

Awareness and Adapatability to Cashless Economy: A Case Study of Himachal Pradesh

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ABSTRACT

The Digital India Programme is a flagship programme of the Government of India with a vision to transform India into a digitally empowered society and knowledge economy. "Faceless, Paperless, Cashless" is one of professed role of Digital India. The Research paper focuses on awareness and adaptability of cashless policy in Himachal Pradesh. According to Government of India the cashless policy will increase employment, reduce cash related robbery thereby reducing risk of carrying cash. Cashless policy will also reduce cash related corruption and attract more foreign investors to the country. A major obstacle for the quick adoption of alternate mode of payment is mobile internet penetration, which is crucial because point of sale terminal works over mobile internet connection, while banks have been charging money on card-based transaction which is seen in hurdle. Taking a cue from PM Narendra Modi who has started the initiative to train his staff for mobile banking and cashless transactions, H.P governor Acharya Devvart too has asked his staff to adopt cashless transaction. Himachal Pradesh Raj Bhawan has become the first institute in state to adopt cashless transaction, when efforts are still being made to introduce cashless transaction in all govt. and private universities. The Research paper focuses on awareness and adaptability of cashless policy in Himachal Pradesh and helps to analyze the extent of comfort and satisfaction of people regarding cashless options, schemes and initiatives.

1. Introduction

Cashless economy or cashless means all the transactions carried out between two individuals will occur by payment through payment gateways or through the plastic money. It is done with the primary aim of uncovering the non-registered transactions. Prime Minister, Mr. Narendra Modi launched the Programmed "Digital India" with a vision to transform India into a digitally empowered nation and creating a cashless, paperless economy. As per the current status of India, only 7% to 8% of all the payments are taking place electronically. On Nov 8, 2016, a historical date, Prime Minister, Mr. Narendra Modi talked about making India a cashless economy and on Nov 27 during an election rally in Uttar Pradesh, he again motivated the people of India to become familiar with cashless transactions.

The demonetization was implemented with the aim of eliminating societal corruption and counterfeit Currency. But the move was sudden, happening overnight. The two notes accounted for 86% of the bank notes in circulation in India, and retailers and consumers were forced to look immediately for options. Many turned to digital paying systems. However, just over a month into the demonetization and the country had already started to see the benefits of digital transactions. Government figures show a 268% increase in year-on-year tax collection from 47 Indian cities.

For creating awareness of cashless transactions Ministry of Electronics and IT (MeitY) has launched a new scheme entitled "Digital Finance for Rural India: Creating Awareness and Access through Common Service Centers (CSCs)" under Digital Saksharta Abhiyan (DISHA) with objectives to enable the CSCs to become Digital Financial Hubs, by hosting awareness sessions on government policies and digital finance options available for rural citizens as well as enabling various mechanism of digital financial services such as IMPS, UPI, Bank PoS machines etc. with an outlay of ` 65.625 core. The other awareness programme by Ministry of Human Resource Development is Vitiya Saksharta Abhiyan. The purpose of the 'Vittiya Saksharta Abhiyan' is to actively engage the youth/ students of Higher Education Institutions to encourage and motivate all payers and payees to use a digitally enabled cashless economic system for transfer of funds. Himachal Pradesh 149th State level Bankers Committee Meeting was held on 17.09.2018 at Hotel Holiday Home. In this meeting review of progress under Financial Inclusion Campaign, Progress under Annual Credit Plan 2018-2019, Review of Banking Statistical Data and Position of National Key Business Parameters as of 30th June, 2018 etc. were discussed. As per minutes of this meeting a Progress under PMJDY in Himachal Pradesh as of 30th June, 2018 were discussed, which is shown in table:

Table 1
Progress under PMJDY in Himachal Pradesh as of 30th June, 2018.

Banks (sector-wise)	Rural	Urban	Total	No. of Rupay Cards	Adhar seeding	Overdraft
Public Sector Banks	6.46	1.02	7.48	6.08(84%)	6.74(90%)	412.68
Regional Rural Banks	1.94	0.09	2.03	1.86(91%)	1.86(91%)	7.59
Private Banks	0.10	0.07	0.17	0.14(83%)	0.14(83%)	0.00
Co-operative Banks	.80	0.04	0.84	0.71(85%)	0.71(85%)	0.00

Total	9.31	1.21	10.52	9.45(90%)	9.45(90%)	420.27
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Figures in lakhs

Source: Minutes of 149th SLBC meeting.

2. Review of literature

Banerjee (2018) in her research paper, "Impact Importance and Requirement of Cashless Transactions in India" focuses on impact and importance of cashless policy in India. The study concluded that the benefits of this move have now started trickling in with more and more people switching to digital modes of receiving and making payment. India is gradually transitioning from a cash-centric to cashless economy. The study also found that the whole country is undergoing the process of modernization in money transactions, with e-payment services gaining unprecedented momentum. Kousalya and Shankar (2018) in their research paper, "Cashless Economy/Transaction" studied the current position of cashless economy in India. The study aimed to suggest the future prospects of cashless in India and to understand advantages and disadvantages of cashless economy in India. The study showed a major obstacle for thick adoption of alternate mode of payment is mobile internet penetration, which is crucial because point of sale terminal works over mobile internet connection, while banks have been charging money on card-based transaction which is seen in hurdle. The study concluded that benefits of this move have now started trickling in with more and more people switching to digital modes of receiving and making payment. Ranjana (2018)³ in her study, "Perception and awareness of customers towards Cashless Transaction: A Case Study" reveals biggest problem with working of cash less transaction in India is cyber crime and illegal access. The study found that customers actually agree with the government on the usefulness of cashless economy as it helps to fight against terrorism, corruption etc. The results of the study showed that awareness, digital literacy, proper infrastructure and rate of participation of the customers in cashless transaction have strong significant relation with cash less transaction. Al-Dalaein (2017) in his article, "Cashless Economy in India: Challenges Ahead" highlights the conceptual background of cashless economy in India and examines the benefits of cashless economy to the general public. The aim of the study was to elucidate the concept of cashless economy, highlights the challenges before cashless economy in India and to examine the benefits of cashless economy to the general public. It was concluded from the study that cashless economy is an economic system in which there is little or very low cash flow in a society and goods and services are bought and paid through electronic media. There are many benefits of cashless economy and also several challenges before cashless policy in India such as inadequate number of ATMs, digital illiteracy, lack of internet facilities, few banks in villages, costly swipe machines etc. Chaudhari (2017) in his study, "The Critical Analysis of Cashless Transaction" examines the real reasons for slow growth of cash less transaction popularly known as digital economy and what step can be done in order to improve cash less transaction number. The objective was to study the factors which are important for cash less system. The study also suggests the ways for improvement cashless system. The study concluded that cash less transaction are not possible without internet, hence government must investigate in

