of Bhutan; 2022. Available: <https://www.rma.org.bt/RMA%20Publication/DPSS/Annual%20>

Payment%20System%20Report%202022.pdf

3. Walden University. Should We Become a Cashless Society? 2021, March 25. Retrieved October 23, 2021, from: <https://www.waldenu.edu/online-doctoral-programs/phd-in-public-policy-and-administration/resource/should-we-become-a-cashless-society>.
4. Sun S, Lee P, Law R. Impact of cultural values on technology acceptance and technology readiness. International Journal of Hospitality Management. 2019; 77:89-96.
5. Naidu A, Sainy R. Does technology readiness predict banking self-service technologies usage in India? International Journal of Electronic Banking. 2018;1(2): 129-149.
6. Kaushik AK, Rahman Z. Innovation adoption across self-service banking technologies in India. International Journal of Bank Marketing. 2015;33(2):96-121. DOI:10.1108/IJBM-01-2014-0006.
7. McPhail J, Fogarty G. Mature Australian consumers' adoption and consumption of self-service banking technologies. Journal of Financial Services Marketing. 2004; 8(4):302-313.
8. Shi W, Shambare N, Wang J. The adoption of internet banking: An institutional; 2008.
9. Allix J, Aliyev F. Cash versus cashless. Bureau Européen des Unions de Consommateurs (BEUC); 2019, September. Available: [https://www.beuc.eu/publications/beuc-x-2019-052\\_cash\\_versus\\_cashless.pdf](https://www.beuc.eu/publications/beuc-x-2019-052_cash_versus_cashless.pdf).
10. Mohd, Sharif. Moving from cash to cashless: A Study of consumer perception towards digital transactions.

- Pragati: Journal of Indian Economy. 2020; 7:1-13.  
DOI:10.17492/pragati.v7i1.195425.
11. Aslinawati EN, Wulandari D, Soseco T. Public perception of the effectiveness of less cash Society. *International Review of Social Sciences*. 2016;4(1).
  12. Mallesha C. A case study on perception towards online payment systems among urban and rural customers. *International Journal of Advanced Research in Commerce, Management & Social Science (IJARCMSS)*. 2020;3(1):196–204.
  13. Vij S, Jain A, Tayal D. Performing opinion mining and analytical study for cashless transactions. *International Journal of Forensic Software Engineering*. 2019;1(1):21–31.  
Available:<https://doi.org/10.1504/ijfse.2019.10026450>.
  14. Theory perspective. *Journal of Financial Services Marketing*. 1962;12(4):272-286.
  15. Venkatesh, Viswanath, Bala Hillol. Technology acceptance model 3 and a research agenda on interventions. *Decision Sciences - DECISION SCI*. 2008; 39:273-315.  
DOI:10.1111/j.1540-5915.2008.00192.x.
  16. Pantano Eleonora, Pietro Loredana. Understanding Consumer's Acceptance of Technology-Based Innovations in Retailing. *Journal of Technology Management and Innovation*. 2012;7.  
DOI:10.4067/S0718-27242012000400001.
  17. Rogers EM. *Diffusion of innovations*. Free Press, New York; 1962.
  18. Tella A, Olasina G. Predicting users' continuance intention toward e-payment system: An extension of the technology acceptance model. *International Journal of Information Systems and Social Change (IJISSC)*. 2014 Jan 1;5(1):47-67.
  19. Chin LP, Ahmad ZA. Perceived enjoyment and Malaysian consumers' intention to use a single platform e-payment. In *SHS Web of Conferences*. EDP Sciences. 2015;18: 01009.
  20. Dehbini N, Birjandi M, Birjandi H. Factors influencing the adoption of electronic payment cards in urban micro-payments. *Research Journal of Finance and Accounting*. 2015;6(1):39-47.
  21. Yaokumah W, Walker DO, Kumah P. SETA and security behavior: Mediating role of employee relations, monitoring, and accountability. *Journal of Global Information Management (JGIM)*. 2019 Apr 1;27(2):102-21.
  22. Goh SW. Factors affecting adoption of E-payment among private University Students in Klang ValleyUTAR; 2017.
  23. Ming-Yen Teoh W, Choy Chong S, Lin B, Wei Chua J. Factors affecting consumers' perception of electronic payment: an empirical analysis. *Internet Research*. 2013;23(4):465-485.
  24. Gupta Pooja, Hakhu. Impact of perceived security and perceived trust on intention to use digital payments -A study on Indian Customers. *Webology*. 2022;18:2021.
  25. Zhang, Jiabin, Yan Luximon, Yao Song. The Role of Consumers' Perceived Security, Perceived Control, Interface Design Features, and Conscientiousness in Continuous Use of Mobile Payment Services. *Sustainability*. 2019; 11(23):6843.  
Available:<https://doi.org/10.3390/su11236843>
  26. Mcknight D, Chervany Norman. What trust means in ecommerce consumer relationships: An interdisciplinary conceptual typology. *Journal of Electronic Commerce*. 2002;6:35-60.
  27. Gefen, David, Karahanna, Elena, Straub, Detmar. Trust and TAM in Online Shopping: An Integrated Model. *MIS Quarterly*. 2003;27:51-90.  
DOI:10.2307/30036519.
  28. Mas Ignacio, Radcliffe, Daniel. Scaling Mobile Money. *Journal of Payment Strategy & Systems*. 2011;5.
  29. Kumhof, Michael, Noone Clare. Central bank digital currencies — Design principles for financial stability. *Economic Analysis and Policy*, Elsevier. 2021;71(C): 553-572.
  30. Prakash M. A study on consumer perception towards digital payment. *East Asian Journal of Multidisciplinary Research*. 2022;1(6):1033-1044.  
DOI:10.55927/eajmr.v1i6.688.
  31. Mokhtar NF. A Cashless society: Perception of Malaysian Consumer Toward the Usage of Debit Cards. *International Journal of Accounting, Finance and Business (IJAFB)*. 2019; 4(21):91 -100.
  32. Yuvaraj S, Sheila Eveline N. Consumers' perception towards cashless transactions and information security in the digital economy, *International Journal of*

- Mechanical Engineering and Technology. 2018;9(7):89–96
33. Chan Kar Hoong, Tuan Hock Ng, Hwee Ng. Are Malaysians ready for the cashless society? Evidence from Malaysia's Undergraduates. *Global Business and Management Research: An International Journal*. 2020;12:78-88.
34. Luarn P, Lin HH. Toward an understanding of the behavioral intention to use mobile banking. *Computers in Human Behavior*. 2005;21(6):873-891.

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