

How to Cite:

Agarwal, R. N. (2022). Exploring the cultural dimension of technological behaviour in the Indian context. *International Journal of Health Sciences*, 6(S4), 6128–6145.
<https://doi.org/10.53730/ijhs.v6nS4.9549>

Exploring the cultural dimension of technological behaviour in the Indian context

Dr. Richa N. Agarwal

Associate Professor, Sushant University, Gurugram, India

Abstract---Digital storm which has taken the world has changed the way organisations function. It has brought in a huge change in the way organisations sell and transact. In case of India major change in the e-payment started after demonetization (change of national currency) happened. It is when people were forced to transact through cashless methods in shortage of cash. First time small merchants did business through cashless methods. Though, small merchants still avoid digital methods and prefer cash transaction. Present study was done to understand the factors which influence the behavioural intention of small merchants for adopting cashless methods. The UTAUT (Unified theory of acceptance and use of technology) model was used. It was also to find whether the model can be applied in the Indian context. The study found that the independent factors of social influence, perceived value, trust did not impact the behaviour intention of small merchants. Though these factors are quite relevant in the Indian cultural context. Thus, the UTAUT model was not found quite suitable to study the behavioural intention of the small merchants in the Indian markets.

Keywords---cashless methods, e-transaction, e-governance, India, digitalization, demonetization, small merchants, UTAUT model, innovation.

Introduction

The last millennium brought about many changes in the world. Technological development is one such factor which changed many things across the world. Technological advancement not only became the pillar of development and changes in different domains but also, have restructured the way corporates function. It has given impetus to growth in wireless and mobile networks and e-payment also. Smartphones have become a tool for making digitalized payments. The Vision Document on Payment Systems released by the Reserve Bank of India (2019) stated several measures for building a 'less-cash' society. The adoptions of mobile and card payment systems are two of the critical components of this

initiative. While banks will play a critical role in digital payments, mobile wallets and the unified payments interface (UPI) are critical instruments for the success of digital payments (Mishra, 2019). Apanasevic (2013) analysed that mobile phones are becoming a stepping stone towards a cashless society. It is estimated that approximately 660 million debit cards and 25 million credit cards are in use in India and the numbers are increasing. Marakarkandy and Daptardar (2013) found a lot of potential in mobile banking in India. Till now India was unable to reach millions of people within the formal banking system. Digital mobile banking can provide basic functions to people in a simple manner (livemint.com). It is also analysed that habit of using cash in informal setup of Indian economy will work as challenge for a cashless society (livemint.com).

'Demonetisation' pushed common people towards digital transactions. Even small purchases from small vendors such as vegetables, pan (betel leaves) and peanut were also bought and sold through e-wallets as there was shortage of cash. Small merchants resist for cashless transactions. It is important to understand small merchants' expectations impacting the intention to use cashless methods, to bring behavioural change. The study contributes to understand small merchants' expectations and the demographics of the Indian market. Bushnell (2019) stated that small merchants were reluctant to adopt e-payment technology. Dhanorkar (2017) observed that users' habits related to online transactions and usage needs to undergo a drastic change.

The study has significant policy implication. A cashless economy is the need of the hour for the growth of the Indian economy. If economy becomes transparent it arrests malpractices and corruption in business and administration. It would be of great help to widen the tax base. Therefore, a study on this dimension will add value. Acceptance for cashless methods, among small merchants is vital for digitalising the economy, as they make a significant part of the Indian business framework. The study will provide information about the mindset of Indian small merchants, based on which strategies could be formulated about segmentation and communication to enhance market penetration.

Secondly, the study explores the suitability of the UTAUT model to study cashless adoption in a collectivist society like India. Png et al. (2001) stated that differences in national cultures make difference in the way perceptions are formed and they also influence the speed to adopt technologies. The researchers also wanted to find whether the model is suitable to study in a collectivist society. Small merchants do not have the required digital and Fin-Tech literacy (Fatima & Ahmed, 2019)

Literature Review

Mobile Technology

Malkani (2015) opined that India is approaching a point in technology adoption with social, mobile, cloud and analytics where the country is going to be changed massively. Customers' different characteristics bring about different perspectives towards the acceptance of online payment methods. Vices integrate both the business and social domains of the user's life (Hill and Troshani, 2007). Yadav

(2017) observed that mobile technology in India provides benefits to both customers and service providers. On the one hand it allows customers to come into a financial circle and on the other hand gives a huge market to service providers. Gaur (2014); Dennehy & Sammon (2015) stated that Organizations are increasingly adopting mobile payments (m-payments) as a new way of doing business in the 21st century. (Nagata, 2018) Japan, is now gearing for a cashless economy.

Cashless Transaction and Economy

Jakubowska (2017) analysed that entrepreneurs prefer access to digital payments and it has become an indicator of economic growth. Going cashless transforms the business process, positively impacts the economy and provides a lot more benefits to society. Countries opting for cashless payments will have richer balances and economies. Subrahmanya & Puttana (2018) found digital payments speed up business transactions and thus support economic growth.

