Effectiveness of Digital Payment Systems on Customer Satisfaction

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ABSTRACT

Assessing the degree to which online payment methods are effective in raising bank customers' happiness is one of the study's main goals. The extensive usage of digital payment methods including credit and debit cards, UPI, internet banking, and mobile wallets has radically changed the financial industry. Important performance metrics including timeliness, security, usability, and dependability are examined in this research from the viewpoint of the client. The findings indicate that the use of digital payment methods has improved transaction speed and convenience while also making the customer experience more enjoyable and trouble-free. The poll's results also show that customers are more likely to be satisfied, devoted, and trusting of financial institutions that provide a number of reliable and safe online payment options. The main determinant of whether or not perceived efficacy is increased is the strengthening of transactional security and data privacy. The ideas presented in this study might be used by financial institutions to improve their digital platforms and better align them with the preferences of their customers.

Keywords: *Digital Payment Systems; Customer Satisfaction; Online Banking; Mobile Wallets; UPI (Unified Payments Interface); Net Banking; Perceived Security; Ease of Use; Privacy in Digital Transactions*

INTRODUCTION

Financial services have undergone a sea change, moving away from antiquated methods of payment processing and towards state-of-the-art digital payment systems, all as a result of the current information boom. Technological progress has facilitated this change. Customer preferences for convenient, quick, and safe payment options have been shifting in recent years. Digital technologies, cellphones, and internet access have proliferated, leading to this tendency. Some examples of digital payment technologies that are more used in today's banking and retail contexts include mobile wallets, the Unified Payments Interface (UPI), credit and debit cards, QR codes, and contactless payments. Currently, their performance is evaluated by looking at both the number of transactions and how much customer happiness they increase.

Some of the most important aspects of digital payment systems that affect consumer satisfaction are their user-friendliness, transaction speed, dependability, security, and the availability of customer assistance. The customer service should be faultless, with few failed transactions, concerns addressed quickly, and strong security measures to prevent fraud and data breaches. Customer loyalty and trust are both enhanced when a system is easy to use and produces the desired results. In this setting, the efficacy of a digital payment system is proportionate to its capacity to fulfil or surpass consumer expectations.

In addition, the COVID-19 outbreak has hastened the global adoption of contactless payment methods, highlighting the need of finding solutions that provide the highest possible level of convenience and safety. In response to the situation, financial institutions, fintech companies, and service providers have invested resources in the development of cutting-edge payment systems, processing in real-time, biometric verification, and fraud detection technologies driven by artificial intelligence. When it comes to ensuring that consumers are satisfied, however, technology is not

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the only factor that matters. User experience design, procedures for addressing complaints, and transparency about monetary charges and policies are all essential.

The purpose of this study is to evaluate and contrast various digital payment methods in order to get a better understanding of how to please clients and meet their expectations. Its purpose is to evaluate the level of satisfaction experienced by customers inside the banking and financial ecosystem by analysing the ways in which system features, security measures, and overall service quality contribute to this satisfaction. There is a possibility that stakeholders, particularly financial institutions, would make use of the insights in order to enhance their digital strategy and deliver services that are more prompt, safe, and focused on the client.

OBJECTIVES

1. To determine how consumer satisfaction with digital payment systems is affected by important qualities including speed, security, and usability.

2. To evaluate how customer loyalty and the efficiency of digital payment systems relate to one another in the banking industry.

HYPOTHESIS

Hypothesis 1:

H_0: Customer happiness is not much impacted by how well digital payment methods work.

H_1: Customer satisfaction is significantly impacted by how well digital payment methods are used.

Hypothesis 2:

H_0: Customer happiness is not much impacted by how well security measures work in digital payment systems.

H_1: Customer happiness is greatly impacted by how well security measures work in digital payment systems.