infrastructure availing internet and the vast advertisement campaign must be launched which will not only promote cash less transaction but also will provide valuable help in using it. Kumari and Khanna (2017) in their research paper, "Cashless Payment: A Behaviourial change to Economic Growth" revealed various objectives of being cashless and hurdles coming in the way of making economy cashless. The paper discovered that adoption of the cashless economic policy can enhance the growth of financial stability in the country and essential elements needed for the adoption and implementation of the cashless economy is not yet available in adequate quantity.

3. Statement of problem

On the basis of extensive review of past studies it has been observed that till date no specific study has been conducted in Himachal Pradesh in relation to awareness and adaptability to Cashless Economy. Therefore, the study titled as "**Awareness and Adaptability to Cashless Economy: A Case study of Himachal Pradesh**" has been undertaken in this research paper.

4. Research methodology

The methodological frame of present study is elaborated as under:

Objectives of the Study

1. To study the awareness level of respondents regarding cashless options, schemes and initiatives.
2. To analyze the extent of comfort and satisfaction of respondent regarding cashless options, schemes and initiatives.
3. To conclude and suggest thereof for making cashless initiatives more user friendly.

Hypothesis of the Study

1. Ho: Demographic profile of the customers and awareness regarding cashless options, schemes and initiatives are independent.
2. Ho: Cashless options, schemes and initiatives have been perceived in a similar manner by all respondents irrespective of their demographic and socio-economic profiles.
3. Ho: Respondents are satisfied in the same extent regarding various cashless options, schemes and initiatives.

Research Design

Descriptive research design was adopted in the study as an attempt is made to examine the comfort and satisfaction of people with cashless transactions through survey method by using structured questionnaire.

Sampling Design

In the present study, Himachal Pradesh has been purposively selected; further quota sampling and judgemental sampling are used for the purpose of selecting respondents as

representatives of the sample of the study. All districts of Himachal Pradesh are considered for the present study. Further, the number of the respondents is taken as criterion to decide the quota of the people within the district for the purpose of designing sample. Within the quota, the selection of sample unit has been decided by using judgement sampling.

For the purpose of this study, a questionnaire was developed on the basis of three point Likert scale. Pilot study was also conducted to check the reliability of questionnaire. A total sample size of 120 respondents is selected for the purpose of the study which comprises of 10 respondents from all 12 districts of state. For the purpose of data collection Random Sampling Techniques was used.

Scope of the Study

Digital India is one of the most ambitious projects of the govt. of India. The cashless India initiative was started with a view to empower the people of the country digitally as the study is to know about awareness and adaptability of cashless economy. Scope of the study represents the area within which

the research work is confined. Today everyone is using cashless options as mobile wallets, plastic cards etc. Thus the study is conducted on the people of Himachal Pradesh state which are selected from different 12 districts. In this research work, an attempt has been made to study the awareness and adaptability of respondents in respect of different cashless options, schemes and initiatives.

Time Period of Study

The present study covers the period of one financial year 2017-2018.

5. Analysis and interpretation

The analysis and interpretation of collected data has been done with the help of different mathematical tools and statistical tools comprising simple percentage method, arithmetic mean, standard deviation, skewness and chi-square test.

Table 2
Evaluation of cashless initiatives on the basis of awareness

Cashless Initiatives	Awareness of various cashless initiatives								
	Aware	Slightly Aware	Not aware	Total	Mean	S.D	Skewness	Chi-sq	P-Value
PMJDY	49 (40.8)	48 (40.0)	23 (19.2)	120 (100)	2.2167	.7468	-.377	10.850	0.000
RuPay app	35 (29.2)	57 (47.5)	28 (23.3)	120 (100)	2.0583	.72525	-.089	11.450	0.000
BHIM	34 (28.3)	51 (42.5)	35 (29.2)	120 (100)	1.9917	.76142	.014	4.550	0.103
Adhar payment app	28 (23.3)	50 (41.7)	42 (35.0)	120 (100)	1.8833	.75796	.199	6.200	0.004
Lucky grahakyojna	26 (21.7)	52 (43.3)	42 (35.0)	120 (100)	1.8667	.74398	.221	8.600	0.014
Digidhanyojna	16 (13.3)	55 (45.8)	49 (40.8)	120 (100)	1.7250	.68553	.415	22.050	0.000
Vitiyasaksha -rtaabhiyan	22 (18.3)	51 (42.5)	47 (39.2)	120 (100)	1.7917	.73216	.347	12.350	0.000
E-wallet	33 (27.5)	50 (41.7)	37 (30.8)	120 (100)	1.9667	.76623	.057	3.950	0.139
Rupaykisan cards	16 (13.3)	59 (49.2)	45 (37.5)	120 (100)	1.7583	.67358	.331	24.050	0.000

Note: Figures in parentheses depicts percentage.
Source: Data collected through questionnaires.

The evaluation of cashless initiatives on the basis of their familiarity to respondents is shown in table 2. The evaluation is done with three rating point scale, statistical and mathematical tools. Mathematical tools include simple percentage method and statistical tools include mean, standard deviation skewness and standard deviation. The calculated values of these are interpreted as under:

PMJDY (Pradhan Mantri Jan DhanYojna)

PMJDY is financial inclusion program of government of India that aims to expand and make affordable access to financial services such as bank accounts, remittances, credit, insurance and pension. The responses of the respondents about the familiarity of PMJDY are shown in table 2. It depicts that the mean score (2.21) is more than average mean score which indicates that majority of the respondents are familiar with Pradhan Mantri Jan DhanYojna. The calculated standard

deviation shows variation from the mean amounts to .746. The negative value of skewness (-.377) indicates that the greater concentration of opinion of respondents is towards the higher side of mean on three point rating scale which supports the finding that majority of the respondents are familiar with Pradhan Mantri Jan DhanYojna. On applying chi-square test, the calculated value of chi-square (10.85) has been found significant at 1% level of significance which shows that there is significant difference between in the distribution of opinions of respondents regarding familiarity of PMJDY.