Model for the Study

Özkan et al. (2010) said that the 'Technology Acceptance Model', (TAM) explains the determinants of behaviours that might influence technology acceptance across various types of technologies and diverse populations. It provides researchers with a framework for identifying the effect of external factors on individual beliefs, attitudes, intentions and ultimately, individual behaviour. Though there have been multiple models used for explaining or predicting technology acceptance most recently, the Unified Theory of Acceptance and Use of Technology Model (UTAUT) by Venkatesh et al. (2003) is a popular model. UTAUT model has developed on Technology Adoption Model (TAM) model and is used in different settings and have studied behaviour concerning technology acceptance (Chau, 1996; Hu, 1999). Venkatesh et al. (2003)

explained by integrating and refining eight existing models which address five fundamental factors (performance expectancy, effort expectancy, attitude towards usage of technology, social influence, and facilitating conditions) influence performance behaviour. Concurrently, an individual's gender, age, experience may also affect performance behaviours associated with technology acceptance. Alraja (2016) studies UTAUT model in the context on the adoption of E-government.

Cashless Transactions and Small Merchants

Gupta (2016) observed that while demonetization brought about a sea of change in the way Indians transact people still preferred cash transactions in India. Ganesh & Aggarwal (2019) said Though Cashless methods are making a foray into the system (Moss, 2019) most small businesses do not prefer cashless transactions, due to the processing fees and the digital payment process itself. Thoi (2016) researched that there was modest adoption of mobile payments in Sweden too among small merchants. Mukherjee (2019) said that small merchants constitute a significant share of business in India, so it provides a huge market

for mobile payments but most of them are reluctant to go cashless. *E. Factors of the UTAUT Model –*

Venkatesh et al. (2003) defined *performance expectancy* as the degree to which an individual believes that using the system will help the person achieve positive results. The degree of ease associated with the technology is called *effort expectancy*, and it has been found that the effect of effort expectancy on behaviour varies across gender and age (Venkatesh et al., 2003). Onaolapo and Oyewole (2018) revealed a moderate level of Performance Expectancy, Effort Expectancy and Facilitating Conditions towards the use of smartphones for mobile learning. Commer et al. (2018) showed that the performance expectancy and effort expectancy significantly influence the behavioural intentions to adopt mobile commerce. *Social influence* is defined as the degree to which an individual perceives that significant others believe he or she should use technology. The social influence can be through compliance where an individual has to follow the rules or it could be by altering the belief system or when one finds some social gains in changing one's response to some changes. Davis (2000), Moussaïd (2013) also talk about the expert and the majority effect of social interaction. Social influence plays a major role in forming an individual's opinion, altering their beliefs and changing behaviour. It is found that through repeated interaction and information opinions start tilting and changing. Chacoma (2015) experimented and found a change in the opinions under the influence of others. McDonald & Crandall (2015) opined that social influence showcases social norms which state what people do, and what they are expected to do. Social norms are the core of interaction, culture, language and social life.

The study found that opinion does change modulated by the original confidence. Peterson (2004) studied perceived value. He examined the moderating effects of switching costs through both satisfaction and perceived-value measures. The results indicated that companies should focus primarily on satisfaction and perceived value. Sweeney and Soutar (2001) researched about four distinct value dimensions that were emotional, social, quality, performance and price/value for money. Chacour (2001) opined that it is very critical to know from which point or perspective the customer values your product or services. The adoption and diffusion of technology are determined by the perception of the user towards the characteristics or attributes possessed by the technology (Rathore and Panwar, 2015). Chandra, Srivastava & and Theng (2010) developed a model on "technology adoption" and incorporated "trust". There is quite chaos regarding data privacy among the consumer. People are still not carefree as their money, and personal information might get leaked and used against their personnel interest (Abrazhevich, 2004). Benjamin (2007) said that the customers should trust the payment system adopted by another user. The level of user confidence and trust is a contributing factor for the successful adoption of e-payment systems Vasileiadis (2014) examined that trust and risk factors formulate customer perception and affect their intention to adopt mobile commerce. Safety features reduce the effect of risk and increase the intention to use m-commerce. Malkani (2015) opined that only through trust can companies grow and then data traffic will increase many folds.

Samuel, Forgas, García & Emilio (2019) chose *habit* as one of the drivers while studying the adoption of mobile applications. Habit is significantly related to use. People tend to do certain positive and negative acts just out of habit automatically. Though human behaviour is unpredictable, despite this, many studies have done addressing *behavioural intension* (Burke, 2002). Zhang et al. (2012) said that behavioural intention is a solid predictor to show the behaviour of consumers towards the technology. It is present in both TAM introduced by Davis (1989) and in UTAUT developed by Venkatesh et al. (2003). Zarmou et al. (2012) said that behavioural intention shows the subjective approach of consumers towards the adaptability of mobile commerce.

Culture and Cashless Payments

Chau et al. (2002) found that differences in national cultures influence the adoption of information technologies. Agrawal and Haleem (2003) also found that cultural factors do play an important role. Chau et al. (2002) considered the differences between a collectivist culture and an individualistic culture. Bandyopadhyay and Fraccastoro (2007) opined that in Individualistic cultures individual choices reign and in collectivist culture, choices of society rule individual choices. Agrawal & Haleem (2003), Marchese (2001) and Van Slyke et al. (2005) said that in individualistic cultures compliance drives, individual behaviours whereas in collectivist societies changes come through changing of belief system and the response of an individual is according to the potential social status gains. So, the process is more 'internalised' in individualistic cultures. It is related to the identity of the individual, unlike collectivist societies. The adoption of technology may require these two things in Collective societies – Alteration of belief and potential social gains.