RESEARCH METHODOLOGY

Using a descriptive research approach, this study investigates how digital payment technologies affect banks customers' happiness and how successful these technologies are. We utilised the convenience sample approach to choose 160 bank customers who are heavy users of digital payment systems including UPI, online banking, and mobile wallets. We were able to easily contact with people who are active on social networks by using this. Primary data was collected using a structured questionnaire. Security, usability, speed, convenience, and privacy were some of the important characteristics assessed in the questionnaire. Privacy was another aspect that was assessed. Analyses of the data made use of descriptive statistics to summarise consumer answers and reveal relationships between the variables. To add to it, we used Pearson correlation testing. To test our hypothesis on how digital payment methods affect different parts of customer happiness and how successful these systems are at improving the user experience, we used the SPSS software to do an experiment.

RESULT

Testing Hypothesis 1

Table 1. Characteristic statistics

Variable	Mean	SD	N
The frequency of digital payments	3.5125	0.67281	160
Digital payment convenience	4.3000	0.73373	160

Saving time with digital payments	4.3250	0.75694	160
Easy digital payment	4.5313	0.69066	160
Overall digital payment satisfaction	4.0438	0.70351	160
Digital pay bank service satisfaction	3.8688	0.80970	160

Several aspects of digital payment are shown in the table, together with their means, standard deviations, and sample size (N). How about we take a look at these numbers?

Frequency of digital payment: With an average score of 3.5125, we can see that digital payment is used by the majority of respondents, but at a medium frequency. With a standard deviation of just 0.67281, we can see that there isn't much variation in this regard; the majority of persons exhibit the same frequency.

Convenience of digital payment: The mean of 4,3000 shows that most people find digital payment convenient. Most people found it convenient, although the standard deviation of 0.73373 reveals a medium variation.

Time saving using digital payment: The majority of consumers see digital payments as a time saver, as shown by the mean score of 4.3250. The majority of individuals had a favourable impression, with a standard deviation of 0.75694 suggesting that some may have a little different experience.

Ease of using: Digital payments are generally seen as user-friendly, according to the mean score of 4.5313. Respondents do not vary considerably in their assessments of the survey's usability (standard deviation = 0.69066).

Overall satisfaction with digital payment: Digital payments seem to be meeting the needs of the majority, as shown by the mean score of 4.0438. There is some variance in the degree of satisfaction, as shown by the standard deviation of 0.70351.

Satisfaction with bank services in digital pay: Customers are generally pleased with the service they get from their bank, as shown by the mean score of 3.8688. Respondents' levels of satisfaction do vary to a certain extent (standard deviation = 0.80970).

Brief Analysis: Based on these numbers, it's clear that the majority of people feel positively about digital payment features like simplicity, time savings, and convenience. While most people are satisfied with these services (mean score = 4), there are a few exceptions (e.g., satisfaction with bank services = somewhat poor).

Table 2. Matrix of correlation

Variables	**1**	**2**	**3**	**4**	**5**	**6**
1. Frequency of digital pay	1	.553**	.362**	.385**	.431**	.286**
2. Convenience of digital payment	.553**	1	.525**	.639**	.584**	.458**
3. Time-saving using digital payment	.362**	.525**	1	.558**	.481**	.429**
4. Ease of using	.385**	.639**	.558**	1	.638**	.542**
5. Overall satisfaction with digital payment	.431**	.584**	.481**	.638**	1	.584**
6. Satisfaction with bank services in digital pay	.286**	.458**	.429**	.542**	.584**	1

N = 160 for all variables

Significance (2-tailed): At the 0.01 level (p <.01), all relationships are significant.

Pearson Correlation coefficients are marked with ** to indicate significance

Digital payment frequency and convenience (r =.553): With a value of 0.553, this association is very significant and positive. Therefore, those who pay using digital methods more often find it more convenient. With a positive association between the frequency of digital payments and the perceived convenience, it stands to reason that consumers may find it more convenient as their payment frequency grows.

