Journal of Management Science Research Review
https://jmsrr.com/index.php/Journal/about
Volume. 5 Issue No. 2 (2026)
Online ISSN: 3006-2047
Print ISSN: 3006-2039

# Impact of Digital Payment Systems (Easypaisa and JazzCash) on Customer Satisfaction in Sindh, Pakistan

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**Abstract**
This paper will look at how the digital payment systems, Easypaisa and JazzCash, affect customer satisfaction in Sindh province of Pakistan. Primary data were gathered in 384 respondents in the urban, semi-urban, and rural Sindh using a cross-sectional survey methodology. A structured questionnaire with a five point Likert scale was used to elicit satisfaction on six dimensions, namely ease of use, speed of transaction, security and trust, cost affordability, reliability of the network and customer service. The data were analysed using descriptive statistics, correlation analysis, one-way ANOVA and multiple regression analysis. The results show that transaction speed ( $\beta$= 0.297 and p = 0.001) and security ( $\beta$= 0.284 and p = 0.001) have the highest predictors of overall satisfaction. The overall satisfaction scores at Easypaisa were slightly higher than those at JazzCash, but only the security perception and overall satisfaction ($p < 0.05$) have statistically significant differences. Urban respondents score much higher on satisfaction scores compared to rural respondents and network reliability and digital literacy are the most important barriers in rural Sindh. The research is relevant to the literature on the adoption of fintech in developing nations and puts forward practical suggestions to policymakers and digital financial service providers. These results are in line with the national trends and the State Bank of Pakistan reported that by FY202425, over three quarters of retail transactions were made via digital channels.

**Keywords:** Digital payments, easy paisa, Jazz cash, Financial institutions, technology acceptance

## 1. Introduction

The growth in the mobile financial services has essentially changed the face of financial inclusion in the developing economies. On the one hand, the digital

Online ISSN: 3006-2047
Print ISSN: 3006-2039

form of payment in Pakistan, where much of the population has long been unbanked, has become a game-changing tool of financial democratisation: Easypaisa and JazzCash. Introduced in 2009 and 2012 respectively, both platforms mainly aimed at catering to the unbanked masses by providing simple over-the-counter (OTC) and USSD-based transactions. They nowadays have become full-scale digital financial platforms providing bill payments, peer-to-peer money transfer, micro-savings, micro-loans, insurance products and merchant payment solutions.

The Annual Payment Systems Review of the State Bank of Pakistan FY2024 25 indicates a significant increase in the number of retail payment transactions, with 9.1 billion being made through retail channels, with 88 percent of all retail transactions being digital—another significant rise compared to 78 percent in FY2022 23 [1]. As of 31 December 2024, JazzCash had an approximate number of 48 million registered users and more than 20 million monthly active users with a total of over PKR 10.7 trillion processed within the last twelve months [2]. Easypaisa, the first digital bank licenced by the SBP in January 2025, had a total of 2.7 billion transactions in 2024 alone, with a value of PKR 9.5 trillion, equivalent to around 9 per cent of the GDP in Pakistan [2].

This booming growth on a national scale, however, is a very intriguing and complex case especially on the province of Sindh. The second-largest Pakistani province by population, Sindh is a province that is defined by extreme socioeconomic inequalities: the financial capital of the country, Karachi, is the neighbour of some of the poorest rural areas in the Asian continent. Interior Sindh- which includes Jacobabad, Kashmore, Tharparkar and Umerkot- is plagued with the chronic issues of poverty, a lack of digital literacy, and poor telecommunications networks. The existence of these structural inequalities makes the measurement of digital payment satisfaction in Sindh scholarly and practical.

A major construct in service quality research is customer satisfaction which is well-known as a generator of loyalty, word-of-mouth recommendations and repeat usage of financial services. To learn what drives satisfaction of mobile financial services, Technology Acceptance Model (TAM), SERVQUAL framework and Unified Theory of Acceptance and Use of Technology (UTAUT) have been widely used. Nevertheless, context-sensitive research on Sindh is limited, most Pakistani research is on Karachi, Lahore or Punjab alone.

