## Adoption of Cashless Transactions by MSME Sector of India

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## Abstract

This study explored MSME's knowledge, usage, and preference of different Digital Technologies in business. This study will further reveal the preference of registered small business units between cash and cashless transaction. The researcher adopted the primary data collection method for this study. The owners/managers of the registered small business units were directly questioned. The data is collected from the Karkardooma complex area situated in the national capital of India i.e., Delhi. The information was gathered between December 2020 and February 2021. The findings of the study reveal that awareness among small business units about different digital payments and their advantages is high, but adoption is low. The result of the study indicates that the original TAM model i.e., perceived ease of use and perceived usefulness along with other factors i.e., subjective norm and selfefficiency has a significant impact on the behavioral intention of MSMEs. Further, demonetization and COVID-19 have forced many small businesses to opt for Cashless transactions but still, they prefer cash.

**Keywords:** Cashless transactions, MSMEs, TAM model, subjective norm, self-efficiency

#### Introduction

Cashless transactions via digital systems, a relatively new e-commerce implementation, refer to a smart payment option used by several emerging countries to obtain a long-term competitive edge(Gomber et al, 2018). Traditional bank financing will continue to be important for the SME sector in all economies; however, there is a pressing need to develop a more diversified set of MSME financing options that can reduce MSME vulnerability to changes in credit market conditions, strengthen their capital structure, enable them to seize growth opportunities, and boost long-term investment (GPFI, 2020). Consumption and consumer behavior are critical in society, especially during the coronavirus disease 2019 (COVID-19) outbreak in 2020 (Mehta et al, 2020). Consumer behavior has been influenced by digitalization, which has resulted in new ways of life. There is a broad range of financial services accessed and delivered through digital channels, including payments, credit, savings, remittances, and insurance. Mobile financial services (MFS) are part of the digital financial services (DFS) concept. The use of a mobile phone to gain access to financial services and conduct transactions (Sun and Chang, 2021). This comprises both transactional and non-transactional services, such as accessing financial information and transferring funds to make a mobile payment. There are various kinds of cashless transactions which have been discussed in past (Buckley and Malady, 2015)

Acronyms	Full Form	Definition
B2B	Business-to-business payment	Cashless transactions made between two companies involved in commercial activity are commonly referred to as B2B payments.
B2G	Business to government payment	Cashless transactions of Taxes and fees paid to the government are included in B2G.
B2P	Business-to-person payment	Cashless Salary payments.
G2B	Government-to-business payment	Tax refunds, purchases of products and services, and subsidies are all examples of G2B payments.
G2P	Government-to-person payment	Government benefits and salary payments are examples of G2P transfers .
P2B	Person-to-business payment	Cashless transactions made for the purchase of goods and services are included in P2B payments.
P2G	Person-to-government payment	Cashless transactions of Taxes and fees are included in P2G.
P2P	Person-to-person payment	Cashless transaction of Domestic and foreign remittances is included in P2P payments.

#### Table I. Different types of cashless transaction

Source: AFI global

Along with its MSME sector, India's infrastructure is going toward digitalization. MSMEs are critical to inclusive growth, not only because they provide 50% of manufacturing sector income, but also because they employ 90% of the workforce and contribute more than 30% of national exports (MSME Annual Report, 2020-21). Manufacturing MSMEs' share of the country's overall Manufacturing GVO (Gross Value of Output) at current prices has likewise stayed stable at roughly 33%, or one-third, for the period 2014-15 to 2018-19.

With the advent of the "Digital India Movement" and telecom penetration into deep rural areas, the government of India is also taking steps to make India digital. Sincere efforts are being made to bring widespread formal banking channels and innovative financial technology together to create a viable and vibrant ecosystem to drive access to formal financial products to unbanked and deprived segments of Indian society (Digital India). Digitalization seems to have had a far-reaching impact on financial services, even beyond retail and customer-facing applications. Mobile money, such as M-Pesa, big tech platforms, such as Alibaba, and open application programming interfaces (APIs), such as the Aadhaar biometric identity system, are all popular DFS models around the world (Pazarbasioglu et al, 2020).