Most of the existing studies, based on UTAUT, however, were conducted in the United States, Canada, Switzerland, Japan, Arabic countries, and Hong Kong. India presents a new opportunity to test the acceptance of cashless technology as India is having a robust collectivist culture (Hofstede, 2011). Pihlak & Alas (2012) stated that Indians resist change due to fear and so they resist the acceptance of cashless methods. Collectivist culture talks about the influence society has on individuals. Indian shows a very different acceptance pattern where social influence acts as a strong influencing factor to accept and adopt any new thing. The factor talks about the pressure society puts on people to exhibit certain behaviour. Societal pressure differs in different cultures. Hofstede in (1980, 1991) study found that social pressure is less in individualistic societies compare to collectivist cultures. People feel less pressure to conform to social norms and behaviours. In more collectivist cultures, societal pressures are felt by individuals as they are closely bonded with one another and the opinion of others is more important than the individual. Van Slyke et al., (2005) found that Indian and American consumers perceive relative advantage, ease of use, compatibility, and the demonstrability of results of e-commerce differently.

The study would explore

1. How different factors would influence merchants' adoption of cashless payments methods.

2. Is the UTAUT model suitable to study in a collectivist culture?
3. Do gender, age, location and business types influence the behavioural intention?

The research model for the merchants' intentions to use cashless methods is presented in Figure Researcher has adapted it after the pilot study. Nine Local markets, covering small shops, were researched.

Research Model

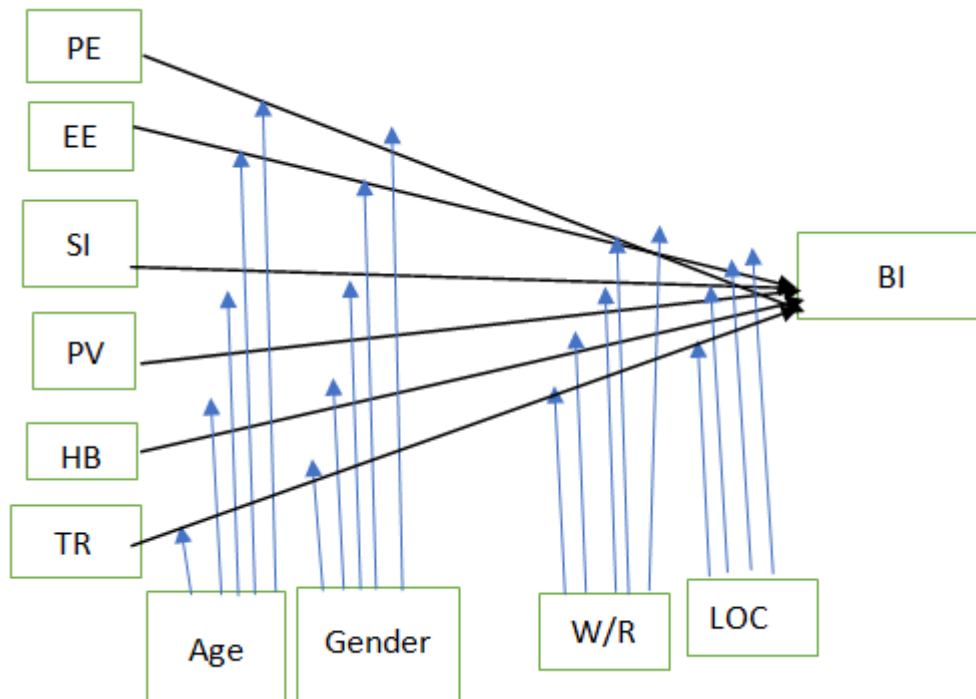


Figure -1 – Performance Expectancy (PE), Effort Expectancy (EE), Social Influence (SI), Perceived Value (PV), Habit (HB), Trust (TR) as independent variables impacting Behavioural Intention (BI). The moderating variables are age, gender, (Wholesale or retailer) business types and location

Source: Adapted from The UTAUT model Source: Venkatesh et al. (2003)

UTAUT provides a theoretical model and framework for examining the interactions between the model constructs and their individual and combined contributions to an individual's behavioural intention in a technology-based environment.

Research Methodology

Based on previous literature the questionnaire was developed taking into consideration the literature, that focused on information technology adoption such as (TAM and UTAUT model) (Viswanath et al., 2003; Carter et al.,2011; Raaij and Schepers, 2008). This study aims to investigate the factors that affect the behavioural intention to use cashless methods among small merchants. It

tries to test whether the UTAUT model is acceptable for the study of cashless methods in the Indian context for small merchants.

The research was conducted in one of the busiest markets; where there is an array of all kinds of shops, ranging from small "Pan shop"(betel leaf shop), redi – walas (moving small eateries), peanut and vegetable vendors. The market is a mixture of retail and wholesale markets. The researcher wanted to study this market, as in India merchants who cater to highly educated and rich class have somehow adapted to cashless methods, it is the small shops that bring a revolution if the mode of payment has to be changed. This study explores the interaction between an individual's reactions to intention to use technology. The study would study the impact of age, gender also. Madan (2016) found gender and age as influencing consumer satisfaction and usage rate of mobile wallets in North India.