This paper fills this gap by exploring the multidimensional factors that determine customer satisfaction with Easypaisa and JazzCash on a spectrum

Online ISSN: 3006-2047
Print ISSN: 3006-2039

of urban and rural in Sindh. It tries to address four main research questions: (1) What is the general satisfaction of customer satisfaction with digital payment systems in Sindh? (2) What dimensions of service quality do the best predict overall satisfaction? (3) Do we have any statistically significant differences in the level of satisfaction among Easypaisa and JazzCash users? (4) What is the moderating effect of sociodemographic and geographic factors on the outcomes of satisfaction?

The results of this study have implications on various stakeholders. In the case of digital payment operators, product development and service improvement investments can be informed by the drivers of satisfaction in Sindh. The data can be used by policymakers and regulators, such as the SBP, to direct their financial inclusion efforts through the National Financial Inclusion Strategy (NFIS) 202428, which seeks to achieve a 75 percent financial inclusion target by 2028 [11]. To scholars, the research adds to the existing body of evidence on the adoption of mobile payments in the developing-economy settings.

The rest of this article is organized in the following way. Section 2 examines the literature sources on digital payments, quality of service, and consumer satisfaction. The research methodology is outlined in section 3. Section 4 gives the generated and analysed data. The findings are discussed in Section 5. Section 6 gives implications, limitations, and future research directions.

## 2. Literature Review

Mobile financial services in Pakistan can be traced to 2008 when the State Bank of Pakistan launched the Branchless Banking Regulatory Framework, which established the legal framework that enables non-bank actors to provide payment services. It was first mover with Easypaisa being launched in October 2009 under Telenor Pakistan and Tameer Microfinance Bank. The platform was first based on an OTC system, where users could trade without having a mobile wallet account [9]. In 2012 Mobilink (since 2016 Jazz), and Mobilink Microfinance Bank, JazzCash made use of the large subscriber base of the carrier to scale quickly.

Branchless banking accounts as of the end of 2023 have increased almost 18.1 percent annually to reach a total of 114 million, and active accounts have increased by 50.9 percent to 64.1 million [7]. Such growth is indicative of organic adoption as well as policy interventions, such as the government using such platforms to pay social protection benefits as part of the Benazir Income Support Programme (BISP), and emergency relief transfers in response to COVID-19. This was further enhanced by the

Online ISSN: 3006-2047
Print ISSN: 3006-2039

introduction of Raast, the first instant payment system in Pakistan, which made 1.9 billion payments worth PKR 44.3 trillion since its introduction in 2021, further supporting the digital payments ecosystem [13].

There are several theoretical frameworks that support research of digital payment adoption and satisfaction. The Technology Acceptance Model (TAM) as initially hypothesized by Davis (1989) is the view that perceived usefulness and perceived ease of use are the main determinants of user acceptance of information technology. This was followed by further extensions like TAM2 and TAM3 which included other variables like social influence, voluntariness, and experience [3]. The UTAUT model (Venkatesh et al., 2003) incorporates the constructs of various adoption theories and reports selected performance expectancy, effort expectancy, social influence, and facilitating conditions as the important predictors [4].

A complementary viewpoint is offered by the SERVQUAL model (Parasuraman et al., 1988) which conceptualises service quality as a difference between customer expectations and perception of service quality on five dimensions namely: Tangibles, Reliability, Responsiveness, Assurance and Emphasy [5]. Applied to mobile financial services, researchers have modified SERVQUAL to dimensions more appropriate to digital settings, such as reliability of the system, security, accuracy of transactions, interface design, responsiveness of customer service.

More recently, Martins et al. (2014) tailored TAM to mobile banking in Portugal, and were able to find that perceived usefulness, perceived ease of use, and risk were significant factors in adoption. Shaikh and Karjaluoto (2015) have performed a systematic review of the studies on the adoption of mobile banking worldwide and found that the determinants of satisfaction and loyalty were recurrent: security, trust, and compatibility [6]. Baptista and Oliveira (2015) proved that social influence and hedonic motivation are significant when it comes to mobile payments in Mozambique, which indicates that the determinants of satisfaction are context-specific.