In India, events such as ADHAR, GST, demonetization, and Covid-19 have paved the way for cashless transactions, particularly with digital identification (ADHAR) that can be linked to bank accounts, lowering the cost of client

onboarding, and maintaining compliance. Financial companies can contact hundreds of millions of new clients because of this. These advancements in regulation and infrastructure are clearing the road for more traditional and non-traditional financial service companies to deliver more services (Digital India). The announcement of the demonetization of notes in November 2016 has hastened the shift from paper to electronic payments and given new impetus to India's technology-driven financial services transformation.

Cashless transactions are not a new concept; every industry has adopted it to some extent, as the importance of digitalization has grown in recent years. Because of the pandemic, everyone is using different digital technologies for their continued job, including the MSME sector.

This study attempts to answer the following questions:

**R1.** To investigate MSME's knowledge, usage, and preference of different Digital Technologies

**R2.** To investigate MSME's behavior regarding cashless transactions.

**R3.** To investigate the relationship between the identified factors and the intention to use cashless transactions in business by MSMEs.

In comparison to other countries, Indian large businesses

have adopted technology at a significantly faster rate. Because of its broad use of mobile solutions. India has been cited as a case study for using cashless transactions to reach large masses (McKinsey Global Institute, 2019). MSMEs are going toward cashless transactions due to competitive pressures and several benefits (PWC, 2014). The majority of the previous study focused on the Digital Financial Framework in relation to large businesses(Cunha, 2021) but the process of adopting Cashless transactions among SMEs is somewhat unique. The lack of know-how, skilled labor, security, privacy, and poor infrastructure have all been mentioned as impediments toCashless transactions implementation. Furthermore, the workings of urban and rural MSMEs are vastly different, with urban MSMEs adopting advanced Digital technologies while rural MSMEs continue to struggle with basic Digital technologies.

#### **Literature Review**

#### **Cashless Transactions in India**

All eligible people shall have access to basic financial services such as a bank account, line of credit, both life and other insurance, pension scheme, and acceptable investment product by the year 2020, according to the RBI's national policy for Digital Financial Inclusion.

MONTH/YEAR	VOLUME (LAKHS)	VALUE (RUPEE CRORE)	INCREASE/DECREASE AS COMPARED TO THE PREVIOUS MONTH
2019-20	· · · · ·		
NOV 2019	30265.63	11112475	
DEC 2019	32515.37	12977551	1865076
JAN 2020	33898.96	12556435	-421116
FEB 2020	32523.41	11597791	-958644
MARCH 2020	29909.81	15068656	3470865
2020-21			
APRIL 2020	23604.53	8241058	-6827598
MAY 2020	25574.32	9193859	952801
JUNE 2020	29095.89	11327080	2133221
JULY 2020	31281.83	11102395	-224685
AUGUST 2020	34689.28	10038240	-1064155
SEPEMBER 2020	36183.61	12508167	2469927
OCTOBER 2020	39946.81	11720060	-788107

 Table-II. Total Cashless Transactions in India

MONTH/YEAR	VOLUME (LAKHS)	VALUE (RUPEE CRORE)	INCREASE/DECREASE AS COMPARED TO THE PREVIOUS MONTH
NOVEMBER 2020	40974.44	11199549	-520511
DECEMBER 2020	42659.73	14281164	3081615
JANUARY 2021	42623.32	12387625	-1893539
FEBURARY 2021	41190.48	12201360	-186265
MARCH 2021	49238.80	17283335	5081975
2021-2022			
APRIL 2021	45209.64	11969573	-5313762
MAY 2021	42677.90	11264289	-705284
JUNE 2021	46899.98	13446046	2181757
JULY 2021	52706.33	14199411	753365

Source: NPCI

Compilation and Calculation: Author

#### **MSME** Sector of India

According to the 73rd round of the National Sample Survey (NSS), conducted by the National Sample Survey Office, Ministry of Statistics and Programme Implementation in 2015-16, there are 633.88 lakh MSMEs in the country engaged in various economic activities (196.65 lakh in Manufacturing, 0.03 lakh in Non-captive Electricity Generation and Transmission, 230.35 lakh in Trade and

206.85 lakh in Other Services). The micro sector has the biggest number of registered businesses, with 630.52 lakh, accounting for more than 99 percent of the total estimated number of MSMEs. With 3.31 lakh estimated small units and 0.05 lakh estimated medium units, respectively, the small and medium units accounted for 0.52 percent and 0.01 percent of total estimated MSMEs.