UTAUT model was adapted to test the hypothesis. The method adopted to study this research was the quantitative approach. The main instrument in the questionnaire was the seven-point Likert scale, ranging from 1 (strongly disagree) to 7(strongly agree). The survey was divided into two main divisions, the first for covering the constructs of the adopted model and the second for demographic background. A pilot study was conducted to improve the questions. Out of 230, only 203 questionnaires were filled correctly. 9 locations were surveyed. Both male and female small vendors were surveyed. The age group was from 19 to 60. Small Whole sellers, retailers and vendors were surveyed. Reliability tests are used to check the reliability of the variables. Further correlation and regression tests are used to establish a relationship with the variables. R and SPSS tools are used for analysis.

Hypothesis

Ho1= There is no relationship between performance expectancy and behavioural intention of small merchants.

Hi1= There is a relationship between performance expectancy and behavioural intention of small merchants.

Ho2= There is no relationship between effort expectancy and behavioural intention of small merchants.

Hi 2= There is a relationship between effort expectancy and behavioural intention of small merchants.

Ho3= There is no relationship between Social Influence and behavioural intention of small merchants.

Hi3= There is a relationship between Social Influence and behavioural intention of small merchants.

Ho4= There is no relationship between Perceived Value and behavioural intention of small merchants.

Hi4= There is a relationship between Perceived Value and behavioural intention of small merchants.

Ho5= There is no relationship between Trust and behavioural intention of small merchants.

Hi5 = There is a relationship between Trust and behavioural intention of small merchants.

Ho6= There is no relationship between habit and behavioural intention of small merchants.

Hi6 = There is a relationship between Trust and behavioural intention of small merchants.

Analysis

Reliability Analysis

The reliability was conducted,

Table – 1: depicts all the variables and their Cronbach Alpha values

Variable	Alpha
PE	.91
EE	.93
SI	.88
PV	.82
HB	.79
TR	.76
BI	.89

Perceptions about performance expectancy, effort expectancy, social influence, perceived value, Trust and habit by both genders

Ho 7 = There is not a difference of opinion between males and females towards independent variables PE, EE, SI, PV, Trust and Habit.

Hi 7 = There is a difference between males' and females' opinions towards independent variables PE, EE, SI, PV, Trust and Habit.

Hypothesis Testing

Wilcox test was applied through R software, to test the hypothesis about the difference of opinion about males and females towards independent variables. Table 2 shows that there is no difference in both genders about performance expectancy as the p-value is 0.5462. In the case of effort expectancy, we accept the null hypothesis as the p-value is 0.9985, which is more than 0.05. We accept the null hypothesis as far as a social influence is concerned as the p-value is 0.8787, which is more than 0.05. For the perceived value we retain the null hypothesis as the p-value is 0.7189, which is more than 0.05. We keep the null hypothesis for trust as the p-value is 0.6155, which is, more than 0.05. We retain the null hypothesis for habit as the p-value is 0.5627, more than 0.05. We keep the null hypothesis as the p-value is 0.3224, which is more than 0.05.

Variable	p-value	Hypothesis testing
Performance expectancy	0.5462	accept the null hypothesis
Effort expectancy,	0.9985	accept the null hypothesis

Social Influence	0.8787	accept the null hypothesis
Perceived value	0.7189	accept the null hypothesis
Trust	0.6155	accept the null hypothesis
Habit	0.5627	accept the null hypothesis

Table -2

(Males and females' opinion towards performance expectancy, effort expectancy, social influence, perceived value, Trust and habit by both genders)

Wholesaler and Retailer's perception about the variables

Ho 8 = There is not a difference of opinion, between wholesalers and retailers for, independent variables.

Hi 8 = There is a difference of opinion, between wholesalers and retailers for independent variables.

Wilcox test was applied through R software, to test the hypothesis. Table 3 shows that there is a difference in the opinion of people belonging to a different type of business (wholesale and retail) regarding performance expectancy as the p-value is less than .05, 0.001119. There is a difference in the opinion of people belonging to a different kind of business regarding Effort Expectancy as the P-value is 0.008438. There is a difference in the opinion of people belonging to a different type of business (W/R) regarding Social Influence as the p-value is .0002485. There is a difference in the opinion of people belonging to a different kind of business relating to Perceived Value as the p-value is 0.04052. There is a difference in the opinion of people belonging to a different type of business regarding Trust as the p-value is 0.01945. There is not any difference in the opinion of people belonging to a different kind of business about Habit as the p-value is 0.3192.

Variable	p-value	Hypothesis testing
performance expectancy	0.0011	reject the null hypothesis
effort expectancy,	0.0084	reject the null hypothesis
Social Influence	0.0002	reject the null hypothesis
perceived value	0.0405	reject the null hypothesis
Trust	0.0194	reject the null hypothesis
habit	0.3192	accept the null hypothesis

Table – 3

(Difference in the opinion of people belonging to a different type of business (wholesale and retail) regarding independent variables)

Perceptions Regarding Variables in Different Locations

Nine locations were surveyed, and the findings were –

Ho 9 = There is not a difference of perceptions, in different locations for independent variables.

Hi 9 = There is a difference of perceptions, in different locations for variables for independent variables Kruskal test was applied through R software, to test the hypothesis

Table -4 shows the perceptions regarding variables in different locations. We accept the null hypothesis as the p-value is 0.209, which is more than 0.05, that there is no difference in opinions regarding Performance Expectancy as far as location is concerned. As the p-value is less than 0.05, 0.03096, we reject the null hypothesis and accept the alternate hypothesis that there is a difference in opinion about effort expectancy in a different location. We take the null hypothesis as p-value is 0.159, that there is no difference in opinion regarding social influence as far as location is concerned. We accept the null hypothesis as the p-value is 0.114, which is more than 0.05, that there is no difference in opinion regarding perceived value as far as location is concerned. We reject the null hypothesis and accept the alternative hypothesis that there is a difference of opinion about the trust factor in a different location, as the p-value is 0.02328. We reject the null hypothesis and accept the alternative hypothesis that there is a difference of opinion about habit factor in a different location as the p-value is 0.008226.

