Revolution of E-Wallets Usage among Indian Millennial

Mridula M Menon, Harihara Sudhan Ramakrishnan

Abstract: India is already pacing ahead on the trajectory of a major digital revolution. Digitalization in the mechanism of sending and receiving payments is definitely considered as the milestone in the age of cashless economy. While the usage of smartphones along with the easily and readily available Internet access is already at its peak and continuing to increase among the Indian population, both urban and rural, the acceptance of the electronic payment method or E Wallets is the focus of this paper. This paper intends to empirically examine the adoption patterns of e wallets by the respondents. A survey of customer perception Vis a Vis usage pattern levels regarding e wallets will be made based on a study on the Indian millennial population. It also helps identify the hurdles and challenges to the adoption of e wallets. Therefore, the purpose of this study is to explore the adoption of the e wallet among Indian millennial with focus on (1) the adoption levels of e-wallets, (2) the usage patterns of e wallets, (3) the preference for e-wallets, and (4) the challenges in using e-wallets. In order to accomplish the aforesaid purpose a well-structured questionnaire will be circulated to the millennial population based out of the Chennai City, wherein they were asked questions with regards to adoption of e wallets. The study would be a valuable input to the research areas of finance, by divulging into E wallet payment systems in India, an emerging concept.

Keywords: Finance, Indian Millennial, Digital Wallets

I. INTRODUCTION

Evolution in technologies and digitalization has cast a significant impact on human life. The rapidity in the innovations and growth in internet and communication technology is altering how businesses are managed. The dynamic market scenario is forcing business leaders to embrace new technologies optimistically as a path toward adding value to the consumers. The dependence on mobile devices (like smartphones and other handheld devices) has reached the highest peak. Fuelled by the sustained growth in the wireless communication and internet technologies and enhancements in the data rates, the popularity of the mobile devices has reached every part of the globe, making it an omnipresent technology. Smartphones are not considered as a mere communication tool but as an essential part of human life. Globally, the penetration rate of smartphones was around 57 per cent in the year 2017. This number would be reaching 77 per cent by the year 2015 (GSMA, 2018).

II. INTRODUCTION TO E-WALLETS

The Indian millennial is fast adopting online payment options. India is undergoing a major transformation in the last decade. The financial sector has started feeling the tremors of digitalization and the way people transact and access money has been fast-changing.

The applications of mobile devices for making payments have been in practice for several years and it has gained a greater level of acceptance and market reach (Dahlberg et al., 2008). E-Wallets, on the other hand, is a much more advanced and a versatile application that includes all the components of mobile transactions, in addition to other features found in a wallet like travel cards, membership cards and loyalty cards and. E-wallet is an online prepaid account which enables storing money, receiving money, making payments and transactions through internet accessed via a computer or smartphone (Pahwas, 2017). E-wallets are generally operated using mobile applications for various financial transactions like mobile recharges, money transfer, utility bills payments, merchant payments, e-commerce payments, loan repayments etc. E-wallet has the potential to transform the entire payment method (Aydin & Burnaz, 2016).

III. E-WALLETS USAGE IN INDIA

Studies have highlighted that post demonetization in the year 2016 and the decisive push of central government towards adopting various digital payments and transactions, there has been a tremendous shift towards the adoption of cashless transactions. Morgan Stanley has reported that the payments through digital mediums have tripled to the 7% of GDP in just three years post demonetization.

India is one of the world's fastest-growing market adopting mobile payment mode. According to an estimate by eMarketer, about 52.9 million people in India have used mobile payment methods in the year 2017 (Rimma, 2018). The estimate has increased to 73.9 million people in the year 2018. Roughly 7.6% of the India population have made payments through mobile payments in the year 2017. It is projected that 93.3 million India people would use mobile payments in the year 2019 (Rimma, 2018).
IV. RESEARCH METHODOLOGY

This study adopted the descriptive research design method. A quantitative survey instrument developed by the authors was used for data collection from the respondents consisting of consumers purchasing products through E-Wallets (Churchill & Iacobucci, 2006).

