

# *Chapter IV*

## *Users of e-wallets – A Profile Analysis*

---

## CHAPTER IV

### USERS OF E-WALLETS-A PROFILE ANALYSIS

*"E-wallets have revolutionized the way we transact, making payments seamless and convenient."*

*- Bill Gates*

Digitalization of the payment mechanism will be considered as milestone in the era of cashless future economy. A digital wallet is getting more significant among the users because of the increased penetration of internet connectivity and smart phone users.

In the process of accomplishing the first objective of the study which is,

- ❖ To analyze the demographic profile, awareness and the factors that influences the consumers of Generation Y and Z in availing e-wallet payment service.

The following aspects have been covered in this chapter:

- The demographic profile of e-wallet users
- Operational activities carried out by e-wallet users
- Awareness on various e-wallet service providers, features and their services
- Factors influencing the consumers to use e-wallets
- Degree of frequency in using e-wallets
- Reasons to use e-wallet payment services

Primary data have been collected from 800 e-wallet users (400 from Generation Y and 400 from Generation Z) and it have been analysed using Percentage analysis, Descriptive statistics, ANOVA, t- Test, Chi-square analysis, Weighted average rank and Garrett ranking.

#### **Percentage analysis**

Percentage analysis has been applied to assess about the e-wallets users based on the personal factors, operational activities and their satisfaction.

## **ANOVA**

The analysis of variance referred as ANOVA is a statistical technique specifically designed to test whether the means of more than two quantitative populations are equal. It consists of classifying and cross-classifying results and testing whether the means of a specified classification differ significantly with the help of mechanism, F-test. But the test is so designed that the variances being compared are different only if the means under consideration are not homogenous. Thus significant value of F indicates that the means are significantly different from one another.

### **t-Test**

t-Test helps to compare two groups and identify whether the two groups have different mean score.

### **Chi-square test**

Chi-square test has been used to test the independence of the two attributes or factors, along with their influence on one another. Chi-square test has been performed with suitable null hypothesis and the results of the same have been presented.

### **Garrett ranking**

Garrett ranking has been used to ascertain the change of orders of factors into numerical scores. The advantage of this technique is that factors are arranged based on respondents point of view. The factors having the highest mean value have been considered to be the most important.

### **Selection of variables**

Data collected from e-wallet users have been analysed using descriptive and inferential statistical techniques. Inferential statistics is the process of selecting and using a sample to draw inference about a population parameter based on the sample drawn from the population (Gupta S.P, 2001) and data description is possible with descriptive statistics.

Independent variables that have been the presumed cause have been chosen in the study to support the objectives framed and to identify their impact on dependent variables that have been referred to as the presumed effect.

#### 4.1 DEMOGRAPHIC PROFILE OF CONSUMERS OF E-WALLET

The personal profile of the users of e-wallets belonging to Generation Y and Z facilitates the understanding of their variables viz., gender, educational qualification, occupational status, marital status, family type, number of family members, number of earning members, family monthly income and family monthly expenditure.

**Table 4.1**

**Demographic profile of e-wallet users-Generation Y and Z**

Demographic profile		Generation Y		Generation Z	
		No. of respondents	Percentage	No. of respondents	Percentage
<b>Gender</b>	Male	221	<b>55.2</b>	181	45.2
	Female	179	44.8	219	<b>54.8</b>
<b>Educational qualification</b>	UG	140	35	241	<b>60.2</b>
	PG	186	<b>46.5</b>	113	28.2
	Professional	74	18.5	46	11.5
<b>Occupational status</b>	Employee	225	<b>56.2</b>	114	28.5
	Business	45	11.2	28	7.0
	Professional	35	8.8	24	6.0
	Student	43	10.8	198	<b>49.5</b>
	Homemaker	52	13.0	36	9.0
<b>Marital status</b>	Married	190	47.5	110	27.5
	Unmarried	210	<b>52.5</b>	290	<b>72.5</b>
<b>Family type</b>	Nuclear	273	<b>68.2</b>	331	<b>82.8</b>
	Joint	127	31.8	69	17.2
<b>Number of family members</b>	Two	42	10.5	17	4.2
	Three	87	21.8	70	17.5
	Four	146	<b>36.5</b>	190	<b>47.5</b>
	Five	63	15.8	75	18.8
	Above Five	62	15.5	48	12.0
<b>Number of earning members</b>	One	107	26.8	130	32.5
	Two	183	<b>45.8</b>	181	<b>45.2</b>
	Three	110	27.5	89	22.2

Demographic profile		Generation Y		Generation Z	
		No. of respondents	Percentage	No. of respondents	Percentage
Family monthly income	Up to Rs.30,000	25	6.2	60	15.0
	Rs.30,001-40,000	45	11.2	70	17.5
	Rs.40,001-50000	44	11.0	47	11.8
	Rs.50,001-60000	44	11.0	48	12.0
	Above Rs.60,000	242	<b>60.5</b>	175	<b>43.8</b>
Family monthly expenditure	Up to Rs.20,000	73	18.2	100	25.0
	Rs.20,001-30,000	118	<b>29.5</b>	169	<b>42.2</b>
	Rs.30,001-40,000	106	26.5	63	15.8
	Rs.40,001-50,000	56	14.0	25	6.2
	Above Rs.50,000	47	11.8	43	10.8
<b>Total</b>		<b>400</b>	<b>100.0</b>	<b>400</b>	<b>100.0</b>

(Source: computed)

### Based on gender

In Generation Y, 55.2 per cent of the respondents are male and 44.8 per cent of the respondents are female whereas in Generation Z, 54.8 per cent of the respondents are female and 45.2 of the respondents are male.

### Based on educational qualification

46.5 per cent of the respondents belonging to Generation Y are post graduates, 35.0 per cent of them are under graduates and 18.5 per cent of them are professionally qualified whereas it has been inferred that in Generation Z, 60.2 per cent of the respondents are under graduates, 28.2 per cent of them are post graduates and 11.5 per cent of them are professionally qualified.

### Based on occupational status

The occupational status of e-wallet users reveals that most of the respondents are employed (56.2 per cent), 13.0 per cent of the respondents are homemakers, 11.2 per cent of them are professionals, 10.8 per cent of the respondents are students and 8.8 per cent of them are in business in Generation Y whereas in Generation Z, it is inferred that most of

the respondents are students (49.5 per cent), 28.5 per cent of the respondents are employees, 9 per cent of them are homemakers, 7.0 per cent are professionals and 6.0 per cent are in business.

### **Based on marital status**

In Generation Y, 52.5 per cent of the respondents are unmarried and 47.5 per cent of them are married whereas in Generation Z, 27.5 per cent of the respondents are married and 72.5 per cent of them are unmarried.

### **Based on family structure**

In Generation Y, 68.2 per cent of the respondents are from nuclear family and 31.8 per cent of them are from joint family whereas in Generation Z, 82.8 per cent of the respondents are from the nuclear family and 17.2 per cent are from joint family.

### **Based on size of the family**

Among the respondents belonging to Generation Y, most of them (36.5 per cent) have 4 members, 21.8 per cent have 3 members, 15.8 per cent of the respondents have 5 members, 15.5 per cent of them have above 5 members in their family and 10.5 per cent of them have only 2 members in their family whereas in Generation Z, most of them (47.5 per cent) have 4 members, 18.8 per cent of them have 5 members, 17.5 per cent of the have 3 members in their family, 12.0 per cent of the respondents have above 5 members in their family and other categories forms only a negligible percentage.

### **Based on number of earning members**

In Generation Y, the percentage analysis reveals that 45.8 per cent of the respondents have 2 earning members in their family, 27.5 per cent of the respondents have 3 earning members and 26.8 per cent of the respondents have only 1 earning member in their family whereas in Generation Z, 45.2 per cent of the respondents have 2 earning members in their family, 32.5 per cent of the respondents have only 1 earning member and 22.2 per cent of the respondents have 2 earning members in their family.

### **Based on family monthly income**

The study on the family monthly income of the respondents shows that in Generation Y, 60.5 per cent of their monthly family income is above Rs. 60,000.11.2 per cent of the respondents family monthly income varies between Rs.30, 001 and Rs.40, 000. 11.0 per cent of them have a monthly family income ranging from Rs. 40,001 to Rs.50,000 and Rs.50,001- Rs.60,000.6.2 per cent of them have a monthly family income up to Rs. 30,000 and whereas in Generation Z, 43.8 per cent of their family monthly income are above Rs.60,000.17.5 per cent of the respondents monthly family income ranges between Rs.30,001 and Rs.40,000.15.0 per cent of the respondents have a family monthly income up to Rs. 30,000,12.0 per cent of them have a family monthly income of Rs. 50,001 to Rs. 60,000 and 11.8 per cent of their family monthly income range from Rs.40, 001 to Rs.50, 000.**Similar result have been shown in the study by Abbas Keramati, Rose Taeb and Arad Mousavi Larijani (2010).**

### **Based on family monthly expenditure**

In Generation Y,29.5 per cent of the respondents incurred a monthly expenditure ranging from Rs.20,001 to Rs.30,000, 26.5 per cent of respondents income varies from Rs.30,001- Rs.40,000,18.2 per cent of the respondents monthly family expenses are up to Rs. 20,000.And 14.0 per cent of expenses are from Rs.40,001 to Rs.50,000 and 11.8 per cent of them have expenses above Rs.50,000 whereas in Generation Z, 42.2 per cent of the respondents monthly family expenses ranges from Rs.20,001 to Rs.30,000, 25 per cent of respondents have incurred an expenditure are up to Rs.20,000,15.8 per cent of the respondents monthly family expenses varies from Rs.30,000 to Rs.40,000 ,10.8 per cent of them have incurred expenses above Rs.50,000 and 6.2 per cent of the respondents have incurred monthly family expense which ranges from Rs.40,001 to Rs.50,000.

## **4.2 OPERATIONAL ACTIVITIES CARRIED OUT BY E-WALLET USERS**

Digital wallets allow the users to pay while they does shopping so that they need not carry cards for making payments. There are various operational activities involved in it. Operational activities in e-wallets encompass the day-to-day processes involved in managing and running electronic wallet systems.

**Table 4.2**

**Operational activities of the e-wallets-Generation Y and Z**

Operational activities		Generation Y		Generation Z	
		Number of respondents	Percentage	Number of respondents	Percentage
Awareness on the e-wallet payment service users	Friends & relatives	254	<b>63.5</b>	259	<b>64.8</b>
	Personal interest	190	47.5	153	38.2
	Newspapers	11	2.8	13	3.2
	Social media	201	50.2	221	55.2
	Banks	117	29.2	106	26.5
	Colleague	57	14.2	80	20.0
	Advertisement	65	16.2	103	25.8
	Shop-keeper	74	18.5	76	19.0
Period of e-wallet usage (Years)	Upto 1	76	19.0	71	17.8
	1-2	85	21.2	93	<b>23.2</b>
	2-3	97	<b>24.2</b>	82	20.5
	3-4	63	15.8	78	19.5
	Above 4	79	19.8	76	19.0
Frequency of e-wallet usage	Daily	114	<b>28.5</b>	140	<b>35.0</b>
	Alternative days	79	19.8	60	15.0
	Weekly once	86	21.5	66	16.5
	Monthly once	24	6.0	47	11.8
	Occasionally	97	24.2	87	21.8
Amount spent through e-wallets per month	Up to Rs.3,000	211	<b>52.8</b>	209	<b>52.2</b>
	Rs.3,001- 6,000	80	20.0	81	20.2
	Rs.6,001- 9,000	45	11.2	36	9.0
	Rs.9,001- 12,000	25	6.2	26	6.5
	Above Rs.12,000	39	9.8	48	12.0
Modes of payment before the usage of e-wallet(Multiple response)	Cash	248	62.0	292	<b>73.0</b>
	Credit card	81	20.2	68	17.0
	Debit card	291	<b>72.8</b>	217	54.2
	Net banking	125	31.2	93	23.2



Operational activities		Generation Y		Generation Z	
		Number of respondents	Percentage	Number of respondents	Percentage
<b>Preferred payment methods to load cash in e-wallet(Multiple response)</b>	Net banking	184	46.0	183	45.8
	Debit card	256	<b>63.5</b>	230	<b>57.5</b>
	Transfer from another e-wallet account	31	7.8	45	11.2
<b>Factors influenced to use e-wallet (Multiple response)</b>	Self	118	29.5	94	23.5
	Friends & relatives	211	<b>52.8</b>	246	<b>61.5</b>
	Spouse	59	14.8	29	7.2
	Social media	96	24.0	95	23.8
	Attractive offers	85	21.2	77	19.2
	Shop keepers	44	11.0	39	9.8
	Compulsion	24	6.0	21	5.2
	Demonetization	55	13.8	46	11.5
<b>Modes of information regarding e-wallets (Multiple response)</b>	Text message	234	<b>58.5</b>	243	<b>60.8</b>
	E- mail	145	36.2	136	34.0
	Apps. from the retailer	66	16.5	54	13.5
	Advertisement banner	82	20.5	84	21.0
	Social media	181	45.2	168	42.0

(Source: computed)

### **Awareness on the e-wallet payment service users**

In Generation Y, 63.5 per cent of the respondents are aware of the e-wallets through their friends and relatives, 50.2 per cent of them through social media, 47.5 per cent of them through personal interest and 29.2 per cent of the respondents are aware of e-wallets through banks and others are aware through shop-keepers, advertisement, colleague and newspaper respectively. In Generation Z, 64.8 per cent of the respondents are aware of the e-wallets through their friends and relatives, 55.2 per cent of them through social media, 38.2 per cent of them through personal interest, 26.5 percent of the respondents are aware of e-wallets through banks and others are aware through advertisements, colleagues, shopkeepers and newspapers respectively.

### **Period of e-wallet usage**

In Generation Y, 24.2 per cent of the respondents are using e-wallets for 2-3 years, 21.2 per cent of them are using e-wallets for 1-2 years, 19.8 percent of the respondents use e-wallets for above 4 years 19.0 per cent of them are using e-wallets up to 1 year and 15.8 per cent of them are using e-wallets for 3-4 years. In Generation Z, 23.2 per cent of the respondents are using e-wallets for 1-2 years, 20.5 per cent of them are using e-wallets for 2-3 years, 19.5 per cent of the respondents are using e-wallets for 3- 4 years and 19.0 per cent of the respondents are using e-wallets for above 4 years and 17.8 per cent of them are using e-wallets up to 1 year.

