

Gender's Perspective towards m-Wallet in North India

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Abstract

M-Wallet users in India are growing day by day. The present paper describes the gender perspective towards M-wallet in North India. The objective of study is to identify the gender difference regarding uses, referred and effect of satisfaction and security on preference of using m-Wallet. Data of 506 m-Wallet users have been included in the study. A self-administrated questionnaire was used for data collection. Five factors were extracted with help of exploratory factor analysis. Three factors have been comprised into preference such as payment, offers and service. T-test and Crosstabulation was applied to examine the difference between male and female regarding uses and referred of m-wallet. Multi-group structural equation modeling was applied to examine the effect of security and satisfaction on preference of using w-Wallet on gender basis. It was found that there is no significant difference between male and female regarding uses and significant difference regarding referred of m-Wallet. A significant difference was found between male and female with respect to effect of satisfaction and security on preference of using the m-Wallet.

Keywords: M-Wallet, Satisfaction, Security, Preference, Uses, Referred. North India,

1. Introduction

India's endeavor toward cashless payments augmented in 2019. Mobile payments have surpassed card payments approximately 163% to \$286 billion in 2019 (Sharma, 2020). While a contraction in economic activity amid lockdowns due to the coronavirus outbreak will adversely impact cashless payments, mobile payments should be relatively resilient. Their uptake will accelerate due to concerns over usage of cash and plastic that interacts with potentially virus infected surfaces. Popular mobile payments services in India are overlaid on Unified Payments Interface, a banking industry-sponsored protocol that lets people link their bank accounts with their phone numbers through payment apps. RBI has projected nearly 50 percent upsurge in mobile based payment transactions. The driving factors of this change are strong payment infrastructure, accessibility of structured data, and consumer behaviour change and government vision for cashless economy (Reserve Bank of India, 2019). Collaborations leads to better outcomes (Tiwari and Anjum, 2015). Simplicity is often ignored by firms (Tiwari et al. 2018). Before the outbreak of COVID-19 in India, transaction made through mobile payment apps was gained momentum already. During coronavirus period digital payments strengthened further as more and more consumers shifted towards mobile payment. Mobile payment apps like Amazon pay, Google pay and PhonePe in India recorded a significant jump in total number of transactions during the COVID-19 crisis (Sharma, 2020). Modi government has taken lot of policy initiatives for digital technology adoption (Tiwari and Anjum, 2012). Governance has become important determinant of policy outcomes (Tiwari et al. 2020). Good policies with good intent leads to positive transformation in the life of target segment (Agrawal et al. 2022). Such training programmes should also be carried out by private sector. Private sector has immense potential for skill development (Tiwari et al. 2013). Capital intensive sectors has the potential for support inclusive growth (Tiwari and Anjum 2012). The organisations need to take global perspectives to be ready to face challenges of the twenty first century (Tiwari et al. 2022). Inclusive growth needs balanced focus on male and female stakeholders (Chauhan et al. 2022).

2. Theoretical background

Manikandan & Jayakodi (2017) found that mobile wallet will replace different online payment modes in future and mobile wallet users are quite satisfied. Further they added brand loyalty and shopping convenience play pivotal role in mobile wallet usage, on the contrary safety and security regarding mobile wallets is a challenge. Organic processes are more sustainable (Tiwari et al. 2019). Jose et. al. (2014) found the impact of ease of use of mobile wallet on usefulness, impact of usefulness of mobile wallet on attitude and impact of usefulness of mobile wallet on intention is more robust in men than women. They also established the impact of the perceived trust in the proposed mobile wallet payment system on attitude is quite stronger in women than men.

Riquelme & Rios (2010) found that ease of use has a significant impact on female respondents than male to conduct mobile banking, while relative advantage has robust influence on perception of usefulness to conduct mobile banking in males. Social norms play crucial role on females to adopt mobile banking than males. Chawla & Joshi (2020) found that in mobile banking gender has a moderating effect between attitude and ease of use and it is higher in

females in relation to males. Further this can be translated as females have higher effect of the ease of use of mobile banking comparatively males. Chawla & Joshi (2018) suggested that gender has a moderating effect between attitude towards mobile banking and ease of use. It is interpreted as females have higher ease of use for mobile banking in relation to males. Sustainability will drive profitability in long term (Tiwari et al. 2022)

2.1 Hypothesis development

H1: There is a significant difference between male and female regarding uses of m-Wallet

Singh, N. et al. (2017) found that gender has a substantial influence on the usage rate of mobile wallet. The study established that North Indian males use mobile wallets for banking needs more than females and they use more service options offered by mobile wallet relatively to females. It is identified that mobile banking has been more used by male as compared to female respondents (Laukkanen et al., 2007; Koenig-Lewis 2010; Johnson and Marakas, 2000). Small firms have lot of potential (Tiwari et al. 2022). A significant difference between male and female has been found of uses of m-Wallet (Zhang, 2005; Riquelme and Rios, 2010; Jayawardhena et al., 2009; Venkatesh et al., 2003; Gefen and Straub, 1997). Willingness is crucial for technology adoption (Tiwari et al. 2021). Satisfaction from services leads to sustainability of that service (Chand et al. 2022).

