



Payment Systems Review

FOR THE FISCAL YEAR ENDED JUNE 30, 2022

PREPARED BY

STATE BANK OF PAKISTAN

DIGITAL FINANCIAL SERVICES GROUP

PAYMENT SYSTEMS POLICY & OVERSIGHT DEPARTMENT

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Payment Systems Snapshot

Items	End Jun-22 ^P	End Jun-21 ^R		
Population (Million) ¹	227.0	222.6		
Currency in Circulation ² (PKR Trillion)	7.6	6.9		
Payment Systems Infrastructure				
Total Banks	44	44		
Commercial/Specialized ³	33	33		
Microfinance	11	11		
Total Bank Branches	17,031	16,308		
Commercial/Specialized	15,732	15,087		
Microfinance	1,299	1,221		
Number of Accounts	154,681,876	137,656,439		
Conventional Bank Accounts ⁴	67,523,103	63,035,802		
Branchless Banking Accounts	88,549,274	74,620,637		
PSOs/PSPs (Commercial Licensed)	6	6		
EMIs (Commercial Licensed)	4	-		
PRISM Participants Accounts ⁵	59	54		
Banks/ MFBs with facility of				
ATMs	35	35		
Point of Sale (POS)	9	9		
Internet Banking	28	28		
Mobile Phone Banking	27	27		
Call Center Banking/ IVR	23	23		
Cash Deposit Machines (CDMs)	11	8		
Number of				
ATMs	17,133	16,355		
POS Machines	104,865	71,907		
Payment Cards	42,440,696	45,936,349		
e-Commerce Merchants	4,887	3,003		
CDMs	334	218		
CDMs with cash withdrawal facility	23	20		
Multipurpose CDMs ⁶	75	60		
Payment Systems Transactions Summary				
Transactions	FY22 ^P		FY21	
	Volume (mn)	Value (PKR bn)	Volume (mn)	Value (PKR bn)
PRISM (RTGS)	4.37	681,580.8	4.16	444,574.2
e-Banking	1,611.8	137,857.1	1,183.1	86,482.3
Paper-Based	391.9	190,393.4	395.8	151,615.1
Overall	2,008.1	1,009,831.4	1,583.1	682,671.6

¹ As per Pakistan Bureau of Statistics – National Accounts Tables: Gross Domestic Product of Pakistan

² Figures as per Chapter 02 Money and Credit, Monthly Statistical Bulletin, SBP of Oct-22

³ Include overseas branches

⁴ Figures as per Chapter 03 Banking System, Monthly Statistical Bulletin, SBP of Oct-22

⁵ Of total participants; 45 are Banks/MFBs, 9 DFIs, 2 Non-Bank and 3 are Special Participants

⁶ Multipurpose CDMs: Cash Deposit Machines with dual facility of deposit (both cash and cheque deposit) and cash withdrawal

^P Provisional | ^R Revised

1. Executive Summary

In line with the previous years' trend, the digital payment eco system of Pakistan continued to grow during FY2022 as well. This report examines the growth trends in various areas of e-banking including mobile and internet banking and online merchant transactions.

During FY22, the overall **e-banking** transactions witnessed a healthy growth of 36.2% by volume and 59.4% by value. E-banking channel was mainly utilized for **online funds transfer**. During FY22, the number of funds transfer transactions through digital channels reached to 489.1 million which is 80.0% higher than FY21. By value, it grew by 75.0% on YoY basis reaching to Rs. 98.9 trillion by the end of FY22.

As of end Jun-22, number of registered **mobile phone and internet banking** users reached to 12.3 million and 8.4 million with YoY growth of 13.5% and 59.8% respectively. Around 387 million transactions amounting to Rs. 11.9 trillion were conducted using mobile banking showing growth of 100% by volume and 141% by value. Similarly, 142 million transactions amounting Rs. 10 trillion were conducted using internet banking showing a growth of 52% by volume and 81% by value.