A. Sample and Setting

The study focused on measuring the attitude towards E-wallets usage among Indian Millennial. The study was conducted with the randomly selected sample of online consumers who prefer using E-Wallets for making purchases. The final sample of the study was 250 consumers. The demographic characteristics of the consumers are shown in Table 1.

| Variables | Parameter            | Frequency | Percentage |
|-----------|----------------------|-----------|------------|
| Gender    | Female               | 175       | 70.0       |
|           | Male                 | 75        | 30.0       |
| Age       | Less than 25 Years   | 63        | 25.2       |
|           | 25-40 Years          | 179       | 71.6       |
|           | More than 40 Years   | 8         | 3.2        |
|           | Total                | 250       | 100.0      |
| Monthly Income | Less Than Rs.10, 000 | 25       | 10.0       |
|           | Rs.10, 000 - Rs.50, 000 | 68     | 27.2       |
|           | Rs.50, 001 - Rs.100, 000 | 89    | 35.6       |
|           | Rs.100, 001 - Rs.500, 000 | 38   | 15.2       |
|           | More than Rs.500, 000 | 30       | 12.0       |
|           | Total                | 250       | 100.0      |
| Occupation | Service (Government / Private) | 92   | 36.8       |
|           | Professional         | 98        | 39.2       |
|           | Student              | 18        | 7.2        |
|           | Self Employed        | 42        | 16.8       |
|           | Total                | 250       | 100.0      |

In terms of gender, 70.0% (N=175) of the respondents were female and the remaining 30.0% (N=75) were male. The majority of the consumers of the study belonged to the age group 25-40 Years (N=179, 71.6%). 25.2% (N=63) of respondents have age below 25 years. The study included only 3.2% (N=8) of respondents with age over 40 years. The study also collected data on the income range of the respondents. The data show that majority of the respondents were earning between Rs.100, 001 - Rs.500, 000 (N=38, 15.2%) and Rs.50, 001 - Rs.100, 000 (N=89, 35.6%). Around 27.2% (N=68) of respondents have income around Rs.10, 000 - Rs.50, 000. The study also included sample of respondents with income level more than Rs.500, 000 (N=30, 12.0%) and Less Than Rs.10, 000 (N=25, 10.0%). The occupational profile of the respondents reveals that 39.2% (N=98) were professionals. Similarly, 36.8% (N=92) of the respondents were employed in either government or private services. 16.8% (N=42) of the respondents were Self Employed. The study also included 7.2% (N=18) of student respondents.

B. Framework of the Study

The objective of the paper was studying the factors influencing the attitude of millennial consumers towards E-Wallets for digital payments. As an outcome of an extensive review of literature, several important factors were identified that were impacting the consumer's attitude toward E-wallet for digital payments. The study hypothesizes that five factors namely "Ease of Use", "Usefulness", "Trust", "Satisfaction" and "Security" have a prominent impact on the consumers by influencing them toward using E-wallets for making payments for online purchases. The conceptual framework of the study is shown in Figure 2.

C. Hypothesis of the Study

Base on the conceptual framework, the following hypothesis was formed for the study:

H1: Significant relationship exists between Ease of Use and Reason for Use of E-Wallets among Indian Millennial Consumers.

H2: Significant relationship exists between Usefulness and Reason for Use of E-Wallets among Indian Millennial Consumers.

H3: Significant relationship exists between Trust and Reason for Use of
E-Wallets among Indian Millennial Consumers.

H4: Significant relationship exists between Satisfaction and Reason for Use of E-Wallets among Indian Millennial Consumers.

H5: Significant relationship exists between Security and Reason for Use of E-Wallets among Indian Millennial Consumers.

H6: There is no significant relationship between demographic factors like gender, age, income, occupation and Frequency of Usage of E-Wallets by Indian Millennial Consumers.