H2: There is no significant difference between male and female regarding I am using because of referred of m-Wallet

Kumar and Seri (2014) found that consumer perceives the new technology easily and prefer it more for their banking services. Satisfied consumer refers the m-Wallet to others such as friends, relative, neighbor and colleagues. Lapowsky (2014); Kaur (2016) found that new technology as m-Wallet has been adopted by consumers due to referred by their friends and family members.

H3: There is no significant difference between male and female on effect of satisfaction of preference of using m-Wallet

Singh (2014) examined that preference of using m-Wallet positively influenced by satisfaction. The benefits of mobile wallet than traditional method of banking as cash transactions lead to satisfaction for mobile wallets. The preference of using the mobile wallet depends on user's satisfaction. Singh et al. (2017) described that there is significant relationship between satisfaction and preference of using the m-Wallet. No significant difference has been found between male and female regarding the satisfaction and preference of using m-Wallet (Nidhi et al., 2017). Good governance enhances satisfaction (Tiwari et al, 2022). Sharma (2012) argued that entrepreneurship enhances skills and decision ability and status in family and community.

H4: There is not significant different between male and female on effect of security on preference of using m-Wallet.

Singh, S. (2014) described that most of consumers are not aware about importance and significance of security, trust and privacy factors to adopt new technology. Amin (2009)

explained that security is the most influencing factor which motivates the consumer to prefer the m-Wallet. Agus et al. (2007); Yang and Lee (2010) found that there is a positive association between security and preference of adopting new technology. hierarchical support can provide better results (Tiwari and Anjum 2018). Suls and Wallston (2008) found that less security can lead to low preference and less satisfaction in adopting m-Wallet. Dahlberg et al. (2008) described that security is an important factor which significantly impact on the preference level. It means, if m-Wallet is easy to use, secured and reliable consumers prefer to use it more for all banking activities. Agarwal et al. (2020) found that environmental, social and personal factors influence women decision making. Human capital is crucial for development (Tiwari et al. 2017).

2.2 Research Gap

On the basis of review of literature hypothesis model was developed. Various research studies have been regarding satisfaction, security and preference of using the m-Wallet, but there is a gap to identify difference between male and female regarding uses, refers, effect of satisfaction and security on preference of m-Wallet in North India. However, no study has been done in North India to identify the difference between male and female regarding uses, refers, and effect of satisfaction and security of m-Wallet. The present study fills this gap in North India.

2.3 Objectives of the Study

On the basis of review of literature, different dimensions have been observed. These dimensions have been comprised in to many factors such as satisfaction, security and preference of mobile wallet users. Data has been collected from North India because before it no study was conducted. The main objective of the study is to analysis the gender difference on using the m-wallet. The sub-objectives of study are follows as

1. To examine the gender difference on uses of mobile wallet
2. To examine the gender difference on effect of satisfaction on preference of using m-wallet.
3. To examine the gender difference on effect of security on preference of using m-wallet

2.4 Theoretical framework

2.4.1 Hypothesis model of gender difference on

1. Effect of satisfaction on preference of using mobile wallet and
2. Effect of security on preference of using m-wallet.

After studied the review of literature, hypothesis model has been development on effect of user's satisfaction and security on preference of using mobile wallet. The effect of satisfaction and security on preference has been observed on the basis of gender difference.