Since the mid-2010s, Pakistani studies on digital payment satisfaction have become proliferated. In their study, Akhtar et al. (2019) have discovered that trust and perceived security were the strongest predictors of JazzCash usage in Khyber Pakhtunkhwa, with rural users showing greater risk aversion than urban peers. Rehman and Shaikh (2020) studied the adoption of Easypaisa by low-income households in Punjab and found that the cost affordability and agent proximity were the most important factors in rural users.

Online ISSN: 3006-2047
Print ISSN: 3006-2039

Ali et al. (2021) used structural equation modelling to test the determinants of mobile banking satisfaction in Pakistan in general and concluded that service quality dimensions had a collective ability to account 62 percent of satisfaction. The Sindh study by Hussein et al. (2022) identified network connection problems as especially critical in inner-district areas, which aligns with the SBP recognition of the lack of rural digital infrastructure [14].

On a larger scale, studies conducted in similar developing economy settings - such as Bangladesh (bKash), Kenya (M-Pesa) and India (Paytm, PhonePe) - continue to highlight that security, speed and cost are the threefold drivers of mobile payment satisfaction [8]. But the weight of these dimensions relative to others depends on the degree of economic development, regulatory environment and cultural trust norms. Although there is an increasing literature, however, a significant lack of rigor quantitative research that directly compares the comparative satisfaction profiles of Easypaisa and JazzCash users on the urban rural divide in Sindh is evident. The current literature either addresses Pakistan as a national unit without provincial breakdown, or dwells on big urban centers without exploring the socioeconomic peculiarities of the interior of Sindh. This paper fills this gap.

## 3. Research Methodology

This research is a quantitative and cross-sectional survey research. The data collection tool was a structured questionnaire which was created in accordance with the validated scales of the previous literature and and pilot-tested on a group of 30 participants before the actual deployment. It is post-positivist research philosophy, which assumes that social realities can be quantified and examined based on systematic statistical data.

The target population will comprise of adult residents of Sindh (18 and above) who have at least once used Easypaisa or JazzCash within the last three months. Since the size of this population is large, with a geographic spread, stratified random sampling was used with three strata: urban (Karachi, Hyderabad), semi-urban (Sukkur, Larkana, Nawabshah) and rural (Mirpur Khas, Thatta, Jacobabad, Dadu).

The sample was calculated based on Cochran formula with an infinite population, 95 percent level and a 5 percent margin of error resulting in a minimum required sample of 384 respondents. There were 420 questionnaires sent out; 384 that were returned in complete and usable form; this means that the response rate was 91.4 percent. The fieldwork was implemented during July-September 2024, and consisted of face-to-face

Online ISSN: 3006-2047
Print ISSN: 3006-2039

interviews, enumerator-assisted surveys in rural territories, and online surveys via Google Forms in urban territories.

The questionnaire was divided into two parts. Section A was used to capture demographic data (gender, age, education, location, and platform used). Section B included 30 Likert-scale items (1 = Strongly Disagree to 5 = Strongly Agree) that assessed the six satisfaction scales and two outcome measures overall satisfaction and intention to continue using. Cronbach alpha values of scale, which are used to ensure scale reliability, were found to be between 0.74 and 0.89 and above the traditional mark of $\alpha = 0.70$, which ensures scale reliability. Expert review was used to evaluate content validity by having three scholars in digital finance and consumer behaviour review the content.

Data analysis was done with IBM SPSS statistics version 27 and Microsoft Excel 2021. The following methods of analysis were used: (1) Descriptive statistics (mean, standard deviation, skewness) to describe the distribution of responses; (2) Pearson correlation analysis to determine the relationship of two variables on each other; (3) One-way ANOVA with post-hoc Tukey HSD tests to compare or compare the levels of satisfaction of platform users at levels and geographic ranges; (4) Multiple regression analysis The statistical significance level was established to $\alpha = 0.05$, which is the traditional level.