H7: There is no significant difference among different services used by the Respondents through E-Wallets for making online purchases

V. RESULTS AND DISCUSSION

A. Frequency and Percentage Analysis

A.1 Frequency of Usage of E-Wallets

Table 2 shows the Frequency of Usage of E-Wallets by the respondents consisting of Millennial Consumers. Majority of the consumers (42.4%, N=106) use E-Wallets for More than 10 times in a month. 34.8% (N=87) of the consumers use E-Wallets for 5-10 Times in a month.

| Frequency of Usage of E-Wallets | Frequency | Per cent |
|---------------------------------|-----------|----------|
| More than 10 Times              | 106       | 42.4     |
| 5-10 Times                      | 87        | 34.8     |
| Less than 5 Times               | 57        | 22.8     |
| Total                           | 250       | 100.0    |

A.2 Preference Option in E-Wallet Usage

Table 3 shows the preferred option in E-Wallet usage among the responding consumers of the study. The majority of the responding consumers (25.2%, N=63) use E-Wallets for making Utility Bill Payments (Insurance/Electricity/DTH/Landlines). 24.4% (N=61) of respondents use E-Wallets for Mobile Payments (Post & Pre Paid). The respondents also use E-Wallets for Banking Services (20.0%, N=50) and Travel Related (Train/Flight/Hotel/Bus Bookings/Cab) (14.4%, N=36). Food Delivery Apps the least preferred services using E-Wallets.

| Preference Option in E-Wallet Usage | Frequency | Per cent |
|-------------------------------------|-----------|----------|
| Mobile Payments (Post & Pre Paid)   | 61        | 24.4     |
| Utility Bill Payments (Insurance/Electricity/DTH/Landlines) | 63 | 25.2 |
| Travel Related (Train/Flight/Hotel/Bus Bookings/Cab) | 36 | 14.4 |
| Movie Tickets                      | 17        | 6.8      |
| Banking Services                   | 50        | 20       |
| Food Delivery Apps                 | 9         | 3.6      |
| All of the Above                   | 14        | 5.6      |
| Total                              | 250       | 100.0    |

A.3 Favorite E-Wallets

The study found that Paytm (37.6%, N=94) and Google Pay (34.0%, N=85) are the most favorite E-Wallet among Millennial Consumers. Other popular E-wallets included of the respondents use AmazonPay (10.4%, N=26) and PhonePe (6.4%, N=16).

| Favorite E-Wallets | Frequency | Per cent |
|--------------------|-----------|----------|
| Paytm              | 94        | 37.6     |
| Payzapp            | 6         | 2.4      |
| Mobikwik           | 15        | 6.0      |
| PhonePe            | 16        | 6.4      |
| AmazonPay          | 26        | 10.4     |
| Google Pay         | 85        | 34.0     |
| Bhim App           | 5         | 2.0      |
| Other              | 3         | 1.2      |
| Total              | 250       | 100.0    |

A.4 Influencing Factors in E-Wallet Usage

The main factor that influences the respondents to use E-Wallets was Friends (58.0%, N=145) and Relatives (12.4%, N=31). This was followed by the influencing effect of digital advertisements and social media.

| Influencing Factors in E-Wallet Usage | Frequency | Per cent |
|--------------------------------------|-----------|----------|
| Relatives                            | 31        | 12.4     |
| Friends                              | 145       | 58.0     |
| Colleagues                           | 21        | 8.4      |
| Social Media                         | 26        | 10.4     |
| Other Digital Advertisements (TV Commercials, Paper ads, etc.) | 27 | 10.8 |
| Total                                | 250       | 100.0    |

B. Descriptive Statistics

Table 6 shows the descriptive statistics of the constructs/variables used in the study. The table values shows the number of items used to measure each variable like Ease of Use, Usefulness, Trust, Satisfaction, Security and Reason for Use. The analysis also includes measures like minimum statistics, maximum statistics, mean value and standard deviation statistics. The reliability of the constructs was measured using the coefficient of reliability namely Cronbach's Alpha. The values of the reliability coefficient for all the variables were higher than the prescribed cut-off value of 0.6 (Nunnally et al. 1967). Thus, it can be confirmed that the scale used in the study was reliable for making measurements and drawing inferences.