RuPay App

RuPay is an Indian domestic card scheme conceived and launched by the National Payments Corporation of India on 26 March 2012. It was created to fulfill the RBI desire to have a domestic, open loop, and multilateral system of payments in India. The responses of the respondents on the awareness of

RuPay app are analyzed and shown in table 2. The mean score (2.05) is more than average mean score which indicates that majority of the respondents are familiar with RuPay app. The calculated standard deviation shows variation from the mean amounts to .725. The negative value of skewness (-.089) indicates that the greater concentration of opinion of respondents is towards the higher side of mean on three point rating scale which supports the finding that majority of the respondents are familiar with RuPay app. On applying chi-square test, the calculated value of chi-square (11.45) has been found insignificant at 1% level of significance which shows that there is insignificant difference between in the distribution of opinions of respondents regarding familiarity of RuPay App.

BHIM

Bharat Interface for Money is a mobile app developed by National Payments Corporation of India (NPCI), based on the Unified Payment Interface (UPI). It was named after B.R Ambedkar and is intended to facilitate e-payments. The recorded responses of the respondents are analyzed and shown in table 2. The results from the table depicts that the mean score (1.99) is less than average mean score which indicates that majority of the respondents are not familiar with BHIM app. The calculated standard deviation shows variation from the mean amounts to .761. The positive value of skewness (.014) indicates that the greater concentration of opinion of respondents is towards the lower side of mean on three point rating scale which supports the finding that majority of the respondents are not familiar with BHIM. On applying chi-square test, the calculated value of chi-square (4.55) has been found insignificant at 1% level of significance which shows that there is insignificant difference between in the distribution of opinions of respondents regarding familiarity of BHIM.

Adhar Payment App

Modi government has launched a new Android app for merchants to accept payments using their biometric data or the registered data under UIDAI's Adhar number that is Adhar Payment App. The recorded responses of beneficiaries about the familiarity about Adhar Payment app are analysed and shown in table 2. The results from the table states that the mean score (1.88) is less than average mean score which indicates that majority of the beneficiaries are not familiar with Adhar Payment App. The calculated standard deviation shows variation from the mean amounts to .757. The positive value of skewness (.199) indicates that the greater concentration of opinion of beneficiaries is towards the lower side of mean on three point rating scale which supports the finding that majority of the beneficiaries are not familiar with adhar payment app. On applying chi-square test, the calculated value of chi-square (6.20) has been found significant at 1% level of significance which shows that there is significant difference between in the distribution of opinions of respondents regarding familiarity of Adhar Payment App.

Lucky GrahakYojna

The Lucky GrahakYojna offered cash awards to consumers and merchants who utilized digital payments instruments for personal consumption expenditures. This scheme specially focused on bringing the poor, lower middle

class and small businesses into the digital payment fold. Responses of beneficiaries about awareness of this initiative is analyzed and shown in table 2. The results from the table shows that the mean score (1.86) is less than average mean score which indicates that majority of the respondents are not familiar with Lucky GrahakYojna. The calculated standard deviation shows variation from the mean amounts to .757. The positive value of skewness (.199) indicates that the greater concentration of opinion of respondents is towards the lower side of mean on three point rating scale which supports the finding that majority of the beneficiaries are not familiar with Lucky GrahakYojna. On applying chi-square test, the calculated value of chi-square (8.60) has been found insignificant at 1% level of significance which shows that there is insignificant difference between in the distribution of opinions of respondents regarding familiarity of Lucky GrahakYojna.

Digi-DhanVyaparYojna

The government of India seeks to promote digital payment methods to encourage consumers and merchants. DigiDhanVyaparYojna offered cash awards to consumers and merchants who utilized digital payments instruments for personal consumption expenditures. The recorded responses of respondents about the familiarity of DigiDhanVyaparYojna are analysed and shown in table 2. The results from the table 4.2 depicts that the mean score (1.72) is less than average mean score which indicates that majority of the respondents are not familiar with DigiDhanVyaparYojna. The calculated standard deviation shows variation from the mean amounts to .685. The positive value of skewness (.415) indicates that the greater concentration of opinion of beneficiaries is towards the lower side of mean on three point rating scale which supports the finding that majority of the beneficiaries are not familiar with Digi-DhanVyaparYojna. On applying chi-square test, the calculated value of chi-square (22.00) has been found significant at 1% level of significance which shows that there is significant difference between in the distribution of opinions of respondents regarding familiarity of Digi-DhanVyaparYojna.

VitiyaSakshartaAbhiyan

VitiyaSakahartaAbhiyan is to actively engage the youth/students of higher education Institutions to encourage and motivate all payers and payees to use a digitally enabled cashless economic system for transfer of funds. The recorded responses of respondents on the familiarity of VitiyaSakshartaAbhiyan are analysed and shown in table 2. The results depicts that the mean score (1.79) is less than average mean score which indicates that majority of the respondents are not familiar with VitiyaSakshartaAbhiyan. The calculated standard deviation shows variation from the mean amounts to .732. The positive value of skewness (.347) indicates that the greater concentration of opinion of beneficiaries is towards the lower side of mean on three point rating scale which supports the finding that majority of the beneficiaries are not familiar with VitiyaSakshartaAbhiyan. On applying chi-square test, the calculated value of chi-square (12.35) has been found significant at 1% level of significance which shows that there is significant difference between in the distribution of opinions of respondents regarding familiarity VitiyaSakshartaAbhiyan.