Variable	p-value	Hypothesis testing
Performance expectancy	0.209	We accept the null hypothesis
Effort expectancy,	0.030	We reject the null hypothesis
Social Influence	0.159	We accept the null hypothesis
Perceived value	0.114	We accept the null hypothesis
Trust	0.023	We reject the null hypothesis
Habit	0.008	We reject the null hypothesis

Table – 4
(Perceptions regarding variables in different locations)

Correlation Between The Independent And Dependent Variable Pearson Correlation Analysis

Furthermore, to conduct a multiple regression analysis, it should be checked via correlation analysis that the independent variables show at least some relationship with the dependent variable (Pallant, 2007). Hence the person correlation analysis will also be used to examine this. Moreover, a Pearson Correlation Analysis was conducted in SPSS to check if there is a linear

relationship between the independent and dependent variables. A Pearson Correlation Coefficient is a measure of the linear correlation between two variables, where 1 denotes total positive correlation, 0 means no correlation, and -1 is a total negative correlation.

Correlation Matrix of Independent Variables and Dependent Variable

Variables	Correlation	Behavioural Intention	Sig
Performance Expectancy	0.590**	1	0.00
Effort Expectancy	0.631**	1	0.000
Social Influence	0.432**	1	0.000
Perceived Value	0.384**	1	0.000
Trust	0.516**	1	0.000
Habit	0.516**	1	0.000

Table – 5

Note. The independent variables and dependent variables are the UTAUT constructs. PE = Performance Expectancy; EE = Effort Expectancy; SI = Social Influence; PV = Perceived Value; TR = Trust ; HB = Habit and BI = Behavior Intention .

As we can see from table 6, which displays the results obtained from the Pearson Correlation Coefficient Analysis, all of our independent variables have a relationship with the dependent variable. The results of Pearson correlation analysis are presented as follows: (a) performance expectancy and behavioural Intention (0.59), (b) effort expectancy and behavioural Intention (0.63), (c) social influence and behavioural Intention (0.43), (d) and perceived value and behavioural Intention (0.38), (e) trust and behavioural Intention (0.51), habit and behavioural Intention (0.51).

It indicates that between our independent and dependent variables, the linear relationship required is present to proceed with multiple linear regression analysis. Also, the Pearson correlation coefficient is positive in all the cases, which indicates that there is a positive relationship between the independent factors and the dependent factor as all the independent factors.

Multiple Linear Regression Analysis – To See The Impact Of Factors Multiple Linear Regression Was Applied

Independent variable	Coefficient B	Sig.
Performance Expectancy	.252	.003
Effort Expectancy	.335	.000
Social Influence	.031	.661
Perceived Value	-.099	.184
Habit	0.240	.001

Table – 6

(Multiple regression analysis – independent variables impact on behavioural intention)

Table 9 displays and summarizes the most important results. If the Sig. value of the independent variable is smaller than 0.05 so it can be used to predict the dependent variable. By looking at Table 9 above, we can see that the Sig value, is lower than 0.05 for PE, EE And HB. Hence, each of these factors has a significant predictive ability for the dependent variable, and have an impact on the dependent variable. Social Influence and Perceived value's impact is not significant. Trust is excluded because of multicollinearity. This means that SI, PV and TR, cannot predict the behavioural intention to use cashless methods among merchants.

Discussion of Descriptive Analysis

The researcher found that people prefer e-wallet among cashless methods and usage is maximum between 26 to 45. People from 25 to 29 are preferring e-wallets. It explains that young people are more tech-savvy and the old generation in India is not very comfortable with technology. They find it cumbersome. Computer literacy among people, especially in the age group of over -50 is still very low (Fatima, 2019) Usage by 'New shops' support this opinion which is run by young people. Location wise, e-wallet was found as, the most preferred mode of transaction where customer footfall was more than 80 customers per day.

There is no difference in the opinion of males and females about performance expectancy, effort expectancy, social influence, Perceived value, trust, habit. Both males and females are using cashless methods and prefer e-wallet if they are in the age group of 25 to 45 and are in the retail business. There is a difference in the opinion of people belonging to a different type of business. Wholesalers are not in favour of using cashless methods at all. Retailers are using cashless methods, and among the options, they prefer e-wallets. It explains that they doubt the performance of cashless methods, about the effort required to use, about the value they will derive from using. Social influence might be a factor as most wholesalers are not using cashless methods. It explains that they do not have trust also. There is no difference in the perception about habit, but there is a difference in opinion about all other variables between whole sellers and retailers. There is no difference in the opinions regarding 'Performance Expectancy' as far as location is concerned. There is a difference in opinion about 'effort expectancy' in a different location. It is because in some locations merchants were not educated at all, and it required effort on their part to understand cashless methods. There is no difference in opinion regarding 'social influence' as far as location is concerned, as locations might have a social influence on merchants. There is a difference of opinion about 'trust', 'habit' and 'behavioural intention' factors in different locations, which might be driven by social influence in the collective society like India.