### **Frequency of e-wallet usage**

In Generation Y, 28.5 per cent of the respondents use e-wallets on daily basis, 24.2 per cent of respondents use occasionally, 21.5 per cent of the respondents use e-wallets once in a week, 19.8 per cent of the respondents use it in alternate days and 6.0 per cent of them use e-wallets once in a month whereas in Generation Z , 35.0 per cent of the respondents use e- wallets daily, 21.8 per cent of them use occasionally, 16.5 per cent of the respondents use e- wallets once in a week, 15.0 per cent of the respondents use it in alternate days and 11.8 per cent of them use e-wallets once in a month.

### **Amount spent through e-wallets per month**

In Generation Y, 52.8 per cent of the respondents spend up to Rs.3,000 through e- wallets per month, 20 per cent of them pay out Rs.3,001-Rs.6,000 through e-wallets, 11.2 of the respondents spend Rs.6,001-Rs.9,000 per month, 9.8 per cent of the respondents spend above Rs.12,000 through e-wallets per month and 6.2 per cent of the respondents spend Rs.9001- Rs.12,000 whereas in Generation Z , 52.2 percent of the respondents spend up to Rs.3,000 through e-wallets, 20.2 per cent of them pay out Rs.3,001-Rs.6,000 through e-wallets per month, 12 per cent of the respondents spend above Rs.12,000, 9.0 per cent of the respondents spend Rs.6,001-Rs.9,000 through e- wallets and 6.5 per cent of the respondents spend Rs.9,001-Rs.12,000 through e- wallets.

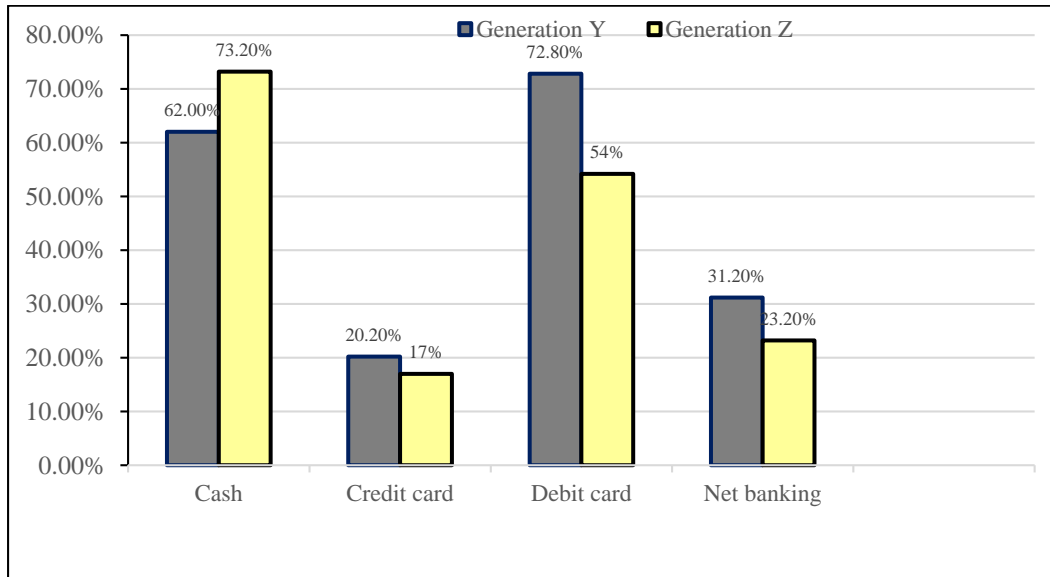
### **Modes of payment before e-wallet (Multiple response)**

In Generation Y, most (72.8) per cent of the respondents have been using a debit card as mode of payment before the usage of e-wallet, 62.0 percent of them has been using cash, 31.2 per cent of them has been using net banking facilities and 20.2 percent of the

respondents have been using credit cards whereas in Generation Z ,most (73.0) per cent of the respondents using cash as a payment mode before the usage of e-wallets,54.2 per cent of them have been using debit cards, net banking have been used by 23.2 per cent of them and 17.0 per cent of the respondents have been using credit cards.

**Chart 4.1**

**Modes of payment before e-wallet-Generation Y and Z**



**Preferred payment methods to load cash in e-wallet (Multiple response)**

In Generation Y, 63.5 per cent of the respondents transfer money to an e-wallet through debit cards, 46.0 per cent of them through net banking and 7.8 per cent of them from one e- wallet to another e-wallet whereas in Generation Z, 57.5 per cent of the respondents use debit cards to transfer money to e-wallets, 45.8 per cent of them use net banking and 11.2 per cent of them transfer from one wallet to another e-wallet.

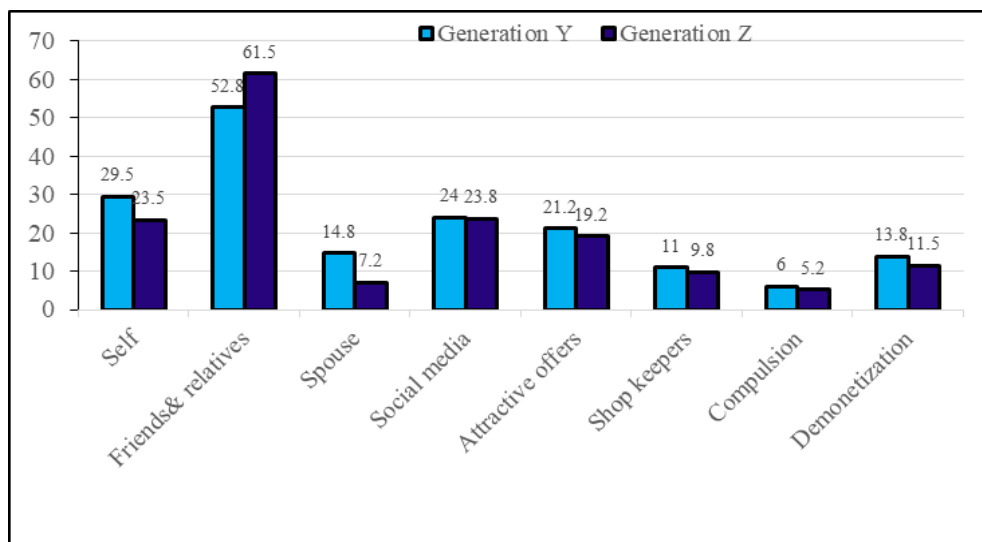
**Factors influenced to use e-wallet (Multiple response)**

In Generation Y, 52.8 per cent of the respondents are influenced to use e-wallets by friends and relatives, 29.5 per cent of them uses out of their own interest, 24.0 per cent of them are by social media, 21.2 per cent of them are inclined by attractive offers, 14.8 per cent of them are influenced by their spouses, 13.8 of the respondents are influenced by the demonetization factor,11.0 per cent of them are influenced by shopkeepers and

6.0 per cent of them are using it out of compulsion. In Generation Z, 61.5 per cent of the respondents are influenced by friends and relatives, 23.8 per cent of them are influenced by social media, 23.5 per cent of them uses it out of their own interest, 19.2 per cent of them are influenced by attractive offers, 11.5 per cent of them are by demonetization, 9.8 percent of them are influenced by shopkeepers, 7.2 per cent of the respondents are by their spouses and 5.2 per cent of the respondents get influenced by compulsion. Hence, it is noted that most of the respondents have been influenced by their friends and relatives to use e-wallets. **Similar results has shown in the study by Satadrute Chakraborty and Dipa Mitra (2018)**

**Chart 4.2**

**Factors influenced to use e-wallet – Generation Y and Z**



**Modes of information regarding e-wallets (Multiple response)**

In Generation Y, 58.5 per cent of the respondents get information about e-wallets through text messages, 45.2 per cent of them get through social media, 36.2 per cent of them get through e-mail, 20.5 per cent of the respondents gets information through advertisement banners and 16.5 per cent of them through the retailers whereas in Generation Z, 60.8 per cent of the respondents gets information through text messages, 42.0 per cent of them gets through social media, 34.0 per cent of them gets through e-mail, 21.0 per cent of the respondents gets information through advertisement banners and 13.5 per cent of them through the retailers.

### 4.3 AWARENESS ON E-WALLET SERVICE PROVIDERS, FEATURES AND SERVICES

ANOVA has been used to test whether the awareness score of the respondents classified based on their personal profile on e-wallet payment service providers by Generation Y and Z users have varied significantly. For this purpose a null hypothesis has been framed and the analysis is presented in the following table.

**H<sub>0</sub>:** “There has been no significant difference in the awareness scores of the respondents belonging to Generation Y and Z on e-wallet payment service providers classified based on their demographic variables viz., educational qualification, occupational status, number of family members, number of earning members, family monthly income and family monthly expenditure.

**Table 4.3**

**Awareness on e-wallet service providers Vs. Demographic variables-  
Generation Y and Z**

Demographic variables	Groups		Mean	S.D	F value		P Value		Sig	
					Y	Z	Y	Z	Y	Z
Educational qualification	UG	Y	61.21	17.40	1.263	1.103	.284	.333	NS	NS
		Z	61.55	15.17						
	PG	Y	64.06	15.72						
		Z	59.58	15.20						
	Professional	Y	62.63	14.08						
		Z	63.20	15.26						
Occupational status	Employee	Y	61.66	15.09	2.656	1.603	.033	.173	*	NS
		Z	59.76	14.45						
	Professional	Y	61.78	16.02						
		Z	60.33	11.68						
	Business	Y	59.53	16.60						
		Z	68.11	18.05						
	Student	Y	65.75	15.31						
		Z	61.50	15.68						
	Homemaker	Y	68.36	19.16						
		Z	60.00	14.57						

Demographic variables	Groups		Mean	S.D	F value		P Value		Sig	
					Y	Z	Y	Z	Y	Z
Number of family members	Two	Y	64.46	17.89	2.775	1.408	.028	.222	*	NS
		Z	60.64	15.01						
	Three	Y	59.90	17.70						
		Z	60.13	14.58						
	Four	Y	65.86	14.45						
		Z	60.19	14.88						
	Five	Y	60.87	14.71						
		Z	61.89	16.06						
Above five	Y	60.47	16.40							
	Z	65.72	15.71							
Number of earning members	One	Y	64.59	17.49	0.975	0.144	.378	.866	NS	NS
		Z	61.20	14.85						
	Two	Y	61.88	15.44						
		Z	60.82	15.23						
	Three	Y	62.58	15.64						
		Z	61.88	15.75						
Family monthly income	Up to Rs.30,000	Y	69.67	16.41	2.38	0.630	.029	.641	*	NS
		Z	60.94	15.23						
	Rs.30,001-40,000	Y	61.05	17.20						
		Z	61.01	15.70						
	Rs.40,001-50,000	Y	67.81	17.35						
		Z	59.88	13.73						
	Rs.50,001-60,000	Y	62.07	15.03						
		Z	58.33	17.13						
Above Rs.60,000	Y	61.63	15.52							
	Z	62.46	14.81							
Family monthly expenditure	Up to Rs.20,000	Y	60.75	15.83	1.547	0.630	.188	.641	NS	NS
		Z	61.22	14.81						
	Rs.20,001-30000	Y	63.94	17.07						
		Z	61.67	16.64						
	Rs.30,001-40000	Y	62.49	15.49						
		Z	58.53	12.86						
	Rs.40,001-50,000	Y	66.23	14.68						
		Z	62.11	11.88						
Above Rs.50,000	Y	59.69	16.25							
	Z	62.54	15.15							

(Source: Computed NS-Not Significant \*\*-Significant at 1% level, \*-Significant at 5 % level)

### **Based on educational qualification**

A high level of awareness of the respondents belonging to Generation Y on the e-wallet payment service provider (mean score 64.06) has been expressed by post graduates. Respondents with under graduation shows the lowest level of awareness (mean 61.21) whereas in Generation Z, respondents with professional qualification have the highest mean score of 63.20 and respondents with post-graduation have the lowest level of awareness (mean score 59.58). Thus, it is clear that both Generation Y and Z have no significant difference in the awareness score on the e-wallet payment service providers classified based on educational qualification. Hence, the null hypothesis has been accepted at 5 per cent level of significance.

### **Based on the occupational status**

The respondents belonging to Generation Y who are homemakers have been found with the highest awareness score of 68.36 on the e-wallet payment service providers. The lowest awareness score has been expressed by the respondents who are in business (mean score 59.53). In Generation Z, the respondents who are in business have been found with highest awareness score of 68.11 and employees have the lowest score of 59.76. Thus in Generation Y, there has been a significant difference in the awareness score on the e-wallets payment service provider so the null hypothesis has been rejected at 5 per cent level of significance and in Generation Z null hypothesis has been accepted at 5 per cent level of significance since there has been no significant difference in the awareness scores on the e-wallet payment service providers classified based on occupational status.

### **Based on the number of family members**

In Generation Y, the highest awareness scores (65.86) on the e-wallet payment services provider has been obtained from the respondents with 4 family members. The lowest score of 59.90 has been identified from the respondents with 3 family members. In Generation Z, the highest awareness score of 65.72 has been identified from the respondents with more than 5 family members and the lowest score of 60.13 has been identified from the family having 3 members in their family. Thus, in Generation Y there has been a significant difference in the awareness score on the e-wallet payment service providers so the null hypothesis has been rejected at 5 per cent level of significance and in

Generation Z null hypothesis has been accepted at 5 per cent level of significance since there has been no significant difference in the awareness scores on the e-wallet payment service providers classified based on the number of family members.

#### **Based on the number of earning members**

In Generation Y, the respondents with 1 earning member in their family have a high awareness score of 64.59 and a low awareness score of 61.88 has been found for the respondents with 2 earning members pertaining to the e-wallet payment service providers. In Generation Z, the respondents with 3 earning members in their family have a high awareness score of 61.88 and the lowest score of 60.82 has been found for the respondents with 2 earning members. Thus, it is clear that both Generation Y and Z have no significant difference in the awareness score on the e-wallet payment service providers classified based on number of earning members. Hence, the null hypothesis has been accepted at 5 per cent level of significance.