Activity Category	Estimated Number of Enterprises (in lakh)			Share (%)
	Rural	Urban	Total	
Manufacturing	114.14	82.50	196.65	31
Electricity	0.03	0.01	0.03	0
Trade	108.71	121.64	230.35	36
Other services	102.00	104.85	206.85	33
All	324.88	309.00	633.88	100

Table III. Estimated Number of MSMEs (Activity wise)

Source: MSME Annual Report, 2020-21

The government of India has launched Udyam registration under the Udyog Aadhaar Memorandum announced vide to keep track of new and established firms in the MSME sector. On the 26th of June 2020, a notification was issued. It is considered one of the essential metrics to analyze the effective development of the MSME sector in an economy like India, according to the (MSME annual report 2020-21). It will aid in the creation of a favorable environment for MSME units as well as the development of entrepreneur morale in the macroeconomics of the economy. It contains information on newly founded MSMEs. Apart from new businesses, existing businesses that meet the MSME definition can also register with Udyam.According to Udyam Registration by Micro, Small, and Medium Enterprises as of December 31, 2020, Micro MSMEs account for most of the enterprises (93%) while Small Enterprises (6%) account for most of the remaining enterprises (1%), with Medium Enterprises accounting for only 1% of the total Udyam Registration.In a developing country like India, the MSME sector has a large demographic. MSMEs are found in both rural and urban areas of India. 324.88 lakh MSMEs (51.25 percent) are in

rural areas, whereas 309 lakh MSMEs (48.75 percent) are in urban areas, according to the estimated number of MSMEs.

Sector	Micro	Small	Medium	Total	Share (%)
Rural	324.09	0.78	0.01	324.88	51
Urban	306.43	2.53	0.04	309.00	49
All	630.52	3.31	0.05	633.88	100

#### Table III. Estimated Number of MSMEs (Activity wise) (Number in Lakh)

Source: MSME Annual Report, 2020-21

As a result of the huge demographic, geographic, and activity differences, a single DFS implementation plan is not feasible. For optimal impact, local innovation support is necessary.

## **Cashless Transaction in MSME Sector**

In the last two decades, economic development has become increasingly and critically reliant on technology. Most of the MSMEs are re-inventing themselves to be successful in the changing global environment. It has become very important for businesses to adopt a global outlook to grow into new development ecosystems by the transformation of their business model through optimizing human factors (Mitra, 2013)thus innovation might help them gain a competitive advantage in new markets or defend their home turf against international competitors(Arsawan et al, 2020)

The government of India is also making efforts for promoting a cashless economy and to provide the facility of seamless cashless transactions to all citizens of India in a convenient manner (Jain et al, 2020). The promotion of Cashless transactions has been accorded the highest priority by the Government of India to bring each segment of our country under the formal fold of digital payment services. As a partner in the initiative, the Ministry of MSME has taken numerous initiatives to digitally enable the entire MSME ecosystem. As, all the offices of the Ministry of Micro, Small, and Medium Enterprises, including its attached offices have been digitally enabled. Also, for the small business registered under Udyog Aadhaar Memorandum (UAM), efforts have been made to spread awareness of the ease and benefits of different modes of cashless transaction such as BHIM, UPI, and Bharat QR code. Further, thenumber of Cashless transactions has grown to 92.02% in terms of value and 90.19% in number during the year 2020-21 in the Ministry of Micro, Small, and Medium Enterprises (Including its other offices).

The ecosystem of MSMEs is different from that of larger firms (Mitra, 2000). MSMEs are typically run by few people wearing many hats (Hally, 2016) consequently owners/managers' demographic variables such as Age, Educational qualification, Experience, etc play an important role while making any business decision Also, MSMEs remodel more informally as compared to the large firms. Further, the MSME sector does not adopt any strategic framework or planning, nor they have any formally organized Research & Development Departments they usually work as per their peers (Shah et al, 2019). MSMEs are seen to be more region-centered than large firms. (Kraus et al, 2012). Thus, for maximum adoption of cashless transactions access to basic and essential financial products such as bank accounts, internet connections, digital insurance, and digital pension options to the population specially in the agricultural and unorganized MSME sector is required (Malladi et al, 2021). The vision for Digital Financial Inclusion in India is to induce inclusive financial growth by including the unbanked and unsupported individuals as MSMEs by formal financial institutions by providing them convenient access to basic financial products including bank accounts, remittances, bill payments, government-supported insurance, pensions products and formal credit at reasonable costs (Viswanathan, 2014).