Discussion of Correlation and Regression analysis- The researcher has found that there is a significant relationship between all the independent variables PE, EE, PV, SI, TR, HB to BI. But we found further that there is multicollinearity. The new model for the adoption of a digital payment system, in India by small merchants could not have, social influence, perceived value, trust as independent variables impacting behavioural intention.

Implications of the study

Academic Implications

Though there are studies done on technology adoption using the UTAUT model, this study is unique.

- a) Firstly, it studied the factors influencing small merchants' behavioural intention to adopt cashless methods of payments.
- b) Secondly, it tested whether the UTAUT model is suitable for the Indian cultural context.
- c) Thirdly, it included the unorganized sector unique to Indian markets.
- d) *Criticism of the UTAUT Model* - The model could not successfully work with small merchants as far as perceived value, social influence and trust factor is concerned. It is contradicting the cultural aspects of India. Indian society is a collective society. Social influence is a major factor for Indians in every aspect. Perceived value is also a very important factor for Indian customers, as Indian consumers highly price sensitive. The trust factor is important as Indians resist change due to fear, and fear would decrease if trust increases. It could not appear so in the study though.

Few Recommendations From The Study

The government and the organizations both can understand that the age factor is an important variable. Government and the organizations should make older merchants' comfortable with the idea, as well as with technology. Advertisements or camps could be set up for training. Further, some locations, particularly markets dealing in wholesale markets could have training booths by the organizations or the government, which make people comfortable with the cashless methods.

Habit inculcation is an important part of changing behaviour. If we could inculcate habit cashless transactions may accelerate. Benefits provided to merchants will compel them to use cashless methods and will further inculcate habits among them. Tax rebates might also help for the same. Degryse (2016) believed that companies have opportunities to offer various services to simplify users' habits and modes of consumption. Merely lowering the fees for using digital methods will not help but rising demand for digital transactions and incentivizing usage will bring change (Ligon, Malick, Sheth & Trachtman, 2019). Regulatory laws play a critical role here in bringing formalization in the business for bringing trust about payment markets (Moss, 2019).

The government should launch more affordable options for people to buy smartphones for cashless transactions (Fatima, 2019). More public charging points need to be installed as the population of India is significant, and India still lacks when it comes to supporting a mobile society. Corporates 'communication strategies should be such to encourage people to use more digital methods. They should use kiosks, the internet, social media, TV commercials, product placement. Language can be vernacular. Subrahmanya (2018) opined that

effective policy shifts and altering consumer preferences can lead India to become a cashless economy.

Limitations and Conclusion

Though the UTAUT model was not found suitable enough for small merchants in the Indian sector. The study still contributed to understanding some factors which contribute to taking the study further. The study had time and money constraints but it could be taken further to study the behavioural pattern in Indian sectors.

References

- Abrazhevich, D.(2004). Electronic Payment Systems: a User-Centered Perspective and Interaction Design. Electronic Payment Systems: a User-Centered Perspective and Interaction Design. Technische Universiteit Eindhoven. <https://doi.org/10.6100/IR575913>
- Agrawal, V. K. and Haleem, A. (2003). Culture, Environmental Pressures, and the Factors for Successful Implementation of Business Process Engineering and Computer-Based Information Systems. *Global Journal of Flexible Systems Management*. (4)1/2, 27-48.
- Alraja, M. (2016). The influence of effort and performance expectancy on employees to adopt E-government: Evidence from Oman. *International review of management and marketing*, 6,4,930-934.
- Apanasevic, T. h. (2013). Obstacles to investments in mobile payments: The perspective of merchants. Developing the future ICT infrastructure-technologies, markets, and policies, CMI International Conference 2013,Aalborg University, Copenhagen.
- Bandyopadhyay, K. and Fraccastoro, K. A. (2007). The Effect of Culture on User Acceptance of Information Technology. *Communications of the Association for Information Systems*,19, 23, 522-543
- Burke, R. R. (2002).Technology and the customer interface: what consumers want in the physical and virtual store. *Journal of the Academy of Marketing Science*, 30, 4,411-432.
- Bushnell, M.(2019). Are Digital Payments Really Killing Cash? *Business Daily*. <https://www.businessnewsdaily.com/15255-cash-free-society.html>
- Carter, L., Christian, S. L., Hobbs, J. and Campbell, R. (2011). The role of security and trust in the adoption of online tax filing. *Transforming Government: People, Process and Policy*, 5,4, 303-318.
- Chau, P. Y. (1996). An Empirical Assessment of a Modified Technology Acceptance Model. *Journal of Management Information Systems*. (13)2,185-204.
- Chacoma, A., & Zanette, D. H. (2015). Opinion Formation by Social Influence: From Experiments to Modeling. *PloS one*, 10(10), e0140406. <https://doi.org/10.1371/journal.pone.0140406>
- Chacour,W.U.(2001). Measuring Customer-Perceived Value in Business Markets: A Prerequisite for Marketing Strategy Development and Implementation. *Industrial Marketing Management*, 30, 6, 525-540.
- Chandra, S., Srivastava, S. C., & Theng, Y.L. (2010). Evaluating the Role of Trust in Consumer Adoption of Mobile Payment Systems: An Empirical