Similarly, the volume of **bill payments** through digital channel (101.1 million) was higher than physical paper-based mode (59.9 million). Contrary to this, value of online bill payment (Rs. 0.8 trillion) was less than the latter (Rs. 2.2 trillion). In comparison to previous fiscal year, an increasing trend is observed in number of online bill payments (22.7%), however, there was a negative trend for over-the-counter (OTC) bill payments (-7.2%).

During FY22, the digital payments infrastructure also grew quite significantly. The total number of card accepting **Point of Sale (POS) machines** increased to 104,865 thus growing by 46% during the year. The number of E-commerce merchants on boarded by banks increased to 4,887 showing a growth of around 63% over previous year.

The total number of **payment cards** issued by Banks and MFBs reached 42.4 million of which 70.5% card holders are male whereas 29.4% are female. Of these around 71% are debit cards followed by 24.3% Social Welfare Cards and 4.2% Credit Cards.

During the year, the number of **ATMs** reached 17,133 showing a growth of 4.8%. ATM remains a predominant channel for cash withdrawal; 97% of transactions through ATM were cash withdrawals followed by funds transfer (2.1%) and bill payments (0.8%).

Pakistan Real-time Interbank Settlement Mechanism (PRISM) continued to be used extensively for wholesale and ancillary interbank settlements. Rs. 681.6 trillion were processed via PRISM during the year showing an increase of 53.3% over the last fiscal year.

During the year under review FY22, SBP launched Raast Person-to-Person (P2P) Payment System. This system enabled the citizens of Pakistan to send payments in a convenient and seamless manner, free of cost using mobile phone numbers as Raast ID. The system, launched in November 2021, has 15 million registered Raast IDs and has processed over 8 million transactions amounting to Rs. 102 billion as of end June 2022.

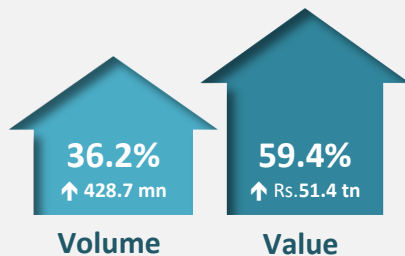
SBP issued licenses to four (4) new Electronic Money Institutions (EMIs) during the fiscal year. These EMIs issued 514,961 payment cards to their 262,558 account holders, on-boarded 4,941 merchants and issued e-money Rs. 5.0 million e-money during FY22.

In the coming years, SBP plans to further enhance and promote digital payment system, not just for household consumers, but for private and government sector as well, along-with giving more emphasis on supply chain digitization.

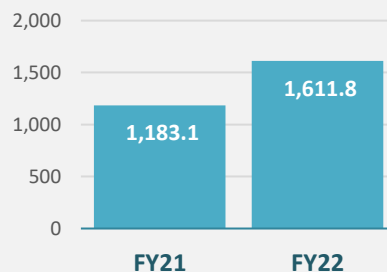


Key Statistics Annual Payment Systems Review - FY22

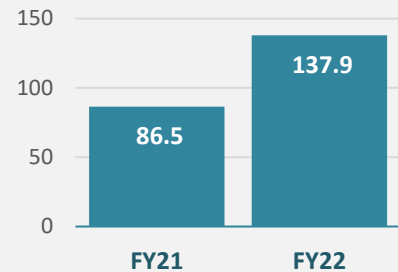
Overall e-Banking



e-Banking Volume (in million)



e-Banking Value (in Rs. trillion)



Internet & Mobile Phone banking

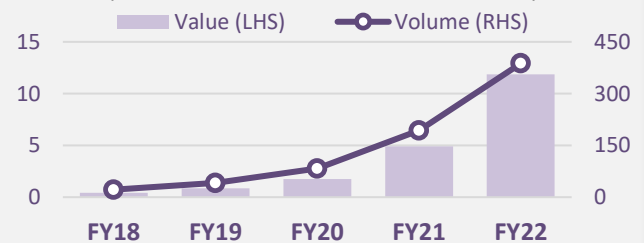
12.3 mn
Mobile Banking Users
(↑13.5%)