E-Wallet

The digital wallet refers to an electronic device or online service that allows an individual to make electronic transaction. This can include purchasing items on-line with a computer or using a smart phone to purchase something at a store. The responses of the respondents on the familiarity of e-wallet are shown in table 2. It depicts that the mean score (1.96) is less than average mean score which indicates that majority of the respondents are not familiar with E-wallet. The calculated standard deviation shows variation from the mean amounts to .766. The positive value of skewness (.331) indicates that the greater concentration of opinion of respondents is towards the lower side of mean on three point rating scale which supports the finding that majority of the beneficiaries are not familiar with E-wallet. On applying chi-square test, the calculated value of chi-square (3.95) has been found insignificant at 1% level of significance which shows that there is insignificant difference between in the distribution of opinions of respondents regarding familiarity of e-wallet.

Rupaykisan Cards

RupayKisan Cards are issued to accounts of farmers. It can be used only in ATM. It will be enabled at POS, maximum limit of cash withdrawn is Rs.15000 per day in ATM, and Rs. 25000 in POS. Responses of beneficiaries about awareness of this initiative is analyzed and shown in table 2 which states that the mean score (1.75) is less than average mean score which indicates that majority of the beneficiaries are not familiar with RupayKisan Cards. The calculated standard deviation shows variation from the mean amounts to .757. The positive value of skewness (.331) indicates that the greater concentration of opinion of beneficiaries is towards the lower side of mean on three point rating scale which supports the finding that majority of the beneficiaries are not familiar with RupayKisan Cards. On applying chi-square test, the calculated value of chi-square (24.00) has been found significant at 1% level of significance which shows that there is significant difference between in the distribution of opinions of beneficiaries regarding familiarity of RupayKisan Cards.

Table 3
Evaluation of usage of cashless options

Options	Usage frequency of cashless options								
	Commonly	Rarely	Not at all	Total	Mean	S.D	Sk.	Chi-sq	P value
Mobile wallets	65 (54.2)	32 (26.7)	23 (19.2)	120 (100)	2.3500	0.7848	-0.709	24.450	.000
NEFT	37 (30.0)	55 (45.8)	28 (23.3)	120 (100)	2.0672	0.7333	-0.106	9.6970	.008
RTGS	27 (22.5)	64 (53.3)	29 (24.2)	120 (100)	1.9833	0.6857	0.021	21.650	.000
UPI	24 (20.0)	54 (45)	42 (35)	120 (100)	1.8500	0.7293	0.240	11.400	.003
BHIM	20 (16.7)	53 (44.2)	47 (39.2)	120 (100)	1.7750	0.7155	0.361	15.450	.000
Net banking	45 (37.5)	41 (34.2)	34 (28.3)	120 (100)	2.0917	0.8095	-0.170	1.5500	.461
USSD	27 (22.5)	49 (40.8)	44 (36.7)	120 (100)	1.8583	0.7592	0.244	6.6500	.036
Plastic money	46 (38.3)	52 (43.3)	22 (18.3)	120 (100)	2.2000	0.7287	-0.329	12.600	0.002

Note: Figures in parentheses depicts percentage.

Source: Data collected through questionnaires.

The evaluation of cashless options on the basis of usage by the beneficiaries is shown in table 3. The evaluation is done with three rating point scale, statistical and mathematical tools. Mathematical tools include simple percentage method and statistical tools include mean, standard deviation skewness and standard deviation. The calculated values of these are interpreted as under:

Mobile wallets

A mobile wallet is a way to carry your credit and debit card information in a secure digital form on mobile device. Instead of using your physical plastic card to make purchases, mobile wallet allows you to pay with your smart phone, tablet or smart watch in stores, in apps, or on the web. The responses of the respondents on the usage of mobile wallets are analyzed and shown in table 3. The results from the table depicts that the mean score (2.35) is more than average mean score which indicates that majority of the beneficiaries are using mobile wallets commonly. The calculated standard deviation shows variation from the mean amounts to .784. The negative value

of skewness (-0.709) indicates that the greater concentration of opinion of beneficiaries is towards the higher side of mean on three point rating scale which supports the finding that majority of the beneficiaries are using mobile wallets commonly. On applying chi-square test, the calculated value of chi-square (24.45) has been found significant at 1% level of significance which shows that there is significant difference between in the distribution of opinions of beneficiaries regarding usage of mobile wallets.

NEFT

National Electronic Funds Transfer is a nation-wide payment system. Under this individuals can electronically transfer funds from any bank branch to any individual having an account with any other bank branch in the country. The responses of the beneficiaries on the usage of NEFT are analyzed and shown in table 3. The results clears that the mean score (2.06) is more than average mean score which indicates that majority of the respondents are familiar with NEFT. The calculated standard deviation shows variation from

the mean amounts to .7330. The negative value of skewness (-0.106) indicates that the greater concentration of opinion of beneficiaries is towards the higher side of mean on three point rating scale which supports the finding that majority of the beneficiaries are using NEFT. On applying chi-square test, the calculated value of chi-square (9.69) has been found insignificant at 1% level of significance which shows that there is insignificant difference between in the distribution of opinions of respondents regarding familiarity NEFT.

RTGS

Real Time Gross Settlement is one of the fastest interbank money transfer facility available through banking channels in India. The responses of the beneficiaries on usage of RTGS are analysed and shown in table 3 which depicts that the mean score (1.98) is less than average mean score which indicates that majority of the respondents are not using RTGS. The calculated standard deviation shows variation from the mean amounts to .685. The positive value of skewness (.021) indicates that the greater concentration of opinion of beneficiaries is towards the lower side of mean on three point rating scale which supports the finding that majority of the beneficiaries are not using RTGS. On applying chi-square test, the calculated value of chi-square (21.65) has been found significant at 1% level of significance which shows that there is significant difference between in the distribution of opinions of beneficiaries regarding usage of RTGS.