The normality of the variables was measured using Skewness and Kurtosis statistics. The value of Skewness between +/- 2.0 is considered acceptable (George, 2011). Bentler (2006) suggested that the kurtosis value above 3.0 is considered non-normal. The values of Skewness and Kurtosis of the study indicate the data are normal and suitable for conducting parametric tests.
Table 6: Descriptive Statistics (N=250)

| Variables         | No. of Item | Min. | Max. | Mean | Standard Deviation | Skewness | Kurtosis | Cronbach's Alpha |
|-------------------|-------------|------|------|------|--------------------|----------|-----------|------------------|
| Ease of Use       | 5           | 1.00 | 5.00 | 3.60 | .673               | -1.356   | 3.641     | .752             |
| Usefulness        | 4           | 1.00 | 5.00 | 3.58 | .834               | - .663   | .750      | .886             |
| Satisfaction      | 4           | 1.00 | 5.00 | 3.31 | .773               | - .287   | .161      | .735             |
| Trust             | 4           | 1.00 | 5.00 | 3.62 | .797               | -.590    | .744      | .881             |
| Security          | 3           | 1.00 | 4.83 | 3.40 | .670               | -.477    | .622      | .861             |
| Reason for Use    | 6           | 1.00 | 5.00 | 2.83 | .895               | -.382    | -.178     | .830             |

C. Correlation Analysis

Pearson’s bivariate correlation analysis (Table 7) was performed to explore the nature of relationship and association among the constructs like Usefulness, Ease of Use, Security, Trust, Satisfaction and Reason for Use.

Table 7: Pearson’s Bivariate Correlations

| Variable          | Ease of Use | Usefulness | Satisfaction | Trust | Security | Reason for Use |
|-------------------|-------------|------------|--------------|-------|----------|----------------|
| Ease of Use       | 1           |            |              |       |          |                |
| Usefulness        | .631**      | 1          |              |       |          |                |
| Satisfaction      | .552**      | .573**     | 1            |       |          |                |
| Trust             | .621**      | .661**     | .663**       | 1     |          |                |
| Security          | .541        | .554       | .513         | .385  | 1        |                |
| Reason for Use    | .188        | .294       | .381         | .236  | .239**   | 1              |

** Indicates correlation at significant level of 0.01 level (2-tailed).

From Table 7, it can be confirmed that there was a significant level of correlation (at 0.01 level) among the variables of the study. The dependent (Outcome) variable (Reason for Use) was positively and significantly correlated with independents (predictor) variable like Trust, Ease of Use, Satisfaction, Usefulness and Security. Further, regression analysis was conducted to quantify the contribution of each of the predictor variables on the dependent variable (Reason for Use).

D. Regression Analysis

Table 8 shows the result of Linear Regression results between predictor variables like Usefulness, Ease of Use, Security, Trust and Satisfaction and the dependent variable namely Reason for Use. The value of Variation Inflation Factor (VIF) was below ten for all the variables, suggesting that multi-collinearity is not an issue in the dataset. The hypothesized model can be used for regression analysis (Kleinbaum et al., 1988; Chatterjee et al., 2000). The predictor variables accounted for 16.5% of the variance in the dependent variable (Reason for Use). The change in R² was 0.165 and it was highly significant (p<0.001).

Table 8: Model Summary

| R | R Square | Adjusted R Square | Std. Error of the Estimate | Change Statistics |
|---|----------|-------------------|---------------------------|-------------------|
| .404 | .165 | .148 | .82662 | .165 | 9.675 | 5.24 | .000 |

Predictors: (Constant), Security, Trust, Ease of Use, Usefulness, Satisfaction

Table 9 shows the results of the ANOVA test which is used for assessing the overall significance of the model. The reported p-value is less than 0.05, indicating that the model suggested by the study that Usefulness, Ease of Use, Security, Trust and Satisfaction impacts Reason for Use was validated.