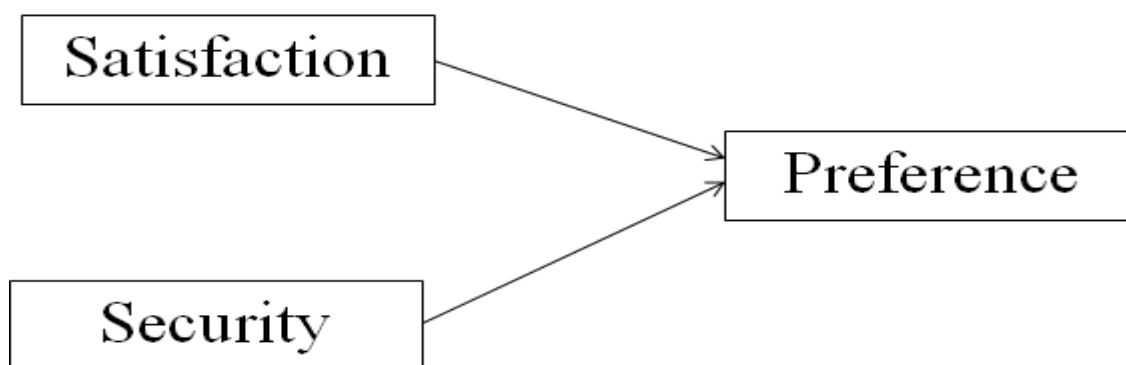


Figure 1: Framework of effect of satisfaction and security on preferences

3. Method

The Self-administrated questionnaire was development to examine the effect of satisfaction and security on preference on the basis of gender difference. Gender difference was also analyzed regarding the uses and refers. 30 dimensions were used related to satisfaction, security and preference. 8 dimensions have been comprised into satisfaction. 13 dimensions were used in preference and 9 dimension in security. A five-point rating scale ranging from strongly disagree (1) to strongly agree (5) has been used. Data of 506 respondents was collected from North India who was using the m-wallet with the help of convenience sampling method. 263 male and 243 female were included in the survey. 270 respondents were 15 to 25 years and 175 belong to 26 to 35 years. 61 respondents were 36 to 45 years. Structural equation modeling (SEM) was used to find out the effect of satisfaction and security on preference of using mobile wallet. The result was obtained with the help of SPSS 20.0 version and AMOS 20.0.

4. Results

The result of study has been obtained with the help of SPSS 20 version and AMOS 20 version. The result was described according to objectives of the study and hypothesis based.

Objective 1: To examine the gender difference on uses of mobile wallet

H1: There is a significant difference between male and female regarding uses of m-Wallet

Table1: Gender difference regarding the uses of m-wallet

Group Statistics (Male= 263, Female = 243)					
	Gender	Mean	Std. Deviation	t	Sig. (2-tailed)
USES	Male	3.26	1.067	-1.878	.061
	Female	3.43	.952		

Table 1 describes that there is no significant difference between male and female regarding uses of m-wallet. The mean and standard deviation value of male respondent is 3.26, 1.067 respectively. The mean value of female respondent is high (3.43) as compared to male and less standard deviation (.952) which shows that female more use the m-wallet as compared to male but these value indicates insignificant difference between them. The result of 5% level of significant is 0.061 and t value -1.878.

Table 2: Gender difference regarding uses of m-wallet through crosstabulation

Gender * USES Crosstabulation								
			USES					Total
			Every day	Several times in a Day	Several times in a week	Several times in a Month	Never	
Gender	Male	Count	32	20	67	136	8	263
		% within Gender	12.2%	7.6%	25.5%	51.7%	3.0%	100.0%
	Female	Count	22	11	54	153	3	243
		% within Gender	9.1%	4.5%	22.2%	63.0%	1.2%	100.0%
Total		Count	54	31	121	289	11	506
		% within Gender	10.7%	6.1%	23.9%	57.1%	2.2%	100.0%

The above table 2 describes that 12.2% (32) male and 9.1% (22) female respondent use the m-wallet every day. Total 54 (10.7%) gender out of 506 respondents use the m-wallet every day. male respondents more use the m-wallet as compared to female in several time in a day. 7.6% (20) male and female 4.5% (11) use the m-wallet in several time in a day. total contribution of gender of out of 506 for using the m-wallet in several times in a day is 6.1% (31). M-wallet users as male respondents are high in several times in a week as compared to female. 25.5% (67) male respondents use the m-wallet as compared to female 22.2% (54) in several times in a week. The percentage of gender of using the m-wallet in several times in a week is high as compared to every day and several times in a day. In comparison of male and female respondent of using the m-wallet in several times in a month, male users are higher than female. The percentage of using the m-wallet of female is high as 63% than male 53.7% in several times in a month. Those respondents, do not use the m-wallet every day, several times in day and several times in a week, most probably they use in the several times in a month. The total percentage (57/1%) of using the m-wallet in several times in a month is high as compared to all the times of using the m-wallet as every day, several times in day and week. The very less people do not use the m-wallet. Today, people don't waste their time in queue.

Objective 2: To analysis the gender difference on I am using because of referred by someone.

H2: There is no significant difference between male and female regarding I am using because of referred of m-Wallet

Table 3: independence t-test for I am using it because it referred by

Group Statistics					
	Gender	Mean	Std. Deviation	t value	Sig. (two tailed)
I am using it because it referred by	Male	3.51	1.048	2.442	0.015
	Female	3.26	1.218		

The table 3 defines that there is a significant difference between male and female regarding I am using it because as referred. High mean value indicates that male respondents use the m-wallet after referred by most of colleagues as compared to female respondents. The t (2.442) and sig. value (0.015) show the significant difference between male and female respondents. Male respondents have high mean value (3.51) than female (3.26).

Table 4: Gender difference regarding I am using it because

Gender * 21. I am using it because, Crosstabulation								
			I am using it because					Total
			Referred by My Friend	Referred by Family	Most of the people in the society uses it	Most of colleagues	A Symbol of Status	
Gend er	Male	Count	18	29	45	143	28	263
		% within Gender	6.8%	11.0%	17.1%	54.4%	10.6%	100.0%
	Female	Count	33	31	44	109	26	243
		% within Gender	13.6%	12.8%	18.1%	44.9%	10.7%	100.0%
Total		Count	51	60	89	252	54	506
		% within Gender	10.1%	11.9%	17.6%	49.8%	10.7%	100.0%

The above table 4 describes that 6.8% (18) m-wallet is used by male respondents after referred by friend which is less than female respondents. Female respondents use the m-wallet high 13.6% (33) as compared to male respondents which referred by friends. 11% (29) and 12.8% (31) of m-wallet are used by male and female respondents as referred by family members. 17.1% (45) of m-wallet used by male respondents due to most of the people in the society uses it. The percentage of using the m-wallet of female respondents is high (18.1%) than male as referred by most of the people in the society uses it. There is a difference between male and female of using the m-wallet on the basis of most of colleagues. 54.4% (143) of m-wallet used by male as compared to 44.9% (109) of female because of most of colleagues are using this. 49.8% of m-wallet used by gender because his/her colleagues are using this. 10.6% (28) of male respondents were using the m-wallet than female (10.7%) as a symbol of status.