Digital payment frequency and time savings (r =.362).: A correlation score of 0.362 indicates a moderately good relationship. Though the correlation is weak, it does suggest that making more regular use of digital payments may also result in time savings. This suggests that there isn't much of an impact of increasing the frequency of digital payments on the perception of time savings, but there is still some.

Digital payment convenience and usability (r =.639): This is the strongest connection, showing a very solid association with a score of 0.639. This data reveals that convenience increases the likelihood that users would perceive digital payment as simple to use. Perceived ease of use seems to influence the decision to use digital payment due to the strong correlation between the two factors.

Digital payment usability and satisfaction (r =.638): A significant positive association is shown by the correlation coefficient of 0.638 between the two variables. User satisfaction with digital payment systems is directly proportional to how easy they consider it to be to use. This suggests that consumers are better satisfied with their experience as a whole due to the convenience of digital payments.

Overall digital payment satisfaction and bank digital payment services (r =.584): A high positive correlation of 0.584 indicates a relationship between the two variables. This suggests that customers who are happy with online payment systems could also be happy with the banking services offered by banks. According to this connection, customers' digital payment experiences are positively impacted by their experiences with bank services, which in turn add to their overall happiness.

Digital pay frequency and bank satisfaction (r =.286): A small yet positive connection, with a value of 0.286, is shown by this correlation. Users that make digital payments more often could have a weaker correlation with customer satisfaction with bank services, but it's still there. As a result, there is no correlation between the frequency of digital payments and contentment with banking services.

Testing Hypothesis 2

Table 3. Characteristic Statistics

Variable	**Mean**	**Standard Deviation**	**N**
Perception of security in digital payment	3.7938	1.18744	160
Satisfaction in privacy	3.7938	0.86218	160
Experience of fraud	1.8188	0.38643	160
Overall digital payment satisfaction	4.0438	0.70351	160
Digital pay bank service satisfaction	3.8688	0.80970	160

For each of the five data variables, we provide descriptive statistics that break down the data by sample size (N), standard deviation (SD), and mean (M). Using these numbers, we can see how varied and averaged out customer views are across all of these dimensions.

Perception of Security in Digital Payment:

The replies on perception of security had an average score of 3.79, as shown by the mean of 3.7938. With an average score of 4 out of 5, customers seem to have a positive impression of security. The standard deviation is 1.18744. We can see that there is a variation of around 1.18 points in the replies, as shown by the standard deviation of 1.18. As we can see above, consumers have different perspectives on security.

Satisfaction in Privacy: The mean is 3.7938. Comparable to the feeling of safety, the average level of contentment with privacy is 3.79. What this means is that when it comes to privacy, the majority of respondents are happy. Deviation from the mean: 0.86218. There seems to be greater consensus among responders about the importance of privacy, since the standard deviation is just 0.86.

Experience of Fraud: Midpoint: 1.8188 The respondents' relatively low experience score of 1.82 for fraud suggests that they have not encountered much fraud, which might be due to the fact that the majority of customers have not been victims of fraud while making digital payments. The standard deviation is 0.38643, as seen above. It seems that most respondents have had similar experiences with fraud, given the minimal standard deviation of 0.38.

Overall Satisfaction with Digital Payment: The average is 4.0438 in Respondents are quite pleased with digital payments, as shown by the mean overall satisfaction score of 4.04. Getting this score so close to 4 means you're happy with it. Deviation from the mean: 0.70351 With a standard deviation of 0.70, we can see that the overall satisfaction is rather variable, meaning that the respondents' levels of pleasure are not all the same.

Digital Payment Bank Service Satisfaction : Mean: 3.8688 The average satisfaction level with the bank's services is 3.87, indicating that most customers are happy with them. At 0.80970 times, we find the standard deviation. The standard deviation of the responses is 0.81, which indicates that there is some variation, but not excessively.