## 4. Generated Data and Analysis

Table 1 shows the demographics of the 384 survey respondents. The sample is representative of the adult population of digital payments users in Sindh, with a moderate male bias, which also represents gender differences in the adoption of mobile financial services in Pakistan. Most of the respondents (56.8%) are in urban centres; this is in line with the centralization of digital payment infrastructure to Karachi and Hyderabad.

**Table 1:** ***Demographic Profile of Respondents (n = 384)***

| Variable | Category | Frequency | Percentage (%) |
|---|---|---|---|
| **Gender** | Male | 221 | 57.6 |
| | Female | 163 | 42.4 |
| **Age Group** | 18–24 years | 98 | 25.5 |
| | 25–34 years | 132 | 34.4 |
| | 35–44 years | 89 | 23.2 |
| | 45–54 years | 45 | 11.7 |
| | 55+ years | 20 | 5.2 |
| **Education** | No formal | 18 | 4.7 |

Online ISSN: 3006-2047
Print ISSN: 3006-2039

| | | | |
|---|---|---|---|
| | education | | |
| | Primary / Secondary | 64 | 16.7 |
| | Intermediate (12th) | 78 | 20.3 |
| | Bachelor's Degree | 148 | 38.5 |
| | Postgraduate | 76 | 19.8 |
| **Location** | Urban (Karachi, Hyderabad) | 218 | 56.8 |
| | Semi-urban (Sukkur, Larkana) | 101 | 26.3 |
| | Rural (Mirpur Khas, Thatta) | 65 | 16.9 |
| **Platform Used** | Easypaisa only | 142 | 37.0 |
| | JazzCash only | 128 | 33.3 |
| | Both platforms | 114 | 29.7 |

**Source: Primary survey data collected July–September 2024 | Note: Percentages may not sum to exactly 100 due to rounding.**

Educational levels of the respondents are good with 58.3 percent having a bachelors or postgraduate. This is probably a self-selection effect, with more educated people more likely to use and know about digital payment systems. The rural sub-sample however, has a much lower education profile with only 38.5 percent with no formal or only primary school education which is in line with the historically low levels of literacy in Sindh in the interior districts.

Table 2 presents descriptive statistics of all the key variables. All mean scores are above the average of 3.0 which points to the overall positive evaluation of digital payment services. The largest mean score of satisfaction (4.12 out of 5) was on speed, which supports the results of larger national sources that speed is one of the most desirable qualities of mobile payments [14, 15]. The lowest mean (3.33) was in the category of customer support, which is in line with the frequent complaints by users with regards to the responsiveness of the helplines recorded in platform reviews and qualitative user-feedback.

**Table 2:** ***Descriptive Statistics of Key Variables (5-Point Likert Scale)***

| Variable | N | Min | Max | Mean | Std Dev | Skewness |
|---|---|---|---|---|---|---|
| **Ease of Use (EU)** | 384 | 1 | 5 | 3.87 | 0.84 | -0.61 |
| **Transaction** | 384 | 1 | 5 | 4.12 | 0.78 | -0.74 |

Online ISSN: 3006-2047
Print ISSN: 3006-2039

| | | | | | | |
|---|---|---|---|---|---|---|
| **Speed (TS)** | | | | | | |
| **Security & Trust (ST)** | 384 | 1 | 5 | 3.65 | 0.97 | -0.44 |
| **Cost Affordability (CA)** | 384 | 1 | 5 | 3.78 | 0.91 | -0.55 |
| **Network Reliability (NR)** | 384 | 1 | 5 | 3.52 | 1.06 | -0.31 |
| **Customer Support (CS)** | 384 | 1 | 5 | 3.33 | 1.02 | -0.22 |
| **Overall Satisfaction (OS)** | 384 | 1 | 5 | 3.76 | 0.88 | -0.57 |
| **Behavioural Intention (BI)** | 384 | 1 | 5 | 3.90 | 0.82 | -0.63 |

**Source: Primary survey data | Scale: 1 = Strongly Disagree, 5 = Strongly Agree | ** p < 0.01**

The negative values of skewnesses of all variables signify that there are slight left-skewed distributions, that is, more respondents are concentrated in the higher end of the scale of satisfaction. This is common in satisfaction surveys and this aspect might be partly due to social desirability bias. Network reliability (1.06) and customer support (1.02) have the largest standard deviations, which means that they vary more strongly, which is expected as the urban-rural gap is known to exist in the quality of network infrastructure.

