Role of Unified Payment Interface in Digital Banking Services – An Empirical Study on User Perceptions

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ABSTRACT

In the present scenario, the digital banking system has completely changing the traditional banking system. Earlier, an individual has to visit his/her banker for sending or withdrawing money and now it was changed to send or receive money within an individual's palm with a single swipe. The digital banking services has replaced the traditional banking system in such a way that majority of the individuals having smartphones are utilizing the digital platforms for banking services rather than visiting their banks for financial transactions. Though the digital banking platforms initiated through internet banking and mobile banking since past two decades, the evolution of financial banking transactions through digital platform has been kick started with the entry of banking applications with "Unified Payment Interface (UPI)" services. The major purpose of this study is to analyze the awareness and perceptions of individuals of varied age groups (generations) and occupations towards the usage of UPI services. The primary data is collected from 293 respondents from different age groups and occupations and is analyzed using ANOVA One Way classification to identify the significant differences among the respondents of said demographics. Based on the findings drafted from the results of statistical analysis the researcher concluded that the users (selected respondents) of different age groups are having dissimilar perceptions towards the comfort of using UPI banking services and the users of varied occupations are opining that the platform of UPI services for financial transactions is far better than traditional banking services.

Keywords: Traditional banking, Unified Payment Interface, digital platform

1. INTRODUCTION

There is a huge transformation from traditional banking methods to modern banking methods. If we can see the different generations that we have, especially the millennial i.e., Gen Z doesn't have an idea about making transactions through banks in person. With the rapid growth of science and technology, the application based in the name of UPI – Unified Payment Interface banking has occupied its place in the current scenario. With the intervention of Modern platforms like UPI, the traditional banking has been waived to a complete extent. As the

country is also aiming at cashless economy, UPI and internet banking are contributing to a larger extent. The online payment platforms are also leading to paperless transactions.

With the increasing demand and time factor, the Unified Payment Interface services are fetching lot of benefit to the customers. The app installation and usage process are quite simple compared to all the procedures in banks. The transaction costs/ charges are completely nil, and the basic requirements are personal mobile phone along with internet connectivity, bank account linked to UPI app and a MPIN. An easy access and one click make it all happen. The services offered by the noted UPI apps like Google Pay, PhonePe, Paytm, Amazon pay etc. can be accessed at the comfort zone of the customers. With the concept of discount coupons and scratch cards the customers are more attracted towards the usage of UPI services. The services are available 24*7 and it makes it all worth to be at their own place and make a secured transaction with easy access.

1.1. SCOPE OF THE STUDY

The scope of the study is restricted only to Hyderabad and Secunderabad City. The primary data was collected from 293 respondents who are mainly students and the employees/self-employed. The primary aim of the study is to evaluate and analyze the awareness and perception levels different generation's customers towards UPI banking services. The present study can also be extended to conduct a comparative research on assessing customers' satisfaction with the UPI service providers like Paytm, GPay, PhonePe, Amazon Pay, BHIM etc.

2. REVIEW OF LITERATURE

Radhika Basavaraj, K., & Prof. Nupur, A. V. (2017, November). Unified Payment Interface (UPI) - A Way towards Cashless Economy, stated that unless until the mobile number and bank account are linked together, the customers cannot access the UPI apps. They also found that UPI platforms will lead to cashless and transparent economy. It was concluded that there is enormous increase in the usage of smart phones even in the rural areas.

Dr. Kratika, Neema., & Dr. Arpit, Neema. (2018, October). UPI (Unified Payment Interface) –A new technique of Digital Payment: An Explorative study, have stated that the Unified Payment Interface transactions have made everything easy and comfortable for the customers but there is serious need to build confidence levels through awareness and education in rural background people. They also compared UPI apps with other digital banking services platforms.

Dr. Virshree, Tungare. (2019, April). A Study on Customer Insight towards UPI (Unified Payment Interface) - An Advancement of Mobile Payment System, concluded in the study that customers are much adaptive to adopt the new transformation of UPI services. It was tested and found that there is a significance difference between male and female customers towards adoption of Unified Payment Interface services.