Results from the descriptive data demonstrate that most people are satisfied with the level of safety, privacy, and financial services offered by online payment systems. There is a greater degree of congruence between overall happiness and privacy satisfaction as compared to contentment with security and bank service overall. Due to the fact that the majority of respondents have had very little experience with fraudulent activity, it would seem that the security mechanisms that are in place for digital payments are effective. The following table provides a breakdown of five categories that are used to evaluate the perspectives, levels of satisfaction, and experiences of consumers with different digital payment capabilities. Using the Pearson Correlation Coefficient, one can determine the degree of correlation between these variables as well as the direction in which the correlation is pointing. The table that we are looking at allows us to determine if the correlation between these variables is positive or negative, and if it is, to what extent it is positive.

Table 4. A matrix of correlations

Variables	**1**	**2**	**3**	**4**	**5**
1. Perception of security in digital pay	1	.493**	.247**	.432**	.377**
2. Satisfaction in privacy	.493**	1	.284**	.616**	.447**
3. Experience of fraud	.247**	.284**	1	.284**	.165*
4. Overall satisfaction with digital payment	.432**	.616**	.284**	1	.584**
5. Satisfaction with bank services in digital pay	.377**	.447**	.165*	.584**	1

Trust in Online Payments and Privacy Concerns: Applying Pearson's R The correlation between the two variables is.493**, indicating a moderate to strong positive relationship. When security is prioritised, customers are more satisfied with their privacy. A p-value of.000 indicates statistical significance at the 0.01 level for this connection. This points to the existence of a correlation with statistical significance.

With a Pearson correlation of.247**, we can see that there is a weakly positive relationship between how secure one feels making digital payments and having experienced fraud. This provides additional evidence that individuals are less likely to be victims of fraud when they have a sense of security. Also, at the 0.01% level of significance (p =.002), this association is statistically significant.

How Confident You Feel When Making a Digital Payment and How Happy You Are With Digital Payments Overall: The Pearson connection shows a relatively favourable relationship. A value of.432 applied. When customers feel safe, their happiness levels climb. The p-value for this relationship is 0.000, which indicates statistical significance at the 0.01% level.

A relatively favourable correlation is demonstrated by the Pearson association between digital payment security perception and satisfaction with bank services in digital payment. The coefficient is 0.377. When people have faith in a bank, they are more likely to be satisfied with the service they get. A p-value of.000 is deemed significant at the 0.01 level of analysis.

According to the Pearson association, there is a very positive correlation between satisfaction with privacy and overall satisfaction with digital payment. A value of 0.616... Users are more likely to have a positive experience with digital payments overall if they do not worry about their privacy being compromised. At the 0.01% level of significance, with a p-value of.000, it is statistically significant.

Digital Payment Fraud Experience and Satisfaction: The Pearson There is a slightly positive association between the two variables, as shown by a correlation value of.165*. The connection is weak, however. With a p-value of.037, it is considered significant at the 0.05 level.

CONCLUSION

The study's results reveal that digital payment methods are generally beneficial as they impact customer satisfaction in a big way. According to the findings of the survey, there is a favourable correlation between the components of dependability, ease of use, and convenience and the level of satisfaction experienced by consumers. Customers are more likely to be pleased with the digital services provided by their bank as well as the overall payment experience if they believe the system to be user-friendly and convenient. Based on this, it seems that digital payment systems might potentially gain direct advantages from changes made to these areas in terms of meeting the expectations of customers. The correlation research emphasises how very crucial it is to protect one's privacy and security. As a result of the strong positive association that exists between the two, it is of the utmost importance to safeguard the privacy of users in order to ensure their confidence and satisfaction with digital payment systems. In spite of the fact that there is a diminished connection between fraud experience and fraud, it nevertheless highlights the need of ensuring that systems are secure and resistant to fraud. In conclusion, the study discovered that the success or failure of digital payment systems is determined by their usability, security, and service quality, and that enhancing these aspects significantly heightens the level of satisfaction experienced by clients of digital banking services.

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