

Mass Perception towards Digital and Cashless Transactions

An Empirical Study

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Abstract- *With technological and infrastructural development attaining a globalised character, digitalization has become the order of the day. The country of India has already started the ambitious plan for a totally digitalized economy. But as the heart of India lives in the villages, there is a long way to go. The focus of this study is to understand the perception of people towards a digitalized and cashless economy. It was a descriptive study conducted in the state of Assam in the north eastern part of India. Multistage sampling technique was followed to select the sample of 1200 respondents spread across both the rural and urban areas.*

Study reveals that people do not perceive digital transactions to be meant for only technical people. People agree that digital transactions facilitate anywhere and anytime banking facility. Hence there is a fair degree of comfort to the users. However people find that certain technical issues are involved in digital transactions. Further people like to go for personal visits to bank for banking services and they cannot totally do away with the habit. Lastly there has to be some long term strategies so that people feel and reap the benefit of substantial discounts and offers in using this mode of doing transactions.

Keywords: *Digitalisation, Multistage, Regression, Perception, Paperless*

I. INTRODUCTION:

It is said that Indian population has a special love for cash transactions unlike Sweden which is racing fast towards a cashless economy with 85 percent of its transactions happening through digital modes (IndianEra, 2020). India is the fourth largest user of cash in the world (Tawade, 2017). The rate of cash to GDP (12.42 percent) is the highest in India (Tawade, 2017). But not being an exception to the global cashless inclination the Government of India launched the Digital India Programme in the year 2015 with the ambitious vision to transform India into a digitally empowered society and knowledge economy. Hence one of the apparent roles of Digital India is moving towards a “Faceless, Paperless and Cashless” future with focus on the “Digital empowerment of Citizens”. In the ensuing years, to promote cashless transactions, the Government of India and the Reserve Bank of India introduced a plethora of digital payment modes like banking cards, USSD, UPI, Mobile Wallets, AEPS, Micro ATMs, Internet/Mobile banking etc. (cashlessindia.gov.in).

A cashless economy in simple words indicates reducing the use of physical cash for payments and instead become more reliant on digital payment and settlement mechanisms (Jose, 2016). The demonetization announced on 8th November 2016 wherein 86 percent of the currency in circulation was withdrawn gave a tremendous boost to cashless and digital transaction initiative in India (Maurya, 2019). This is manifested in the fact that post demonetization the country witnessed a 55 percent surge in digital transactions, and mobile banking operations alone witnessed a 122 percent growth (IndianEra, 2020). The Annual Report of the Reserve bank of India (2019) mentions that in the year 2018-19 retail electronic payment transactions increased by 59 percent and Fintech and digitalization were identified as the major growth drivers (Reserve Bank of India, 2019). Though the country has made significant progress in promoting the usage of electronic modes of payment we ought to keep in mind that 68.84 percent (as per 2011 census) of the Indian population lives in villages and the real challenge as well as growth potential for digital India lies here. Therefore it is opined that the shift from a cash heavy to a cashless economy looks over ambitious without comprehensive action plan to address the issues of rural India.

Through this paper the researchers makes a humble effort to delve deeper into the minds of the rural as well as urban residents as to how they perceive the future cashless and digitalized economy. Before proceeding further into the research enquiry, a succinct review of a few existing literature has been done on the subject matter so as to have a better understanding and also identify the research gap to guide the current study.

II. LITERATURE REVIEW:

Sharma and Kulshreshtha, (2019) tried to get an overview on the motive to use m wallets and identified convenience, safety, complexity, trialability, compatibility, service quality, privacy, availability of information and ease of use as the most influential factors. However, this study focused on only one particular digital product. Goel, Sahai, Vinai and Garg (2019) studied customer awareness on cashless transactions and also attempted to assess their trust and confidence on cashless transaction. They concluded that India still has a long way to go as awareness level of people on digital transactions is very low and they also lack trust and confidence on digital payment methods. Mahapatra (2018) made an attempt to find the association of demographic variables with the adoption of mobile payment options thereby identifying those sections of the society that have failed to adopt cashless payment systems. Pal and Jain (2018) also studied the pattern of internet banking and cashless usage behavior of salaried employees. This study also emphasized on the correlation of such behaviors with demographic factors of respondents. However this paper ignored the non salaried section of the society. Shamsi and Khan (2018) studied the concept of cashless transactions in Indian context and tried