UPI

Unified Payments Interface is a system that powers multiple bank accounts into a single mobile application, merging several banking features, seamless fund routing and merchant payments into one hood. The recorded responses of respondents about the usage of UPI are analysed and shown in table 3. The results from the table stated that the mean score (1.85) is less than average mean score which indicates that majority of the beneficiaries are not using UPI. The calculated standard deviation shows variation from the mean amounts to .729. The positive value of skewness (.240) indicates that the greater concentration of opinion of beneficiaries is towards the lower side of mean on three point rating scale which supports the finding that majority of the beneficiaries are not using UPI. On applying chi-square test, the calculated value of chi-square (11.40) has been found significant at 1% level of significance which shows that there is significant difference between in the distribution of opinions of beneficiaries regarding usage of UPI.

BHIM

Bharat Interface for Money is a mobile app developed by National Payments Corporation of India (NPCI), based on the Unified Payment Interface (UPI). It was named after B.R Ambedkar and is intended to facilitate e-payments. The recorded responses of the respondents on usage of BHIM are analyzed and shown in table 3 which depicts that the mean score (1.98) is less than average mean score which indicates that majority of the beneficiaries are using BHIM. The calculated standard deviation shows variation from the mean amounts to .685. The positive value of skewness (.021) indicates that the greater concentration of opinion of beneficiaries is towards the lower side of mean on three point

rating scale which supports the finding that majority of the beneficiaries are not using BHIM. On applying chi-square test, the calculated value of chi-square (15.45) has been found significant at 1% level of significance which shows that there is significant difference between in the distribution of opinions of respondents regarding usage of BHIM.

Net Banking

Net banking is an electronic payment system that enables customers of a bank or other financial institution to conduct a range of financial transaction through the financial institution's website. The recorded responses of beneficiaries about usage of net banking are analyzed and shown in table 3. The results from the table clears that the mean score (2.09) is more than average mean score which indicates that majority of the beneficiaries are using net banking commonly. The calculated standard deviation shows variation from the mean amounts to .809. The negative value of skewness (-0.17) indicates that the greater concentration of opinion of beneficiaries is towards the higher side of mean on three point rating scale which supports the finding that majority of the beneficiaries are using net banking. On applying chi-square test, the calculated value of chi-square (1.55) has been found insignificant at 1% level of significance which shows that there is insignificant difference between in the distribution of opinions of beneficiaries regarding usage of net banking.

USSD

Unstructured Supplementary Service Data sometimes referred to as "Quick Codes" or "Features codes", is a communication protocol used by GSM cellular telephones to communicate with the mobile network operators computers. It can be used for WAP browsing, prepaid callback services, menu based information services and as part of configuring the phone on the network. The responses of the respondents on usage of USSD are analysed and shown in table 3 which depicts that the mean score (1.85) is less than average mean score which indicates that majority of the beneficiaries are not using USSD. The calculated standard deviation shows variation from the mean amounts to .759. The positive value of skewness (.244) indicates that the greater concentration of opinion of beneficiaries is towards the lower side of mean on three point rating scale which supports the finding that majority of the beneficiaries are not using USSD. On applying chi-square test, the calculated value of chi-square (6.65) has been found insignificant at 1% level of significance which shows that there is insignificant difference between in the distribution of opinions of respondents regarding usage of USSD.

Plastic Money

Plastic money is a term that is used predominantly in reference to the hard plastic cards we use every day in place of actual bank notes. They can come in many different forms such as cash cards, credit cards, debit cards, pre-paid cash cards and store cards. The recorded responses of beneficiaries about usage of plastic money are analyzed and shown in table 3. The results from the table clears that the mean score (2.20) is more than average mean score which indicates that majority of the beneficiaries are using plastic cards commonly. The calculated standard deviation shows variation from the mean amounts to .728. The negative value

of skewness (-0.329) indicates that the greater concentration of opinion of beneficiaries is towards the higher side of mean on three point rating scale which supports the finding that majority of the beneficiaries are using plastic cards. On applying chi-

square test, the calculated value of chi-square (12.60) has been found significant at 1% level of significance which shows that there is significant difference between in the distribution of opinions of respondents regarding usage of plastic cards.

Table 4
Evaluation of the sources of information regarding cashless initiatives/schemes

Sources	Evaluation of sources of information								
	Helpful	Less helpful	Not helpful	Total	Mean	S.D	Sk.	Chi-sq	P value
Newspapers/ Magazines	62 (51.7)	52 (43.3)	6 (5)	120 (100)	2.4667	.59314	-0.606	44.600	0.000
Pamphlets/ Brochers	36 (30)	65 (54.2)	19 (15.8)	120 (100)	2.141	.66479	-0.166	27.050	0.000
TVs/ Radio/ Ads	58 (48.3)	53 (44.2)	9 (7.5)	120 (100)	2.4083	.62840	-0.576	36.350	0.000
Friends/ relatives	34 (28.3)	68 (56.7)	18 (15.0)	120 (100)	2.133	.64734	-0.133	32.600	0.000
Internet/ social media	58 (48.3)	41 (34.2)	21 (17.5)	120 (100)	2.341	.75366	-0.580	17.150	0.000

Note: Figures in parentheses depicts percentage.

Source: Data collected through questionnaires.

The evaluation of the sources of information regarding cashless initiatives and sources is shown in table 4. The evaluation is done with three rating point scale, statistical and mathematical tools. Mathematical tools include simple percentage method and statistical tools include mean, standard deviation skewness and standard deviation. The calculated values of these are interpreted as under:

Newspapers/Magazine

Newspapers and magazines are primary sources of information. These are print publications issued at regular intervals. The response of respondents that either newspapers/magazines aware them about various cashless initiatives/schemes are analysed in table 4. The results from the table clears that the mean score (2.46) is more than average mean score which indicates that newspapers/magazines are helpful source of information for majority of respondents. The calculated standard deviation shows variation from the mean amounts to .5931. The negative value of skewness (-0.60) indicates that the greater concentration of opinion of respondents is towards the higher side of mean on three point rating scale which supports the finding that newspapers/magazines are helpful in getting information of cashless initiatives/schemes. On applying chi-square test, the calculated value of chi-square (44.60) has been found significant at 1% level of significance which shows that there is significant difference between in the distribution of opinions of respondents regarding helpfulness of newspaper/magazines to be aware of various cashless initiatives.