## Factors Impacting MSMEs to Adopt Cashless Transaction in Business

New technologies are not frequently adopted by individuals and organizations. The behavioral intention of the individual or organization is influenced by several factors. Various frameworks have been used in the past to identify and study these factors.TAM and UTUAT are the most popular among all frameworks (Cacciamaniet al, 2018). According to the TAM model, "perceived usefulness" and "perceived ease of use" affect behavioral intention. Additionally, there are several extended versions of the UTUAT and TAM models that have been discussed in earlier literature that consider additional factors like "user habits" (Shaw and Sergueeva, 2019), "enjoyment" (Alalwan et al, 2018), "price/cost" (Alsulamiet al, 2017), "subjective influence" (Mutahar et al, 2017) etc. MSMEs are frequently controlled by a small number of individuals who handle a variety of responsibilities (Hally, 2016), so owners' or managers' intention to accept any technology improvement is crucial. Several studies on technology adoption in small businesses have previously used the TAM and UTUAT models (Tam et al., 2021; Samar and Mazuri, 2019). In this study, many factors from earlier studies that may affect MSMEs' (Chhabra et al., 2020; Karambut, 2021) decision to incorporate cashless transactions in their business are taken into account. The interactions and model assumptions are covered in more detail in the following sections.

## Perceived ease of use

In different technology adoption models, usage behavior is driven by the intention to use a particular system, which is determined by two linked beliefs: perceived usefulness (PU) and perceived ease of use (PEOU). PEOU means individual/organization using the technology believes that it is easy to use, and they do not feel scared to use it. Many past research shows that PEOU has a positive impact on the behavioral intention of users in the case of mobile wallets (Yang et al, 2021), internet banking (Kurdi et al, 2021), etc. Thus, it is indicated that perceived ease of use of technology is a significant predictor of behavioral intention (Grover et al, 2019). As a result, this research proposes the following hypothesis:

Hal- Perceived ease of use has a significant impact on behavioral intention to use cashless transactions in business.

## Perceived usefulness

The concept of perceived usefulness (PU), which is used in the UTAUT model as performance expectancy, is defined as the degree to which an individual believes that using technology will help him/her to achieve gains in job performance/ achieve their goals (Davis, 1989; Dwivedi et al, 2017; Venkatesh et al, 2003). As a result, based on the past literature, this construct can also be defined as the degree to which a user believes that doing cashless transactions will be advantageous to them and better than dealing in cash. According to Liébana-Cabanillas et al. (2017), users may adopt the non-cash payment system more frequently if they view it to be beneficial. One's intention to use technology can improve if they get benefits from using it.

**Ha2-** Perceived usefulness has a significant impact on behavioral intention to use cashless transactions in business.

## **Subjective norms**

Subjective norms are described as an individual's "belief that the majority of key individuals in his life believe he should or should not engage in the behavior in question" (Ajzenand Fishbein, 1975). Intentionally or unintentionally, people are influenced by the beliefs and conduct of others in their social group, such as friends, family members, or coworkers. MSMEs' intention to use cashless transactions will increase if it is widely used within the social group. Several research has shown that subjective norms have a substantial link on PEOU (Mutahar et al, 2017; Abdullah et al, 2016) and PU (Kurdi et al, 2021; Abdullah et al, 2016) As a result, the following hypothesis is put forth.

**Ha3-** Subjective norms have a significant impact on perceived usefulness.

**Ha4-** Subjective norms have a significant impact on perceived ease of use.

## Self-efficiency

Another factor that impacts small businesses most is selfefficiency. Self-efficiency refers to respondents' perceptions of their competence, skill, or knowledge in performing a task (Luarn and Lin 2005). Bandura's (1982) extensive research on self-efficacy, is defined as "judgments of how well one can execute courses of action required to deal with prospective situations". The higher the users perceived ability to perform the task, the higher the self-efficacy would be which ultimately impacts the PEOU(Muslichah, 2018).