Table 9: ANOVA

| Model          | Sum of Squares | df | Mean Square | F | Sig. |
|----------------|----------------|----|-------------|---|-----|
| Regression     | 33.053         | 5  | 6.611       | .000 |
| Residual       | 166.724        | 244| .683        |     |
| Total          | 199.777        | 249|             |     |

a. Predictors: (Constant), Usefulness, Ease of Use, Security, Trust and Satisfaction
b. Dependent Variable: Reason for Use

The Standardized β Coefficients is a measure of the contribution of each predictor variable to the model. The values of β as shown in Table 10 indicates that the variable Satisfaction (β = .669) has had a significant impact on Reason for Use of E-wallets at 0.01 level. Similarly, Usefulness (β = .176) has a significant impact on Reason for Use of E-wallets at 0.05 level. Ease of Use (β = -.099) and Trust (β = -.101) have a negative impact on Reason for Use of E-wallets However, the relationship was significant as the p-value is greater than 0.05. Similarly, Security has no significant impact on Reason for Use (β = .065) as the p-value is greater than 0.05.

The “t-value” indicates the impact of each predictor variable on the dependent variable. Table 10 indicates that Satisfaction (t-value = 4.488) has a highest impact on Reason for Use of E-wallets when compared to the predictor variable “Usefulness” (t-value = 2.030).

Table 10: Coefficients

| Model          | Unstandardized Coefficients | Standardized Coefficients | t | Sig. | Tolerance | VIF |
|----------------|----------------------------|---------------------------|---|-----|-----------|-----|
|   B            | Std. Error                 | Beta                      |   |     |           |     |
| (Constant)     | 1.339                      | .319                      | 4.166 | .000 | -         | -   |
| Ease of Use    | -.132                      | -.099                     | -2.192 | .033 | .497      | 2.013 |
| Usefulness     | .189                       | .176                      | 1.043 | .308 | .546      | 1.919 |
| Satisfaction   | .427                       | .369                      | 4.888 | .000**| .506      | 1.975 |
| Trust          | -.113                      | -.101                     | -2.806 | .005 | .397      | 2.527 |
| Security       | .087                       | .065                      | .841 | .401 | .576      | 1.736 |

a. Dependent Variable: Reason for Use

The hypothesis H1, H2, H3, H4 and H5 were tested using Regression analysis.

From Table 10, Hypothesis 1 that “Significant relationship exists between Ease of Use and Reason for Use of E-Wallets among Indian Millennial” was rejected (p-value>0.05). Similarly, hypothesis 3 that “Significant relationship exists between Trust and Reason for Use of E-Wallets among Indian Millennial” was rejected (p-value>0.05). Hypothesis 5 that “Significant relationship exists between Security and Reason for Use of E-Wallets among Indian Millennial” was also rejected (p-value>0.05).

Hypothesis 2 which states that “Significant relationship exists between Usefulness and Reason for Use of E-Wallets among Indian Millennial” was accepted as the p-value was less than 0.05. Similarly, hypothesis 4 that “Significant relationship exists between Satisfaction and Reason for Use of E-Wallets among Indian Millennial” was also accepted as the p-value was less than 0.05.
E. Chi-square test between Influence of Demographic Factors on the Usage of E-Wallets

H6: No significant relationship exists between different demographic factors like gender, age, income, occupation and Frequency of Usage of E-Wallets by Millennial Consumers

Hypothesis 6 was tested using Chi-square Test. The independent variables included gender, age, income and occupation. The dependent variable was the Frequency of Usage of E-Wallets by Millennial Consumers. The frequency of usage of E-Wallets was categorized as more than 10 times in a month, 5-10 times in a month and less than 5 times in a month.