#### **Based on the family monthly income**

The respondents belonging to Generation Y with a family monthly income of up to Rs.30, 000 have an awareness score of 69.67 and the lowest score of 61.05 has been found for the respondents whose family monthly income is between Rs.30, 001 and Rs.40, 000. It is evident that Generation Z having respondents with a family monthly income above Rs.60, 000 has the high awareness score (62.46) while the respondents with income between Rs.50, 001 and Rs.60, 000 have the lowest score. Hence, in Generation Y there has been a significant difference in the awareness score on the e-wallet payment service providers so the null hypothesis has been rejected at 5 per cent level of significance but in Generation Z null hypothesis has been accepted at 5 per cent level of significance since there has been no significant difference in the awareness scores of the respondents on the e-wallet payment service providers classified based on monthly income. **Similar findings has shown in the study by Pooja Tiwari, Vikas Garg, Abhisek Singhal (2019).**

#### **Based on family monthly expenditure**

In Generation Y high level of awareness score (66.23) on e-wallet payment service providers which has incurred family monthly expenditure of Rs.40, 001- Rs.50, 000 and



respondents with family monthly expenditures of above Rs.50, 000 exhibits the lowest level of awareness score (59.69).With regard to Generation Z, respondents with a mean score of 62.54 has a high level of awareness with family expenditure above Rs.50, 000 and Rs.30, 001– Rs.40, 000 exhibit a low level of awareness score (58.53). Thus, it is clear that both Generation Y and Z have no significant difference in the awareness score on the e- wallet payment service providers classified based on family monthly expenditure. Hence, the null hypothesis has been accepted at 5 per cent level of significance.

### t- Test

t- Test has been used to find out whether the awareness scores of the respondents classified based on the ‘demographic variables’ on the e-wallet payment service providers have varied significantly with the following null hypothesis.

**H<sub>0</sub>:** “There has been no significant difference in the awareness scores of the respondents of Generation Y and Z on the e-wallet payment service providers classified based on demographic variables namely gender, marital status and family type.

**Table 4.4**

**Awareness on e-wallet service providers Vs. Demographic variables-Generation Y and Z**

Demographic variables	Groups		Mean	S.D	t Value		P Value		Sig	
					Y	Z	Y	Z	Y	Z
<b>Gender</b>	Male	Y	61.06	15.33	2.414	0.942	.016	.347	*	NS
		Z	61.97	15.68						
	Female	Y	64.94	16.72						
		Z	60.53	14.78						
<b>Marital status</b>	Married	Y	62.98	15.47	0.577	0.295	.831	.768	NS	NS
		Z	61.13	15.24						
	Unmarried	Y	62.63	16.62						
		Z	62.25	14.50						
<b>Family type</b>	Nuclear	Y	62.72	16.42	0.130	1.222	.896	.222	NS	NS
		Z	60.76	14.92						
	Joint	Y	62.95	15.33						
		Z	63.21	16.40						

(Source: Computed NS-Not Significant \*\*-Significant at 1% level, \*-Significant at 5 % level)

### **Based on gender**

The t-Test analysis depicts that the awareness score of the respondents on the e-wallet payment service providers of Generation Y has a mean score of 61.06 (male) and 64.94 (female) when classified based on gender. The t-value indicates that there has been a significant difference so the null hypothesis has been rejected at 5 per cent level of significance whereas in Generation Z, the mean score of the respondents has 61.97 (male) and 60.53 (female) exhibits that there has been no significant difference in the awareness score of the respondents. Hence, the null hypothesis has been accepted at 5 per cent level of significance.

### **Based on marital status**

With regard to the awareness scores of the respondents on the e-wallet payment service provider, the respondents from Generation Y have a mean score of 62.98 (married) and 62.63 (unmarried) and the respondents from Generation Z have a mean score of 61.13 (married) and 62.25 (unmarried) respectively. The t-value indicates that there has been no significant difference in the awareness score of the respondents when grouped on the basis of marital status. Hence, the null hypothesis has been accepted at 5 per cent level of significance.

### **Based on family type**

The awareness scores of the respondents on the e-wallet payment service providers of Generation Y and Z are classified based on the family type have not varied significantly. The Generation Y mean score regarding the family type for both joint family (62.95) and the nuclear family (62.72) are more or less similar and for Generation Z mean score for joint family and the nuclear family are 63.21 and 60.76 .Thus, the t-value indicates that there has been no significant difference in the awareness score of the respondents. Hence, the null hypothesis has been accepted at 5 per cent level of significance.

### **Weighted average rank- Awareness towards e-wallet service providers**

The score against each consideration has been aggregated from the response of all 800 respondents (400 from Generation Y and 400 from Generation Z). The relative importance of the each consideration has been based on the total score against each consideration. The one with the highest score has been inferred to be the most important consideration and so on.

To identify the major e-wallet services provider awareness among Generation Y and Z customers, weighted average rank test has been employed.

**Table 4.5**

**Awareness towards the e-wallet service providers-Generation Y and Z**

Applications	Generation Y			Generation Z		
	Mean Score	Mean	Rank	Mean Score	Mean	Rank
Paytm	1725	4.31	1	1687	4.22	1
Free charge	1003	2.56	7	972	2.43	6
Oxigen	850	2.13	9	814	2.04	8
Mobikwik	1044	2.61	6	1022	2.56	5
Citrus	869	2.17	8	815	2.04	8
Phone Pe	1619	4.05	2	1635	4.09	2
Amazon pay	1409	3.52	3	1378	3.45	3
Airtel money	1301	3.25	4	1249	3.12	4
Jio money	1058	2.65	5	1002	2.51	7

*(Source: computed)*

From the analysis ,it is inferred that in Generation Y ,majority of the customers are aware of ‘Paytm’ with the highest mean of 4.31 followed by ‘Phone pe’(4.05), ‘Amazon pay’(3.52), ‘Airtel money’(3.25), ‘Jio money’(2.65),‘Mobikwik’(2.61),‘Free charge’(2.56), ‘Citrus’(2.17) and ‘Oxigen’(2.13).

It is inferred that in Generation Z, majority of the customers are aware of ‘Paytm’ with the highest mean of 4.22 followed by ‘Phone pe’(4.09), ‘Amazon pay’(3.45) , ‘Airtel money’(3.12), ‘Mobikwik’(2.56) , ‘Free charge’(2.43) , ‘Jio money’(2.51) , ‘Citrus’(2.04) and ‘Oxigen’(2.04).

**Hence, it is concluded that most of the respondents belonging to Generation Y and Z have been aware of ‘Paytm’ with the highest mean of 4.31 and 4.22. Both Generation Y and Z have more or less similar scores.**

ANOVA has been used to test whether the awareness score of the respondents classified based on their demographic variables on the features of e-wallet payment services by Generation Y and Z users have varied significantly. For this purpose, a null hypothesis has been framed and the analysis is presented in the following table.

**H<sub>0</sub>:** “There has been no significant difference in the awareness scores of the respondents belonging to Generation Y and Z on the features of e-wallet payment services classified based on their demographic variables viz., educational qualification, occupational status, number of family members, number of earning members, family monthly income and family monthly expenditure.

**Table 4.6**

**Awareness towards the features of e-wallet payment services Vs. Demographic variables-Generation Y and Z**

Demographic variables	Groups		Mean	S.D	F value		P Value		Sig	
					Y	Z	Y	Z	Y	Z
Educational qualification	UG	Y	72.94	18.85	1.039	.522	.355	.594	NS	NS
		Z	72.87	18.34						
	PG	Y	75.96	18.42						
		Z	75.07	19.47						
	Professional	Y	74.02	20.92						
		Z	73.42	20.13						
Occupational status	Employee	Y	73.50	18.85	3.481	.963	.008	.428	**	NS
		Z	72.78	19.85						
	Professional	Y	71.75	21.24						
		Z	69.18	16.85						
	Business	Y	69.55	16.25						
		Z	75.60	17.53						
	Student	Y	77.81	16.48						
		Z	73.59	19.45						
	Homemaker	Y	82.14	19.84						
		Z	77.86	13.82						

Demographic variables	Groups		Mean	S.D	F value		P Value		Sig	
					Y	Z	Y	Z	Y	Z
Number of family members	Two	Y	73.88	19.53	0.81	1.631	.512	.166	NS	NS
		Z	65.21	23.33						
	Three	Y	76.35	16.65						
		Z	75.31	18.37						
	Four	Y	75.56	18.21						
		Z	73.10	19.30						
	Five	Y	71.34	20.90						
		Z	72.42	18.20						
Above five	Y	73.32	21.81							
	Z	77.56	16.36							
Number of earning members	One	Y	77.60	16.22	3.625	2.672	.028	.070	*	NS
		Z	76.33	14.75						
	Two	Y	75.02	19.65						
		Z	71.37	20.50						
	Three	Y	70.78	20.10						
		Z	73.96	20.29						
Family monthly income	Up to Rs.30,000	Y	78.06	15.42	0.971	3.613	.423	.007	NS	**
		Z	80.86	13.93						
	Rs.30,001-40000	Y	72.64	18.14						
		Z	73.92	16.77						
	Rs.40,001-50000	Y	78.83	18.14						
		Z	70.64	21						
	Rs.50,001-60,000	Y	73.77	18.00						
		Z	68.21	19.45						
Above Rs.60,000	Y	73.90	19.87							
	Z	73.16	19.75							
Family monthly expenditure	Up to Rs.20,000	Y	70.61	19.26	1.529	3.018	.193	.018	NS	*
		Z	76.83	17.23						
	Rs.20,001-30,000	Y	74.16	19.49						
		Z	74.32	19.81						
	Rs.30,001-40,000	Y	75.71	17.76						
		Z	67.21	16.95						
	Rs.40,001-50,000	Y	78.57	18.66						
		Z	76.11	14.33						
Above Rs.50,000	Y	74.16	20.41							
	Z	70.76	21.59							

(Source: Computed NS-Not Significant \*\*-Significant at 1% level, \*-Significant at 5 % level)

### **Based on education qualification**

A high level of awareness of the respondents belonging to Generation Y on the features of e- wallet payment services (mean score 75.96) has been expressed by post graduates. Respondents with under graduation show the lowest level of awareness (mean 72.94) whereas in Generation Z respondents with post-graduation have the highest mean score of 75.07 and respondents with under-graduation have the lowest level of awareness (mean 72.87). Thus it is clear that both Generation Y and Z have no significant difference in the awareness score of the respondents on the features of e-wallet payment services classified based on educational qualification. Hence, the null hypothesis has been accepted at 5 per cent level of significance.

### **Based on the occupational status**

The respondents belonging to Generation Y who are homemakers have been found with the highest awareness score of 82.14 on the features of e-wallets payment service. The lowest awareness score has been expressed by the respondents who are in business (mean score 69.55). In Generation Z, the respondents who are homemakers have been found with highest awareness score of 77.86 and professionals have the lowest score of 69.18. Thus in Generation Y, there has been a significant difference in the awareness score on the features of e-wallets payment services so the null hypothesis has been rejected at 1 percent level of significance and in Generation Z, null hypothesis has been accepted at 5 percent level of significance. Since there has been no significant difference in the awareness scores on the features of e-wallet payment service classified based on occupational status.

### **Based on the number of family members**

In Generation Y, the awareness scores on the features of e-wallet payment services have been found with the highest mean score of 76.35 which has been obtained from the respondents with 3 family members. The lowest score of 71.34 has been identified from the respondents with 5 family members. In Generation Z the highest awareness score of 77.56 has been identified from the respondents with above 5 family members and the lowest score of 65.21 has been identified from the respondents having 2 members in their family. Thus, it is evident that both Generation Y and Z have no significant difference in the awareness score on the features of e-wallet payment services classified based on the number of family members. Hence, the null hypothesis has been accepted at 5 percent level of significance.

### **Based on the number of earning members**

In Generation Y, the respondents with 1 earning member in their family have a high awareness score of 77.60 and a low awareness score of 70.78 has been found for the respondents with 3 earning members pertaining to the features of e-wallet payment service. In Generation Z, the respondents with 1 earning member in their family have high awareness score of 76.33 and the lowest score of 71.37 has been found for the respondents with 2 earning members. Thus, in Generation Y there has been a significant difference so the null hypothesis has been rejected at 5 per cent level of significance and in Generation Z null hypothesis has been accepted at 5 per cent level of significance since there has been no significant difference in the awareness scores of the respondents on the features of e-wallet payment services classified based on the number of earning members.

### **Based on the family monthly income**

The respondents belonging to Generation Y with a family monthly income between Rs.40, 001 and Rs.50, 000 have an awareness score of 78.83 and the lowest score of 72.64 has been found for the respondents whose family monthly income is between Rs.30, 001 and Rs.40, 000. It is evident that Generation Z having respondents with a family monthly income up to Rs.30, 000 has the high awareness score (80.86) while the respondents with income between Rs.50, 001 and Rs.60, 000 has the lowest score (68.21). Hence, in Generation Y there has been no significant difference in the awareness score on the features of e-wallets payment services so the null hypothesis has been accepted at 5 per cent level of significance but in Generation Z null hypothesis has been rejected at 1 per cent level of significance since there has been a significant difference in the awareness scores of the respondents on the features of e-wallet payment services classified based on monthly income.

### **Based on family monthly expenditure**

In Generation Y, high level of awareness (mean score 78.57) on features of e-wallet payment services have been obtained by the respondents who have incurred family monthly expenditure of Rs.40,001- Rs.50,000 and respondents with family monthly expenditures up to Rs.20,000 exhibit the lowest level of awareness ( mean 70.61). With regard to Generation Z respondents with the mean score of 76.83 has the high level

of awareness with the family expenditure of Rs.40,001 – Rs.50,000 and Rs.30,001 – Rs.40,000 exhibits the low level of awareness with the mean score of 67.21. Thus in Generation Y, there has been no significant difference so the null hypothesis has been accepted at 5 percent level of significance but in Generation Z there has been a significant difference in the awareness score on the features of e-wallet payment services classified based on family monthly expenditure .So the null hypothesis has been rejected at 5 per cent level of significance.

### t-Test

t-Test has been used to find out whether the awareness scores of the respondents classified based on the ‘demographic variables’ on the feature of e-wallet payment services have varied significantly with the following null hypothesis.

**H<sub>0</sub>:** “There has been no significant difference in the awareness scores of the respondents of Generation Y and Z on the features of e-wallet payment services classified based on demographic variables namely gender, marital status and family type.

**Table 4.7-Awareness towards the features of e-wallet payment services Vs. Demographic variables-Generation Y and Z**

Demographic variables	Groups		Mean	S.D	t Value		P Value		Sig	
					Y	Z	Y	Z	Y	Z
Gender	Male	Y	72.64	18.76	2.226	.596	.027	.552	*	NS
		Z	74.18	17.13						
	Female	Y	76.89	19.20						
		Z	73.05	20.19						
Marital status	Married	Y	75.80	18.56	1.261	1.027	.208	.305	NS	NS
		Z	73.35	19.02						
	Unmarried	Y	73.40	19.46						
		Z	78.15	14.18						
Family type	Nuclear	Y	74.50	18.68	.074	.352	.941	.725	NS	NS
		Z	73.41	19.09						
	Joint	Y	74.65	19.90						
		Z	74.29	17.78						

(Source: Computed NS-Not Significant \*\*-Significant at 1% level, \*-Significant at 5 % level



### **Based on gender**

The t-Test analysis depicts that the awareness score on the features of the e-wallet payment services of Generation Y has a mean score of 72.64 (male) and 76.89 (female) when classified based on gender. The t-value indicates that there has been a significant difference so the null hypothesis has been rejected at 5 per cent level of significance whereas in Generation Z the mean score of the respondents has been 74.18 (male) and 73.05 (female) exhibits that there has been no significant difference in the awareness score of the respondents. Hence, the null hypothesis has been accepted at 5 per cent level of significance.