**Ha5-** Self-efficiency has a significant impact on perceived ease of use.

## Actual acceptance

A strong link between behavioral intention and actual use has been discovered by several researchers, with both theoretical and empirical support (Abdullah et al, 2016). Actual usage is a self-reported measure of any new app or technology adoption in the TAM, whereas behavioral intention to use is a measure of a person's likelihood of adopting the app (Davis et al, 1989). Thus, the following hypothesis is formulated:

Ha6-Behavioral Intention to use cashless transactions in business has a significant impact on the actual acceptance.

## **Conceptual Model**



### **Research Methodology**

#### Instrument development and data collection

For data collection, the researcher used a pretested questionnaire used in prior literature (Table V).The questionnaire used for this research has been modified as per Indian respondents. The questionnaire is broken up into four sections, the first of which asks about the respondents' demographic characteristics and their knowledge about MSMEs' use of the internet and digital technologies. The second part consists of questions related to the usage of cashless transactions in the workplace. The third part is related to questions based on the TAM and UTAUT models. To measure the variable included in the proposed model, respondents were given statements related to a 5-point Likert scale, with 1 denoting strong disagreement and 5 denoting strong agreementand in the last part, respondents were asked to give their opinions about opting for cashless transactions in business. The information was gathered between December 2020 and February 2021. The convenience sampling method is used for data collection. The sampling technique is non-random, but the data collected is random. The owners/managers of the enterprises in the Karkardooma complex area were directly questioned and any doubts were also solved on the spot. For the study, the researchers were able to obtain 110 valid responses. Appendix I contains the detailed statements provided for all constructed items.

CONSTRUCT	SOURCES	NUMBER OF ITEMS
Awareness of internet & digital technologies and usage of cashless transactions in business by MSMEs.	GPFI, 2020	8
Perceived ease of use	Fearnley and Amora, 2020	4
Perceived usefulness	Jung et al, 2021	3
Subjective Norm	Kurdi et al, 2021	2
Self-Efficiency	Kamal et al, 2020	2
Technology acceptance	Huang et al, 2021	3
Behavioral intention to use Information technology	Kambleet al, 2019	3

#### Table V. Source of the questionnaire

## **Data Analysis**

The analysis has been done by combining descriptive and inferential statistics via the statistical software SPSS (version 21). Descriptive Analysis such as frequency distribution, percentage analysis, and charts are used. For inferential statistics and testing, the conceptual model formulated is tested by using SMART-PLS.

## **Respondents Profile**

Using the frequency analysis, the respondents' profile has been tabulated in Table VI.

Characteristics	Value	Number	Percentage (%)
Candan	Female	24	21.8
Gender	Male	86	78.2
	20-30 years	4	3.6
	31-40 years	42	38.2
Age	41-50 years	39	35.5
	51-60 years	16	14.5
	61 or more	9	8.2
	No formal education	7	6.4
	Senior secondary graduate	45	40.9
Education level	Vocational diploma	6	5.5
	Postgraduate	50	45.5
	Ph.D.	2	1.8
	Less than 3 years	6	5.5
<b>.</b> .	3-6 years	12	10.9
Experience	6-9 years	32	29.1
	9-12 years	30	27.3
	12 or more	30	27.3

#### Table VI. Respondents' characteristics

## Discussion

#### **Respondents' Usage of Digital Technologies**

The result of descriptive statistics (Table VII, Table VIII, Table IX, Table X, and Table XI) shows the level of digital technologies usage by MSMEs. Table VII shows the maximum number (42.2%) of owners/managers of MSMEs spent 4-6 on Internet and Table VIII shows that 89.1% of respondents use different digital technologies for business. This whooping number shows high internet penetration among small businesses. As per a survey conducted by GSMA in 2021 cause for high internet penetration is smartphones specifically in developing nations.