Volume (↑ 100.4%)
387.5 mn

Value (↑ 141.1%)
Rs. 11.9 tn



Mobile Phone Banking Transactions (Volume in million & Value in Rs. trillion)

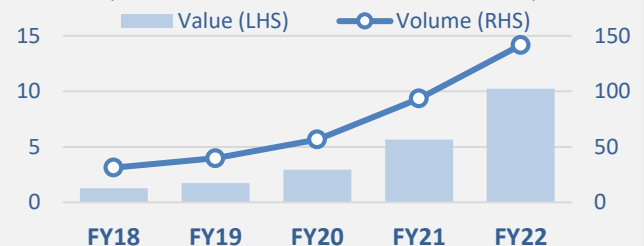


Volume (↑ 51.7%)
141.7 mn

Value (↑ 81.1%)
Rs. 10.2 tn

8.4 mn
Internet Banking Users
(↑59.8%)

Internet Banking Transactions (Volume in million & Value in Rs. trillion)

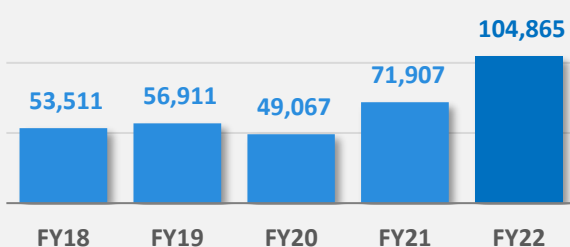


POS Network & Transactions



Total POS: 104,865
Transactions through POS:
Volume 137.5 mn (↑ 54.5%)
Value Rs. 707.2 bn (↑ 56.1%)

POS Deployment in Past 5 Years

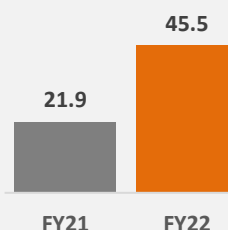


e-Commerce Transactions

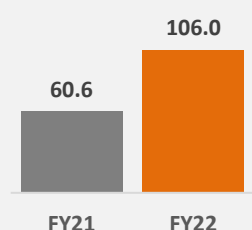


e-Merchants: 4,887
YoY Growth in e-Commerce Transaction:
Volume ↑107.4%
Value ↑ 74.9%

Transaction Volume (in million)



Transaction Value (in Rs. billion)



ATM Network & Transactions



Total
17,133
ATMs

Transactions through ATMs:
Volume 692.3 mn (↑ 15.6%)
Value Rs. 9,627.5 bn (↑ 19.2%)

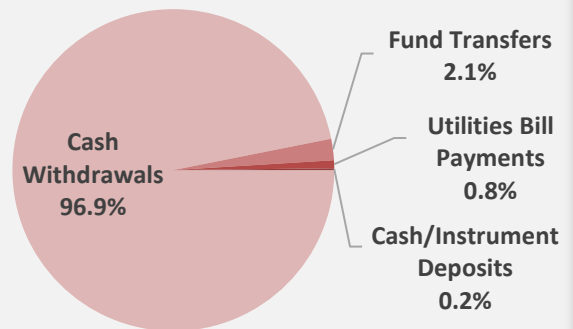
Average ticket size

Withdrawals
Rs. 12,971

Funds Transfer
Rs. 51,899

Bill Payments
Rs. 5,104

Break-up of Transactions through ATMs



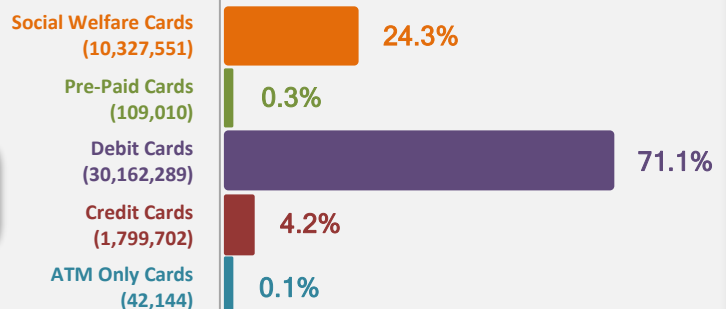
Plastic Cards & Transactions

Total transactions through Plastic Cards

Volume: **880.7 million**
Value: **Rs.10.3 trillion**



Number of Plastic Cards: 42.4 million



RTGS (PRISM) Transactions



RTGS (PRISM) participants has reached to **59**

Real-Time Gross Settlement (RTGS) mechanism in Pakistan is named as Pakistan Real-time Interbank Settlement Mechanism (PRISM)