Objective 3: To examine the gender difference on effect of satisfaction on preference of using m-wallet.

Objective 4: To examine the gender difference on effect of security on preference of using m-Wallet

H3: There is no significant difference between male and female on effect of satisfaction of preference of using m-Wallet

H4: There is not significant different between male and female on effect of security on preference of using m-Wallet.

- **Effect of satisfaction and security on preference of using m-Wallet on the basis of male respondents**

Table 5: Regression Weights: (Male - Unconstrained)

			Estimate	S.E.	C.R.	P	Label
Preference	<---	Security	.111	.034	3.243	.001	M2
Preference	<---	Satisfaction	.246	.046	5.301	***	M1

The above table 5 describes the regression weight of male respondents regarding effect of security and satisfaction on preference. There is significant effect of security and satisfaction on preference of using m-wallet on the basis of male respondent. The p value is less than 5% as 0.001 for security and 0.000 for satisfaction affect to preference of using the m-wallet.

Table 6: Standardized Regression Weights: (Male - Unconstrained)

			Estimate
Preference	<---	Security	.187
Preference	<---	Satisfaction	.306

The table 6 describes the effect of security and satisfaction on preference of using the m-wallet. Security affects the preference of using m-wallet is 19% (0.187). The satisfaction of user's effects the preference of using m-wallet is 31% (0.306). User's satisfaction increases the preference of using the m-wallet.

Table 7: Squared Multiple Correlations: (Male - Unconstrained)

Factor	Security	Satisfaction	Estimate
Preference	<---	<---	.128

The above table 7 explain the squared multiple correlations of effect of satisfaction and security on preference of using the m-wallet. On the basis of male respondents, both factors such as satisfaction and security explained the 13% (0.128) effect on preference of using the m-wallet.

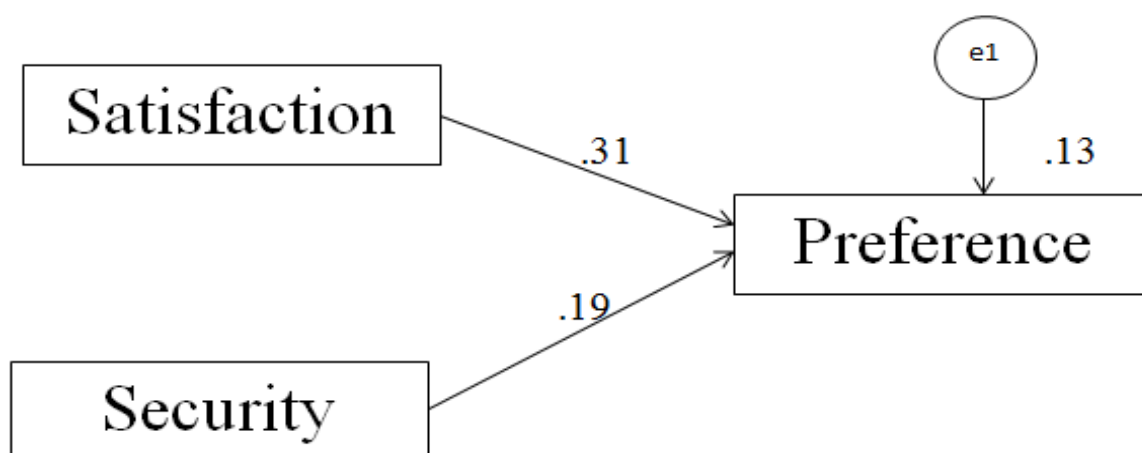


Figure 2: Effect of satisfaction and security on preference of using m-wallet

Figure 2 describes the effect of satisfaction and security on preference of using m-wallet. Satisfaction affects the 31% (0.31) on preference and security affects 19% (0.19) on preference. The squared multiple correlation of the figure 2 is 13% (0.13) which describes the total effect of satisfaction and security on preference of using the m-wallet.

➤ **Effect of satisfaction and security on preference of using m-Wallet on the basis of female respondents**

Table 8: Regression Weights: (Female - Unconstrained)

			Estimate	S.E.	C.R.	P	Label
Preference	<---	Security	.012	.030	.384	.701	F2
Preference	<---	Satisfaction	.415	.054	7.726	***	F1

Sources: author survey

Table 8 describes the regression weight of female respondents regarding the security and satisfaction on preference of m-wallet. P-value of security on preference is 0.701 which indicates that there is no significant effect of security on preference of using m-wallet. P-value of effect of satisfaction on preference is 0.000 which describe the significant effect according to female respondents.