### **Based on marital status**

With regard to the awareness scores of the respondents on the features of e-wallet payment services, the respondents from Generation Y have a mean score of 75.80 (married) and 73.40 (unmarried) and the respondents from Generation Z have the mean score of 73.35 (married) and 78.15 (unmarried) respectively. The t-value indicates that there has been no significant difference in the awareness score of the respondents when grouped on the basis of 'marital status'. Hence, the null hypothesis has been accepted at 5 per cent level of significance.

### **Based on family type**

It has been evident that the awareness scores of the respondents belonging to Generation Y when classified based on family type have been more or less similar i.e., joint family (74.65) and nuclear family (74.50) and similarly it has been found same for Generation Z i.e., joint family (74.29) and the nuclear family (73.41) on the features of e-wallet payment services. The t-value indicates that Generation Y and Z has been classified based on the family type have not varied significantly. Thus, the t-value indicates that there has been no significant difference in the awareness score of the respondents. Hence, the null hypothesis has been accepted at 5 per cent level of significance.

### **Weighted average rank- Awareness towards the features of e-wallet payment services**

To find out the awareness towards the features of e-wallet payment services among Generation Y and Z, weighted average rank has been employed.

**Table 4.8**

**Awareness towards the features of e-wallet payment services-Generation Y and Z**

Features	Generation Y			Generation Z		
	Mean Score	Mean	Rank	Mean Score	Mean	Rank
Instant payments and refunds	1691	4.23	1	1696	4.24	1
Variety of services (recharge, bill payments, DTH, etc)	1338	3.35	6	1298	3.25	6
Virtual credit card option	1544	3.86	3	1515	3.79	4
Easy to connect to other account	1290	3.23	7	1242	3.11	7
Splitting of bill	1552	3.88	2	1535	3.84	3
Digital coupons (Gift promotions/ Cash, Rewards etc.)	1497	3.74	5	1464	3.66	5
Accept any form of payment	1524	3.81	4	1548	3.87	2

*(Source: computed)*

The result of weighted average rank test reveals that majority of the customers has been highly aware about ‘Instant payments and refunds’ with the mean of 4.23 followed by ‘Splitting of bill’ (3.88), ‘Virtual credit card option’ (3.86), ‘Accept of any form of payment’ (3.81), ‘Digital coupons (gift promotions/cash rewards etc.,)’ (3.74), ‘Variety of services’ (recharge, bill payments, DTH, etc.)(3.35) and ‘Easy to connect to other accounts’ (3.23).

It is inferred that majority of the customers has been aware about ‘Instant payments and refunds’ with the highest mean of 4.24 ‘Accept of any form of payment’ (3.87), ‘Splitting of bill’ (3.84), ‘Virtual credit card option’ (3.79), ‘Digital coupons (gift promotions/ cash rewards etc.,)’(3.66), ‘Variety of services’ (recharge, bill payments, DTH, etc.) (3.25) and followed by ‘Easy to connect to other accounts’ (3.11).

**Hence, it is concluded that most of the respondents belonging to Generation Y and Z have been highly aware of ‘Instant payments and refunds’ with the mean score of 4.23 and 4.24.Both Generation Y and Z have similar scores.**

#### 4.4 FACTORS INFLUENCING THE CONSUMERS TO USE E-WALLETS

##### Descriptive statistics- Factors influencing their preferences towards the usage of e-wallets

The users preferences towards the factors influencing has been analysed using the Descriptive statistical tools, Mean and SD and the results are depicted in the table 4.9

The scale consists of 13 factors measuring the influencing factors towards the mobile wallet preference. A five point rating scale ranging from 1 to 5 where rate 1 for not at all influencing, 2 for slightly influencing, 3 for somewhat influencing, 4 for very influencing and 5 for extremely influencing has been constructed to obtain the opinion of the respondents on their influencing factors towards the mobile wallet preference. The mean score has been found for each factor separately.

**Table 4.9**

**Factors influencing their preferences towards the usage of e-wallets  
-Generation Y and Z**

Factors	N	Generation Y		Generation Z		Mean		S.D	
		Mini mum	Maxim um	Mini mum	Maxi mum	Y	Z	Y	Z
Instant payments	400	1.00	5.00	1.00	5.00	4.2875	4.2125	1.01114	1.06545
Instant refunds	400	1.00	5.00	1.00	5.00	3.9425	3.8900	1.06632	1.10723
Offers, cashbacks, discounts & rewards	400	1.00	5.00	1.00	5.00	3.9950	3.8200	1.05961	1.19212
Queue avoidance	400	1.00	5.00	1.00	5.00	4.0125	3.7775	1.14701	1.20275
Free transfer of money	400	1.00	5.00	1.00	5.00	4.1775	4.0225	1.08810	1.15339
Faster transaction	400	1.00	5.00	1.00	5.00	4.3800	4.2525	.90424	.99560
Reduce burden of carrying physical wallets	400	1.00	5.00	1.00	5.00	4.1975	4.0875	.98789	1.15897
Superior shopping experience	400	1.00	5.00	1.00	5.00	3.9350	3.8500	1.09030	1.18364
High mobile literacy	400	1.00	5.00	1.00	5.00	3.8650	3.8700	1.10672	1.17112
Comfortable	400	1.00	5.00	1.00	5.00	4.2700	4.2150	.92153	1.04954

Factors	N	Generation Y		Generation Z		Mean		S.D	
		Minimum	Maximum	Minimum	Maximum	Y	Z	Y	Z
Budgeting (Tracking of expenses)	400	1.00	5.00	1.00	5.00	3.8300	3.9200	1.13548	1.17774
Security by OTP, password & complete privacy	400	1.00	5.00	1.00	5.00	4.1800	4.0550	1.02968	1.10681
24*7 customer service	400	1.00	5.00	1.00	5.00	3.7725	3.8425	1.17865	1.25564

(Source: computed)

The respondents of Generation Y have agreed with the factors ‘Faster transaction’ (mean 4.3800) followed by ‘Instant payments’ (mean 4.2875), ‘Comfortable’ (mean 4.2700), ‘Security by OTP, Password and complete privacy’ (mean 4.1800).

The respondents of Generation Z have agreed with the factors ‘Faster transaction’ (mean 4.2525) followed by ‘Comfortable’ (mean 4.2150), ‘Instant payments’ (mean 4.2125), ‘Reduce burden of carrying physical wallets’ (mean 4.0875).

**Hence, most of the respondents of Generation Y and Z opionated that they have been highly influenced by the faster transaction facilities offered by e-wallet service providers.**

#### **Chi-Square- Factors influencing their preferences towards the usage of e-wallets**

To identify whether there has been a significant association between “Demographic factors of the respondents and the factors influencing their preferences towards the usage of e- wallets of Generation Y” .The following null hypothesis has been framed and tested by employing Chi- square analysis.

**H<sub>0</sub>:** “The demographic factors of the respondents viz., gender, educational qualification, occupational status, marital status, family type, number of family members, number of earning members, family monthly income and family monthly expenditure of the respondents belonging to Generation Y have no significant association with the factors influencing their preferences towards the usage of e-wallets”.

**Table 4.10**

**Factors influencing their preferences towards the usage of e-wallets Vs. Demographic variables -Generation Y**

Demographic variables	Level of Preference							Total		Df	Chi-Square	P value	Sig
	Groups	Low		Moderate		High		No	%				
		No	%	No	%	No	%						
<b>Gender</b>	Male	42	19	140	<b>63.3</b>	39	17.6	221	100	2	11.833	.003	**
	Female	13	7.3	134	<b>74.9</b>	32	17.9	179	100				
<b>Educational qualification</b>	UG	23	16.4	87	<b>62.1</b>	30	21.4	140	100	4	6.860	.143	NS
	PG	22	11.8	130	<b>69.9</b>	34	18.3	186	100				
	Professional	10	13.5	57	<b>77</b>	7	9.5	74	100				
<b>Occupational status</b>	Employee	34	15.1	151	<b>67.1</b>	40	17.8	225	100	8	14.078	.080	NS
	Professional	9	20	30	<b>66.7</b>	6	13.3	45	100				
	Business	7	20	33	<b>76.7</b>	8	18.6	43	100				
	Student	2	4.7	33	<b>76.7</b>	8	18.6	43	100				
	Homemaker	3	5.8	42	<b>80.8</b>	7	13.5	52	100				
<b>Marital status</b>	Married	21	11.1	124	<b>65.3</b>	45	23.7	190	100	2	9.649	.008	**
	Unmarried	34	16.2	150	<b>71.4</b>	26	12.4	210	100				
<b>Family type</b>	Nuclear	32	11.7	190	<b>69.6</b>	51	18.7	273	100	2	3.144	.208	NS
	Joint	23	18.1	84	<b>66.1</b>	20	15.7	127	100				
<b>Number of family members</b>	Two	6	14.3	31	<b>73.8</b>	5	11.9	42	100	8	22.885	.004	**
	Three	3	3.4	69	<b>79.3</b>	15	17.2	87	100				
	Four	19	13	96	<b>65.8</b>	31	21.2	146	100				
	Five	9	14.3	44	<b>69.8</b>	10	15.9	63	100				
	Above five	18	29	34	<b>54.8</b>	10	16.1	62	100				
<b>Number of earning members</b>	One	16	15	71	<b>66.4</b>	20	18.7	107	100	4	2.847	.584	NS
	Two	24	13.1	132	<b>72.1</b>	27	14.8	183	100				
	Three	15	13.6	71	<b>64.5</b>	24	21.8	110	100				
<b>Family monthly income</b>	Up to Rs.30,000	5	20	14	<b>56</b>	6	24	25	100	8	30.419	.000	**
	Rs.30,001-40,000	14	31.1	23	<b>51.1</b>	8	17.8	45	100				

Demographic variables	Level of Preference						Total		Df	Chi-Square	P value	Sig	
	Groups	Low		Moderate		High		No					%
		No	%	No	%	No	%						
	Rs.40,001- Rs.50,000	5	11.4	35	<b>79.5</b>	4	9.1	44	100	8	11.088	.197	NS
	Rs.50,001- Rs.60,000	12	27.3	25	<b>56.8</b>	7	15.9	44	100				
	Above Rs.60,000	19	7.9	177	<b>73.1</b>	46	19	242	100				
Family monthly expenditure	Up to 20,000	13	17.8	53	<b>72.6</b>	7	9.6	73	100	8	11.088	.197	NS
	Rs.20,001- 30,000	22	18.6	73	<b>61.9</b>	23	19.5	118	100				
	Rs.30,001- 40,000	12	11.3	72	<b>67.9</b>	22	20.8	106	100				
	Rs.40,001- 50,000	5	8.9	41	<b>73.2</b>	10	17.9	56	100				
	Above Rs.50,000	3	6.4	35	<b>74.5</b>	9	19.1	47	100				

(Source: Computed NS-Not Significant \*\*-Significant at 1% level, \*-Significant at 5 % level)

### Based on gender

63.3 per cent of the male respondents and 74.9 per cent of the female respondents have shown moderate preference on the factors influencing them towards the usage of e-wallets. The chi-square value reveals that the gender of the respondents belonging to Generation Y has a significant association with the factor influencing their preference towards the usage of e-wallets. Hence, the null hypothesis has been rejected at 1 per cent level of significance.

### Based on educational qualification

In Generation Y, 62.1 per cent of the respondents who are under graduates, 69.9 per cent of them who are post graduates and 77 per cent of them who are professionally qualified have shown moderate preference. With the chi-square value it is confirmed that the educational qualification of the respondents has no significant association with the factors influencing their preference towards the usage of e-wallets. Hence, the null hypothesis has been accepted at 5 per cent level of significance.

### **Based on occupational status**

In Generation Y, 67.1 per cent of the respondents who are employed, 66.7 per cent of the respondents who are professionals, 76.7 per cent of the respondents who are doing business, 76.7 per cent of the respondents who are students and 80.8 per cent of the respondents who are home makers have shown moderate preference. With the chi-square value, it is found that the occupational status of the respondents has no significant association with the factors influencing their preference towards the usage of e-wallets. Hence the null hypothesis has been accepted at 5 per cent level of significance.

### **Based on marital status**

65.3 per cent of the respondents who are married and 71.4 per cent of them who are unmarried have shown the moderate preferences. The chi-square value reveals that the marital status of the respondents belonging to Generation Y has a significant association with the factors influencing their preference towards the usage of e-wallets. Hence, the null hypothesis has been rejected at 1 per cent level of significance.

### **Based on family type**

In Generation Y, 69.6 per cent of the respondents who are in nuclear family and 66.1 per cent of them who are in joint family have shown moderate preference. The chi-square value suggests that the family type of the respondents has no significant association with the factors influencing their preferences towards the usage of e-wallets. Hence, the null hypothesis has been accepted at 5 per cent level of significance.

### **Based on number of family members**

73.8 per cent of the respondents who have 2 members in their family, 79.3 per cent of them who have 3 members, 65.8 per cent of the respondents who have 4 members in their family, 69.8 per cent of them who have 5 members and 54.8 per cent of the respondents who have above 5 members in their family have shown moderate preference. The chi-square value suggests that the number of family members of the respondents belonging to Generation Y has significant association with the factors influencing their preference towards the usage of e-wallets. Hence, the null hypothesis has been rejected at 1 per cent level of significance.

### **Based on number of earning members**

In Generation Y, 66.4 per cent of the respondents who have 1 earning member in their family, 72.1 per cent of them who have 2 earning members and 64.5 per cent of them who have 3 earning members in their family have shown moderate preference. With the chi-square value it is found that number of earning members in their family has no significant association with the factors influencing the preferences towards the usage of e-wallets. Hence, the null hypothesis has been accepted at 5 per cent level of significance.

### **Based on family monthly income**

56 per cent of the respondents who have monthly income up to Rs.30,000, 51.1 per cent of them have a family monthly income ranging from Rs.30,001 to Rs.40,000, 79.5 of them who have an income between Rs.40,001 and Rs.50,000, 56.8 per cent of the respondents who have a family monthly income between Rs.50,001 and Rs.60,000, 73.1 per cent of them who have a monthly income above Rs.60,000 have shown moderate preference on the factors influencing them towards the usage of e-wallets. The chi-square value reveals that the monthly income of the respondents belonging to Generation Y has a significant association with the factors influencing their preference towards the usage of e-wallets. Hence, the null hypothesis has been rejected at 1 per cent level of significance.