Shubham, Boke, & Omkar, Harkare. (2018, December). Review on Unified Payment Interface Advancement towards Digitalization and Challenges faced, emphasised upon the digital literacy in India. It was stated that above 90% of India has Digital literacy and increase in digital banking services will lead to cashless economy and will increase transparency in the nation.

3. RESEARCH OBJECTIVES
1. To explore the awareness of UPI banking services among individuals.
2. To analyze the differences between user perceptions from varied age groups (generations) towards the ease of using UPI services.
3. To analyze the differences between user perceptions from different occupations towards the ease of using UPI services.

4. RESEARCH METHODOLOGY

The major purpose of the present study is to explore the significant differences among the respondents' awareness and perceptions towards the benefits of UPI services which are using regularly for their payments on various purchases on daily basis.

4.1. Sampling Methodology: As the size of the target population for the current study will be high in number, the researcher restricted the selection of sample using quota sampling by classifying the people into various categories based on their demographic variables who are using UPI services. With the purpose of exploring the facts about the usage frequency of UPI services in the present digital world among various generations and usage by the respondents from different occupations, the researcher opted for purposive sampling method to select the required sample.

4.2. Selection of Sample: The respondents from students and varied occupations are considered as the sample units and the size of the sample has been aimed for 300 and it was restricted to 293 after excluding inadequate responses from the respondents.

4.3. Collection of Data: The primary data has been collected from the target sample respondents through well-structured questionnaire which portraits the respondents' opinions towards the awareness of UPI services and their ease of use for daily financial transactions.

4.4. Statistical Tools: The statistical tools like chi-square analysis and Anova One-Way classification are selected for measuring the significant differences among the target respondents with respect to their generations and occupation status. In addition to this, the basic primary information about the opinions of respondents towards the awareness and benefits of UPI services are analyzed with the descriptive statistics. The statistical software SPSS has been used for analyzing the data using the above statistical tools.

5. DATA ANALYSIS & INTERPRETATION

The analysis of data has been carried out to obtain the results through statistical analysis of primary data whether they are mapping with the research objectives. In this case, the analysis has been categorized into three phases i.e.

Phase – I: Statistics reflecting the level of awareness among users towards UPI services.

Phase – II: Test for significance of differences among the user perceptions of different age groups (generations) towards UPI payment services using ANOVA One-Way Classification.

Phase – III: Test for significance of differences among the user perceptions of different occupations towards UPI payment services using ANOVA One-Way Classification.

5.1. Research Hypotheses:

Null Hypothesis H_{01}: The individuals from different generations are with similar perceptions towards the ease of using UPI services.

Null Hypothesis H_{02}: The individuals from the selected occupations are with similar perceptions towards the ease of using UPI services.

Phase – I: Statistics reflecting the level of awareness among users towards UPI services.
This phase represents the user (respondents) awareness levels and perceptions on UPI services in various contexts.

Table – 1: Statistical summary of User Awareness and Perceptions on UPI Services

S. No.	Statement	Scale	Frequency	Percentage
1	Are you aware of UPI – Unified Payment Interfaced banking services like Paytm, Google pay, PhonePe etc.?	Yes	246	90.11
		No	27	9.89
		Total	**273**	**100.00**
2	Do you feel secured using UPI apps and services?	Yes	234	85.71
		No	39	14.29
		Total	**273**	**100.00**
3	Which among the following UPI apps do you prefer mostly for financial transactions? (1) Paytm (2) GPay (3) PhonePe (4) Amazon Pay	Paytm	36	13.19
		Gpay	162	59.34
		PhonePe	72	26.37
		Amazon Pay	3	1.10
		Total	**273**	**100.00**
4	What attracts you towards UPI Services?	Time factor	81	29.67
		Low charges	6	2.20