PRISM Transactions during FY22

Volume 4.37 mn ↑ 5.1%

Value Rs. 681.6 tn ↑ 53.3%

Paper-Based Transactions

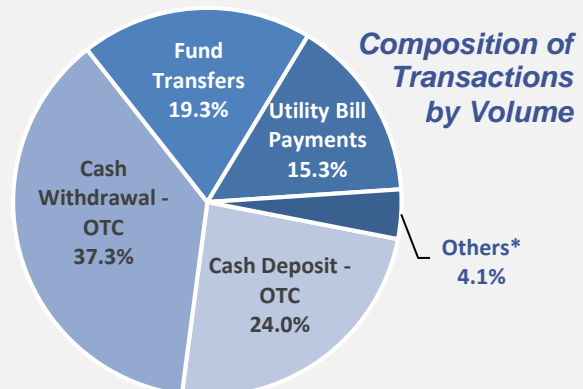
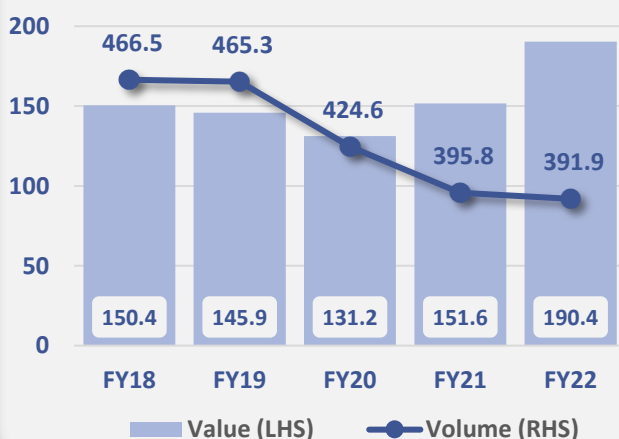
Volume

↓ 1.0%

Value

↑ 25.6%

(Volume in million & Value in Rs. trillion)



* Others includes; Pay Order, Demand Draft, Banker's Cheque, Direct Debit and Other instrument based transactions

2. Payment Systems Review

State Bank of Pakistan (SBP), being the central bank and the regulator of country's banking & payment systems, collects data and reports on various aspects in order to monitor the performance of banking and payment systems. In addition to using data for monitoring, SBP also uses the data for publishing reports and data tables for stakeholders, bankers, economists, analysts and general public.

Payment Systems Review is prepared and published by SBP on quarterly and annual basis which encompasses payment systems infrastructure, instruments and transactions. The data and its analysis presented in this annual review will help readers and provide a holistic view of the overall payment systems infrastructure and trends in the adoption of digital as well as conventional channels.

2.1. Large-Value Payment System

Pakistan Real-time Interbank Settlement Mechanism (PRISM) is a large-value payment system operated by SBP that offers a mechanism for minimizing settlement and systemic risks in the interbank settlement process and provides real-time settlements on gross basis. In addition, PRISM also contributes to the reduction of settlement risk in securities transactions by providing a basis for Delivery-Versus-Payment (DVP) mechanisms. Intraday Liquidity Facility (ILF) is offered to the banks, collateralized against Government Securities, so that the payments may be cleared immediately. The system also has queue management features and mechanisms for Grid Lock resolution.