Pamphlets/Handouts/Booklets/Brochers

Pamphlets/Handouts/Booklets/Brochers are sources of information, containing summarized or introductory information or advertising. The response of beneficiaries that either Pamphlets/Handouts/Booklets/Brochers aware them about various cashless initiatives/schemes are analysed in table 4. The results from the table clears that the mean score (2.14) is more than average mean score which indicates that Pamphlets/Handouts/Booklets/Brochers are helpful source of

information for majority of beneficiaries. The calculated standard deviation shows variation from the mean amounts to .664. The negative value of skewness (-0.166) indicates that the greater concentration of opinion of beneficiaries is towards the higher side of mean on three point rating scale which supports the finding that Pamphlets/Handouts/Booklets/Brochers are helpful in getting information of cashless initiatives/schemes. On applying chi-square test, the calculated value of chi-square (27.05) has been found significant at 1% level of significance which shows that there is significant difference between in the distribution of opinions of beneficiaries regarding helpfulness of pamphlets/handouts/booklets/brochers to be aware of various cashless initiatives.

TV's/Radio/Ads

TV's/Radio/Ads help in distribution of audio or video content to a dispersed audience via electronic mass communication. The response of beneficiaries that TV's/Radio/Ads aware them about various cashless initiatives/schemes are analysed in table 4. The results from the table clears that the mean score (2.40) is more than average mean score which indicates that TV's/Radio/Ads are helpful source of information for majority of beneficiaries. The calculated standard deviation shows variation from the mean amounts to .628. The negative value of skewness (-0.576) indicates that the greater concentration of opinion of beneficiaries is towards the higher side of mean on three point rating scale which supports the finding that TV's/Radio/Ads are helpful in getting information of cashless initiatives/schemes. On applying chi-square test, the calculated value of chi-square (36.35) has been found significant at 1% level of significance which shows that there is significant difference between in the distribution of opinions of beneficiaries regarding helpfulness of TV's/Radio/Ads to be aware of various cashless initiatives.

Friends/Neighbours/Relatives

Friends/Neighbours/Relatives are also a source of information. The response of responses that Friends/Neighbours/Relatives aware them about various

cashless initiatives/schemes are analysed in table 4. The results from the table clears that the mean score (2.13) is more than average mean score which indicates that Friends/Neighbours/Relatives are helpful source of information for majority of respondents. The calculated standard deviation shows variation from the mean amounts to .647. The negative value of skewness (-0.133) indicates that the greater concentration of opinion of respondents is towards the higher side of mean on three point rating scale which supports the finding that Friends/Neighbours/Relatives are helpful in getting information of cashless initiatives/schemes. On applying chi-square test, the calculated value of chi-square (32.60) has been found significant at 1% level of significance which shows that there is significant difference between in the distribution of opinions of respondents regarding helpfulness of Friends/Neighbours/Relatives to be aware of various cashless initiatives.

Internet

The internet is by far the most popular source of information and the preferred choice for news ahead of television, newspaper and radio. The response of beneficiaries that either internet aware them about various cashless initiatives/schemes are analysed in table 4. The results from the table clears that the mean score (2.34) is more than average mean score which indicates that internet is helpful source of information for majority of beneficiaries. The calculated standard deviation shows variation from the mean amounts to .753. The negative value of skewness (-0.580) indicates that the greater concentration of opinion of beneficiaries is towards the higher side of mean on three point rating scale which supports the finding that internet is helpful in getting information of cashless initiatives/schemes. On applying chi-square test, the calculated value of chi-square (17.15) has been found significant at 1% level of significance which shows that there is significant difference between in the distribution of opinions of beneficiaries regarding helpfulness of internet to be aware of various cashless initiatives.

Table 5
Evaluation of economic problems that cashless options helped to overcome

Problems	Evaluation of economic problems cashless options helped to overcome								
	Strongly agree	Agree	Disagree	Total	Mean	S.D	Skewness	Chi-sq	P value
Black money	51 (44.2)	49 (40.8)	20 (16.7)	120 (100)	2.2583	.72756	-0.441	15.050	0.001
Corruption	38 (31.7)	46 (38.3)	36 (30.0)	120 (100)	2.0167	.78840	-0.030	1.400	0.497
Terrorism	35 (29.2)	46 (38.3)	39 (34.2)	120 (100)	1.9667	.78786	0.059	1.550	0.461

Note: Figures in parentheses depicts percentage.

Source: Data collected through questionnaires.

The evaluation of economic problems that cashless options helped to overcome is shown in table 5. The evaluation is done with three rating point scale, statistical and mathematical tools. Mathematical tools include simple percentage method and statistical tools include mean, standard deviation skewness and standard deviation. The calculated values of these are interpreted as under:

Black money

Black money is money earned through any illegal activity controlled by country regulations. Black money proceeds are usually received in cash from underground economic activity and, as such, are not taxed. The respondents responses on whether cashless options, schemes and initiatives helped to overcome black money or not are shown in table 5. The results from the table depicts that the mean score (2.25) is more than average mean score which indicates that respondents are strongly agreed that cashless initiatives helped to overcome the problem of black money. The calculated standard deviation shows variation from the mean amounts to .727. The negative value of skewness (-0.441) indicates that the greater concentration of opinion of respondents is towards the higher side of mean on three point rating scale which supports the finding that beneficiaries agreed that cashless initiatives helped to overcome black money. On applying chi-square test, the calculated value of chi-square (15.05) has been found significant at 1% level of significance which shows that there is significant difference between in the distribution of opinions of

beneficiaries regarding cashless initiatives helped to overcome the economic problem of black money.

Corruption

Corruption is a form of dishonesty or criminal activity undertaken by a person or organization entrusted with a position of authority, often to acquire illicit benefit. Corruption may include many activities including bribery and embezzlement etc. The respondents responses on whether cashless options, schemes and initiatives helped to overcome corruption or not are shown in table 5. The results from the table clears that the mean score (2.01) is more than average mean score which indicates that respondents are strongly agreed that cashless initiatives helped to overcome the problem of corruption. The calculated standard deviation shows variation from the mean amounts to .788. The negative value of skewness (-0.030) indicates that the greater concentration of opinion of respondents is towards the higher side of mean on three point rating scale which supports the finding that respondents are strongly agreed that cashless initiatives helped to overcome corruption. On applying chi-square test, the calculated value of chi-square (1.400) has been found insignificant at 1% level of significance which shows that there is insignificant difference between in the distribution of opinions of respondents regarding cashless initiatives helped to overcome the problem of corruption.