Table 9: Standardized Regression Weights: (Female - Unconstrained)

			Estimate
Preference	<---	Security	.022
Preference	<---	Satisfaction	.445

On the basis of table 9, the effect of security on preference is 0.022 which describe the very less effect. Effect of satisfaction on preference is 0.445 which explain the significant effect on preference.

Table 10: Squared Multiple Correlations: (Female - Unconstrained)

Factor	Security	Satisfaction	Estimate
Preference	<---	<---	.198

The table 10 explain the squared multiple correlations of female respondents which estimate 0.198 (20%).

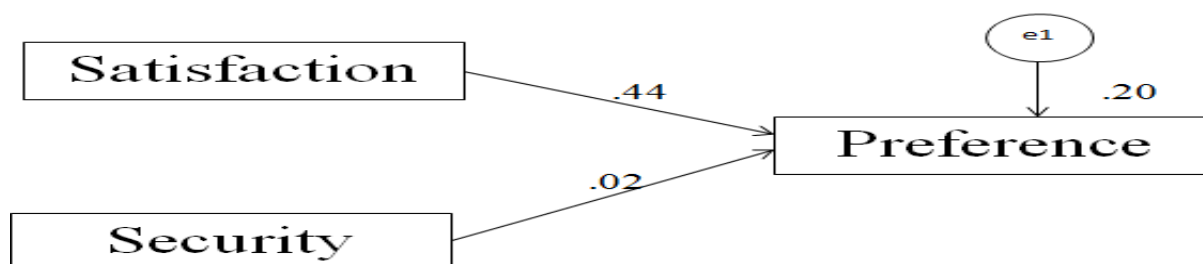


Figure 3: Effect of satisfaction and security on preference on the basis of female respondents

On the basis of figure 3, it is described that according to female respondent satisfaction 44% affect the preference of using the m-wallet. Preference of using the m-wallet is affected by security very less as 0.02% which describes the insignificant on the female respondents. Squared multiple correlation of figure is 20%.

Table 11: Critical Ratios for Differences between Parameters

Critical Ratios for Differences between Parameters (Unconstrained)				Null hypothesis
Satisfaction on Preference	M1	F1	2.387	Rejected
Security on Preference	M2	F2	-2.173	Rejected

Sources: author survey

The above table 11 describes that there is a significant difference male and female regarding the satisfaction and security effect on preference of using m-wallet. The critical ratio of male and female is 2.387 regarding the effect of satisfaction on preference of using the m-wallet which describes that there is a significant difference between them. A significant difference has been found between male and female with regard to security on preference of using m-wallet. The critical ratio of security on preference is -2.173 which explain the significant difference between them.

5. Discussion of the results

User's awareness towards m-Wallet is increasing day by day in India. We use **H1** as there is a significant difference between male and female regarding the uses of m-Wallet but the result of study has found that there is no significant between male and female with respect to uses of m-Wallet. Male and female both are using m-Wallet for making any type of financial transaction in North India. The hypothesis of the study was supported by Nidhi et al. (2017) which found that there is not a significant difference between male and female with respect to uses of m-wallet. **H2** has been rejected because we found in the study that there is a significant difference between male and female regarding, I am using it because referred by someone as friends, family members, society, colleagues and symbol of status. Male and female have different friend circle, colleagues, society status and most of financial decision has been taken by male candidates in family so that a significant difference has been observed between male and female. Consumers prefer m-Wallet or a new technology because it was referred by their friends, colleagues and family members (Dahlberg et al., 2008).

H3 has been rejected because a significant difference has been identified between male and female regarding effect of satisfaction on preference of using the m-Wallet. Male are more satisfied so that they prefer the m-Wallet as compared to female users. A significant association has been observed between satisfaction and preference of using m-Wallet (Nidhi et al., 2017). There is significant difference between male and female with respect to satisfaction and preference of m-wallet (Lu et al., 2005; Jun et al., 2008; Dewan et al., 2009; Singh, 2014). The final hypothesis as **H4** has been rejected on the basis of study result. In the study we found that a significant difference between male and female users of m-Wallet with respect to effect of security on preference of using the m-Wallet. Security influences the preference of using the m-wallet (Nidhi et al., 2017).

6. Implication of the study

We developed the hypothesis on the basis of review of literature. The first hypothesis was rejected on the basis of result. There is no significant difference between male and female regarding the uses of m-Wallet. Male and female respondents both are equally use the m-Wallet in North India. A significant difference has been found between male and female regarding I am using because of referred. Male respondents more refer the m-Wallet as compared to female. M-Wallet service provider companies should tweak their refer policy in such a way female users will motivate to refer m-Wallet among their known. In the third hypothesis, male gives the more preference to m-Wallet after satisfaction than female. Security of m-Wallet also shows the significance difference between male and female. M-Wallet companies should enhance security features in m-Wallet. According to male, security of m-Wallet is high so they prefer more as compared to female.