There were a total of 59 PRISM direct participants as of June 30, 2022 comprising of 45 Banks/MFBs (including Islamic Banking Windows), 9 DFIs, 3 special participants⁷ and 2 non-banking⁸ participants. During the fiscal year 2021-22 (FY22), a total of 4.4 million transactions were processed with value of Rs. 681.6 trillion compared to 4.2

million transactions during FY21 which amounted to Rs. 444.6 trillion. Although volume of transactions grew by just 5.1%, value of transactions witnessed a healthy growth of 53.3%.

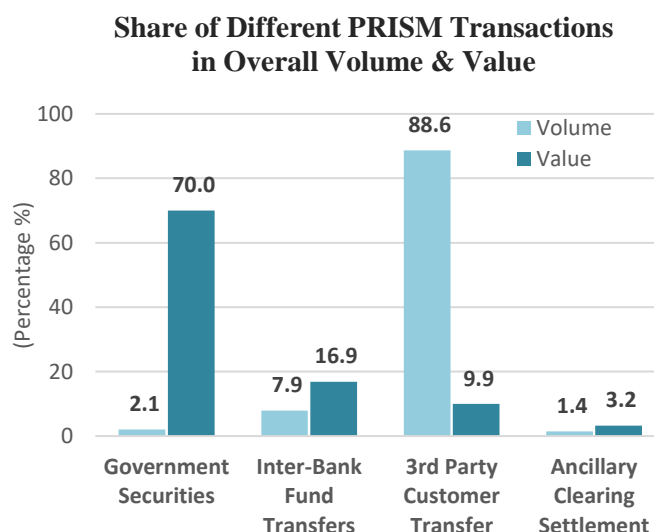


Figure 1: Percentage share of different PRISM transactions by volume and value

2.2. Retail Payment System

Continued developments in digital payment infrastructure have resulted in growth of retail payment transactions. During FY22, total retail payment transactions⁹ volume was 2,003.7 million with value of Rs. 328.3 trillion showing a growth of 26.9% in volume and 37.9% in value compared to previous fiscal year FY21.

Of total volume of retail transactions, 80.4% were e-banking while 19.6% were paper-based transactions. However, in terms of value, e-banking transactions accounts for 42.0% while paper-based contributes to 58.0% of total retail transaction value. Further details on e-banking and paper-based transactions are as follows:

2.2.1. E-Banking Infrastructure

The journey from cash-intensive economy to a digital economy continued as more and more

⁷ This includes 1-Link Guarantee Ltd, NIFT (Pvt) Ltd and National Clearing Company of Pakistan Limited (NCCPL) as an auxiliary participant

⁸ Non-banking participants includes Central Depository Company (CDC) and National Clearing Company of Pakistan Limited (NCCPL)

⁹ Retail Payment transactions comprises of E-Banking and Paper-Based transactions

people are moving towards mobile and internet banking. Usage of Point of Sale (POS) machines has also increased in past few years. As of end Jun-22, total POS machines reached to 104,865 as banks deployed 32,958 POS machines during this fiscal year (including 426 closed loop POS machines). Furthermore, ATM network also expanded as number of ATMs increased from 16,355 as of end FY21 to 17,133 by end of FY22, showing a growth of 4.8%. Of all the ATMs, 14,095 are on-site, 3,021 off-site and 17 are mobile ATMs.

Reliance on internet and mobile banking channel has increased significantly in the past few years. Internet banking users have reached to 8.4 million while mobile banking users grew to 12.3 million with a growth of 59.8% and 13.5% respectively as compared to FY21.

As of Jun-21, there were 45.9 million payment cards issued in Pakistan. However by the end of June, 2022, it has declined to 42.4 million cards. This decline in number of payment cards was mainly due to change in business model of an MFB which cancelled all their inactive ATM only cards. Most of these cards were inactive since the date of issue and were never activated by the customers. Comparison on composition of different types of payment cards is presented in figure 2.