		Attractive offers/ Discounts	21	7.69
		Security & safety factors	27	9.89
		Easy procedures	60	21.98
		One click access to everything	78	28.57
		Total	**273**	**100.00**
5	On a monthly basis how often do you use UPI Apps?	Very Rarely	12	4.40
		Rarely	18	6.59
		Sometimes	72	26.37
		Often	90	32.97
		Very Often	81	29.67
		Total	**273**	**100.00**
6	Do you have the fear of losing money during the UPI transactions?	Yes Always	33	12.09
		Sometimes	165	60.44
		No, Not at all	75	27.47
		Total	**273**	**100.00**
7	Do you think there is a need for us to go back to traditional banking services for any kind of service?	Yes	57	20.88
		No	117	42.86
		Maybe	99	36.26
		Total	**273**	**100.00**
8	Do you think usage of UPI based apps leads to cashless economy in future?	Yes	156	57.14
		No	33	12.09
		Maybe	84	30.77
		Total	**273**	**100.00**
9	To use UPI based services you should be technically equipped.	Yes	153	56.04
		No	63	23.08
		Maybe	57	20.88
		Total	**273**	**100.00**

Source: Questionnaire

Interpretation

Out of 293 sample respondents, it was observed that, majority of the respondents (90.11%) are aware of "Unified Payment Interface (UPI) Services" offering by various financial platform providers (mobile applications) like Paytm, Gpay, PhonePe, Amazon Pay etc. and are feeling secured (85.71% of the respondents) with the financial transactions like purchases, online booking, bill payment services etc. From the selected respondents, the foremost part of the respondents is preferring Gpay (Google Pay) for their financial transactions followed by PhonePe (26.37%) and Paytm (13.19%). The users of UPI services are mostly attracting by its 'time factor' (29.67%), 'one click access to everything' (28.57%), and 'easy procedures' (21.98%) for payments through UPI apps. It was observed that 32.97% of the respondents use

UPI services for their transactions frequently, 29.67% of them are using these UPI apps very frequently whereas 26.37% of the respondents are using sometimes when they are in a need of these services. 60.44% of the UPI users are having fear of losing money when they are performing payments through UPI apps, 27.47% of users are saying that they are not having any kind of fear of losing money while doing UPI transactions, on the other hand 12.09% of the respondents are always having a fear of money loss while doing UPI payments. The large size of sample respondents (57.14%) are opining that the revolution of money transactions through UPI applications leads to cashless economy in future and only very few respondents (12.09%) are against to this statement whereas, 30.77% of the respondents are sharing their opinion as these cashless transactions using UPI apps may lead to cashless economy in future but confirming their statements. 56.04% of the respondents are saying that to perform a financial transaction through UPI services one should be very well aware of using those UPI applications (service providers) technically, 20.88% of the respondents are opining that in sometimes the technical knowledge using UPI apps for payment transactions maybe helpful whereas the remaining are opining that the technical knowledge is not at all required for sending or receiving money through UPI apps.

Phase – II: Test for significance of differences among the user perceptions of different age groups (generations) towards UPI payment services using ANOVA One-Way Classification.

In this phase, the researcher applied the ANOVA One-Way Classification using SPSS platform for better analyzing of the significant difference among the respondents' perceptions towards UPI payment services among different age groups of generations.

Here, the generations are normally classified into five types:
1. Gen-Z, iGen, or Centennials   : Born between 1996 – To Present Birth Date
2. Millennials or Gen-Y   : Born between 1977 – 1995
3. Generation-X   : Born between 1965 – 1976
4. Baby Boomers   : Born between 1946 – 1964
5. Traditionalists or Silent Generation   : Born 1945 and before

The reason for correlating the terms 'age groups' and 'generations' for the present research is that, till today many people in the society belongs to Gen-X and earlier generations like Baby Boomers and Traditionalists were not aware of the present digital revolution in money transactions. Even though, few are aware of digital transactions they are not ready to utilize these services as they only trust on traditional system in money transactions and this may happen due to various reasons like 'lack of technical knowledge', 'fear of losing money', 'not ready for taking risks related to money' etc.

By considering this as major point of research to conduct a significant difference test in order to identify the significant differences among people from the above said generations. On this regard, researcher has combined few generations and commonly categorized the respondents

based on their age groups. The classification of age groups that are covering various generations is clearly mentioned in the table-2.