to analyse consumer's response towards it. Convenience sampling of respondents were done and they used chi square test to check association of various factors with demographic variables. Rajanna, (2018) also conducted a similar study to understand customers perception and found that people were aware that cashless economy could solve problems with regard to corruption and black money. Podile and Rajesh,(2017) studied perception towards cashless transactions and problems encountered by common men with regard to the same during the demonitization phase in India. Sinha, Joshi and Sinha (2017) also studied consumers' perception and attitude towards cashless transactions. Speed of online transactions and ease of operation were identifies as the top two as reasons for going cashless. However since non probabilistic convenience sampling was used to select the respondents in both the studies, the current researchers feel that the findings may not be a correct representation of the behavior of the entire population. Bansal (2017) identified opportunities and challenges in promotion of cashless banking in India. The opportunities identified were Government initiatives, Smart phone penetration, Technological innovations in the banking sector and many more. The challenges identified were limited banking penetration, digital illiteracy, Cyber security and many more. The paper concluded that the Indian economy is at the nascent stage of transformation process and rural penetration is one of its biggest challenges. In another study specific to rural India, Ali, Akhtar and Safiuddin (2017) focussed on the challenges with respect to rural India. They suggested that efforts need to be directed towards increased digital awareness, reduction of charges imposed on digital transactions, development of ICT infrastructure for enabling digital penetration among rural masses.

Though several studies have been done in the different states of India, in the line of identifying the challenges associated in moving towards a cashless economy, the researchers are aware that each state in India offers unique challenges. The development of ICT infrastructure and the digital literacy of the people vary from state to state. The researchers would definitely be guided by the earlier research enquiry into the subject matter carried out in different states of India or the country as a whole. However in order to pave the road towards digitalization the researchers feel it is absolutely necessary to have a detailed understanding of the perception towards a cashless economy specific to the state of Assam. The researchers also feel that such perception may vary significantly with respect to people residing in urban and rural areas of Assam.

Also most of the earlier works done by researchers have used convenience sampling techniques for selection of the respondents. In this study multistage sampling has been done to overcome the biases associated with convenience sampling. Also the researchers plan to do a regression analysis to understand the managerial implication of the perceptions towards digital and cashless transactions of the masses.

III. OBJECTIVES OF THE STUDY:

After an extensive review of existing literature the researchers have formulated the following objectives to guide the research enquiry.

To understand the overall perception of people towards digital and cashless transaction

To conduct a comparison of the perceptions of rural and urban residents.

To identify the managerial implications of the perception analysis and suggest measures to address the same.

IV. RESEARCH METHODOLOGY

The design of the study was exploratory cum descriptive in nature. The study is based upon primary data collection through extensive field survey.

A. SAMPLING METHOD

A sample of 1200 units was taken for the study. Each individual household was considered as a sampling unit. The technique of multistage sampling was used for the study. A total of six districts were selected for the study. They include Dibrugarh, Jorhat and Nagaon from Upper Assam and the districts of Kamrup (Metro), Cachar and Barpeta from Lower Assam. From each district a quota sample of 200 units were taken. This quota size of 200 units was considered to be sufficient as it was the minimum size as agree upon to be adequate for studies in behavioural sciences and on the basis of affordability (Sudman, 1976). As a step further, for each district the quota sample was divided into rural and urban proportions based upon percentage of rural and urban population of each district as per Census 2011 (the details as given in Table 1.1). Calculation of the Proportionate rural / urban Sample size out of 200 for each District was done by using the method below; i.e. Percentage of (Rural / Urban) Population/100*200.

Finally in the last stage judgment sampling technique was used for selecting the villages / wards in the districts. In the recognition process of the rural and urban parts of the districts, areas / wards covered by a municipality board were considered as urban whereas areas not covered by any municipality board were considered as rural.