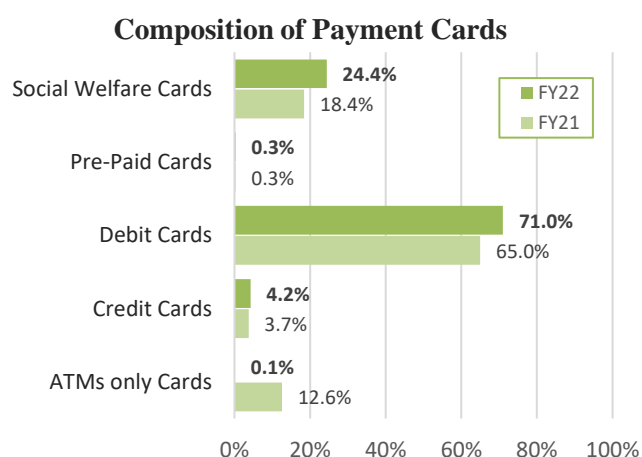
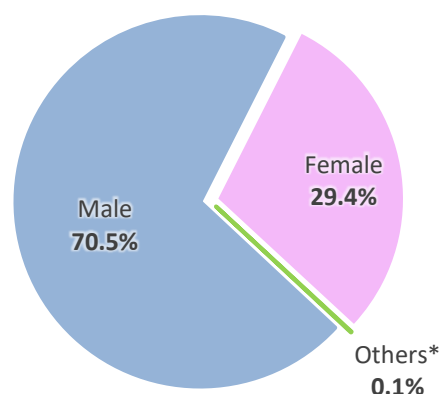


Figure 2: Percentage share of different type of payment cards of total cards issued

For the first time, gender-wise data was also collected and analyzed for payment system review. Gender-wise segregation on payment card users is presented in Figure 3

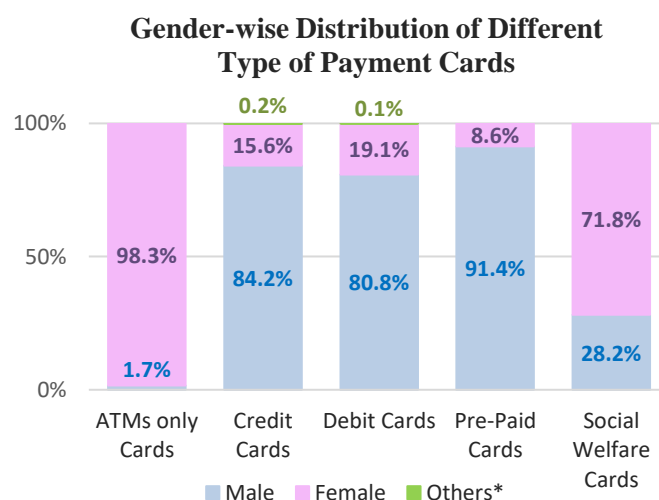
Gender-wise Distribution of Payment Cards Users



* Includes; transgender, joint accounts and corporates

Figure 3: Gender-wise distribution of payment cards users

Further bifurcation on payment card users is provided in Figure 4 below.



* Includes; transgender, joint accounts and corporates

Figure 4: Gender-wise distribution of different type of payment cards users

During FY22, Banks and MFBs on-boarded 1,884 e-commerce merchants reaching a total of 4,887 registered merchants, an increase of 62.7% on YoY basis. Last year in FY21, number of e-commerce merchants was 3,003.

2.2.2. E-Banking Transactions

During FY22, Banks and MFBs processed 1,611.8 million e-banking transactions amounting to Rs. 137.9 trillion in value. An increase of 36.2% by

volume and 59.4% by value on YoY basis. RTOB transactions contribution was the largest in total e-banking transactions value with a share of 76.4% followed by Mobile Banking 8.6% and Internet Banking 7.4%.

2.2.2.1. Real-Time Online Branches (RTOB) Transactions

RTOB channel is the most common e-banking facility in the country. Number of transactions increased to 207.2 million in FY22 compared to 186.6 million in FY21. Similar increasing trend is found in value as it increased from Rs. 67.3 trillion (FY21) to Rs. 105.3 trillion (FY22). In terms of percentage growth, volume increased by 11.0% while value increased by 56.5% on YoY basis. Bifurcation of RTOB transactions showed that by value, Intra-Bank Funds Transfers transactions contributed Rs. 79.0 trillion (75.0%), Cash deposits Rs. 17.9 trillion (17.0%) and Cash withdrawals Rs. 8.5 trillion (8.0%).