- Analysis. Communications of the Association for Information Systems, 27,29,561-588.
- Chau, P. Y. K., Cole, M., Massey, A. P., Weiss, M.M. and Keefe, R.O.M. (2002). Cultural Differences in the Online Behavior of Consumers. Communications of the ACM,45,10, 138-143.
- Commer, P., Sci, S., Sair, S. A. & Danish, R. (2018). Effect of Performance Expectancy and Effort Expectancy on the Mobile Commerce Adoption Intention through Personal Innovativeness among Pakistani Consumers. Pakistan Journal of Commerce and Social science .12, 501-520.
- Competition review (2015).Demonetization a move towards digital india. <https://www.competitionreview.in/demonetization-a-move-towards-digital-india/>
- Cromptonb, D. A. (2000). Quality, satisfaction and behavioural intentions. Annals of Tourism Research, 27, 3, 785-804.
- Davis, V. V. (2000). A Theoretical Extension of the Technology Acceptance Model: Four Longitudinal Field Studies. Management Science, 46,186-204.
- Dennehy, D. & Sammon, D. (2015). Trends in mobile payments research: A literature review. Journal of Innovation Management, 3,10, 1-10.
- Degryse, C. (2016). Digitalisation of the economy and its impact on labour markets. Brussels: ETUI aisbl. <https://www.etui.org/publications/working-papers/digitalisation-of-the-economy-and-its-impact-on-labour-markets>
- Dhanorkar, S. (2017). What are people's concerns and preferences in cashless payments? The Economic Times. <https://economictimes.indiatimes.com/wealth/spend/ready-to-go-cashless/articleshow/56269830.cms>
- Fatima, S. & Ahmed, S. (2019). Cash to Cashless Economy: Challenges and Opportunities. Sumedha Journal of Management, 8(2), 170-178.
- Gupta.S. (2016). How E-commerce and FinTech players have been fairing post the Note-Ban. Business World. <http://bwdisrupt.businessworld.in/article/How-E-commerce-And-FinTech-Players-Have-Been-Fairing-Post-The-Note-Ban-/21-11-2016-108597/>
- Ganesh, V. and Aggarwal, V. (2019). Digital-economy a 1trillion opportunity for India. The Hindu Business Line. <https://www.thehindubusinessline.com/info-tech/digital-economy-a-1-trillion-opportunity-for-india/article26323150.ece>
- Hofstede, G. (2011). Dimensionalizing Cultures: The Hofstede Model in Context. Online Readings in Psychology and Culture, 2(1). <https://doi.org/10.9707/2307-0919.1014>
- Hu, P. J. (1999). Examining the Technology Acceptance Model Using Physician Acceptance of Telemedicine Technology. Journal of Management Information Systems. (16)2, 91-112.
- Hill, R. and Troshani, I. (2007). A conceptual framework and propositions for the acceptance of mobile services. Journal of Theoretical and Applied Electronic Research, 2 (2), 61-73.
- Jakubowska, M. (2017). The role of cashless transactions in the process of limiting the scale of the shadow economy. Copernican Journal of Finance & Accounting, 6(4), 23-37.
- Kalaiarasi, H. and Srividya, V. (2012). A study on wireless banking services - the case of mobile banking with integrated technology acceptance model. Journal of Contemporary Research in Management, 7(3),31-40.
- The-long-road-to-cashless-India(2017).livemint. <https://www.livemint.com/Opinion/OkRHmAumYZe1iS5BnQlwPN/The-long-road-to-cashless-India.html>

- Ligon, E., Malick, B., Sheth, K. and Trachtman, C.(2019). What explains the low adoption of digital payment technologies? Evidence from small-scale merchants in Jaipur, India. *PLoS ONE* 14(7): e0219450. <https://doi.org/10.1371/journal.pone.0219450>
- Marchese, M. C. (2001). Matching Management Practices to National Culture in India, Mexico, Poland, and the U.S. *The Academy of Management Executive*, (15)2, 130-133.
- Marakarkandy, B. and Daptardar, A. (2013). Evaluation of Internet Banking Sites from the Dimensions of Functionality. *The IUP Journal of Bank Management*, (10), 1,60-70.
- Malkani, D. (2015). India is Reaching an Inflection Point in Technology Adoption. https://www.cisco.com/c/en_in/about/thought-leadership/reaching-infection.html.
- Madan, K. (2016). Behavioural intention to adopt mobile wallet: a developing country perspective. *Journal of Indian Business Research*,8, (3), 227-244.
- Moussaïd, M. K. (2013). Social influence and the collective dynamics of opinion formation. *PloS one*, 8(11), e78433. doi:10.1371/journal.pone.0078433.
- McDonald, R. I.& Crandall, C. S. (2015). Social norms and social influence. *Current Opinion in Behavioral Sciences*, 3,147-151.
- Mishra, D. (2019, MAY Tuesday). Govt eyes 40bn e-transactions in FY20. *The Times of India*, p. 5.
- Mukherjee, A. (2019). View: Cashless India could be a model for the world. *The Economic Times*.https://economictimes.indiatimes.com/industry/banking/finance/view-cashless-india-could-be-a-model-for-the-world/articleshow/69669960.cms?utm_source=contentofinterest&utm_medium=text&utm_campaign=cppst
- Moss, R. (2019). The Benefits of Cashless Transactions for Small Businesses. *Total Processing* .<https://www.totalprocessing.com/blog/the-benefits-of-cashless-transactions>
- Nagata, K. (2018). Japan grudgingly heads toward cashless society/#.XPD1H9MzaRs. *Japan Times*. <https://www.japantimes.co.jp/news/2018/12/03/reference/japan-grudgingly-heads-toward-cashless-society/#.XPD1H9MzaRs>
- Özkan, S., Bindusara, G. and Hackney, R. (2010). Facilitating the adoption of Payment systems: theoretical constructs and empirical analysis. *Journal of Enterprise Information Management*, 23,(3), 305-325.
- Onaolapo, S., & Oyewole, O. (2018). Performance expectancy, effort expectancy, and facilitating conditions as factors influencing smartphones use for mobile learning by postgraduate students of the University of Ibadan, Nigeria. *Interdisciplinary Journal of e-Skills and Lifelong Learning*, 14, 95-115.
- Png, I. P. L., Yan, B. C. Y. and Wee, K. L. (2001). Dimensions of National Culture and Corporate Adoption of IT Infrastructure. *IEEE Transactions on Engineering Management*. (48)1, 36- 45.
- Peterson, Z. Y. (2004). Customer perceived value, satisfaction, and loyalty: The role of switching costs. *Psychology and marketing*, 21, 10, 799-822.
- Pallant, J. (2007). *SPSS survival manual—A step by step guide to data analysis using SPSS for windows (3rd ed.)*. Berkshire, UK: Open University Press.
- Pihlak, Ü & Alas, R. (2012). Resistance to change in Indian, Chinese and Estonian organizations. *Journal of Indian Business Research*. 4. 10.1108/17554191211274767.