Table 1.1: SAMPLING PLAN

Sl no	GEOGRAPHIC DIVISION	SELECTED DISTRICTS	QUOTA SAMPLE SIZE OUT OF 1200	PERCENTAGE OF POPULATION AS PER CENSUS 2011		FINAL SAMPLE	
				Rural	Urban	Rural	Urban
1	UPPER ASSAM	Dibrugarh	200	81.62	18.38	163	037
		Jorhat	200	79.81	20.19	160	040
		Nagaon	200	86.91	13.09	174	026
		Kamrup (M)	200	17.30	82.70	035	165
2	LOWER ASSAM	Cachar	200	81.83	18.17	164	036
		Barpeta	200	91.30	08.70	183	017
		TOTAL	1200	-	-	879	321

B. QUESTIONNAIRE CONSTRUCTION AND SCALE USED

A structured questionnaire has been used for the field survey. In the questionnaire, question 1 to question 5 was used to collect information related to demographic profile of the respondents. In order to fulfill the primary objective i.e. to track the current perception of the common mass towards digitalization, question 6 was framed in the questionnaire. This question consisted of 9 attitudinal statements. Initially a total of 34 attitudinal statements related to probable perception towards a digital and cashless economy were developed. The statements have been developed based upon information collected from focus group interview (with senior banking Executives having experience of both urban and rural banking operation), journal papers (as per literature survey done), paper articles, online blogs, initial exploratory survey and self intuition. They were administered on a sample of 200 respondents. Data collected were processed through Factor Analysis and 9 factors explaining 85 percent of the variation were extracted. Consequently a total of 9 attitudinal statements were used as the final statements for measuring attitudes. The measure of attitude was done by using a 3 point rating scale. The respondents were asked to indicate their degree of agreement or disagreement on the statements with appropriate ratings, where 3 is 'agree', 2 is 'neither agree nor disagree' and 1 is 'disagree'. In order to establish the reliability of the scale Cronbach Alpha was administered. The score was found to be 0.716 as given in Table 1.2. Therefore it was accepted to be valid as the score was greater than 0.70 (Nunnally, 1978).

Table 1.2: RELIABILITY TEST SCORE

Sl no	STATEMENTS	Cronbach Alpha
S1	Digital banking is meant for only technically sound people	0.716
S2	Digitalisation enables to do transactions anywhere anytime	
S3	Digitalisation minimizes the danger of holding hard cash	
S4	Digitalisation is involved in various technological issues	
S5	Digitalisation is a secured mode of doing transactions	
S6	Customers should be kept away from their bank visits	
S7	There is a sense of comfort in doing digital transactions	
S8	Digital transactions helps to avail discounts and offers	
S9	Digitalisation is essential for the overall growth and development of the economy	

C. DEMOGRAPHIC PROFILE OF SAMPLING UNITS

With respect to age group, 412 respondents were taken from the age group of (18-25) years, 283 respondents from the group of (26-35) years, 233 respondents from the group of (36-45) years, 160 respondents from the group of (46-55) years, 75 respondents from the group of (56-60) years and 37 respondents from the age group of above 60 years. With respect to educational qualification, 77 respondents belonged to the primary / uneducated category, 266 respondents were HSLC / HSSLC pass, 603 respondents were graduates and 254 respondents belonged to the Postgraduate and above category. With respect to income level, 398 respondents were with an annual income of less than Rs 50000/-, 64 respondents were with annual income of Rs 50001-1 lakhs, 569 respondents were in the annual income category of above Rs 1 lakh - 5 lakhs and 169 respondents were with an annual income of Rs above 5 lakhs category. Lastly with respect to profession, 252 respondents were in the public sector / government sector, 286 respondents belonged to the Private Sector, 255 respondents were self employed and 407 respondents belonged to the unemployed/housewife/student category. The data gathered from the field survey were processed through Regression Analysis where statement 1 to statement 8 is used as the independent variables. Statement 9 of question 6 is used as the independent variable in conducting the inferential statistics.

V. ANALYSIS

Table 1.3 (Multiple Regression Analysis of Perception towards Digitalisation - Overall), Table 1.4 (Multiple Regression Analysis of Perception towards Digitalisation - Rural) and Table 1.5(Multiple Regression Analysis of Perception towards Digitalisation - Urban) reflects the perception on an overall basis as well as perception of rural and urban population taken separately.