### **Based on family monthly expenditure**

In Generation Y, 72.6 per cent of the respondents who have incurred a family expenditure up to Rs.20,000, 61.9 per cent of them who have Rs.20,000 to Rs.30,000, 67.9 per cent of them who have incurred a family monthly expenditure of Rs.30,000 to Rs.40,000, 73.2 per cent of the respondents who have incurred a family expenditure of Rs.40,000 to Rs.50,000 and 74.5 per cent of them who have incurred a family expenditure above Rs.50,000 have shown moderate preference. With the chi-square value it is found that the family expenditure of the respondents has no significant association with the factors influencing the preferences towards the usage of e-wallets. Hence, the null hypothesis has been accepted at 5 per cent level of significance.

To identify whether there has been a significant association between “Demographic factors of the respondents and the factors influencing their preferences towards the usage



of e-wallets of Generation Z” The following null hypothesis has been framed and tested by employing chi- square analysis.

**H<sub>0</sub>:** “The demographic factors of the respondents viz., gender, educational qualification, occupational status, marital status, family type, number of family members, number of earning members, family monthly income and family monthly expenditure of the respondents belonging to Generation Z have no significant association with the factors influencing their preferences towards the usage of e-wallets”.

**Table 4.11**

**Factors influencing their preferences towards the usage of e-wallets Vs. Demographic variables-Generation Z**

Demographic variables	Level of Preference							Total		Df	Chi-Square	P value	Sig
	Groups	Low		Moderate		High		No	%				
		No	%	No	%	No	%						
<b>Gender</b>	Male	34	18.8	120	<b>66.3</b>	27	14.9	181	100	2	0.546	.761	NS
	Female	35	16	150	<b>68.5</b>	34	15.5	219	100				
<b>Educational qualification</b>	UG	51	21.2	154	<b>63.9</b>	36	14.9	241	100	4	15.747	.003	**
	PG	7	6.2	90	<b>79.6</b>	16	14.2	113	100				
	Professional	11	23.9	26	<b>56.5</b>	9	19.6	46	100				
<b>Occupational status</b>	Employee	12	10.5	82	<b>71.9</b>	20	17.5	114	100	8	22.686	.004	**
	Professional	4	14.3	20	<b>71.4</b>	4	14.3	28	100				
	Business	0	0	24	<b>100</b>	0	0	24	100				
	Student	45	22.7	119	<b>60.1</b>	34	17.2	198	100				
	Home maker	8	22.2	25	<b>69.4</b>	3	8.9	36	100				
<b>Marital status</b>	Married	68	17.8	258	<b>67.4</b>	57	14.9	383	100	2	2.153	.341	NS
	Unmarried	1	5.9	12	<b>70.6</b>	4	23.5	17	100				
<b>Family type</b>	Nuclear	56	16.9	227	<b>68.6</b>	48	14.5	331	100	2	1.159	.560	NS
	Joint	13	18.8	43	<b>62.3</b>	13	18.8	69	100				

Demographic variables	Level of Preference							Total		Df	Chi-Square	P value	Sig
	Groups	Low		Moderate		High		No	%				
		No	%	No	%	No	%						
Number of family members	Two	5	29.4	10	<b>58.8</b>	2	11.8	17	100	8	15.873	.044	*
	Three	5	7.1	46	<b>65.7</b>	19	27.1	70	100				
	Four	37	19.5	128	<b>67.4</b>	25	13.2	190	100				
	Five	11	14.7	54	<b>72</b>	10	13.3	75	100				
	Above five	11	22.9	32	<b>66.7</b>	5	10.4	48	100				
Number of earning members	One	32	24.6	84	<b>64.6</b>	14	10.8	130	100	4	11.598	.021	*
	Two	25	13.8	120	<b>66.3</b>	36	19.9	181	100				
	Three	12	13.5	66	<b>74.2</b>	11	12.4	89	100				
Family monthly income	Up to Rs.30,000	13	21.7	40	<b>66.7</b>	7	11.7	60	100	8	13.065	.110	NS
	Rs.30,001-40,000	15	21.4	50	<b>71.4</b>	5	7.1	70	100				
	Rs.40,001-50,000	8	17	27	<b>57.4</b>	12	25.5	47	100				
	Rs.50,001-60000	11	22.9	29	<b>60.4</b>	8	16.7	48	100				
	Above Rs.60,000	22	12.6	124	<b>70.9</b>	29	16.6	175	100				
Family monthly expenditure	Up to Rs.20,000	20	20	62	<b>62</b>	18	18	100	100	8	12.574	.127	NS
	Rs.20,001-30000	33	19.5	113	<b>66.9</b>	23	13.6	100	100				
	Rs.30,001-40,000	4	6.3	46	<b>73</b>	13	20.6	63	100				
	Rs.40,001-50,000	5	20	20	<b>80</b>	0	0	25	100				
	Above Rs.50,000	7	16.3	29	<b>67.4</b>	7	16.3	43	100				

(Source: Computed NS-Not Significant \*\*-Significant at 1% level, \*-Significant at 5 % level)

### Based on gender

66.3 per cent of the male respondents and 68.5 per cent of the female respondents have shown moderate preference on the factors influencing them towards the usage of e-wallets. The chi-square value reveals that the gender of the respondents belonging to

Generation Z has no significant association with the factor influencing their preference towards the usage of e-wallets. Hence, the null hypothesis has been accepted at 5 per cent level of significance.

#### **Based on educational qualification**

In Generation Z, 63.9 per cent of the respondents who are under graduates, 79.6 per cent of them who are post graduates and 56.5 per cent of them who are professionally qualified have shown moderate preference. With the chi-square value it is confirmed that the educational qualification of the respondents has significant association with the factors influencing their preference towards the usage of e-wallets. Hence, the null hypothesis has been rejected at 1 per cent level of significance.

#### **Based on occupational status**

In Generation Z, 71.9 per cent of the respondents who are employed, 71.4 per cent of the respondents who are professionals, 100 per cent of the respondents who are doing business, 60.1 per cent of the respondents who are students, 69.4 per cent of the respondents who are home makers have shown moderate preference. With the chi-square value, it is found that the occupational status of the respondents has significant association with the factors influencing their preference towards the usage of e-wallets. Hence the null hypothesis has been rejected at 1 per cent level of significance.

#### **Based on marital status**

67.4 per cent of the respondents who are married and 70.6 per cent of them who are unmarried have shown the moderate preferences. The chi-square value reveals that the marital status of the respondents belonging to Generation Z has no significant association with the factors influencing their preference towards the usage of e-wallets. Hence, the null hypothesis has been accepted at 5 per cent level of significance.

#### **Based on family type**

In Generation Z, 68.6 per cent of the respondents who are in nuclear family and 62.3 per cent of them who are in joint family have shown moderate preference. The chi-square value suggests that the family type of the respondents has no significant association with the factors influencing their preferences towards the usage of e-wallets.

Hence, the null hypothesis has been accepted at 5 per cent level of significance.

#### **Based on number of family members**

58.8 per cent of the respondents who have 2 members in their family, 65.7 per cent of them who have 3 members, 67.4 per cent of the respondents who have 4 members in their family, 72 per cent of them who have 5 members and 66.7 per cent of the respondents who have above 5 members in their family have shown moderate preference. The chi-square value suggests that the number of family members of the respondents belonging to Generation Z has significant association with the factors influencing their preference towards the usage of e- wallets. Hence, the null hypothesis has been rejected at 5 per cent level of significance.

#### **Based on number of earning members**

In Generation Z, 64.6 per cent of the respondents who have 1 earning member in their family, 66.3 per cent of them who have 2 earning members and 74.2 per cent of them who have 3 earning members in their family have shown moderate preference. With the chi-square value it is found that number of earning members in their family has significant association with the factors influencing the preferences towards the usage of e-wallets. Hence, the null hypothesis has been rejected at 5 per cent level of significance.

#### **Based on family monthly income**

66.7 per cent of the respondents who have monthly income up to Rs.30,000, 71.4 per cent of them who have a family monthly income ranging from Rs.30,001 to Rs.40,000, 57.4 of them who have an income between Rs.40,001 and Rs.50,000, 60.4 per cent of the respondents who have a family monthly income between Rs.50,001 and Rs.60,000, 70.9 per cent of them who have a monthly income above Rs.60,000 have shown moderate preference on the factors influencing them towards the usage of e-wallets. The chi-square value reveals that the monthly income of the respondents belonging to Generation Z has no significant association with the factors influencing their preference towards the usage of e- wallets. Hence, the null hypothesis has been accepted at 5 per cent level of significance.

### **Based on family monthly expenditure**

In Generation Z, 62 per cent of the respondents who have incurred a family monthly expenditure up to Rs.20,000, 66.9 per cent of them who have Rs.20,000 to Rs.30,000, 73 per cent of them have Rs.30,000 to Rs.40,000, 80 per cent of the respondents who have incurred a family expenditure of Rs.40,000 to Rs.50,000 and 67.4 per cent of them who have incurred a family expenditure above Rs.50,000 have shown moderate preference. With the chi-square value it is found that the family expenditure of the respondents has no significant association with the factors influencing the preferences towards the usage of e-wallets. Hence, the null hypothesis has been accepted at 5 per cent level of significance.

### **Correlation analysis- Factors influencing their preferences towards the usage of e-wallets**

In order to examine the nature and quantum of association of variables with factors influencing preference towards e- wallet users of Generation Y, correlation analysis has been used. Variables considered for chi-square have been considered for correlation test too. Out of seventeen variables selected for correlation analysis, seven variables have been found to be significant. Marital status and family type are found to be significant at 5 per cent level. Gender, number of family members, family monthly income, perception of e-wallet payment services and satisfaction towards the facilities offered are found to be significant at 1 per cent level.

**Table 4.12**

#### **Variables associated with the factors influencing the preference-Generation Y**

<b>Variables</b>	<b>R</b>	<b>r2</b>
Gender	0.135**	0.018
Educational qualification	0.042	0.002
Occupational status	0.086	0.007
Marital status	-0.107*	0.011
Family type	-0.100*	0.010
Number of family members	-0.181**	0.033
Number of earning members	0.028	0.001
Family monthly income	0.166**	0.027

<b>Variables</b>	<b>R</b>	<b>r<sup>2</sup></b>
Family monthly expenditure	0.082	0.007
Period of e-wallets usage	0.039	0.001
Frequency of e-wallets usage	0.066	0.004
Amount spent on e-wallet	0.078	0.006
Awareness on e-wallet service provider	-0.038	0.001
Awareness on features of e-wallet payment services	-0.086	0.007
Perception of e-wallet payment services	0.495**	0.245
Challenges faced by e-wallet users	0.049	0.002
Satisfaction towards the facilities offered	0.407**	0.165

(Source: Computed \* Significant at 5 per cent level \*\* Significant at 1 per cent level)

### **Based on gender**

Gender and preference are positively correlated. Female users have high level of preference towards e-wallets. The coefficient of determination ( $r^2$ ) shows that gender contributes 1.80 per cent of the variation in the level of preference.

### **Based on marital status**

Marital status and preference are negatively correlated. Married Consumers have high level of preference towards e-wallets. The coefficient of determination ( $r^2$ ) shows that marital status contributes 1.10 per cent of the variation in the level of preference.

### **Based on family type**

Family type and preference are negatively correlated. Nuclear families have high level of preference towards e-wallets. The coefficient of determination ( $r^2$ ) shows that family type contributes 1 per cent of the variation in the level of preference.

### **Based on number of family members**

Number of family members and preference are negatively correlated. Consumers who have 2 family members have high level of preference towards e-wallets. The coefficient of determination ( $r^2$ ) shows that number of family members contributes 0.10 per cent of the variation in the level of preference.

### **Based on family monthly income**

Monthly Income and preference are positively correlated. Consumers whose monthly income ranges above Rs.60000 have high level of preference towards e-wallets. The coefficient of determination ( $r^2$ ) shows that family monthly income contributes 2.70 per cent of the variation in the level of preference.

### **Based on perception of e-wallet payment services**

Perception towards e-wallets payment services and preference are positively correlated. Consumers who have high level of perception towards e-wallet payment services have high level of preference towards e-wallets. The coefficient of determination ( $r^2$ ) shows that perception towards e-wallets contributes 24.50 per cent of the variation in the level of preference.

### **Based on satisfaction towards the facilities offered**

Satisfaction towards the facilities offered and preference are positively correlated. Consumers who have high level of satisfaction on digital e-wallets have high level of preference towards e-wallets. The coefficient of determination ( $r^2$ ) shows that satisfaction towards the facilities offered contributes 16.50 per cent of the variation in the level of preference.

Out of seventeen variables selected for correlation analysis in Generation Y, seven variables have been found to be significant. Marital status ( $r=-0.107$ ) and family type ( $r=-0.100$ ) are found to be significant at 5 per cent level. Gender ( $r=0.135$ ), number of family members ( $r=-0.181$ ), family monthly income ( $r=0.166$ ), perception of e-wallet payment services ( $r=0.495$ ) and satisfaction towards the facilities offered ( $r=0.407$ ) are found to be significant at 1 per cent level.

In order to examine the nature and quantum of association of variables with factors influencing preference towards e-wallet users of Generation Z, correlation analysis has been used. Variables considered for chi-square have been considered for correlation test too. Out of seventeen variables selected for correlation analysis, seven variables have been found to be significant. Educational qualification and occupational status are found to be significant

at 5 per cent level. Family monthly income, amount spent on e-wallet, perception of e-wallet payment services, challenges faced by e-wallet users and satisfaction towards the facilities offered are found to be significant at 1 per cent level.

**Table 4.13**

**Variables associated with the factors influencing the preference-Generation Z**

<b>Variables</b>	<b>R</b>	<b>r<sup>2</sup></b>
Gender	0.083	0.007
Educational qualification	0.099*	0.010
Occupational status	-0.102*	0.010
Marital status	0.026	0.001
Family type	0.029	0.001
Number of family members	-0.044	0.002
Number of earning members	0.088	0.008
Family monthly income	0.171**	0.029
Family monthly expenditure	0.066	0.004
Period of e-wallet usage	0.000	0.000
Frequency of e-wallet usage	0.037	0.001
Amount spent on e-wallet	0.209**	0.044
Awareness on e-wallet service provider	-0.029	0.001
Awareness on features of e-wallet payment services	-0.035	0.001
Perception of e-wallet payment services	0.625**	0.391
Challenges faced by e-wallet users	-0.193**	0.037
Satisfaction towards the facilities offered	0.557**	0.310

(Source: Computed \* Significant at 5 per cent level \*\* Significant at 1 per cent level)

**Based on educational qualification**

Educational qualification and preference are positively correlated. Customers with professional educational qualification have high level of preference towards e-wallets. The coefficient of determination ( $r^2$ ) shows that educational qualification contributes 1.00 per cent of the variation in the level of preference.