There are numerous reasons for adopting digital technologies in business maximum respondents(32.7%) consider "Better collaborations and communications" as the most prominent reason, and 29.1% of respondents

consider "Increased access to financing" as the most prominent reason "Access to more markets and customers" and "Lower operating expenses and increased output" is opted by 25.4% and 12.8% respondents. Also, 69.1% of respondents have a digital presence. In our study digital presence is not limited to owning a business website but selling products on e-commerce platforms such as Amazon, Flipkart, and IndiaMart are also included.

In Table XI. Respondents are asked about their behavior toward adopting any new technology in business. The respondents are categorized based on Rogers(2010) "Theory of diffusion". Maximum respondents consider themselves as Moderate Adopters (who adopt new technology but with caution), 37.8% consider themselves as Early-Adopters (who adopt new technology much faster than other people) and only 8.2% of respondents are Non-Adopters.

Number of Hours	Number	%
1-3	28	25.5
4-6	47	42.7
7-9	23	20.9
More than 9	12	10.9
Total	110	100

#### Table VII. Numbers of Hours Spent on the Internet

#### Table VIII. Do you use Digital Technologies for Business?

Yes/No	Number	%
Yes	98	89.1
No	12	10.9
Total	110	100

#### Table IX. Reason for opting for Digital Technologies

Particulars	Number	%
Access to more markets and customers	28	25.4
Lower operating expenses and increased output	14	12.8
Increased access to financing	32	29.1
Better collaborations and communications	36	32.7
Total	110	100

#### Table X. Does your business have a Digital presence?

Yes/No	Number	%
Yes	76	69.1
No	34	30.9
Total	110	100

#### Table XI. Behavior for adopting New Digital technologies

Types of Adopters	Numbers	%
Non-Adopters	9	8.2
Moderate Adopters	59	53.6
Early Adopters	42	37.8
Total	110	100

#### **Respondents' Usage of Cashless transactions**

In the next part of the questionnaire, respondents were asked questions specifically related to Cashless transactions. In the first question, respondents were asked what they prefer most between cash or cashless transaction. Maximum respondents choose cash as an option over Cashless transactions.

## **CHART I**



In the next question, respondents were asked about the most preferred way of doing Cashless transactions. The respondent answered through a multiple-choice question where more than one option can be selected. The most used option is Mobile banking(90 respondents) followed by UPI (84 respondents), Internet banking, E-wallets, and Aadharenabled payments.



#### **CHART II**

There are numerous benefits of Cashless transactions(Aguret al, 2020). In the next question, respondents were asked about the key reason for adopting Cashless transactions in their business. Among the five options given "Implementation is simple and quick" has been pointed out as the highest reason which is 48(43.2%). Also, "Access from any location" has been the second reason for Cashless transactions Adoption i.e., 37(33.3%). "Saves time" is also an important reason for the adoption of Cashless transactions is chosen by only 18(16.4%) respondents. "Transparent services" is opted for by only 6(5.4%) respondents and "security" is opted for by only 1(.9) respondent.



#### **CHART III**

Further, Respondents were asked about the financial activities where Cashless transactions were most used by

them, where 1 is least used and 5 is mostly used in business. As per respondents' Cashless transactions is opted the most used while collecting payments from customers. In the case of giving payments to suppliers and workers, they prefer cash more though Respondents prefer to borrow money online (directly to the account). For digital Insurance also most of the respondents were in a neutral position.





# Factors impacting MSMEs to adopt cashless transactions in business

#### Measurement model assessment

The analysis begins by determining the internal consistency and validity of all of the model's constructs. SMART-PLS is used to test the conceptual model in Figure 1. To begin, factor loadings for all items are calculated, and items with factor loadings less than 0.7 are eliminated (Houston, 2004; Hair et al, 2017). PE\_4 for "perceived ease of use" and PU\_3 for "perceived usefulness" are removed.

In the second step, Cronbach's alpha of all items is analyzed. Cronbach's alpha is one of the most widely used methods to determine the accuracy of items' validity and reliability. All the items in all constructs have a Cronbach's alpha of more than 0.7 which is acceptable for a good model.

In the third step, composite and convergent reliability is tested. The higher the value of composite reliability, the higher reliability of the model suggested(Diamantopoulos et al, 2012).Convergent reliability is tested using AVE. An AVE above 0.5 is considered a" satisfactory to good" model ((Hair et al., 2006).