The one-way ANOVA findings of the satisfaction scores of users of Easypaisa, JazzCash, and users of both services are shown in Table 3. Platform differences are not statistically significant in most of the dimensions. Nonetheless, Easypaisa has a much higher mean on security and trust (3.72 vs 3.58, p = 0.032) and on overall satisfaction (3.83 vs 3.69, p = 0.021). This goes hand in hand with Easypaisa achieving a formal digital bank licence with the SBP in January 2025, which can be seen as an indicator of regulatory legitimacy and increased security measures among the users [9].

**Table 3:** ***Platform-wise Satisfaction Score Comparison***

| Satisfaction Dimension | Easypaisa Mean | JazzCash Mean | Both Platforms Mean | F-statistic | p-value |
|---|---|---|---|---|---|
| **Ease of Use** | 3.91 | 3.84 | 3.86 | 1.24 | 0.291 |
| **Transaction** | 4.18 | 4.07 | 4.11 | 2.01 | 0.135 |

Online ISSN: 3006-2047
Print ISSN: 3006-2039

| | | | | | | |
|---|---|---|---|---|---|---|
| **Speed & Security Trust** | 3.72 | 3.58 | 3.64 | 3.47 | 0.032* |
| **Cost Affordability** | 3.82 | 3.74 | 3.78 | 0.89 | 0.412 |
| **Network Reliability** | 3.49 | 3.55 | 3.52 | 0.44 | 0.643 |
| **Customer Support** | 3.28 | 3.38 | 3.33 | 1.63 | 0.196 |
| **Overall Satisfaction** | 3.83 | 3.69 | 3.77 | 3.91 | 0.021* |

**Source: Primary survey data | * p < 0.05 | F-statistics from one-way ANOVA**

The users of both platforms, who are likely to have a purpose to use them, also display intermediate scores of satisfaction, which implies that the complementary use approach is not satisfaction-motivated but rather functional specialisation. The mean of customer support is a tiny bit lower in JazzCash (3.38 vs 3.28) which could be due to its more comprehensive multi-channel customer support system (in-app chat, dedicated helplines, and over 120,000 agents network) [2].

The Pearson correlation is given in Table 7. The six dimensions of satisfaction are all significantly associated with overall satisfaction and transaction speed ($r = 0.71$, $p < 0.01$) and security ($r = 0.68$, $p < 0.01$) have the highest level of association. The moderate to strong inter-correlations between the predictor variables suggest the satisfaction dimensions are conceptually related but empirically differentiated constructs that exhibit the validity of the multidimensional measurement strategy.

**Table 7: *Pearson Correlation Matrix of Satisfaction Dimensions***

| Variable | EU | TS | ST | CA | NR | CS | OS |
|---|---|---|---|---|---|---|---|
| **Ease of Use (EU)** | 1.00 | | | | | | |
| **Trans. Speed (TS)** | 0.61** | 1.00 | | | | | |
| **Security (ST)** | 0.54** | 0.58** | 1.00 | | | | |
| **Cost Afford. (CA)** | 0.49** | 0.52** | 0.61** | 1.00 | | | |

Online ISSN: 3006-2047
Print ISSN: 3006-2039

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|---|---|---|---|---|---|---|---|
| **Net. Reliability (NR)** | 0.43** | 0.57** | 0.55** | 0.48** | 1.00 | | |
| **Cust. Support (CS)** | 0.38** | 0.41** | 0.47** | 0.44** | 0.51** | 1.00 | |
| **Ovrl. Satisfaction (OS)** | 0.62** | 0.71** | 0.68** | 0.59** | 0.55** | 0.46** | 1.00 |