Table 1.3: MULTIPLE REGRESSION ANALYSIS OF PERCEPTION TOWARDS DIGITALISATION (OVERALL)

		R=0.415	R square=0.172	F=30.93	Significance=0.00
Sl no	STATEMENTS	Standardised Co-efficient (Beta)	t	DW=1.647	
S1	Digital banking is meant for only technically sound people	0.039	1.394	0.164	
S2	Digitalisation enables to do transactions anywhere anytime	0.130	4.270	0.000*	
S3	Digitalisation minimizes the danger of holding hard cash	0.074	2.363	0.018*	

S4	Digitalisation is involved in various technological issues	0.137	5.005	0.000*
S5	Digitalisation is a secured mode of doing transactions	0.058	2.181	0.029*
S6	Customers should be kept away from their bank visits	0.028	1.039	0.299
S7	There is a sense of comfort in doing digital transactions	0.204	6.425	0.000*
S8	Digital transactions helps to avail discounts and offers	0.043	1.371	0.170

*S1 to S8 are Independent Variable, S9 is the Dependent Variable, Level of Significance at 5%, DW stands for Durbin Watson

Table 1.4: MULTIPLE REGRESSION ANALYSIS OF PERCEPTION TOWARDS DIGITALISATION (RURAL)

R=0.404		R square=0.156	F=21.21	Significance
Sl no	STATEMENTS	Standardised Co-efficient (Beta)	t	=0.00 DW=1.62
S1	Digital banking is meant for only technically sound people	0.013	0.416	0.678
S2	Digitalisation enables to do transactions anywhere anytime	0.110	2.881	0.004*
S3	Digitalisation minimizes the danger of holding hard cash	0.077	1.991	0.047*
S4	Digitalisation is involved in various technological issues	0.112	3.513	0.000*
S5	Digitalisation is a secured mode of doing transactions	0.050	1.565	0.118
S6	Customers should be kept away from their bank visits	0.028	0.891	0.373
S7	There is a sense of comfort in doing digital transactions	0.217	5.521	0.000*
S8	Digital transactions helps to avail discounts and offers	0.044	1.184	0.237

Table 1.5: MULTIPLE REGRESSION ANALYSIS OF PERCEPTION TOWARDS DIGITALISATION (URBAN)

R=0.470		R square=0.221	F=11.03	Significance
Sl no	STATEMENTS	Standardised Co-efficient (Beta)	t	=0.00 DW=1.76
S1	Digital banking is meant for only technically sound people	0.077	1.351	0.178
S2	Digitalisation enables to do transactions anywhere anytime	0.192	3.470	0.001*
S3	Digitalisation minimizes the danger of holding hard cash	0.063	1.034	0.302
S4	Digitalisation is involved in various technological issues	0.193	3.581	0.000*
S5	Digitalisation is a secured mode of doing transactions	0.103	1.981	0.049*
S6	Customers should be kept away from their bank visits	0.067	1.285	0.200
S7	There is a sense of comfort in doing digital transactions	0.180	3.248	0.001*
S8	Digital transactions helps to avail discounts and offers	0.033	0.554	0.580

*S1 to S8 are Independent Variable, S9 is the Dependent Variable, Level of Significance at 5%, DW stands for Durbin Watson

From Table 1.3, Table 1.4 and Table 1.5, study revealed that the perception of consumers towards the concept (related to Statement 1) that 'digital banking is meant for only technically sound people' on an overall basis (considering both rural and urban mass together), is not significant (with P value ≥ 0.164). And if the findings of the rural and urban population is considered separately, in the rural and the urban areas the people do not consider digital banking to be meant for technically sound people (with P value ≥ 0.678 in rural areas) and (with P value ≥ 0.178 in the urban areas) respectively. Hence it can be concluded that people do not perceive digital banking to be a technical subject hence there is every scope for making it popular among the masses.

The perception of consumers towards the concept (related to Statement 3) that 'digitalization reduces the risk of holding hard cash', on an overall basis (considering both rural and urban mass together), it has been found to be significant (with P value ≤ 0.018). But if the findings of the rural and urban population is considering separately, in the rural areas the perception is significant (with P value ≤ 0.047) but in the urban areas it is not significant (with P value ≥ 0.302). From the findings we can infer that rural people find it risky to hold cash and consequently they are risk averse. There is scope for providing services on financial planning in the rural areas. In the urban areas there are multiple sources of investments and several alternatives for using idle money.

The perception of consumers towards the concept (related to Statement 4) that cashless transaction have technology related issues, both the rural and the urban population agree upon the fact that 'digital transactions have technology related issues'. This is evident by considering both rural and urban mass together where the perception is significant (with P value ≤ 0.000). At the same time, if the findings of the rural and urban population is considered separately, both in the rural areas (with P value ≤ 0.000) as well as in the urban areas (with P value ≤ 0.000), people agree upon the fact that cashless transactions do have technology related issues.