2.2.2.2. ATM Transactions

During this fiscal year (FY22), total number of transactions through ATMs were 692.3 million, 15.6% higher than FY21 with 598.7 million transactions. By value, total ATM transactions amounted to Rs. 9.6 trillion which is 19.2% higher than FY21 with Rs. 8.1 trillion. As shown in figure 5, 96.9% of all of the transactions performed by the customers were cash withdrawals. Rest of the 3.1% transactions included Intra/Inter-Bank funds transfers, utility bill payments and cash/instrument deposits. By value also, cash withdrawals had the majority share (90.4%) followed by funds transfers (8.0%), cash/instrument deposits (1.3%) and bill payments (0.3%). This shows that customers preferred ATMs predominantly for cash withdrawals purposes.

In addition to this, average transaction size of cash withdrawals during FY22 was Rs. 12,972 per transaction which was Rs. 12,633 per transaction in FY21. Percentage share of different type of transactions through ATMs by volume and value is presented in figure 5 and 6.

Transaction Type Share by Volume

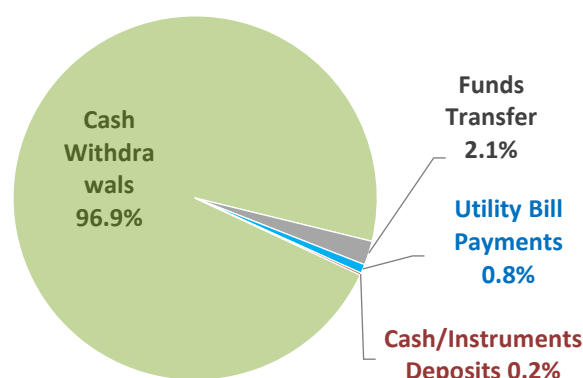


Figure 5: Percentage share of different transaction through ATM by volume

Transaction Type by Value

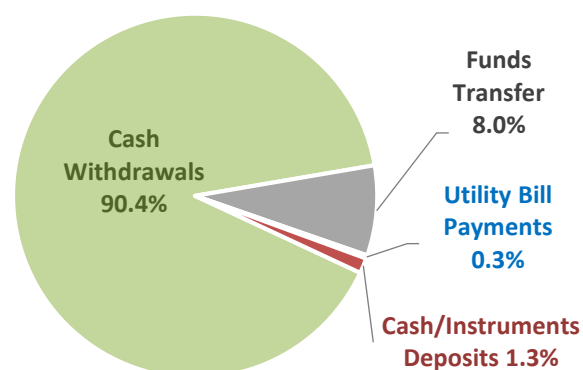


Figure 6: Percentage share of different transaction through ATM by value

2.2.2.3. POS Transactions

During current fiscal year, POS transactions showed a healthy growth on YoY basis by both volume (54.5%) and value (56.4%) of transactions. Banks deployed 32,958 new POS machines during FY22 reaching a total of 104,865. Total POS transactions during FY22 were 137.6 million of which 93.9% transactions were settled locally while 6.1% transactions settled in foreign country (*foreign cards POS transactions executed in Pakistan but settled in foreign country*). Total transaction value was Rs.0.7 trillion which was Rs.0.5 trillion by end of FY21.

2.2.2.4. Internet Banking Transactions

Internet banking has become more common in Pakistan in recent years due to variety of services and options provided by banks and MFBs as well as increased availability of economical internet facility. People can now transfer funds through their accounts quickly and conveniently. The customers can now pay utility bills, education fees, mobile top-ups, online purchases and many more with just few clicks. During FY22, a total of 141.7 million transactions were processed having value of Rs. 10.2 trillion, almost double from previous fiscal year (Rs. 5.7 trillion). In terms of YoY growth, internet banking users increased by 59.8% (3.1 million) while transactions in volume and value grew by 51.7% and 81.1% respectively. Figure 7 shows historically increasing trend in internet banking transactions.