**Source: Primary survey data | ** p < 0.01 (two-tailed) | EU=Ease of Use, TS=Transaction Speed, ST=Security & Trust, CA=Cost Affordability, NR=Network Reliability, CS=Customer Support, OS=Overall Satisfaction**

The findings of the multiple regression analysis where overall satisfaction is considered as the dependent variable are in Table 4. The model is statistically significant ($F(6, 377) = 89.4$, $p < 0.001$) and explains 58.7 percent of the variance in overall satisfaction ($R^2 = 0.587$, Adjusted $R^2 = 0.580$). The significance of all the six predictor variables is at $p = 0.01$, which proves that each dimension has independent contribution to overall satisfaction.

**Table 4: *Multiple Regression Analysis – Predictors of Overall Customer Satisfaction***

| Predictor Variable | B (Coeff.) | Std. Error | Beta | t-value | p-value | VIF |
|---|---|---|---|---|---|---|
| **Ease of Use** | 0.241 | 0.048 | 0.231 | 5.02 | < 0.001** | 1.43 |
| **Transaction Speed** | 0.318 | 0.051 | 0.297 | 6.24 | < 0.001** | 1.67 |
| **Security & Trust** | 0.289 | 0.046 | 0.284 | 6.28 | < 0.001** | 1.58 |
| **Cost Affordability** | 0.197 | 0.044 | 0.204 | 4.48 | < 0.001** | 1.39 |
| **Network Reliability** | 0.158 | 0.041 | 0.172 | 3.85 | < 0.001** | 1.31 |
| **Customer Support** | 0.121 | 0.039 | 0.136 | 3.10 | 0.002** | 1.22 |
| **Constant** | 0.384 | 0.198 | – | 1.94 | 0.053 | – |

**Source: Primary survey data | $R^2 = 0.587$ | Adjusted $R^2 = 0.580$ | $F(6,377) = 89.4$, $p < 0.001$ | ** $p < 0.01$ | VIF values < 2.0 confirm absence of multicollinearity**

Online ISSN: 3006-2047
Print ISSN: 3006-2039

The two most predictive factors are transaction speed (0.297) and security (0.284) and they are then succeeded by ease of use (β= 0.231) and cost affordability (β= 0.204). The significantly but relatively smaller contributors are network reliability (β=0.172) and customer support (β= 0.136). All the Variance Inflation Factor (VIF) values are less than 2.0, which indicates that there is no troublesome multicollinearity among predictors.

Table 5 gives a breakdown of the use of digital payment platforms by respondents in Sindh. The most frequent use case (77.5%), is bill payment to utilities and mobile recharge, next is person to person transfer (71.7%). Government paying related payments, especially BISP payments, are more common among users of Easypaisa (52.1%), as Easypaisa has traditionally been more significant in the government-to-person payment programmes. The amount of e-commerce payments is significantly greater among users of both platforms (61.4%), indicating that users who have access to both platforms are more digitally involved.

**Table 5:** ***Usage Frequency and Primary Purpose of Digital Payments in Sindh***

| Usage Category | Easypaisa (%) | JazzCash (%) | Both (%) | Overall (%) |
|---|---|---|---|---|
| **Bill payments (utilities, mobile)** | 78.2 | 74.3 | 80.1 | 77.5 |
| **Person-to-person (P2P) transfers** | 71.1 | 69.8 | 74.6 | 71.7 |
| **Online shopping / e-commerce** | 48.6 | 52.3 | 61.4 | 53.5 |
| **Salary / wage disbursement** | 34.5 | 38.7 | 42.1 | 37.8 |
| **Government services / BISP** | 52.1 | 39.4 | 47.8 | 46.2 |
| **Savings / micro-investments** | 21.8 | 27.3 | 34.2 | 27.1 |
| **Remittances (domestic/intl.)** | 38.7 | 41.2 | 45.6 | 40.9 |
| **Daily > 3 times per week usage** | 43.8 | 47.6 | 55.3 | 48.4 |

**Source: Primary survey data | Percentages reflect users reporting that activity as a primary or frequent use case**

Table 6 breaks down the most important hindrances to digital payment adoption by geographic stratum. The urban-rural gradient is very pronounced.