The perception of consumers towards the concept (related to Statement 5) that 'digitalisation is a secured mode of doing transactions' on an overall basis considering both rural and urban areas (with P value ≤ 0.029) indicates the feeling that digitalization and cashless transactions is a more secured way of transacting. But, if the findings of the rural and urban population is considered separately, in the rural areas (with P value ≥ 0.118) indicates that rural people do not find transaction through digital mode as a secured way of doing transactions. But in the urban area (with P value ≤ 0.049), people agree upon the fact that digital cum cashless transactions is a more secured way of transacting.

The perception of consumers towards the concept (related to Statement 6) that 'customers should be kept away from their bank visits', is found to be insignificant among both the rural and the urban population. This is reflected if both rural and urban consumers are

considered together (with P value ≥ 0.299). Further lack of evidence is supported both in the rural (with P value ≥ 0.373) as well as the urban (with P value ≥ 0.200) areas taken separately. Hence there is an overwhelming lack of support on the move that 'customers should be kept away from bank visits by discouraging their branch visits so as to promote digital transactions.

The perception of consumers towards the concept (related to Statement 7) that 'there is a feeling of comfort in cashless transactions', among both the rural and the urban population is found to be significant (with P value ≤ 0.000) on an overall basis. At the same time, considering the findings of the rural and urban population separately, in the rural areas (with P value ≤ 0.000) and in the urban areas (with P value ≤ 0.001), indicates that the population as a whole have a feeling of comfort in conducting cashless transactions.

The perception of consumers towards the concept (related to Statement 8) that 'digital transactions helps to avail discounts and offers', in both the rural and the urban areas is insignificant (with P value ≥ 0.170) on an overall basis. At the same time, if the findings of the rural and urban population is considered separately, in the rural areas (with P value ≥ 0.237) people are not attracted upon the fact that digitalisation helps to avail various discounts and offers. Similar findings are found in the urban areas (with P value ≥ 0.580), hence it can be stated that both the rural and the urban population is not so concerned in the matter of availing discount and offers through digital transactions. For them availing discount is a temporary phenomenon.

VI. MANAGERIAL IMPLICATIONS

Based upon the perception (from the findings of the significant values) on an overall basis and taking the perception of the rural and urban population separately, several implications are implied. They are discussed below on an overall basis and for the rural and urban population separately.

PERCEPTION	RESULT		IMPLICATION
Meant for technically sound people	Overall	(-)	People have no reservation on digitalization as a technical subject. Hence there is no barrier for popularizing it. In the rural areas, hold workshops for capacity building using SHG's and Opinion Leaders as facilitators. In the urban areas, insist on the urban people to go for online mode rather than the off line mode as a norm.
	Rural	(-)	
	Urban	(-)	
Facilitates anywhere anytime transactions	Overall	(*)	Insist on the anywhere anytime feature as a USP to motivate for total conversion from offline to online mode. In the rural areas, hold Workshops for capacity building using SHG's and Opinion Leaders as facilitators. In the urban areas, make digitalisation the norm. Popularize it through adequate publicity
	Rural	(*)	
	Urban	(*)	
Minimizes the danger of holding hard cash	Overall	(*)	Popularize this perception of the users to reach the hitherto unreached areas through adequate publicity. In the rural areas, popularize this perception of the users to reach the hitherto unreached areas in rural areas. In the urban areas, implement policies to check frauds, educate on the do's and do not's of online transactions.
	Rural	(*)	
	Urban	(-)	
Involvement of technological issues	Overall	(*)	Resolve the technical issues, stress on building strong infrastructure and using advanced and up to date technology for solving technical issues. There is a need both in the rural and urban areas for fast implementation of policies for the expansion of facility related to 4G, 5G and Optical Fiber connectivity
	Rural	(*)	
	Urban	(*)	
A secured mode of doing transactions	Overall	(*)	Make it the long term norm of the culture by insisting on doing digital transactions and promoting less on physical mode on an overall basis. In the rural areas, educate the people on the benefit of digital transactions using SHG's and Opinion Leaders as facilitators
	Rural	(-)	
	Urban	(*)	
Discouragement from bank visits	Overall	(-)	Keep personal visit of customers to banks as optional. This is out of the fact that such visits increases the goodwill of the bank, establishes a strong customer base and a platform to socialize both in the rural and urban areas.
	Rural	(-)	
	Urban	(-)	
There is comfort in digital transactions	Overall	(*)	There is a need to make digital transactions a Pan India phenomenon by highlighting the benefits. In the rural areas, make efforts to cater to the unreached rural areas and make it popular with adequate publicity. In the urban areas, add values to the infrastructure as an incentive for the already existing online users.
	Rural	(*)	
	Urban	(*)	
Helps to avail discounts and Offers	Overall	(-)	Minimal discount offers cannot be used as a long term strategy for promoting digital transactions. In the rural areas, use quarterly and half yearly discounts schemes / offers as an incentive for using digital
	Rural	(-)	
	Urban	(-)	