### **Based on occupational status**

Occupational status and preference are negatively correlated. Employees have high level of preference towards e-wallets. The coefficient of determination ( $r^2$ ) shows that employee contributes 1.00 per cent of the variation in the level of preference.

### **Based on family monthly income**

Family monthly income and preference are positively correlated. Customers whose monthly income ranges above Rs.60, 000 have high level of preference towards e-wallets. The coefficient of determination ( $r^2$ ) shows that family monthly income contributes 2.90 per cent of the variation in the level of preference.

### **Based on amount spent on e-wallet**

Amount spent on e-wallet and preference are positively correlated. Customers who spend more than Rs.12, 000 through e wallet have high level of preference towards e-wallets. The coefficient of determination ( $r^2$ ) shows that amount spent on e-wallet contributes 4.40 per cent of the variation in the level of preference.

### **Based on perception of e-wallet payment services**

Perception of e-wallet payment services towards e-wallets and preference are positively correlated. Customers who have high level of perception of e-wallet payment services have high level of preference towards e-wallets. The coefficient of determination ( $r^2$ ) shows that perception of e-wallet payment services contributes 39.10 per cent of the variation in the level of preference.

### **Based on challenge faced by e-wallet users**

Challenges faced by e-wallet users and preference are negatively correlated. Customers who face low level of challenge on using e-wallets have high level of preference towards e-wallets. The coefficient of determination ( $r^2$ ) shows that challenge faced by e-wallet users contributes 3.70 per cent of the variation in the level of preference.

### **Based on satisfaction towards the facilities offered**

Satisfaction towards the facilities offered and preference are positively correlated. Customers who have high level of satisfaction towards the facilities offered have high level of preference towards e-wallets. The coefficient of determination ( $r^2$ ) shows that satisfaction towards e-wallets contributes 31.00 per cent of the variation in the level of preference.

In Generation Z, out of seventeen variables selected for correlation analysis, seven variables have been found to be significant. Educational qualification( $r=0.099$ ) and occupational status( $r=-0.102$ ) are found to be significant at 5 per cent level. Family monthly income( $r=0.171$ ), amount spent on e-wallets ( $r=0.209$ ), perception of e-wallet payment services ( $r=0.625$ ), challenge faced by e-wallet users ( $r=-0.193$ ) and satisfaction towards the facilities offered ( $r=0.557$ ) are found to be significant at 1 per cent level.

### **Multiple regression analysis- Factors influencing their preferences towards the usage of e-wallets - Generation - Y**

The analysis started with estimating coefficients and the constant. Among the several methods of analysis of multiple regression, stepwise regression method is used for the study. Initially, the equation starts with no predictor variables, then in the first step the variable with highest correlation with the dependent variable is selected first and included in the model. Also, once the variable is included in the equation, then it is again considered for removal from the equation to avoid multicollinearity (correlation between independent variables) problems.

Once the variable entered and remains in the equation, the variable with next highest positive/negative partial correlation is selected and considered for entry and if satisfied then added to the equation. Now the variables so far entered in to the equation are checked for removal. This process continues until all the variables satisfying entry and removal criteria are included in the equation. Finally, either all the independent variables selected for the analysis would have been included in the model or the variables selected based on the selection criteria are all included in the model. The results of the model are stated below with inference.

**Independent variable Vs. Factors influencing the preference -Generation Y**

**Table 4.14 - Regression analysis for determinants of preference - Generation Y**

<b>Variables</b>	<b>Regression coefficient</b>	<b>Standard error</b>	<b>t</b>	<b>Beta</b>	<b>Sig Value</b>	<b>Sig</b>
(Constant)	10.022	10.294				
Gender	3.175	1.589	1.998	.102	0.046	*
Educational qualification	0.978	0.945	1.034	.045	0.302	NS
Occupational status	0.585	0.421	1.391	.071	0.165	NS
Marital status	-4.429	1.543	-2.871	-.143	0.004	**
Family type	0.547	1.889	0.290	.016	0.772	NS
Number of family members	-1.719	0.763	-2.252	-.132	0.025	*
Number of earning members	1.526	1.150	1.326	.073	0.186	NS
Family monthly income	1.091	0.619	1.764	.092	0.079	NS
Family monthly expenditure	0.361	0.631	0.572	.029	0.567	NS
Period of e-wallets usage	0.346	0.522	0.663	.031	0.508	NS
Frequency of e-wallets usage	0.885	0.473	1.870	.087	0.062	NS
Amount spent on e-wallet	0.320	0.507	0.631	.027	0.528	NS
Awareness on e-wallet service providers	0.001	0.050	0.017	.001	0.986	NS
Awareness on features of e-wallet payment services	-0.068	0.045	-1.516	-.083	0.130	NS
Perception of e-wallet payment services	0.540	0.089	6.045	.362	0.000	**
Challenges faced by e-wallet users	-0.035	0.055	-0.634	-.028	0.527	NS
Satisfaction towards the facilities offered	0.211	0.080	2.650	.152	0.008	**
			<b>R</b>	<b>R Square</b>	<b>F</b>	<b>Sig.</b>
			0.310	0.341	14.281	**

(Source: Computed \* Significant at 5 per cent level \*\* Significant at 1 per cent level)

The table given above shows the result of regression analysis stating the details of multiple R, R<sup>2</sup>. Whereas step wise inclusion of variables in the resulted regression equation is stated below.

The t-Test statistic calculated for the regression coefficients show that all the variables which were included in the model significantly influence the overall preference of the respondents at either 5 per cent or at 1 per cent level.

The value of  $R^2$  is found to be significant at 1 per cent level. This shows that the regression equation framed is a good fit which is around 34.10 per cent of variation in customer's reference towards e-wallets is due to the select variables. The F-value (14.281) called as F-statistic, is used to find whether the multiple correlation (R) value is significant or not. The associated significance level ( $P < 0.01$ ) tells us that R is fairly significant at 1 per cent level.

The regression table states that gender, educational qualification, occupational status, family type, number of earning members, family monthly income, family monthly expenditure, period of e-wallet usage, frequency of e-wallets usage, amount spent on e-wallets and awareness on e-wallet service providers have positive effect on preference of the respondents. That is increase in the score of these variables will influence the preference of Generation Y level proportionately. In general with the responses received, the results stated that female users have high level of preference and so the gender positively influences preference. In the same way with the reference to educational qualification, number of family members, family monthly income, family monthly expenditure make a changes in the preference level.

The significant results stated that gender of the respondents have been positively correlated with 5 per cent significant level where as number of family members of the respondents have been negatively correlated with 5 per cent significant level. The regression coefficient indicates that marital status negatively influences preference. Married users have high level of preference at 1 per cent significant level. The perception of e-wallet payment services and satisfaction towards the facilities offered positively influence preference at 1 per cent significant level.

To find out variables that are prominently associated with consumers preference towards e-wallets, step-wise regression has been carried out.

**Table 4.15**

**Variables prominently associated with the factors influencing the preference-  
Step-wise regression analysis -Generation Y**

<b>Step</b>	<b>Constant</b>	<b>Perception of e-wallet payment services</b>	<b>Gender</b>	<b>Marital status</b>	<b>Family monthly income</b>	<b>Frequency of e-wallets usage</b>	<b>Satisfaction towards the facilities offered</b>	<b>Number of family members</b>	<b>R2</b>
1	18.820	0.738							0.245
2	13.448	0.734	3.913						0.261
3	18.696	0.730	4.717	-3.959					0.276
4	14.526	0.712	4.708	-4.280	1.523				0.293
5	10.242	0.725	4.813	-4.577	1.543	1.214			0.307
6	6.476	0.595	4.754	-4.574	1.587	1.129	0.180		0.316
7	12.112	0.552	4.532	-4.540	1.679	1.065	0.199	-1.163	0.323

*(Source: Computed)*

The result of step-wise regression discloses that perception of e-wallet payment services, gender, marital status, family monthly income, frequency of e-wallets usage, satisfaction towards the facilities offered and number of family members are found to be significant variables. All these seven variables contribute to a tune of 32.30 per cent towards factors influencing preference of e-wallets.

**Generation - Z**

**Table 4.16**

**Independent variable Vs. Factors influencing the preference - Generation Z**  
**Regression analysis for determinants of preference - Generation Z**

<b>Variables</b>	<b>Regression coefficient</b>	<b>Standard error</b>	<b>t</b>	<b>Beta</b>	<b>Sig Value</b>	<b>Sig</b>
(Constant)	26.324	10.031				
Gender	1.804	1.406	1.283	.051	0.200	NS
Educational qualification	1.206	1.004	1.202	.048	0.230	NS
Occupational status	-0.122	0.397	-0.306	-.013	0.760	NS
Marital status	-1.156	3.517	-0.329	-.013	0.743	NS
Family type	1.219	2.137	0.570	.026	0.569	NS
Number of family members	-0.018	0.874	-0.021	-.001	0.983	NS
Number of earning members	-0.720	1.091	-0.660	-.030	0.510	NS
Family monthly income	0.548	0.553	0.991	.048	0.322	NS
Family monthly expenditure	-0.231	0.667	-0.347	-.016	0.729	NS
Period of e-wallets usage	0.652	0.550	1.186	.051	0.236	NS
Frequency of e-wallets usage	0.599	0.479	1.250	.053	0.212	NS
Amount spent on e-wallet	0.759	0.509	1.491	.060	0.137	NS
Awareness on e-wallet service providers	0.003	0.053	0.060	.003	0.952	NS
Awareness on features of e-wallet payment services	-0.026	0.045	-0.569	-.028	0.569	NS
Perception of e-wallet payment services	0.667	0.087	7.690	.411	0.000	**
Challenges faced by e-wallet users	0.096	0.055	1.754	.072	0.080	NS
Satisfaction towards the facilities offered	0.358	0.073	4.889	.255	0.000	**
			<b>R</b>	<b>R Square</b>	<b>F</b>	<b>Sig.</b>
			0.423	0.449	21.181	**

*(Source: Computed \* Significant at 5 per cent level \*\* Significant at 1 per cent level)*

The table given above shows the result of regression analysis stating the details of multiple R,  $R^2$ , whereas step wise inclusion of variables in the resulted regression equation is stated below. The t-Test statistic calculated for the regression coefficients show that all the variables which were included in the model significantly influence the overall preference of the respondents at either 5 per cent or at 1 per cent level.

The value of  $R^2$  is found to be significant at 1 per cent level. This shows that the regression equation framed is a good fit. Around 44.90 per cent of variation in consumers preference towards e- wallets is due to the select variables. The F value (21.181) called as F-statistic, is used to find whether the multiple correlation (R) value is significant or not. The associated significance level ( $P < 0.01$ ) tells us that R is fairly significant at 1% level.

The regression table states that, gender, educational qualification , family type, family monthly income, period of e- wallets usage, frequency of e-wallets usage and amount spent on e-wallet, awareness on e-wallet service providers, perception of e-wallet payment services, challenges faced by e-wallet users and satisfaction towards the facilities offered have positive effect on preference of the respondents. That is increase in the score of these variables will influence the preference of Generation Z level proportionately. In general, with the responses received the results stated that the regression coefficient indicates that perception of e-wallet payment services and satisfaction towards the facilities positively influences preference of Generation Z. Consumers who have high level of perception towards e-wallets have high level of preference of Generation Z.

The significant results stated that perception of e-wallet payment services and satisfaction towards the facilities positively correlated with 1 per cent significant level where as the other positively correlated variables have no significant results. The results stated that influence of variables does not provide a significant result.

To find out variables that are prominently associated with consumers preference towards e-wallets, step-wise regression has been carried out.

**Table 4.17**

**Variables prominently associated with the factors influencing the preference- Step-wise regression analysis -Generation Z**

<b>Step</b>	<b>Constant</b>	<b>Perception of e-wallet payment services</b>	<b>Satisfaction towards the facilities offered</b>	<b>R2</b>
1	5.394	1.013		.391
2	11.959	0.741	0.356	.427

*(Source: Computed)*

The result of step-wise regression discloses that perception towards e-wallets and satisfaction towards e-wallet usage are found to be significant variables. All these 2 variables contribute to a tune of 42.70 per cent towards factors influencing the preference of e-wallet.

**Factor analysis- Factors influencing their preferences towards the usage of e-wallets**

The general purpose of factor analysis has been to summarize the information contained in a number of original variables in to a smaller set of new composite dimensions (Factors) with minimum loss of information. The Factor Analysis identifies and defines the underlying dimensions in the original variables.

The factor analysis technique has been applied to find out the underlying dimensions in the set of statements relating to the factors influencing preferences towards the usage of e-wallet.

Factor analysis has been performed in four steps:

1. First, the correlation matrix for all variables is computed. Variables that do not appear to be related to other variables have been identified from the matrix and the correctness of the factor model has also been calculated.
2. Factor extraction has been the second step. Number of factors necessary to represent the data and the method of calculating them has been determined. Also how well the chosen model fits the data has been ascertained.
3. The factors chosen have been transformed to make them more interpretable through a process of rotation.



4. Scores for each factor has been computed for all variables and these scores have been used for further analysis.

The set of 13 statements (items), depicted in table 4.18, which measures the factors influencing their preferences towards the usage of e-wallets of Generation Y.

**Table 4.18**

**Factors influencing their preferences towards the usage of e-wallets - Generation Y**

1.	Instant payments
2.	Instant refunds
3.	Offers, cashbacks, discounts & rewards
4.	Queue avoidance
5.	Free transfer of money
6.	Faster transaction
7.	Reduce burden of carrying physical wallets
8.	Superior shopping experience
9.	High mobile literacy
10.	Comfortable
11.	Budgeting (Tracking of expenses)
12.	Security by OTP, password & complete privacy
13.	24*7 customer service

*(Source: Primary data)*

To know the factors influencing their preferences towards the usage of e-wallets, a factor analysis has been done with a correlation matrix, in four steps.