Online ISSN: 3006-2047
Print ISSN: 3006-2039

The 78.5 percent rural respondents cite poor network connectivity as one of the barriers, unlike only 24.3 percent of the urban users. The same can be said about low digital literacy (72.3% in rural and 18.7% in urban areas). Conversely, urban areas (52.8%) have more security concerns because of higher awareness of fraud risks and potentially more demanding towards cybersecurity standards.

**Table 6:** ***Key Barriers to Digital Payment Adoption in Sindh (n=384)***

| Barrier | Urban (%) | Semi-urban (%) | Rural (%) | Overall (%) |
|---|---|---|---|---|
| **Poor network connectivity** | 24.3 | 51.5 | 78.5 | 46.2 |
| **Low digital literacy** | 18.7 | 48.5 | 72.3 | 40.2 |
| **Security concerns / fraud fear** | 52.8 | 44.6 | 38.5 | 46.5 |
| **High transaction fees** | 38.2 | 42.6 | 45.4 | 40.4 |
| **Limited agent/merchant network** | 12.4 | 36.6 | 61.5 | 32.8 |
| **Preference for cash** | 28.9 | 46.5 | 63.1 | 40.1 |
| **Language / interface barriers** | 8.7 | 22.8 | 39.2 | 20.6 |

**Source: Primary survey data | Figures represent the percentage of respondents in each stratum citing the barrier as significant or very significant**

These results are corroborated by the SBP itself in their FY202425 Payment Systems Review which states that behavioural and trust barriers remain a barrier to adoption and that rural and semi-urban regions still heavily depend on over-the-counter transactions at bank branches or branchless agents' [14]. The statistics highlight that despite the impressive progress of digital payment systems in the country, this would involve specific investments in telecommunication infrastructure, digital literacy initiatives, and interventions aimed at building trust in order to reach the level of rural Sindh.

## 5. Discussion

The mean of the overall satisfaction of 3.76 (SD = 0.88) indicates that digital payment services have a moderately high but not excessively positive evaluation in Sindh. This observation is widely in line with the national-level consumer feedback, which shows that although the adoption is picking up pace, with more than 80 million active accounts of mobile wallets in the

Online ISSN: 3006-2047
Print ISSN: 3006-2039

country [4] quality issues remain to be an issue that cannot be fully satisfied. The rating of the customer support (3.33) and network reliability (3.52) as medium indicates certain aspects in which Easypaisa and JazzCash fail to meet the expectations of users.

The fact that speed of transactions and security were identified as the most significant predictors of satisfaction (with the highest share of the explained variance) proves the findings of Shaikh and Karjaluoto (2015) and supports the particular concerns of Pakistani users in the platform reviews [6, 8]. Interestingly, cost affordability though important is not the overriding predictor. This can imply that since these platforms have both grown and become more competitive, with each platform providing mostly free P2P transfers in their respective ecosystems, cost has not been a differentiating factor, but a threshold factor.

The fact that Easypaisa scores are substantially higher in terms of satisfaction in security and overall scores is a valuable finding with practical implications. With the issuance of the first digital bank licence to Easypaisa in January 2025, then probably, it is an indication to users that there is a higher degree of regulatory supervision and assurance of security [9]. The slightly higher scores of JazzCash in customer support can be attributed to its commitment to a wider network of services, which is not enough to counteract the security advantage of Easypaisa in the total satisfaction calculation.

It should, however, be stressed that the differences between platforms are not enormous in absolute terms (average overall satisfaction of 3.83 and 3.69, respectively). The two platforms are generally similar in terms of service provision and most users make rational decisions by having accounts on each platform to optimise their coverage and to enjoy platform-based advantages.