Table – 2: Classifications of Age Groups & Generations

S. No.	Age Group	Generation	Born Between
1	15 – 25 Years	Gen-Z	1996 – Present Date
2	25 – 35 Years	Gen-Y	1977 – 1995
3	35 – 45 Years	Gen-X	1965 – 1976
4	45 Years and above	Baby Boomers & Traditionalists	1946 – 1964 and 1945 & Before

With this segregation of respondents according to their age groups and generations, the researcher has planned to analyze the significant differences among the respondents with respect to their age groups using ANOVA-One Way Classification using the null hypothesis (H_{01}) mentioned below:

Null Hypothesis (H_{01}): The individuals from different generations are with similar perceptions towards the ease of using UPI services.

Table – 3: Descriptive Statistics

		N	Mean	Std. Deviation	Std. Error
On a monthly basis how often do you use UPI Apps?	15-25	114	3.53	1.298	0.122
	25-35	96	3.88	0.861	0.088
	35-45	51	4.24	0.737	0.103
	45 and above	12	3.25	1.643	0.671
	Total	273	3.77	1.082	0.065
Compared to traditional banking services, UPI Services are far better.	15-25	114	1.76	0.669	0.063
	25-35	96	1.88	0.932	0.095
	35-45	51	1.59	0.606	0.085
	45 and above	12	2.00	1.096	0.448
	Total	273	1.78	0.769	0.047
The offers/discounts giving by modern UPI apps satisfies individual expectations.	15-25	114	2.53	0.681	0.064
	25-35	96	2.38	0.743	0.076
	35-45	51	2.24	0.737	0.103
	45 and above	12	4.25	1.643	0.671
	Total	273	2.43	0.730	0.044

Source: SPSS Data Analysis

Table – 4: ANOVA One-Way Classification

		Sum of Squares	df	Mean Square	F	Sig.
On a monthly basis how often do you use UPI Apps?	Between Groups	22.864	4	5.716	5.182	0.000
	Within Groups	295.598	268	1.103		
	Total	318.462	272			
Compared to traditional banking services, UPI Services are far better.	Between Groups	6.355	4	1.589	2.757	0.028
	Within Groups	154.458	268	0.576		
	Total	160.813	272			
The offers/discounts giving by modern UPI apps satisfies individual expectations.	Between Groups	5.260	4	1.315	2.524	0.041
	Within Groups	139.598	268	0.521		
	Total	144.857	272			

Source: SPSS Data Analysis

Interpretation

From the results obtained through ANOVA-One Way classification in the table-4, since the p-significant values of three statements are less than 0.05, we can say that the null hypothesis with respect to the above three statements can be rejected. And, it was clear that there is a significant difference among the perceptions of respondents (UPI users) towards the ease of using UPI services. This shows that, the respondents of different age groups are having different perceptions on the ease of using the UPI services providing through various mobile applications. It was noted that, the respondents between 35-45 years (Gen-X) followed by 25-35 years (Gen-Y) and 15-25 years (Gen-Z) are using these UPI services more often when compared with the age group 35 – 45 years (Baby Boomers) and above 45 years (Traditionalists). The respondents with above 45 years (Traditionalists) are opining that traditional banking services are far better and clear when compared with these UPI banking services whereas, the respondents of other generations are with approximately similar opinions which are against to the traditionalists (above 45 years). The Traditional respondents are opining that the offers/discounts giving by the UPI apps satisfies individual expectations, whereas the respondents of other age groups are not with similar opinions towards the satisfactory levels on offers/discounts giving by UPI apps.

Phase – III: Test for significance of differences among the user perceptions of different occupations towards UPI payment services using ANOVA One-Way Classification.

In this phase, the researcher attempted to test the significant differences among the respondents of different occupations namely, student, employed and self-employed with an assumption that there will be no significant differences among the respondents towards the ease of using UPI services.

Null Hypothesis H$_{02}$: The individuals from the selected occupations are with similar perceptions towards the ease of using UPI services. For this, ANOVA One-Way classification has been selected for testing the differences among the respondents' perceptions towards the ease (comfort) of using UPI services.