**Step 1**

Correlation matrix for the variables measuring the influencing factors towards the mobile wallet preference has been analysed to know the possibility of inclusion of the variables in factor analysis, as shown in table 4.19

Since one of the goals of the factor analysis has been to obtain '**factors**' that help explain these correlations, the variables have to be related to each other for the factor model to be appropriate. A closer examination of the correlation matrix has revealed that there have been some variables which do not have any relationship with some variables. Usually a correlation value of 0.3 (absolute value) has been considered sufficient to explain the relation between variables.

It has evident from the correlation matrix that most of the variables have correlated with other variables. Hence, all the variables from 1 to 13 have been retained for further analysis. Further, two tests

–KMO and Bartlett’s Test (Table 4.20) been applied to the resultant correlation matrix to test whether the relationship among the variables have been significant or not.

**Table 4.19-Correlation Matrix- Factors influencing their preferences towards the usage of e-wallets - Generation Y**

	X1	X2	X3	X4	X5	X6	X7	X8	X9	X10	X11	X12	X13
X1	1.000	0.641	0.457	0.474	0.512	0.604	0.430	0.424	0.489	0.514	0.475	0.521	0.335
X2	0.641	1.000	0.494	0.412	0.449	0.454	0.334	0.359	0.403	0.414	0.350	0.441	0.335
X3	0.457	0.494	1.000	0.394	0.533	0.528	0.441	0.490	0.416	0.474	0.439	0.419	0.338
X4	0.474	0.412	0.394	1.000	0.581	0.571	0.462	0.428	0.495	0.497	0.440	0.406	0.289
X5	0.512	0.449	0.533	0.581	1.000	0.739	0.627	0.567	0.515	0.594	0.507	0.508	0.403
X6	0.604	0.454	0.528	0.571	0.739	1.000	0.648	0.584	0.587	0.668	0.568	0.575	0.418
X7	0.430	0.334	0.441	0.462	0.627	0.648	1.000	0.631	0.616	0.663	0.524	0.583	0.400
X8	0.424	0.359	0.490	0.428	0.567	0.584	0.631	1.000	0.728	0.596	0.542	0.562	0.416
X9	0.489	0.403	0.416	0.495	0.515	0.587	0.616	0.728	1.000	0.638	0.556	0.567	0.407
X10	0.514	0.414	0.474	0.497	0.594	0.668	0.663	0.596	0.638	1.000	0.638	0.762	0.490
X11	0.475	0.350	0.439	0.440	0.507	0.568	0.524	0.542	0.556	0.638	1.000	0.680	0.471
X12	0.521	0.441	0.419	0.406	0.508	0.575	0.583	0.562	0.567	0.762	0.680	1.000	0.554
X13	0.335	0.335	0.338	0.289	0.403	0.418	0.400	0.416	0.407	0.490	0.471	0.554	1.000

<b>X1</b>	Instant payments
<b>X2</b>	Instant refunds
<b>X3</b>	Offers, cashbacks, discounts & rewards
<b>X4</b>	Queue avoidance
<b>X5</b>	Free transfer of money
<b>X6</b>	Faster transaction
<b>X7</b>	Reduce burden of carrying physical wallets
<b>X8</b>	Superior shopping experience
<b>X9</b>	High mobile literacy
<b>X10</b>	Comfortable
<b>X11</b>	Budgeting (Tracking of expenses)
<b>X12</b>	Security by OTP, password & complete privacy
<b>X13</b>	24*7 customer service

**Table 4.20**

**KMO and Bartlett's Test - Factors influencing their preferences towards the usage of e-wallets**

<b>Kaiser-Meyer-Olkin Measure of Sampling Adequacy.</b>		<b>.931</b>
<b>Bartlett's Test of Sphericity</b>	Approx. Chi-Square	.3224.241
	df	78
	Sig.	.000

*(Source: Computed \*\* - Significant at 1% level (P<0.01))*

Kaiser-Meyer-Olkin (KMO) has been used to measure the sampling adequacy, based on the correlations and partial correlations of the variables. If the test value or KMO measure has been closer to 1, then it has been considered appropriate to employ factor analysis where, it has been acknowledged to be inappropriate to use factor analysis for the variables and data if KMO has been closer to 0. It has been noted from the table 4.20 that the value of test statistic that has been 0.931 which means that the factor analysis for the selected variables have been found to be appropriate.

Bartlett's test of sphericity depicted in table 4.20 has been used to test whether the correlation matrix has been an identity matrix. i.e., all the diagonal terms in the matrix has been 1 and the off-diagonal terms in the matrix has been 0. In short, it has been used to test whether the correlations between all the variables has been 0. The test value (3224.241) and the significance level (P<.01) given in the table 4.20 has enunciated that the correlation matrix has not been an identity matrix, i.e., there has been correlations between the variables. Hence, the factor analysis has been valid and consistent.

**Step 2**

The next step has been to determine the method of factor extraction, number of initial factors and the estimates of factors. Here Principal Components Analysis (PCA) has been used to extract factors. PCA has been a method used to transform a set of correlated variables into a set of uncorrelated variables (here factors) so that the factors have been unrelated and the variables selected for each factor have been related. Next PCA has been used to extract the number of factors required to represent the data. In order to determine the number of factors to be extracted, there exists less variability. Extraction of factors has been stopped while there has been very little 'random' variability identified.

The results from principal components analysis have been given below.

**Table 4.21**

**Total Variance Explained - Factors influencing their preferences towards the usage of e-wallets -Generation Y**

Component	Initial Eigen values			Extraction Sums of Squared Loadings (Roated)		
	Total	Percentage of variance	Cumulative percentage	Total	Percentage of variance	Cumulative percentage
1	7.143	54.948	54.948	7.143	54.948	54.948
2	1.044	8.031	62.979	1.044	8.031	62.979
3	.846	6.507	69.486			
4	.635	4.885	74.371			
5	.615	4.728	79.099			
6	.533	4.100	83.198			
7	.486	3.740	86.938			
8	.391	3.004	89.942			
9	.324	2.493	92.434			
10	.306	2.351	94.786			
11	.261	2.009	96.794			
12	.223	1.719	98.513			
13	.193	1.487	100.000			

(Source: Computed Extraction Method: Principal Component Analysis)

In the correlation matrix, the analysis has to start from where the variances of all variables have been equal to 1.0. Therefore, the total variance in that matrix has been equal to the number of variables. There have been 13 variables (factors) each with a variance of 1, then the total variability that can potentially be extracted has been equal to 13 times 1. The variance accounted for by successive factors have been summarized in the table 4.21

In the column titled ‘Percentage of variance’ under Initial *Eigen values* in the table 4.21 the variance on the new factors that have been successively extracted has been shown and these values have been expressed as a percent of the total variance. It has been noticed that factor 1 accounts for about 55 per cent of the total variance, factor 2 about 9 percent, and so on. As expected, the sum of the Eigen values has been equal to the number of variables. The third column has the cumulative variance extracted. The variances extracted by the factors have been called the *Eigen Values*.

The factors with Eigen values greater than 1 have been retained for analysis. Unless a factor has extracted at least as much as the equivalent of one original variable, it has been

dropped. Two factors (principal components) have been retained for the study. The total variance explained (62.979%) by the two factor model in the original set of variables has been given in the last column of the table 4.21

The Component Matrix or Factor Matrix where PCA has extracted two factors has been depicted in the table 4.22. These coefficients have been used to express a standardized variable in terms of the factors called factor loadings, since they have indicated the quantum of weight is assigned to each factor. Factors with large coefficients (in absolute value) for a variable have been closely related to that variable. For example, Factor 1 has the factor with largest loading (0.837) for the item, “**Comfortable**”. These have been the correlations between the factors and the variables. Hence, the correlation between the first item in the component matrix and factor 1 has been 0.837. Thus the factor matrix in table 4.21 has been obtained with the initially obtained estimates of factors.

**Table 4.22**

**Component Matrix- Factors influencing their preferences towards the usage of e-wallets**

<b>Factors</b>	<b>1</b>	<b>2</b>
Comfortable	.837	-.210
Faster transaction	.834	.085
Security by OTP, password & complete privacy	.794	-.241
Free transfer of money	.789	.126
High mobile literacy	.779	-.184
Reduce burden of carrying physical wallets	.776	-.222
Superior shopping experience	.769	-.229
Budgeting (Tracking of expenses)	.753	-.229
Instant payments	.710	.435
Offers, cashbacks, discounts & rewards	.668	.238
Queue avoidance	.661	.293
Instant refunds	.619	.576
24*7 customer service	.599	-.260

*(Source: Computed Extraction Method: Principal Component Analysis-2 components has extracted.)*

**Step 3**

Although the factor matrix (**Component Matrix**) that has been obtained in the extraction phase has indicated the relationship between the factors and the individual

variables. It has been usually, difficult to identify meaningful factors based on this matrix. Often variables and factors do not appear to be correlated in any interpretable pattern as most factors have been correlated with many variables. Since the idea of factor analysis has been to identify the factors that meaningfully summarize the sets of closely related variables, the rotation phase of the factor analysis has been attempted to transfer initial matrix into one that has been easier to interpret. It has been called the rotation of the factor matrix. There have been several methods available for rotation of factor matrix. There have been several methods available for rotating factor matrix. The one used in this analysis has been varimax rotation, the most commonly used method, which has attempted to minimize the number of variables that have high loadings on a factor and has enhanced the interpretability of the factors. The rotated factor matrix using varimax rotation has been presented in table 4.23 where each factor has identified itself with a few set of variables. The variables which identify with each of the factors were sorted in the decreasing order and are highlighted against each column and row.

**Table 4.23**

**Rotated Component Matrix-Factors influencing their preferences towards the usage of e-wallets**

<b>Factors</b>	<b>1</b>	<b>2</b>
Comfortable	<b>.788</b>	.350
Security by OTP, password & complete privacy	<b>.774</b>	.299
Reduce burden of carrying physical wallets	<b>.747</b>	.303
Superior shopping experience	<b>.747</b>	.293
Budgeting (Tracking of expenses)	<b>.734</b>	.283
High mobile literacy	<b>.727</b>	.334
24*7 customer service	<b>.632</b>	.164
Faster transaction	<b>.605</b>	.580
Instant refunds	.133	<b>.835</b>
Instant payments	.292	<b>.780</b>
Offers, cashbacks, discounts & rewards	.340	<b>.638</b>
Queue avoidance	.380	<b>.598</b>
Free transfer of money	.544	<b>.585</b>

*(Source: Computed Extraction Method: Principal Component Analysis. Rotation Method: Varimax with Kaiser Normalization. Rotation converged in 13 iterations)*

#### Step 4

Normally, from the factor results arrived, factor score coefficients can be calculated for all variables (since each factor is a linear combination of all variables which have been used to calculate the factor scores for each individual. Since PCA has been used in extraction of initial factors, all methods have resulted in estimating the same factor score coefficients. However, for the study, original values of the variables have been retained for further analysis.

Table 4.24 has described the factors extracted from the variables on influencing factors towards the preference towards e-wallets. The two factors identified have been named as, ‘**Security and Privacy**’ and ‘**Ease of payments**’.

**Table 4.24**  
**Factors identified- Factors influencing their preferences towards the usage of e-wallets- Generation Y**

Statements	Factors identified
Comfortable	<b>Security and Privacy</b>
Security by OTP, password & complete privacy	
Reduce burden of carrying physical wallets	
Superior shopping experience	
Budgeting (Tracking of expenses)	
High mobile literacy	
24*7 customer service	
Faster transaction	
Instant refunds	<b>Ease of payments</b>
Instant payments	
Offers, cashbacks, discounts & rewards	
Queue avoidance	
Free transfer of money	

*(Source: computed)*

The analysis of the influencing factors towards the mobile wallet preference has revealed that most of the respondents use e-wallets because of the comfort, 24\*7 customer service, secured by OTP and password as well as instant payments and refunds, offers, discounts and queue avoidance.

The set of 13 statements (items), depicted in table 4.25, which measures the factors influencing their preferences towards the usage of e-wallets of Generation Z.

**Table 4.25**

**Factors influencing their preferences towards the usage of e-wallets -Generation Z**

1.	Instant payments
2.	Instant refunds
3.	Offers, cashbacks, discounts & rewards
4.	Queue avoidance
5.	Free transfer of money
6.	Faster transaction
7.	Reduce burden of carrying physical wallets
8.	Superior shopping experience
9.	High mobile literacy
10.	Comfortable
11.	Budgeting (Tracking of expenses)
12.	Security by OTP, password & complete privacy
13.	24*7 customer service

*(Source: Primary data)*

To know the factors influencing their preferences towards the usage of e-wallets, a factor analysis has been done with a correlation matrix, in four steps.

**Step 1**

Correlation matrix for the variables measuring the influencing factors towards the mobile wallet preference has been analysed to know the possibility of inclusion of the variables in factor analysis, as shown in table 4.26.

Since one of the goals of the factor analysis has been to obtain '**factors**' that help explain these correlations, the variables have to be related to each other for the factor model to be appropriate. A closer examination of the correlation matrix has revealed that there have been some variables which do not have any relationship with some variables. Usually a correlation value of 0.3 (absolute value) has been considered sufficient to explain the relation between variables.



It has evident from the correlation matrix that most of the variables have correlated with other variables. Hence, all the variables from 1 to 13 have been retained for further analysis. Further, two tests–KMO and Bartlett’s Test (Table 4.27) have been applied to the resultant correlation matrix to test whether the relationship among the variables have been significant or not.