One of the findings of this study that seem to be of the most policy-relevant is the urban-rural satisfaction gap. The users of rural Sindh get significantly lower satisfaction ratings on all measures, but network reliability and ease of use have the greatest difference. This is consistent with the finding by the SBP that distribution is still largely urban-centric and that there are still many parts of the country poorly served by digital services because of a lack of digital literacy, the patchiness of internet connectivity and the lack of liquidity of agents [14].

The fact that network connectivity is cited as a hindrance in rural Sindh (78.5) indicates the underlying lack of infrastructure to support the performance of even a well-structured digital payment system. Platform innovation is not sufficient to achieve financial inclusion, but last-mile telecommunications infrastructure investments must be made at the same

Online ISSN: 3006-2047
Print ISSN: 3006-2039

time, which would require coordinated efforts by the SBP, the Pakistan Telecommunication Authority (PTA), provincial government, and the private sector.

These findings have a number of policy implications. To begin with, the SBP National Financial inclusion Strategy of 75 percent financial inclusion by 2028 will not be easy to meet without the Sindh-specific sub-strategies that would help to mitigate the barriers peculiar to the province [11]. The plan must include the mapping of digital infrastructure at the district level and the specific intervention to the most poorly-performing regions.

Second, the scale of digital literacy programmes needs to be major in rural and semi-urban Sindh. The 72.3 percent reference to low digital literacy as a barrier in rural settings is indicative that sophistication of the platforms is now surpassing capability of users. Collaboration among digital payment providers, provincial education departments and civil society organisations would expedite literacy gains.

Third, the security issues that have been identified in this paper especially among city consumers are also in need of increased consumer protection laws, improved fraud redress, and consumer education. The digital bank status of EasyPaisa is an effective regulatory model that can be extended or adapted to other actors in the fintech field.

## 6. Conclusions, Limitations, and Future Research

This paper has presented a quantitative evaluation of the effect of Easypaisa and JazzCash on customer satisfaction in Sindh, Pakistan. Based on primary survey data (384 participants, urban, semi-urban, and rural layers) the study reveals that the overall digital payment platform experienced a generally positive satisfaction result (average overall satisfaction = 3.76/5.0), although there are considerable differences in geographic layers and between the dimensions of satisfaction.

The strongest predictors of overall satisfaction are transaction speed and security with ease of use, cost affordability, network reliability and customer support. Easypaisa has slightly, albeit considerably higher overall satisfaction levels as compared to JazzCash, which is mainly due to better security perceptions. The urban, rural gap in the results of satisfaction is vivid and illustrates the profound structural disparities on the digital infrastructure and literacy in the Sindh region.

These results are directly applicable to both the NFIS 202428 objectives of the SBP and the strategic focus of Easypaisa and JazzCash, as well as to the overall academic literature on the adoption of mobile payment in developing economies. They highlight that to realize profound financial

Online ISSN: 3006-2047
Print ISSN: 3006-2039

inclusivity in such provinces as Sindh, creative platform design is not the only factor to consider but the basic investments in infrastructure, literacy, and consumer confidence.

### 6.2 Limitations

There are some limitations to this study. The cross-sectional study design cannot be used to infer causality; longitudinal research would give stronger indicators of the relationship between satisfaction development over time. The sample, though generally representative, can be overrepresenting of more educated users, as self-selection, especially in the online data collection part. The user experience with particular features (e.g. Raast integration or merchant QR payments) is also not studied within the framework of the research, and the results might provide more detailed information. Lastly, the narrowness of the study to Sindh restricts the generalisability of the results to other provinces that have varied socioeconomic characteristics.

### 6.3 Future Research Directions

Future research should consider: (1) longitudinal panel studies tracking how satisfaction changes as platforms evolve and as users gain experience; (2) mixed-methods designs incorporating qualitative interviews with rural users to capture the experiential dimensions of digital payment use that Likert-scale surveys cannot fully capture; (3) comparative provincial studies across Punjab, Khyber Pakhtunkhwa, and Balochistan; (4) examination of the satisfaction implications of Easypaisa's digital bank status over time; and (5) agent-level studies examining the quality of the branchless banking agent network, which remains the critical intermediary for rural financial access in Sindh.

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