7. Conclusion

The result of present study explained the significant difference between male and female regarding the effect of satisfaction and security on preference of using the m-wallet in Haryana. There is no significant difference between male and female regarding uses of m-wallet. A significant difference has been found between male and female regarding I am using it because as referred by friend, family, most of the people in the society uses it, most of colleagues and a symbol of status.

References

- [1] A. S. Chauhan, P. Agarwal, R. Tiwari, M. K. Das, S. Nautiyal, D. Joshi, "Problems and Challenges faced by Women Entrepreneurs in Uttarakhand: A Literature Review", YMER, Vol. 21, No. 11, (2022). pp 2141-2148. https://www.researchgate.net/publication/365774927_Problems_and_Challenges_faced_by_Women_Entrepreneurs_in_Uttarakhand_A_Literature_Review
- [2] A. Agus, S. Barker, S and J. Kandampully, J, "An exploratory study of service quality in the Malaysian public service sector," International journal of quality & reliability management, Vol. 24, No. 2, (2007). Pp. 177-190, <http://dx.doi.org/10.1108/02656710710722284>
- [3] H. Amin, "An analysis of online banking usage intentions: an extension of the technology acceptance model", International Journal of Business and Society, Vol. 10, No. 1, (2009). pp. 27-40.
- [4] D. Chawla, H. Joshi, "The moderating effect of demographic variables on mobile banking adoption: An empirical investigation", Global Business Review, Vol. 19, No. 3, (2018). 90S-113S. <https://doi.org/10.1177/0972150918757883>
- [5] D. Chawla, H. Joshi, "The moderating role of gender and age in the adoption of mobile wallet. Foresight, Vol. 22, No. 4, (2020). pp. 483-504. <https://doi.org/10.1108/FS-11-2019-0094>
- [6] T. Dahlberg, N. Mallat, J. Ondrus and A. Zmijewska, "Past, present and future of mobile payments research: A literature review", Electronic commerce research and applications, Vol. 7, No.2, (2008), pp. 165-181.

- [7] S. Dewan, G. Low and L. Land, "Consumer choice model of mobile banking", proceedings of the 20th Australasian conference on Information Systems, 101, Monash University, Melbourne, 2-4 December, **(2009)**.
- [8] D. Gefen and D. Straub, "Gender difference in the perception and use of e-mail: An extension to the technology acceptance model," MIS Quarterly, Vo. 21, No.4, **(1997)**, pp. 389-400.
- [9] H. L. Sharma, R. Tiwari and B. Anjum, "Issues and challenges of affiliation system in Indian higher education". EXCEL International Journal of Multidisciplinary Management Studies, 3(12), **(2013)**, pp. 232-240.
https://www.researchgate.net/publication/329072292_ISSUES_AND_CHALLENGES_OF_AFFILIATION_SYSTEM_IN_INDIAN_HIGHER_EDUCATION
- [10] H. L. Sharma, R. Tiwari and B. Anjum, "Management of higher education institutions: Issues and challenges". ZENITH International Journal of Business Economics & Management Research, 3(12), **(2013)**, pp. 275-284.
https://papers.ssrn.com/sol3/papers.cfm?abstract_id=3850525
- [11] C. Jayawardhena, A. Kuckertz, H. Karjaluoto and T. Kautonen, "Antecedents to permission based mobile marketing: An initial examination", European Journal of Marketing, Vol. 43, No. 3/4, **(2009)**, pp. 473-499, available at: <http://dx.doi.org/10.1108/03090560910935541>
- [12] R. D. Johnson and G. M. Marakas, "Research reports: the role of behavior modeling in computer skills acquisition: Toward refinement of the model", Information Systems Research, Vol. 11, No. 4, **(2000)**, pp. 402-417.
- [13] F. Jose Liebana-Cabanillas, J. Sanchez-Fernandez and F. Munoz-Leiva, "Role of gender on acceptance of mobile payment", Industrial Management & Data Systems, Vol. 114, No. 2, **(2014)**. pp. 220-240. <https://doi.org/10.1108/IMDS-03-2013-0137>
- [14] B. Jun, K. Pil, W. Jae, and G. Byung, "Adoption of on-line banking service considering the moderate effects of on-line banking service type", Proceedings of the 2008 Second International Conference on Future Generation Communication and Networking Symposia, **(2008)**, pp. 77-80.
- [15] P. Kaur, "Underpinnings of user participation in innovation on online communication platforms", dissertation, Finland: Aalto University, **(2016)**.
- [16] K. Chand, R. Tiwari & Sapna, "Effect of Perception and Satisfaction on Preference for Mobile Wallet", FIIB Business Review, **(2022)**.
<https://journals.sagepub.com/doi/abs/10.1177/23197145221077365>
- [17] N. Koenig-Lewis, A. Palmer and A. Moll, "Predicting young consumers' take up of mobile banking services", International Journal of Banking Marketing, Vol. 28, No. 5, **(2010)**, pp. 410-432.
- [18] A. Kumar and S. P. Seri, "Banking on mobile wallet-achieve significant benefits through proactive involvement in mobile wallet", Infosys, Bangalore. **(2014)**.
- [19] I. Lapowsky, "Why Teens Are the Most Elusive and Valuable Customers in Tech", **(2014)**.
<https://www.inc.com/issie-lapowsky/inside-massive-tech-land-grab-teenagers.html>
- [20] T. Laukkanen, S. Sinkkonen, M. Kivijarvi, and P. Laukkanen, "Innovation resistance among mature consumers", International Journal of Marketing, Vol. 24, No. 7, **(2007)**, pp. 419-427.
- [21] J. Lu, J. Yao and C. S. Yu, "Personal innovativeness, social influences, and adoption of wireless internet services via mobile technology", Strategic Information Systems, Vol. 14, No. 3, **(2005)**. pp. 245-268.