A. Chi-Square Test between Gender and Usage of E-Wallets

Table 11 shows the results of the Chi-Square Test between Gender and Usage of E-Wallets by Millennial Consumers.

| Gender       | Frequency of Usage of E-Wallets (Per Month) | Total |
|--------------|--------------------------------------------|-------|
|              | More than 10 Times | 5-10 Times | Less than 5 Times | Count | % of Total |
| Female       | 81 | 52 | 42 | 175 | 37.6% |
| Male         | 25 | 35 | 15 | 75 | 31.2% |
| Total        | 106 | 87 | 57 | 250 | 100.0% |

χ² = 6.78; p-value = .034

From the above Table 11, it is very clear that there is a significant difference (χ²(1) = 6.78; p<0.05) between male and female consumers on the frequency of usage of E-Wallets for making payments. The results show that female respondents (32.4%) tend to use E-Wallets more frequently than male counterparts (10.0%).

B. Fisher’s Exact Test between Age Group and Usage of E-Wallets

Table 12 shows the results of the Chi-Square Test between Age Group and Usage of E-Wallets by Millennial Consumers.

| Age Group | Frequency of Usage of E-Wallets | Total |
|-----------|--------------------------------|-------|
|           | More than 10 Times | 5-10 Times | Less than 5 Times | Count | % of Total |
| Less than 25 Years | 28 | 26 | 9 | 63 | 12.4% |
| 25-40 Years | 75 | 60 | 46 | 179 | 31.2% |
| More than 40 Years | 5 | 4 | 3 | 12 | 2.4% |
| Total      | 106 | 87 | 57 | 250 | 100.0% |

χ² = 5.657; p-value = .210

From the above Table 12, it is very clear that there is no significant difference (χ²(2) = 5.657; p>0.05) among respondents belonging to different age on the frequency of usage of E-Wallets for making payments.

C. Chi-Square Test between Income and Usage of E-Wallets

Table 13 shows the results of the Chi-Square Test between Income and Usage of E-Wallets by Millennial Consumers.

| Income Level | Frequency of Usage of E-Wallets | Total |
|--------------|--------------------------------|-------|
|               | More than 10 Times | 5-10 Times | Less than 5 Times | Count | % of Total |
| Less Than Rs.10,000 | 40 | 28 | 10 | 78 | 4.0% |
| Rs.10,000-25,000 | 11.2% | 12.0% | 4.0% | 68 | 27.2% |
| Rs.25,001-50,000 | 14.8% | 12.4% | 8.4% | 89 | 35.6% |
| Rs.50,000-100,000 | 5.2% | 5.2% | 4.8% | 38 | 15.2% |
| Rs.100,000-500,000 | 7.2% | 2.4% | 2.4% | 30 | 12.0% |
| Total       | 106 | 87 | 57 | 250 | 100.0% |

χ² = 11.080; p-value = .197

From the above Table 13, it is very clear that there is no significant difference (χ²(4) = 11.080; p>0.05) among respondents belonging to income groups on the frequency of usage of E-Wallets for making payments.

D. Fisher’s Exact Test between Occupation and Usage of E-Wallets

Table 14 shows the results of Fisher’s Exact Test between Occupation and Usage of E-Wallets by Millennial Consumers.

| Occupation | Frequency of Usage of E-Wallets | Total |
|------------|--------------------------------|-------|
|            | More than 10 Times | 5-10 Times | Less than 5 Times | Count | % of Total |
| Service (Government / Private) | 43 | 27 | 22 | 92 | 17.2% |
| Professional | 49 | 28 | 22 | 98 | 19.2% |
| Student | 6 | 9 | 3 | 18 | 2.4% |
| Self Employed | 9 | 23 | 10 | 42 | 3.6% |
| Total       | 106 | 87 | 57 | 250 | 24.4% |

χ² = 14.277; p-value = .024

From the above Table 14, it is very clear that there is a significant difference (χ²(3) = 14.277; p<0.05) among respondents doing the different occupation on the frequency of usage of E-Wallets for making payments. The results show that Professionals (19.2%) tend to use E-Wallets more frequently (More than 10 times in a month) than other occupational groups like Service (Government / Private) (17.2%).
Based on the Chi-Square Test and Fisher’s Exact results (Table 11 – Table 14), the hypothesis that “There is no relationship between demographic factors like gender, age, income, occupation of respondents and Frequency of Usage of E-Wallets by Millenial Consumers” was accepted for the demographic factors like Age and Income level of respondents as the p-value is greater than 0.05. However, the null hypothesis was rejected for the demographic factors like Gender and Occupation as the p-value is less than 0.05.