**Table 4.26**

**Correlation Matrix- Factors influencing their preferences towards the usage of e-wallets**

	<b>X1</b>	<b>X2</b>	<b>X3</b>	<b>X4</b>	<b>X5</b>	<b>X6</b>	<b>X7</b>	<b>X8</b>	<b>X9</b>	<b>X10</b>	<b>X11</b>	<b>X12</b>	<b>X13</b>
X1	1.000	0.699	0.542	0.550	0.576	0.655	0.522	0.481	0.508	0.595	0.523	0.515	0.393
X2	0.699	1.000	0.618	0.514	0.469	0.512	0.501	0.442	0.487	0.519	0.484	0.540	0.372
X3	0.542	0.618	1.000	0.418	0.435	0.502	0.498	0.454	0.404	0.519	0.441	0.528	0.468
X4	0.550	0.514	0.418	1.000	0.595	0.557	0.548	0.484	0.542	0.493	0.548	0.447	0.445
X5	0.576	0.469	0.435	0.595	1.000	0.761	0.628	0.554	0.567	0.639	0.521	0.517	0.406
X6	0.655	0.512	0.502	0.557	0.761	1.000	0.721	0.610	0.573	0.750	0.553	0.597	0.440
X7	0.522	0.501	0.498	0.548	0.628	0.721	1.000	0.641	0.633	0.684	0.654	0.621	0.559
X8	0.481	0.442	0.454	0.484	0.554	0.610	0.641	1.000	0.683	0.669	0.678	0.658	0.594
X9	0.508	0.487	0.404	0.542	0.567	0.573	0.633	0.683	1.000	0.623	0.766	0.690	0.582
X10	0.595	0.519	0.519	0.493	0.639	0.750	0.684	0.669	0.623	1.000	0.659	0.692	0.550
X11	0.523	0.484	0.441	0.548	0.521	0.553	0.654	0.678	0.766	0.659	1.000	0.698	0.581
X12	0.515	0.540	0.528	0.447	0.517	0.597	0.621	0.658	0.690	0.692	0.698	1.000	0.606
X13	0.393	0.372	0.468	0.445	0.406	0.440	0.559	0.594	0.582	0.550	0.581	0.606	1.000

<b>X1</b>	Instant payments
<b>X2</b>	Instant refunds
<b>X3</b>	Offers, cashbacks, discounts & rewards
<b>X4</b>	Queue avoidance
<b>X5</b>	Free transfer of money
<b>X6</b>	Faster transaction
<b>X7</b>	Reduce burden of carrying physical wallets
<b>X8</b>	Superior shopping experience
<b>X9</b>	High mobile literacy
<b>X10</b>	Comfortable
<b>X11</b>	Budgeting (Tracking of expenses)
<b>X12</b>	Security by OTP, password & complete privacy
<b>X13</b>	24*7 customer service

**Table 4.27**

**KMO and Bartlett's Test- Factors influencing their preferences towards the usage of e-wallets**

<b>Kaiser-Meyer-Olkin Measure of Sampling Adequacy.</b>		<b>.939</b>
<b>Bartlett's Test of Sphericity</b>	Approx. Chi-Square	3803.557
	df	78
	Sig.	.000

*(Source: Computed \*\* - Significant at 1% level (P<0.01))*

Kaiser –Meyer- Olkin (KMO) has been used to measure the sampling adequacy, based on the correlations and partial correlations of the variables. If the test value or KMO measure has been closer to 1, then it has been considered appropriate to employ factor analysis where, it has been acknowledged to be inappropriate to use factor analysis for the variables and data if KMO has been closer to 0. It has been noted from the table 4.27 that the value of test statistic that has been 0.939 which means that the factor analysis for the selected variables have been found to be appropriate.

Bartlett's test of sphericity depicted in table 4.27 has been used to test whether the correlation matrix has been an identity matrix. i.e., all the diagonal terms in the matrix has been 1 and the off-diagonal terms in the matrix has been 0. In short, it has been used to test whether the correlations between all the variables has been 0. The test value (3803.557) and the significance level (P<.01) given in the table 4.27 has enunciated that the correlation matrix has not been an identity matrix, i.e., there has been correlations between the variables. Hence, the factor analysis has been valid and consistent.

**Step 2**

The next step has been to determine the method of factor extraction, number of initial factors and the estimates of factors. Here Principal Components Analysis (PCA) has been used to extract factors. PCA has been a method used to transform a set of correlated variables into a set of uncorrelated variables (here factors) so that the factors have been unrelated and the variables selected for each factor have been related. Next PCA has been

used to extract the number of factors required to represent the data. In order to determine the number of factors to be extracted, there exists less variability. Extraction of factors has been stopped while there has been very little ‘random’ variability identified.

The results from principal components analysis have been given below.

**Table 4.28**

**Total Variance Explained Factors influencing their preferences towards the usage of e-wallets -Generation Z**

Component	Initial Eigen values			Extraction sums of squared loadings (Roated)		
	Total	Percentage of variance	Cumulative percentage	Total	Percentage of variance	Cumulative percentage
1	7.761	59.700	59.700	7.761	59.700	59.700
2	1.041	8.009	67.709	1.041	8.009	67.709
3	.808	6.218	73.927			
4	.612	4.707	78.633			
5	.525	4.039	82.672			
6	.378	2.911	85.584			
7	.342	2.628	88.212			
8	.328	2.527	90.738			
9	.302	2.320	93.058			
10	.290	2.230	95.288			
11	.236	1.813	97.102			
12	.215	1.651	98.753			
13	.162	1.247	100.000			

*(Source: Computed Extraction Method: Principal Component Analysis)*

In the correlation matrix, the analysis has to start from where the variances of all variables have been equal to 1.0. Therefore, the total variance in that matrix has been equal to the number of variables. There have been 13 variables (factors) each with a variance of 1, then the total variability that can potentially be extracted has been equal to 13 times 1. The variance accounted for by successive factors have been summarized in table 4.28.

In the column titled ‘Percentage of variance’ under Initial *Eigen values* in the table 4.28 the variance on the new factors that have been successively extracted has been shown and these values have been expressed as a percent of the total variance. It has been noticed that factor 1 accounts for about 59 per cent of the total variance, factor 2 about 8 percent, and so on. As expected, the sum of the Eigen values has been equal to the number of variables. The third column has the cumulative variance extracted. The variances extracted by the factors have been called the *Eigen Values*.

The factors with Eigen values greater than 1 have been retained for analysis. Unless a factor has extracted at least as much as the equivalent of one original variable, it has been dropped. Two factors (principal components) have been retained for the study. The total variance explained (67.7%) by the two factor model in the original set of variables has been given in the last column of the table 4.29.

The Component Matrix or Factor Matrix where PCA has extracted two factors has been depicted in the table 4.29. These coefficients have been used to express a standardized variable in terms of the factors called factor loadings, since they have indicated the quantum of weight is assigned to each factor. Factors with large coefficients (in absolute value) for a variable have been closely related to that variable. For example, Factor 1 has the factor with largest loading (0.843) for the item, “**Comfortable**”. These have been the correlations between the factors and the variables. Hence, the correlation between the first item in the component matrix and factor 1 has been 0.843. Thus, the factor matrix in table 4.29 has been obtained with the initially obtained estimates of factors.

**Table 4.29**  
**Component Matrix- Factors influencing their preferences towards**  
**the usage of e-wallets**

Factors	1	2
Comfortable	.843	-.051
Faster transaction	.826	.163
Security by OTP, password & complete privacy	.824	-.086
Free transfer of money	.813	-.293
High mobile literacy	.812	-.213
Reduce burden of carrying physical wallets	.808	-.299
Superior shopping experience	.797	-.295
Budgeting (Tracking of expenses)	.767	.165
Instant payments	.750	.440
Offers, cashbacks, discounts & rewards	.707	.174
Queue avoidance	.706	.460
Instant refunds	.694	-.362
24*7 customer service	.671	.322

*(Source: Computed Extraction Method: Principal Component Analysis-2 components extracted.)*

### **Step 3**

Although the factor matrix (**Component Matrix**) that has been obtained in the extraction phase has indicated the relationship between the factors and the individual variables. It has been usually, difficult to identify meaningful factors based on this matrix. Often variables and factors do not appear to be correlated in any interpretable pattern as most factors have been correlated with many variables. Since the idea of factor analysis has been to identify the factors that meaningfully summarize the sets of closely related variables, the Rotation phase of the factor analysis has been attempted to transfer initial matrix into one that has been easier to interpret. It has been called the rotation of the factor matrix. There have been several methods available for rotation of factor matrix. There have been several methods available for rotating factor matrix. The one used in this analysis has been Varimax Rotation, the most commonly used method, which has attempted to minimize the number of variables that have high loadings on a factor and has enhanced the interpretability of the factors.

The Rotated Factor Matrix using varimax rotation has been presented in table 4.30 where each factor has identified itself with a few set of variables. The variables which identify with each of the factors were sorted in the decreasing order and are highlighted against each column and row.

**Table 4.30**

**Rotated Component Matrix- Factors influencing their preferences towards the usage of e-wallets**

<b>Factors</b>	<b>1</b>	<b>2</b>
High mobile literacy	<b>.800</b>	.320
Budgeting (Tracking of expenses)	<b>.800</b>	.328
Superior shopping experience	<b>.790</b>	.315
24*7 customer service	<b>.758</b>	.197
Security by OTP, password & complete privacy	<b>.746</b>	.386
Reduce burden of carrying physical wallets	<b>.669</b>	.489
Comfortable	<b>.660</b>	.527
Instant payments	.262	<b>.829</b>
Instant refunds	.215	<b>.814</b>
Offers, cashbacks, discounts & rewards	.282	<b>.689</b>
Faster transaction	.504	<b>.674</b>
Free transfer of money	.459	<b>.636</b>
Queue avoidance	.408	<b>.603</b>

*(Source : Computed Extraction Method: Principal Component Analysis. Rotation Method: Varimax with Kaiser Normalization. Rotation converged in 13 iterations)*

**Step 4**

Normally, from the factor results arrived, factor score coefficients can be calculated for all variables (since each factor is a linear combination of all variables) which have been used to calculate the factor scores for each individual. Since PCA has been used in extraction of initial factors, all methods have resulted in estimating the same factor score coefficients. However, for the study, original values of the variables have been retained for further analysis.

Table 4.31 has described the factors extracted from the variables on influencing factors towards the mobile wallet preference. The two factors identified have named as, ‘Security and Privacy’ and ‘Ease of payments’.

**Table 4.31**

**Factors identify influencing their preferences towards the usage of e-wallets-Generation-Z**

Statements	Factors identified
High mobile literacy	<b>Security and Privacy</b>
Budgeting (Tracking of expenses)	
Superior shopping experience	
24*7 customer service	
Security by OTP, password & complete privacy	
Reduce burden of carrying physical wallets	
Comfortable	
Instant payments	
Instant refunds	<b>Ease of payments</b>
Offers, cashbacks, discounts & rewards	
Faster transaction	
Free transfer of money	
Queue avoidance	

The analysis of the influencing factors towards the mobile wallet preference has revealed that most of them use e-wallet because of its privacy and security facilities and also the factors including instant Payments, budgeting, secured by OTP and password, 24\*7 customer service.

**4.5 FREQUENCY OF USING E-WALLET APPLICATION**

**Weighted average rank**

To know the frequency of usage of e-wallet services among Generation Y and Z customers, weighted average rank test has been employed.

**Table 4.32**  
**Frequency of using e-wallets application-Generation Y and Z**

Applications	Generation Y			Generation Z		
	Mean Score	Mean	Rank	Mean Score	Mean	Rank
Paytm	1304	3.26	1	1324	3.31	2
Free charge	686	1.72	7	665	1.66	7
Oxigen	630	1.58	9	629	1.57	8
Mobikwik	697	1.74	6	675	1.69	6
Citrus	655	1.64	8	622	1.56	9
Phone Pe	1227	3.07	2	1350	3.38	1
Amazon pay	1135	2.84	3	1109	2.77	3
Airtel Money	884	2.21	4	914	2.29	4
Jio Money	727	1.82	5	822	2.06	5

(Source: computed)

In Generation Y, the result of weighted average rank test shows that majority of the respondents frequently use ‘Paytm’ with the highest mean of 3.26 followed by ‘Phonepe’ (3.07), ‘Amazon pay’(2.84), ‘Airtel money’(2.21),‘Jio money’(1.82), ‘Mobikwik’(1.74), ‘Free charge’(1.72),‘Citrus’(1.64) and ‘Oxigen’(1.58).

It is inferred that in Generation Z, majority of the respondents frequently use ‘Phonepe’ with the highest mean of 3.38 with the followed by ‘Paytm’(3.31), ‘Amazon pay’ (2.77), ‘Airtel money’(2.29), ‘Jio money’(2.06), ‘Mobikwik’(1.69), ‘Free charge’ (1.66), ‘Oxigen’(1.57)and ‘Citrus’(1.56).

**Hence, it is concluded that most of the respondents belonging to Generation Y and Z have been frequently using ‘Paytm’ and ‘Phone pe’ with the highest mean of 3.26 and 3.31.**

#### **4.6 REASON TO USE E-WALLET PAYMENT SERVICES**

##### **Garrett’s ranking**

Garrett’s Ranking Technique has been used to ascertain the major reason for using e- wallet payments by the respondents belonging to Generation Y and Z.



Under Garrett’s ranking technique the percentage position has been calculated by using the following formula:

$$\text{Percentage Position} = 100 (R_{tj} - 0.5) / N_j$$

Where  $R_{tj}$  = Rank given for  $i^{\text{th}}$  variable by the  $j^{\text{th}}$  customers

$N_j$  = Number of variables ranked by the customers.

The customers are asked to rank the six questions relating to the major purpose for which digital payments are used.

By referring to the Garrett table the per cent position has been converted into scores. Then for each factor, the scores of each customer are added and then the mean value is calculated. The factors having the highest mean value have been considered to be the most important. Scale values as per Garrett’s ranking technique for the first to six ranks are 77, 63, 54, 45, 36 and 23 respectively. The percentage position of each rank is made into the score by referring factors summed up for assigning rank. The following table exhibits the major purpose for which e- wallet payments have been used by the respondents.

**Table 4.33**

**Reason to use e-wallet payment service – Generation Y and Z**

Reason to use e-wallet payment service	Generation Y			Generation Z		
	Total Score	Mean Score	Rank	Total Score	Mean Score	Rank
Better payment option	26422	66.06	1	24331	60.83	1
The store I visit started offering multiple services	15633	39.08	6	15971	39.93	6
Taking advantage of loyalty or rewards points and discounts	15869	39.67	5	16908	42.27	5
Social recognition and status	21750	54.38	4	21919	54.80	4
User-friendly apps	25195	62.99	2	23130	57.83	2
Readiness to accept new technology	24948	62.37	3	22765	56.91	3

(Source: computed)

From the analysis, it is inferred from the table that in Generation Y 'Better payment option' has been ranked as a first reason with a mean score of 66.06. 'User-friendly apps' has been ranked as the second reason with a score of 62.99 followed by 'Readiness to accept new technology'(62.37), 'Social recognition and status'(54.38), 'Taking advantage of loyalty or rewards points and discounts'(39.67) and 'The store I visit started offering multiple services' has been ranked as the sixth reason with a score of 39.08 Garrett points.

It is inferred that in Generation Z 'Better payment option' has been ranked first reason with a mean score of 60.83. 'User-friendly apps' has been ranked as the second reason with a score of 57.83 followed by 'Readiness to accept new'(56.91), 'Social recognition and status'(54.80), 'Taking advantage of loyalty or rewards points and discounts' (42.27) and 'The store I visit started offering multiple services'(39.93) has been ranked as the sixth reason with a mean score of 39.93.

**Hence, it is concluded that most of the respondents belonging to Generation Y and Z use e-wallets since it has a 'Better payment option' with a score of 60.83 and 66.06 Garrett points.**