Items	Factor loading	Cronbach's Alpha	Composite Reliability	AVE
BIU_1	0.923			
BIU_2	0.886			
BIU_3	0.91	0.891	0.932	0.821
PE_1	0.816			
PE_2	0.738			
PE_3	0.867	0.758	0.849	0.654
PU_1	0.903			
PU_2	0.88	0.743	0.886	0.795
SE_1	0.794			
SE_2	0.787			
SE_3	0.847	0.741	0.851	0.656
SN_1	0.898			
SN_2	0.904	0.768	0.896	0.812
TA_1	0.827			
TA_2	0.85			
TA 3	0.915	0.832	0.899	0.748

Table X. Individual item reliability, construct reliability, and convergent validity

Using Fornell and Larcker (1981) and the HTMT technique, the discriminant validity of all constructs are tested in the last step. Using (Fornel and Larcker, 1981), the discriminant validity of each AVE on the diagonal was compared to the

correlation coefficients (off-diagonal) for each construct in the relevant rows and columns, as shown in Table IV. The HTMT ratios are calculated in the table below. A ratio of less than 0.85 is considered good (Henseler et al, 2015).

Table XI.	Discriminant	validity
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	BIU	PE	PU	SE	SN	TA
BIU	0.906					
PE	0.321	0.808				
PU	0.419	0.321	0.892			
SE	0.45	0.379	0.358	0.81		
SN	0.659	0.355	0.512	0.52	0.901	
TA	0.747	0.264	0.411	0.487	0.62	0.865

Notes: Diagonal numbers in italics represent the square root of the average variance extracted from observed variables

(items). Off-diagonal represents the correlation between the constructs.

	BIU	PE	PU	SE	SN	TA
BIU						
PE	0.326					
PU	0.513	0.439				
SE	0.549	0.477	0.491			
SN	0.796	0.409	0.676	0.672		
TA	0.855	0.294	0.52	0.604	0.775	

#### Table XII. HTMT

## Structural model assessment

The bootstrapping method (5,000 re-samples) was employed in structural model assessment to produce standard errors, t-statistics, p-values, and 95% biascorrected confidence intervals (BCCI) (Hair et al., 2014). The conceptual model created is tested in SMART PLS shown in Figure 2.



Table XIII shows the results of the hypothesis testing. The table represents the estimated values of the Original Sample(O), Sample Mean(M), and standard error value. The significance level (alpha sign) is 0.05. All the hypotheses formulated are supported. The most significant factor influencing "behavioral intention" is "Perceived usefulness" (T statistics= 4.966>1.96, P value= 0.000<0.05). Further, "Subjective Norms" impact "Perceived usefulness" (T statistics= 7.284>1.96, P value= 0.000<0.05) more as compared to "Perceived ease of use". "Self-efficiency" was also a significant factor to impact the "Perceived ease of use".

	Original Sample (O)	Sample Mean (M)	Standard Deviation (STDEV)	T Statistics ( O/STDEV )	P Values	Result
BIU-> TA	0.747	0.751	0.035	21.552	0	Supported
PE -> BIU	0.208	0.212	0.077	2.712	0.007	Supported
PU -> BIU	0.352	0.357	0.071	4.966	0	Supported
SE -> PE	0.266	0.273	0.073	3.66	0	Supported
SN -> PE	0.216	0.215	0.068	3.177	0.002	Supported
SN -> PU	0.512	0.514	0.07	7.284	0	Supported

## Table XIII. Result of hypothesis testing

## **Importance-Performance map analysis**

Subsequently, the importance-performance map is generated to evaluate the most influential factor impacting the behavioral intention of MSMEs. The importanceperformance map provides detailed information on the outcome variable's highly important construct as well as recommendations on how to prioritize managerial tasks. The IPMA diagram's representation of a variable is seen in Figure 3. The importance-performance map is split into four quadrants by the two additional lines, with one horizontal line (performance) and one vertical line (importance) designating the average values of both dimensions (Ringle and Sarstedt, 2016). Among all variables, TAM variables i.e perceived ease of use & perceived usefulness and the subjective norm have the

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highest importance as they lie in quadrant I and among all items, PU 2(0.511), PE 3(0.453) and PU 1(0.489) have the highest importance.