E. Hypothesis 7: There is no significant difference among different services used by the respondents through E-Wallets for making online purchases

This hypothesis was tested using Friedman’s Test with different Services Used (Mobile Payments (Post & Pre Paid), Utility Bill Payments (Insurance/Electricity/DTH/Landlines), Travel Related, (Train/Flight/Hotel/Bus Bookings), Movie Tickets, Banking Services and Other Services) as the test variable. The results of Friedman’s Test is shown in Table 15.

Table 15: Friedman’s Test for significant difference between rank among different Services Used through E-Wallets

| Services Used                                      | Mean Rank | Std. Deviation | Mean Rank |
|---------------------------------------------------|-----------|----------------|-----------|
| Mobile Payments (Post & Pre Paid)                 | 4.13      | .948           | 3.88      |
| Utility Bill Payments (Insurance/Electricity/DTH/Landlines) | 3.88      | 1.017          | 3.51      |
| Travel Related (Train/Flight/Hotel/Bus Bookings)  | 3.96      | 1.029          | 3.59      |
| Movie Tickets                                     | 4.10      | .947           | 3.82      |
| Banking Services                                  | 3.79      | 1.105          | 3.34      |
| Other Services                                    | 3.55      | 1.049          | 2.85      |

\[ \chi^2 = 93.370, \text{ p-value} = .000 \]

Table 15 indicate that the respondents use E-Wallets for services like Mobile Payments (Post & Pre Paid) more frequently with a mean rank of 3.88, followed by Movie Tickets booking services with a mean rank of 3.82. Banking Services and Other Services are the least used through E-Wallets with mean rank of 3.34 and 2.85 respectively. It is evident from the results that there are significant differences in the mean rank among the services used through E-Wallets by the respondents of the study (\( \chi^2 (5) =93.370, p<0.01 \)). Thus, the hypothesis that “There is no significant difference among different services used by the respondents through E-Wallets for making online purchases” was rejected (p-value<0.05).

VI. MAJOR FINDINGS

This study was conducted with randomly selected 250 consumers in the Chennai Region who are E-Wallet users. The majority of the consumers of the study were female respondents (70.0%) aged between 25-40 Years (71.6%), earning a monthly income of between Rs.50, 001 - Rs.100, 000 (35.6%). The majority of the consumers were Professionals (39.2%).

The study discovers that the respondents have a great level of a positive attitude toward E-Wallets. Around 42.4% of respondents were regularly using E-Wallets more than 10 times in a month. The respondents regularly use E-Wallets for services like Utility Bill Payments (Insurance/Electricity/DTH/Landlines) and Mobile Payments (Post & Pre Paid). Paytm and Google Pay were found to be the most favorite E-Wallets for the majority of the respondents. The study also observes that friends and relatives greatly influence the respondents to use E-Wallets.

The factors like Usefulness and Satisfaction in E-Wallet applications enable consumers to use them for diverse services. The study further found that selected consumers feel difficulty in Using E-Wallets for making online payments. This finding was in confirmation with Viehland and Leong (2007) who reported about barriers in mobile wallet payments. Similarly, consistent with the findings of Dewan and Chen (2005), this study also found that Trust and Security of E-Wallets were the major concerns for consumers and they stressed that has security features have to be improved greatly and made robust to enable consumers to opt for E-Wallet services.

It is evident from the study that female respondents use E-Wallets more frequently than male respondents. Similarly, respondents belonging to 25-40 Years use E-Wallets more frequently than respondents having less than 25 Years and More than 40 Years of age. In terms of income, respondents with income in the range Rs.50, 001-Rs.100, and 000 are more frequently using E-Wallets when compared with respondents having income in the range Rs.10, 000-Rs.50, 000 and Rs.100, 001-Rs.500, 000. The results confirm that respondent with occupation as “Professional: tends to use E-Wallet services more frequently than respondents involved in Government / Private Service, Self-employed and Students.