Table – 5: Descriptive Statistics

		N	Mean	Std. Deviation	Std. Error
On a monthly basis how often do you use UPI Apps?	Student	93	3.32	1.312	0.136
	Employed	156	4.02	0.846	0.068
	Self-Employed	24	3.88	0.947	0.193
	Total	273	3.77	1.082	0.065
Compared to traditional banking services, UPI Services are far better.	Student	93	1.71	0.636	0.066
	Employed	156	1.79	0.842	0.067
	Self-Employed	24	2.00	0.722	0.147
	Total	273	1.78	0.769	0.047
The offers/discounts giving by modern UPI apps satisfies individual expectations.	Student	93	2.55	0.715	0.074
	Employed	156	2.37	0.737	0.059
	Self-Employed	24	2.38	0.711	0.145
	Total	273	2.43	0.730	0.044

Source: SPSS Data Analysis

Table – 6: ANOVA One-Way Classification

		Sum of Squares	df	Mean Square	F	Sig.
On a monthly basis how often do you use UPI Apps?	Between Groups	28.572	2	14.286		
	Within Groups	289.890	270	1.074	13.306	0.000
	Total	318.462	272			
Compared to traditional banking services, UPI Services are far better.	Between Groups	1.633	2	0.816		
	Within Groups	159.181	270	0.590	1.385	0.252
	Total	160.813	272			
The offers/discounts giving by modern UPI apps satisfies individual expectations.	Between Groups	2.027	2	1.013		
	Within Groups	142.830	270	0.529	1.916	0.149
	Total	144.857	272			

Source: SPSS Data Analysis

Interpretation

From the results obtained through ANOVA One-Way analysis, it was observed that there exist significant differences among the respondents of different occupations (since the p-significant value is less than 0.05) towards the ease of using UPI apps. Here, the results represent that the employed respondents are using the UPI services for their transactions more often when compared with self-employed and students. It is also found that respondents of different occupations are with similarly opining that the UPI services are far better than the traditional banking services. Also, the respondents of different occupations are similarly saying that the

offers/discounts giving by modern UPI apps satisfies their individual expectations towards the comfort of using UPI banking services for their financial transactions.

6. RESEARCH FINDINGS & CONCLUSION

The major purpose of research findings is to find whether the results obtained through primary data analysis are mapping with the research objectives or not. Hence, the researcher has concluded that the research by mapping the findings with the research objectives as below.

Research Objective – 1: To explore the awareness of UPI banking services among individuals.

From the results obtained through percentage analysis of primary data, it was found that majority of the respondents are aware of UPI banking services, its benefits and threats in financial transactions rather than using traditional banking services. Among the major UPI service providers in the present market scenario, most of the respondents are preferring to use Gpay (Google Pay), PhonePe and Paytm for sending or receiving money, purchase orders etc., through these UPI apps. As these UPI services are reducing time consumption for financial transactions rather than following traditional banking services utilizing physically at banks, most of the respondents are saying that 'time factor', 'one click access to everything' and also with 'easy procedures' for financial transactions are the major factors that attracts them towards these UPI services. The respondents in large number were opining that, the present digital revolution in banking services through UPI platform will lead to cashless economy in future. It was found that, maximum number of respondents are opining that there is no need of going back to traditional banking services.

Research Objective – 2: To analyze the differences between user perceptions from varied age groups (generations) towards the ease of using UPI services.

From the results obtained through ANOVA One-Way analysis, it was found that there exist significance differences among the respondents of different age groups which are classified based on their generations. In relation with the respondents of each age group, the respondents under 35-45 years, 25-35 years and 15-25 years are using UPI services more often on monthly basis when compared with respondents with 45 years and above. This may be due to their lack of technical knowledge in using UPI apps, more care about money and less trust on technology, and also with more fear on risking their money with these technical apps.

Research Objective – 3: To analyze the differences between user perceptions from different occupations towards the ease of using UPI services.

Here, it was found that the respondents of varied occupations are saying together that the UPI banking services are far better than traditional banking services which saves their time and makes them to avail the offers/discounts providing by various UPI services. But, the frequency of using UPI banking services are differing between students, employed and self-employed

respondents. On a whole, the employed respondents are utilizing these UPI services more often when compared with self-employed and students.

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