PERCEPTION RESULT**IMPLICATION**

transactions. In the urban areas, use yearly / 2 years / 3 years discount schemes / offers as an incentive for digital transactions.

Note: (*) denotes significant and (-) denotes not significant

VII. CONCLUSION

From the study, it can be concluded that people do not perceive that digital mode of doing transactions to be meant only for technically sound people. They agree upon the fact that digital transactions facilitate anywhere and anytime banking. They also perceive that digital transactions provide a fair degree of comfort to the users. However people find that certain technical issues are involved in digital transactions and this acts as a barrier to the effective promotion of a digitalized economy. At the same time the study reveals that people do like to give personal visits to the bank for availing banking services but they cannot totally do away with the habit of doing offline transactions at the present moment. Lastly if discounts are to be offered to customers as an incentive for promoting digital transactions, there has to be a long term strategy so that people can feel and reap the benefit of substantial discounts and offers in using this mode of doing online transactions.

The researchers have also done a comparative study of the perceptual differences of the people residing in the Urban and Rural areas of Assam. The managerial implications of the same have also been provided earlier by the researchers to facilitate a futuristic plan towards the process of a digitalized economy.

VIII. SCOPE FOR FUTURE RESEARCH

The field survey for this study has been done during the pre COVID-19 period. However the pandemic has brought in a new wave towards digitalization not only in India but across the globe. Girancourt, Kuyoro, Ofosu-Amaah, Seshie and Twum (2020) opines that this pandemic has brought in considerable changes in consumer behaviour towards online and digital channels. There is a prediction that the demand for digital technology that facilitates cashless transaction and which has gained momentum during this period will continue to grow long after COVID-19. Belgavi and Gandhi (2020) in their article mentioned that India needs to gear up to aid the Post - COVID era through rapid evolution of the digital payments ecosystem. Therefore it is evident that the digital and cashless transaction scenario globally as well as in India has experienced a sea-change as the demand for contactless payments increases (www.fema.gov, 2020).

From the above insights it is felt that there could be significant differences in the perception on contactless transactions in the Post COVID-19 phase. A longitudinal study may provide valuable contribution to the existing body of knowledge with respect to perception towards cashless transactions.