Table 11 also found that millennial consumers predominantly use E-Wallets for services like Mobile Payments (Post & Pre Paid) and purchasing Movie Tickets. They also use E-Wallets for Utility Bill Payments and Travel Related Bookings.

VII. IMPLICATIONS

The findings of this paper have several implications for the key stakeholders like companies involved in developing, managing and operating E-wallets, software developers and government agencies to understand about the determinant factors that are perceived useful in the design of E-wallets. The study findings will help key stakeholders to enhance the features of E-Wallets for Indian Millenial based on what they want from it. An understanding of consumers’ perception will help in the development of effective marketing strategies to promote the E-wallet applications far and wide.

VIII. LIMITATION AND FUTURE RESEARCH

This work has several limitations. Firstly, the study area was limited to the Chennai Region, Tamil nadu and the respondents were randomly selected. The size of the sample was limited to 250 because of time constraints and only four demographic factors like gender, age, income and occupation were considered. The future study will include a larger sample size with more demographic variables. The study has not included the perception of people who never used E-Wallets. Future study may focus on non-E-Wallet users to measure their expectations.
REFERENCES

1. Bentler, P. M. (2006). EQS 6 Structural equations modeling program manual. Encino, CA: Multivariate Software.
2. Chatterjee, S. H. (2000). S. and Price, B. Regression analysis by example. New York: John Wiley & Sons, Inc.
3. Churchill, G. A., & Iacobucci, D. (2006). Marketing research: methodological foundations. New York: Dryden Press.
4. Dewan, S., & Chen, L. (2005). Mobile payment adoption in the US. Journal of Information Privacy and Security, 1(2), 4–28.
5. George, D. (2011). SPSS for windows step by step: A simple study guide and reference. 17.0 update, 10/e. Pearson Education India.
6. Kleinbaum, D. G., Kupper, L. L., Muller, K. E., & Nizam, A. (1988). Applied regression analysis and other multivariable methods (Vol. 601). Belmont, CA: Duxbury Press.
7. Nunnally, J. C., & Bernstein, I. H. (1967). McGraw-Hill series in psychology. Psychometric theory. New York, NY, US: McGraw-Hill.
8. Pahwas, A. (2017). E-Wallet - Everything you should know about Prepaid Wallets, Feedough. Retrieved from https://www.feedough.com/e-wallet/.
9. Rimma, K. (2018). The Mobile Payments Series: India. Retrieved from https://www.emarketer.com/content/the-mobile-payments-series-india.
10. Viehland, D., & Leong, R. (2007). Acceptance and use of mobile payments. In 18th Australasian conference on information systems acceptance and use of Mpayments. Dec. 5–7, Toowoomba, Australia.
11. Dahlberg, T., Mallat, N., Ondrus, J., & Zmijewska, A. (2008). Past, present and future of mobile payments research: A literature review. Electronic Commerce Research and Applications, 7(2), 165–181.

AUTHORS PROFILE

Ms. Mridula M Menon, Research Scholar- School of Management at Hindustan Institute of Technology and Science, Chennai, Tamilnadu, India. She is an experienced wealth manager with a demonstrated history of working in the Indian banking and wealth industry for the past 10+ years. Skilled in Customer Relationship Management (CRM), Wealth advisory and Business Relationship Management. Strong professional with Bachelor of Arts(BA) in Economics from Stella Maris College, Chennai and a Master of Business Administration (MBA) focused in Finance and Marketing from St. Joseph's College Of Engineering.

Dr. Harihara Sudhan Ramakrishnan; Assistant Professor- School of Management at Hindustan Institute of Technology and Science; Chennai, Tamil Nadu, India. He is an Experienced Academician with a demonstrated history of working in the education management industry in the managerial level. Skilled in Analytical Skills, Microsoft Word, Coaching, Lecturing, and Customer Relationship Management (CRM). Strong education professional with a Doctor of Philosophy (Ph.D.) focused in Finance and Financial Management Services from Hindustan University.