- Punitha, S., Aziz, Y. A. and Rahman, A. A. (2015). Consumers' Perceptions of Green Marketing in the Hotel Industry. *Asian Social Science*, 12(1), 1.
- Raaij, E. M. V. and Schepers, J.L.J. (2008). The acceptance and use of a virtual learning environment in China. *Computers and education*, 50, (3), 838-852.
- Rathore, S. and Panwar, A. (2015). Factors Influencing Behavioural Intention to use Smart Phones. *Global Vistas*. 2. 19-28.
- Reserve Bank of India. (2019). Payment and settlement systems in India: vision – 2019-2021; Empowering Exceptional (E)payment Experience. <https://www.rbi.org.in/Scripts/PublicationVisionDocuments.aspx?Id=921>
- Samuel, P.R., Forgas, S. & García, S. J. & Emilio, R. (2019). User Acceptance of Mobile Apps for Restaurants: An Expanded and Extended UTAUT-2. *Sustainability*, 11, 1210; DOI:10.3390/su11041210.
- Sykes, A. O. (1993). An Introduction to Regression Analysis (working paper No 20). Coase-Sandor Institute for Law & Economics. https://chicagounbound.uchicago.edu/law_and_economics/51/
- Sweeney, J.C. and Soutar, G.N. (2001). Consumer Perceived Value: The Development of a Multiple Item Scale. *Journal of Retailing*, 77, 203-220.
- Subrahmanya, K. N., Puttana, K. (2018). Payments transition in India – consumer preferences and policy shifts. *Banks and Bank Systems*, 13(4), 17-30.
- Tabachnick, B.G. and Fidell, L.S. (2001). *Using Multivariate Statistics* (4th Ed.). Needham Heights, MA: Allyn & Bacon.
- Thoi, M. (2016). Exploring merchants' adoption of mobile payments A qualitative study on Swedish merchants' perspectives. <https://www.semanticscholar.org/paper/Exploring-merchants%E2%80%99-adoption-of-mobile-payments-A-Thoi/0daef7228724e19d5d3807b101a69f5e2760943d>
- Venkatesh, V., Morris, M. G., Davis, G. B. and Davis, F. D. (2003). User Acceptance of Information Technology: Toward a Unified View. *MIS Quarterly*, 27, (3), 425-478.
- Van Slyke, C., Belanger, F. and Sridhar, V. (2005). A Comparison of American and Indian Consumers Perceptions of Electronic Commerce. *Information Resources Management*. (18)2, 24-41.
- Vasileiadis, A. (2014). Security Concerns and Trust in the Adoption of M-Commerce. *Social Technologies*. 4. 179-191.
- Yadav, P. (2017). Active Determinants for Adoption of Mobile Wallet. *Manager's Journal on Management; Nagercoil*, 12(1), 7-14.
- Zarmpou, T., Saprikis, V., Markos, A., & Vlachopoulou, M. (2012). Modelling users' acceptance of mobile services. *Electronic Commerce Research*, 12(2), 225-248.
- Zhang, L., Zhu, J., & Liu, Q. (2012). A meta-analysis of mobile commerce adoption and the moderating effect of culture. *Computers in Human Behavior*, 28(5), 1902-1911.
- Susilo, C. B., Jayanto, I., & Kusumawaty, I. (2021). Understanding digital technology trends in healthcare and preventive strategy. *International Journal of Health & Medical Sciences*, 4(3), 347-354. <https://doi.org/10.31295/ijhms.v4n3.1769>
- Rinartha, K., & Suryasa, W. (2017). Comparative study for better result on query suggestion of article searching with MySQL pattern matching and Jaccard similarity. In *2017 5th International Conference on Cyber and IT Service Management (CITSM)* (pp. 1-4). IEEE.

- Rinartha, K., Suryasa, W., & Kartika, L. G. S. (2018). Comparative Analysis of String Similarity on Dynamic Query Suggestions. In *2018 Electrical Power, Electronics, Communications, Controls and Informatics Seminar (EECCIS)* (pp. 399-404). IEEE.