- [22] S. Manikandan, S. and J. M. Jayakodi, "An empirical study on consumers adoption of mobile wallet with special reference to Chennai city". International Journal of Research – Granthaalayah, Vol. 5, No. 5, (2017), pp. 107-115. <https://doi.org/10.29121/granthaalayah.v5.i5.2017.1843>
- [23] N. Singh, S. Srivastava and N Sinha, "Consumer preference and satisfaction of M-wallets: A study on North Indian consumers", International Journal of Bank Marketing, Vol. 35, No. 6, (2017), pp. 944-965, <https://doi.org/10.1108/IJBM-06-2016-0086>
- [24] R. Tiwari and B. Anjum, "Online Education: Opportunities and Challenges", GALAXY International Interdisciplinary Research Journal. Vol. 1, No. 1, (2013), pp. 44-50. https://papers.ssrn.com/sol3/papers.cfm?abstract_id=3834362
- [25] R. Tiwari and B. Anjum, "Industry Academia Collaboration: Relevance for Make in India". International Journal of Business Management, 2(1), (2015), pp. 840-848, <https://ssrn.com/abstract=3833717>
- [26] R. Tiwari and B. Anjum, "Role of Education Loan in Indian Higher Education". Role of Education Loan in Indian Higher Education, GALAXY International Interdisciplinary Research Journal, 1(2), (2013), pp. 89-96. https://papers.ssrn.com/sol3/papers.cfm?abstract_id=3833834
- [27] R. Tiwari and B. Anjum, "Role of Manufacturing Industries in India for inclusive Growth". ZENITH International Journal of Business Economics & Management Research, 2(1), (2012), pp. 97-104., <https://ssrn.com/abstract=3834461>
- [28] R. Tiwari and B. Anjum, "Skill Hierarchy Motivation Model for University Teachers in Indian Higher Education". Journal of Management and Science, 1, 68-77, (2018), <https://ssrn.com/abstract=3835640>
- [29] R. Tiwari, A. S. Chauhan, P. Agrawal, S. Goel, R. Sharma, V. Chaudhary, K. Kumari and S. Kumari. "ESG Investments for Sustainability with Superior Returns in Indian Equity Market", YMER, Vol. 21, No 11, (2022), pp. 777-783, https://www.researchgate.net/publication/365569330_ESG_Investments_for_Sustainability_with_Superior_Returns_in_Indian_Equity_Market
- [30] R. Tiwari, A. S. Chauhan, P. Singh, Himanshu, "Role of Leadership for Sustainability in Indian Banking: A Case of HDFC Bank". Journal of Positive School Psychology, Vol. 6, No 2s, (2022), pp. 67-74. https://www.researchgate.net/publication/365775214_Role_Of_Leadership_For_Sustainability_In_Indian_Banking_A_Case_Of_HDFC_Bank
- [31] R. Tiwari, B. Anjum and A. Khurana "Role of private sector in Indian higher education". "Role of Private Sector in Indian Higher Education", GALAXY International Interdisciplinary Research Journal, 1(2), (2013), pp. 75-83. https://papers.ssrn.com/sol3/papers.cfm?abstract_id=3833384
- [32] R. Tiwari, B. Anjum, K. Chand and M. Phuyal "Role of human capital and innovation in economic growth: Comparative study of India and China". International Journal for Research in Applied Science & Engineering Technology, 5, (2017), pp. 4042-4048. https://papers.ssrn.com/sol3/papers.cfm?abstract_id=3833702
- [33] R. Tiwari, B. Anjum, K. Chand and R. Pathak, "Sustainability of Inorganic Growth in Online Retail by Snapdeal: A Case Study". International Journals of Management Studies, (2019), [https://dx.doi.org/10.18843/ijms/v6i1\(1\)/02](https://dx.doi.org/10.18843/ijms/v6i1(1)/02) , <https://ssrn.com/abstract=3833366>