Terrorism

Terrorism is in broadest sense, the use of intentionally indiscriminate violence as a means to create terror among masses of people; or fear to achieve a financial, political, religious or ideological aim. The respondents responses on whether cashless options, schemes and initiatives helped to overcome terrorism or not are shown in table 5. The results from the table stated that the mean score (1.96) is less than average mean score which indicates that beneficiaries are not agreed that cashless initiatives helped to overcome the problem of terrorism. The calculated standard deviation shows variation from the mean amounts to .787. The positive value of

skewness (0.059) indicates that the greater concentration of opinion of respondents is towards the lower side of mean on three point rating scale which supports the finding that respondents are disagreed that cashless initiatives not helped to overcome the problem of terrorism. On applying chi-square test, the calculated value of chi-square (1.550) has been found insignificant at 1% level of significance which shows that there is insignificant difference between in the distribution of opinions of respondents regarding cashless initiatives helped to overcome the problem of terrorism.

Table 6
Evaluation of comfort level with cashless options in relation to gender of the respondents

Gender	Comfort level with new technology			
	Highly comfortable	Comfortable	Uncomfortable	Total
Male	20 (30.37)	31 (47.0)	15 (22.7)	66 (100)
Female	17 (31.5)	28 (51.9)	9 (16.7)	54 (100)
Total	24 (30.8)	59 (49.2)	37 (20.0)	120 (100)

Chi-square=.703 P Value=.700

The comfort level with cashless options on the basis of gender is shown in the table 6. It is evident from the table that majority of the total respondents irrespective of their gender are comfortable (49.2) with cashless options followed by highly comfortable respondents (30.8). The comfortable respondents include 47.0 percent males and 51.9 percent females whereas 30.37 percent males and 31.5 percent females are highly comfortable with cashless options.

Further analysis shows that 80 percent of respondents are comfortable with various cashless options, cashless schemes and initiatives while remaining 20 percent respondents are not comfortable with cashless options comprising 22.7 percent males and 16.7 percent females. The calculated chi-square value (.703) is insignificant at 1 percent level of significance supports the above analysis that the opinion regarding comfort ability with cashless options by the respondents do not differ significantly.

Table 7
Evaluation of comfort level with cashless options in relation to age of the respondents

Age of respondents	Comfort level with new technology			
	Highly comfortable	Comfortable	Uncomfortable	Total
Below 18	3 (27.3)	5 (45.5)	3 (27.3)	11 (100)
18-25	16 (34.0)	26 (55.3)	5 (10.6)	47 (100)
25-35	13 (31.0)	20 (47.6)	9 (21.4)	42 (100)
35-45	2 (16.7)	5 (41.7)	5 (41.7)	12 (100)
Above 45	3 (37.5)	3 (37.5)	2 (25)	8 (100)
Total	37 (30.8)	59 (49.2)	24 (20.0)	120 (100)

Chi-square=7.181 P=.517

The break-up of the respondents on the basis of age is shown in the table 7. It is clear from the table that majority of the total respondents irrespective of their age are comfortable (49.2) with cashless options, schemes and cashless initiatives followed by highly comfortable respondents (30.8 percent). Majority of the respondents from the age group below 18 are comfortable with cashless options (45.5 percent) similarly for the age group of 18-25 years (55.5 percent), 25-35 years (47.6 percent), and 35-45 years (41.7 percent) and above 45 years (37.5 percent).

Further analysis shows that 20.0 percent of total respondents are not comfortable with cashless options, schemes and cashless initiatives, which comprises below 18 age group (27.3 percent), 25-35 years (10.6 percent), 35-45 years (21.4 percent) and age group 45 and above (25 percent). The calculated chi-square value (7.181) is insignificant at 1 percent level of significance supports the above analysis that the opinion regarding comfortability with cashless options by the respondents do not differ significantly.

Table 8
Comfort among respondents: Qualification wise distribution

Qualification	Comfort level with new technology			
	Highly comfortable	Comfortable	Uncomfortable	Total
Below matric	0 (0)	4 (44.4)	5 (55.6)	9 (100)
Matric	0 (0)	7 (58.3)	5 (41.7)	12 (100)
Higher secondary	8 (38.1)	6 (28.6)	7 (33.3)	21 (100)
Graduation	13 (28.9)	27 (60.0)	5 (11.1)	45 (100)
Post graduation	10 (34.5)	17 (58.6)	2 (6.9)	29 (100)
PG & Above	2 (50.0)	2 (50.0)	0 (0)	4 (100)
Total	33 (30.8)	63 (49.2)	24 (20.0)	120 (100)

Chi-square=28.740 P=.001

The comfort level with cashless options, schemes and cashless initiatives on the basis of qualification of the respondents is shown in the table 8. It is clear from the table that majority of the total respondents irrespective of their qualification are comfortable (49.2) with cashless options, schemes and cashless initiatives followed by highly comfortable respondents (30.8 percent). Comfortable respondents comprises 60 percent of graduates, 58.6 percent post graduates, 58.3 percent of matric passed, 50 percent post graduates and above, 44.4 below matric qualified and 28.6 higher secondary qualified whereas 38.1 percent of higher secondary educated, 28.9 percent graduates and 34.5 percent

post graduates are highly comfortable with cashless schemes and initiatives.

Further analysis shows that 20 percent of total respondents are not comfortable with cashless options, schemes and cashless initiatives yet which comprises 55.6 percent below matric qualified, 41.7 percent of matric passed, 33.3 percent of higher secondary qualified, 11.1 percent of graduates and 6.9 percent of post graduates. The calculated chi-square value (28.74) is significant at 1 percent level of significance supports the above analysis that the opinion regarding comfort ability with cashless options by the respondents differ significantly.