## Figure 3 IPMA Map

## **Practical Implication**

The awareness about cashless transactions in the MSME sector is high but the adoption rate is low. MSMEs is very much aware of the advantages of cashless transaction as the majority of respondents in this study believes that cashless transactions are easy to do and can be done from any location. The result of the structural model shows that PEOU, PU, subjective norms, and self-efficiency have a significant impact on the behavioral intention of MSMEs to adopt cashless transactions in business. Our study confirms the finding of Chawla and Joshi. (2020), these findings highlight the need for cashless service providers like banks and online retailers to concentrate on the most recent technology that enables users to do transactions effectively and quickly. Since customers believe that e-wallets are simple to use, these save time, money, and convenience of use will contribute to boosting advantages. Further selfefficiency lies in quadrant II in the IPMA map, thus the efficiency of owner/manager of MSMEs should be increased by running awareness campaigns and programs as the first step towards adoption is awareness.

The MSMEs still hesitate to do cashless transactions because of many reasons First cash is an integral part of small businesses which cannot be altered any time soon. Also, demonetization and COVID-19 have forced many small businesses to opt for Cashless transactions as many respondents quoted that "We adopt what our supplier or customer demands. During the peak, months of COVID-19 cashless transactions are occurring now, and everyone needs cash."The world will become contactless as the Covid-19 epidemic disrupts lives and industries, and Cashless transactions will play a key role in assisting people in adjusting to the new normal.

Second, subjective norms also play a vital role in small businesses. Usually, small business follows the trends and practices followed in their neighbourhood. One of the respondents quoted that "Things are going good; we don't want to change our system, especially during this time."This can be seen in past literature also. As per Maruping (2017) it is well established that peer influence has a positive impact on any technology adoption and, as a result, technology usage.

## Conclusion

The most significant finding of the study is that MSMEs are ready to adopt cashless transactions but at a slow pace. There is a need for strong government support in the case of MSMEs to improve the adoption of cashless transactions. Demonetisation and Covid-19 (Agur et al, 2020) have also improved Digital payment awareness among the Indian MSME sector which is quoted by many respondents also. There are numerous benefits of Cashless transactions as speed, transparency, and convenience which are accepted by MSMEs. Also, because India requires a robust digital infrastructure basis and data protection, government help (Belitz and Leipras, 2016; Padachi et al, 2018) is essential to encourage the adoption of cashless transactions in the MSME sector. Support from established businesses, which has a societal influence on the MSME sector will further enhance the usage of cashless transactions.

#### **Limitation and Future Research**

Certain restrictions apply to the research, which needs additional research. The sample size for the survey was 110 respondents; hence, the sample size should be expanded for a better reflection of MSME Sector preferences. Second, while the research provides a broad overview of cashless transaction adoption, subsequent studies can focus on individual industries in MSMSE such as food items, textiles, apparel, fabricated metal products, and machinery and equipment.

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## **APPENDIX I**

ITEMS	STATEMENTS			
PE_1	Icanmeetmybusiness needs easily by usingcashless transactions			
PE_2	Theefficiencyofthebusiness isincreasedbyusing cashless transactions.			
PE_3	Paying or receiving money through cashless transaction saves time.			
PE_4	Its easy to perform cashless transaction.			
PU_1	Using cashless transaction makes it easier for me toconduct my daily transactions			
PU_2	Using cashless transaction allows me to manage my transactions more efficiently			
PU_3	Using cashless transaction increases my productivity			
SE_1	Learning how to do cashless transaction was easy for me			
SE_2	I like the fact that doing cashless payments require minimum effort			
SN_1	People who are important to me think that I should use cashless transaction			
SN_2	People who influence my behavior think that I should use cashless transaction			
TA_1	Using cashless transaction fits well with theway I like to make or receive payments			
TA_2	Using cashless transaction is completely compatible			
	with my current situation			
TA_3	Ifindit advantageoustouse cashless transaction formy business.			
BI_1	I intend to use cashless transaction as itsaves cost, time, and effort for me			
BI_2	Iwill continueto usecashless transaction in thefuture.			
BI_3	Using cashless transaction enables me toaccomplish tasks e.g., payments more quickly. Thus, I intend to use it more in future for my business purpose.			