REFERENCES

- [1] About-digital-india. (n.d.). Retrieved may 25, 2020, from digitalindia.gov.in: <https://digitalindia.gov.in/content/about-digital-india>
- [2] Ali, s. M., akhtar, m. W., & safiuddin, s. K. (2017). Digital payments for rural india - challenges and oppoutunities. *International journal of management and applied science*, 35-40.
- [3] Auer, r., cornelli, g., & frost, j. (2020, march 3). *Bisbull03.pdf*. Retrieved july 15, 2020, from www.bis.org: <https://www.bis.org/publ/bisbull03.pdf>
- [4] Bansal, s. (2017). Cashless economy: opportunities and challenges in india. *World wide journal of multidisciplinary research and development*, 10-12.
- [5] Belgavi, v., & gandhi, m. (2020, may). *Impact-of-the-covid-19-outbreak-on-digital-payments.html*. Retrieved july 20, 2020, from <https://www.pwc.in>: <https://www.pwc.in/consulting/financial-services/fintech/dp/impact-of-the-covid-19-outbreak-on-digital-payments.html>
- [6] [Cashlessindia.gov.in](http://cashlessindia.gov.in). (n.d.). *Digital_payment_methods*. Retrieved may 20, 2020, from [cashlessindia.gov.in](http://cashlessindia.gov.in/digital_payment_methods.html): http://cashlessindia.gov.in/digital_payment_methods.html
- [7] Chandramouli, c. (2011, july 2011). *Rural_urban_2011.pdf*. Retrieved july 20, 2020, from censusindia.gov.in: https://censusindia.gov.in/2011-prov-results/paper2/data_files/india/rural_urban_2011.pdf
- [8] Girancourt, f. J., kuyoro, m., ofosu-amaah, n. A., seshie, e., & twum, f. (2020, june). How the covid19 crisis may affect electronic payments in africa. Retrieved july 20, 2020, from <https://www.mckinsey.com>: <https://www.mckinsey.com/~/media/mckinsey/industries/financial%20services/our%20insights/how%20the%20covid%2019%20crisis%20may%20affect%20electronic%20payments%20in%20africa/how-the-covid-19-crisis-may-affect-electronic%20payments-in-africa.pdf>
- [9] Goel, r., sahai, s., vinai, a., & garg, v. (2019). Moving from cash to cashless economy: - a study of consumer perception towards digital transactions. *International journal of recent technology and engineering (ijrte)*, 1220-1226.
- [10] Goswami, k., & ahmed, s. (2021). Issues and challenges in moving towards a digital and cashless banking economy. Mumbai: indian institute of banking and finance. Retrieved from https://www.iibf.org.in/documents/research-report/20210107_karabi%20gosawami%20final.pdf
- [11] Indianera. (2020, may 10). *Cashless-economy-an-overview-from-global-to-indias-case*. Retrieved july 25, 2020, from www.indianera.com: <https://www.indianera.com/editors-pick/cashless-economy-an-overview-from-global-to-indias-case/>
- [12] Jose, t. (2016, august 2). *What-is-mean-by-cashless-transaction-economy*. Retrieved may 25, 2020, from www.indianeconomy.net: <https://www.indianeconomy.net/splclassroom/what-is-mean-by-cashless-transaction-economy/>

- [13] Mahapatra, s. (2018). Cashless financial transaction behaviour of urban middle class in bhubaneswar. *Parikalpana: kiit journal of management*, 91-104.
- [14] Maurya, p. (2019). Cashless economy and digitalization. *Proceedings of 10th international conference on digital strategies for organizational success* (pp. 710-715). https://papers.ssrn.com/sol3/papers.cfm?abstract_id=3309307.
- [15] Pal, m., & jain, p. (2018). An empirical study of transaction patterns of salaried class: cashless versus cash. *Iup journal of bank management*, 36-51.
- [16] Podile, v., & rajesh, p. (2017). Public perception on cashless transactions in india. *Asian journal of research in banking and finance*, 63-77.
- [17] Rajanna, k. (2018). Perception and awareness of customers towards cashless transactions; a case study. *International journal of application or innovation in engineering & management*, 33-38.
- [18] Reserve bank of india. (2019, august 29). *Annualreportpublications.aspx?id=1256*. Retrieved july 20, 2020, from www.rbi.org.in: <https://www.rbi.org.in/scripts/annualreportpublications.aspx?id=1256>
- [19] Saigal, k. (2020, april 3). *2020-04-03_euromoney_covid-19.pdf*. Retrieved july 15, 2020, from www.smartstream-stp.com: http://www.smartstream-stp.com/~media/files/www/newsevents/inthepress/2020/2020-04-03_euromoney_covid-19.pdf
- [20] Shamsi, s., & khan, a. (2018). Public convenience and management of indian cashless system. *Pranjana: the journal of management awareness*, 30-36.
- [21] Sharma, g., & kulshreshtha, k. (2019). Mobile wallet adoption in india: an analysis. *Iup journal of bank management*, 7-26.
- [22] Sinha, k., joshi, d., & sinha, g. K. (2017). Consumers' attitude and perception towards doing cashless transactions: an empirical study in vadodara. *Sies journal of management*, 18-28.
- [23] Tawade, p. H. (2017). Future and scope of cashless economy in india. *Ijariie-issn(o)-2395-4396*, 177-181.
- [24] www.fema.gov. (2020, june 18). *2020_06_18_covid_bp_monetarytransactions.pdf*. Retrieved july 20, 2020, from <https://www.fema.gov>: <https://www.fema.gov/media-library-data/1592500313727>
- [25] [cbe512ed763d693c595acf48708a9bd3/2020_06_18_covid_bp_monetarytransactions.pdf](https://www.fema.gov/media-library-data/1592500313727)