Table 9
Evaluation of satisfaction level with cashless options in relation to gender of the respondents

Gender	Satisfaction level with new technology			
	Highly Satisfied	Satisfied	Unsatisfied	Total
Male	21 (31.8)	30 (45.5)	15 (22.7)	66 (100)
Female	13 (24.1)	32 (59.3)	9 (16.7)	54 (100)
Total	34 (28.3)	62 (51.7)	24 (20.0)	120 (100)

Chi-square=2.270 P Value=.321

The satisfaction level with cashless options on the basis of gender is shown in the table 9. It is evident from the table that majority of the total respondents irrespective of their gender are satisfied (51.7) with cashless options followed by highly satisfied respondents (28.3). The satisfied respondents include 45.5 percent males and 59.3 percent females whereas 31.8 percent males and 24.1 percent females are highly satisfied with cashless options.

Further analysis shows that 80 percent of respondents are satisfied with various cashless options, cashless schemes and initiatives while remaining 20 percent respondents are unsatisfied with cashless options comprising 22.7 percent males and 16.7 percent females. The calculated chi-square value (2.270) is insignificant at 1 percent level of significance supports the above analysis that the opinion regarding satisfaction with cashless options by the respondents do not differ significantly.

Table 10
Evaluation of satisfaction level with cashless options in relation to age of the respondents

Age of respondents	Satisfaction level with new technology			
	Highly Satisfied	Satisfied	Unsatisfied	Total
Below 18	4 (36.4)	6 (54.5)	1 (9.1)	11 (100)
18-25	14 (29.8)	26 (55.3)	7 (14.9)	47 (100)
25-35	13	16	13	42

	(31.8)	(38.1)	(31.0)	(100)
35-45	1 (8.3)	8 (66.7)	3 (25.0)	12 (100)
Above 45	2 (25.0)	6 (75.0)	0 (0.0)	8 (100)
Total	34 (28.3)	62 (51.7)	24 (20.0)	120 (100)

Chi-square=10.651 P=.222

The satisfaction with cashless options, schemes and cashless initiatives on the basis of age of the respondents is shown in the table 10. It is clear from the table that majority of the total respondents irrespective of their age are satisfied (51.7) with cashless options, schemes and cashless initiatives followed by highly satisfied respondents (28.3 percent). Majority of the respondents from the age group below 18 are comfortable with cashless options (54.5 percent) similarly for the age group of 18-25 years (55.3 percent), 25-35 years (38.1 percent), and 35-45 years (66.7 percent) and above 45 years (75 percent).

Further analysis shows that 20.0 percent of total respondents are unsatisfied with cashless options, schemes and cashless initiatives, which comprises below 18 age group (9.1 percent), 18-25 years (14.9 percent), 25-35 years (31 percent), 35-45 years (25 percent). The calculated chi-square value (10.651) is insignificant at 1 percent level of significance supports the above analysis that the opinion regarding satisfaction with cashless options by the respondents do not differ significantly.

Table 11
Evaluation of satisfaction level with cashless options in relation to Qualification of the respondents

Qualification	Satisfaction level with new technology			Total
	Highly Satisfied	Satisfied	Unsatisfied	
Below matric	2 (24.2)	2 (24.2)	5 (55.6)	9 (100)
Matric	3 (25.0)	4 (33.3)	5 (41.7)	12 (100)
Higher secondary	2 (9.5)	15 (71.4)	4 (19.0)	21 (100)
Graduation	16 (35.6)	22 (48.9)	7 (15.6)	45 (100)
Post graduation	8 (27.6)	18 (64.2)	3 (10.3)	29 (100)
PG & Above	3 (75.0)	1 (25.0)	0 (0.0)	4 (100)
Total	34 (28.3)	62 (51.7)	24 (20.0)	120 (100)

Chi-square=22.911 P=.011

The satisfaction level with cashless options, schemes and cashless initiatives on the basis of qualification of the respondents is shown in the table 11. It is clear from the table that majority of the total respondents irrespective of their qualification are satisfied (51.7) with cashless options, schemes and cashless initiatives followed by highly satisfied respondents (28.3 percent). Satisfied respondents comprises 71.4 percent higher secondary qualified, 64.2 percent post graduates, 48.9 percent of graduates, 33.3 percent matric passed 25 percent of post graduates and above and 24.2 percent of below matric qualified whereas 25 percent of matric passed, 24.2 percent of below matric qualified, 9.5 percent of higher secondary educated, 35.6 percent graduates, 27.6 percent post graduates and 75 percent of post graduates and above qualified are highly satisfied with cashless schemes and initiatives.

Further analysis shows that 20 percent of total respondents are unsatisfied with cashless options, schemes and cashless initiatives yet which comprises 55.6 percent below matric qualified, 41.7 percent of matric passed, 19 percent of higher secondary qualified, 15.6 percent of graduates and 10.3 percent of post graduates. The calculated chi-square value (22.91) is insignificant at 1 percent level of

significance supports the above analysis that the opinion regarding satisfaction with cashless options by the respondents do not differ significantly.

6. Conclusion

The main objective of this research endeavour is to study the awareness level of respondents regarding cashless options, schemes and initiatives and to analyze the extent of comfort and satisfaction of respondent regarding cashless transactions. The outcome of the study indicates that the majority of the respondents are slightly aware about various cashless schemes and initiatives. It is found in the evaluation of usage of cashless options that majority of the respondents commonly used mobile wallets and net-banking whereas UPI, BHIM and USSD are rarely used by the respondents. On evaluating the sources of information which provides knowledge about cashless initiatives it is worked out that various sources contributing towards knowledge i.e. newspapers/magazines, pamphlets/brochures, TV/radio, friends/relatives and internet etc. and among them internet and TVs are contributing the most. It has been observed that majority of the respondents are strongly agreed and agreed that cashless transactions helped to overcome economic

problems like black money, corruption and terrorism. As per comfort and satisfaction concerned respondents are differ in opinion as respondents of age group 18-25 are highly satisfied with cashless transactions followed by respondents of age group 25-35 and this may be due to their curiosity, interest and

educational qualification. The study shows that among all respondents, graduates respondents are more comfortable and satisfied with cashless transactions followed by post graduate respondents.

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