- [34] R. Tiwari, K. Chand, B. Anjum, "Crop Insurance in India: A Review of Pradhan Mantri Fasal Bima Yojana (PMFBY). FIIB Business Review. Vol. 9, No. 4, (2020), pp. 49-255. <https://journals.sagepub.com/doi/10.1177/2319714520966084>
- [35] R. Tiwari, K. Chand, A. Bhatt, B. Anjum and K. Thirunavukkarasu, "Agriculture 5.0 in India: Opportunities and Challenges of Technology Adoption". A Step Towards Society 5.0, (2021), pp. 179-198. <https://www.taylorfrancis.com/chapters/edit/10.1201/9781003138037-10/agriculture-5-0-india-rajesh-tiwari-khem-chand-arvind-bhatt-bimal-anjum-thirunavukkarasu>
- [36] R. Tiwari, M. K. Singh and S. K. Mathur, "Sustainability of low cost and simplicity in airline industry: a case of Indigo". International Journal of Management, Technology and Engineering, 8(12), (2018), pp. 6034-6044. https://papers.ssrn.com/sol3/papers.cfm?abstract_id=3833340
- [37] R. Tiwari, P. Singh, H. Kargeti and K. Chand, "Impact of Russia Ukraine War on Exchange Rate in India", YMER, Vol. 21, No. 10, (2022), pp. 356-362. https://www.researchgate.net/publication/365569210_IMPACT_OF_RUSSIA_UKRAINE_WAR_ON_EXCHANGE_RATE_IN_INDIA
- [38] R. Tiwari, R. S. Tiwari and S. Kumar, "Impact of Russia Ukraine War on Returns of Banking Stocks in India", YMER, Vol. 21, No. 11, (2022). pp. 843-850. https://www.researchgate.net/publication/365569200_Impact_of_Russia_Ukraine_War_on_Returns_of_Banking_Stocks_in_India
- [39] Reserve Bank of India "Payment & Settlement Systems in India: Vision-2021". (2019). <https://rbidocs.rbi.org.in/rdocs/PublicationReport/PDFs/PAYMENT1C3B80387C0F4B30A56665DD08783324.PDF>
- [40] H. E. Riquelme and R. E. Rios, "The moderating effect of gender in the adoption of mobile banking", The International Journal of Bank Marketing, Vol. 28, No. 5, (2010), pp. 328-341.
- [41] S. Sharma, "2020 India Mobile Payments Market Report". S&P Global Market Intelligence, (2020), https://www.spglobal.com/marketintelligence/en/documents/indiamobilepayments_2020final_report.pdf
- [42] N. Singh, S. Srivastava and N. Sinha, "Consumer preference and satisfaction of M-wallets: A study on North Indian consumers", International Journal of Bank Marketing, Vol. 35, No. 6, (2017), pp. 944-965. <https://doi.org/10.1108/IJBM-06-2016-0086>
- [43] S. Singh, "Customer perception of mobile banking: An empirical study in National Capital Region Delhi", Journal of Internet Banking and Commerce, Vol. 19, No. 3, (2014), pp. 2-23.
- [44] J. Suls and K. A. Wallston, (Eds) Social Psychological Foundations of Health and Illness, John Wiley & Sons, (2008), <http://dx.doi.org/10.1002/9780470753552>
- [45] V. Venkatesh, M. G. Morris, F. D. Davis and G. B. Davis, "User acceptance of information technology: Toward a unified view", MIS Quarterly, Vol. 27, No. 3, (2003), pp. 425-478.
- [46] K. Yang and H. J. Lee, "Gender differences in using mobile data services: Utilitarian and hedonic value approaches", Journal of Research in Interactive Marketing, Vol. 4, No. 2, (2010), pp. 142-156, <http://dx.doi.org/10.1108/17505931011051678>
- [47] Y. Zhang, "Age, gender, and internet attitudes among employees in the business world", Computers in Human Behavior, Vol. 21, No. 1, (2005), pp. 1-10.

Appendix-A

Factors	Items
Satisfaction	The accessibility of banking services from anywhere makes me satisfied.
	I feel satisfied after transfer the money
	Using Mobile wallet gives me satisfaction
	Reliable in current scenario makes me satisfied
	Security of my money in Mobile wallet makes me satisfied
	Fees charged in Mobile wallet services makes me satisfied
	The Promotional offer by Mobile wallets makes me satisfied.
	Convenience offer by Mobile wallet makes me satisfied
Security	Security of Personal and Banking Details.
	Mobile wallets are Safe
	No-one can view my personal as well as banking details.
	I believe my personal as well as banking details are stored in a secured and encrypted database.
	Secured from Virus
	I believe my personal as well as banking details are protected from data leakages/theft.
	My personal and banking details are not being opened to other party.
	My ID and Password are safe.
	M- Wallet single app provides all the services.
Offers	It offers free movie tickets
	It offers Insurance
	It offers Loan/ Credit Facility
	It offers free coupons of big/retail stores
Payment	Pay Utility Bills
	Purchasing goods
	Using Services
	Fund Transfer
Service	It save Money
	It saves Time
	Fast Service
	Better than Normal Banking Channel
	I can do all the transactions by using m-wallet.