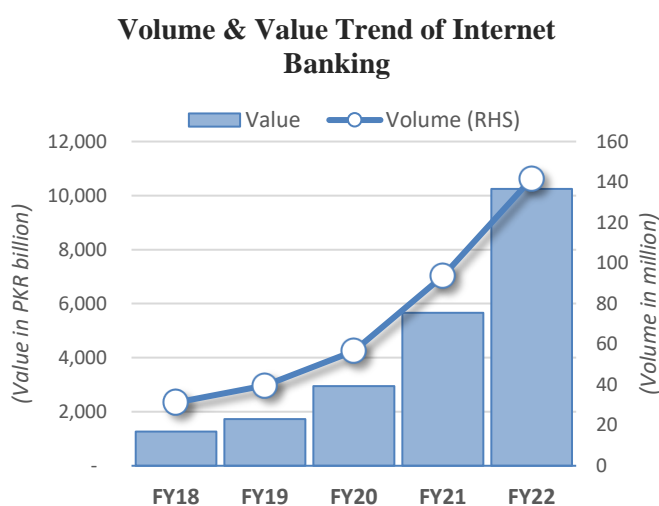


Figure 7: Past 5 years trend of internet banking by volume and value of transactions

2.2.2.5. Mobile Phone Banking Transactions

In addition to internet banking, mobile phone banking has also gained acceptance as an alternative channel for e-banking transactions. The rising penetration of smart phones and availability of internet has resulted in people's increasing preference towards mobile phone banking. Mobile phone banking users as of end Jun-22 were 12.3 million, while in FY21 there were 10.9 million registered users. A total of 387.5 million and 193.4 million transactions were performed by the

registered users during FY22 and FY21 respectively. Value of transactions increased more than two folds and reached to Rs.11.9 trillion as of Jun 30, 2022. Translating this to percentage growth shows that volume of transactions grew by 100.4% while value by 141.1% on YoY basis.

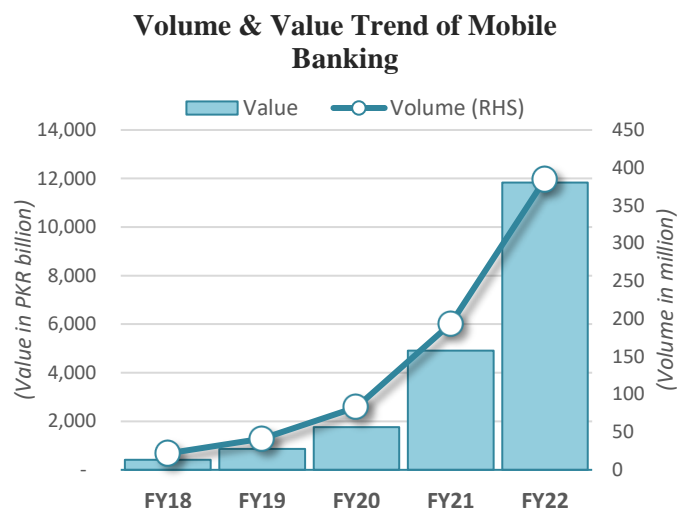


Figure 8: Past 5 years trend of mobile banking by volume and value of transactions

2.2.2.6. Call Center/IVR Banking Transactions

Another traditional mode of e-banking available for banking customer is call center/IVR banking channel. This channel doesn't require the availability of smart phones or internet facility. However, use of this channel is declining slowly over the years as internet and mobile banking is becoming more common which provides more flexibility, ease of use and is becoming more feasible for majority of the people. As of end Jun-22, total transactions through call center/IVR banking were 146.3 thousand with value of Rs. 7.0 billion despite having 35.4 million registered users. On YoY basis, transaction volume declined by 12.2% while value declined by 13.7%.

2.2.2.7. E-Commerce Transactions

With growth in e-commerce sector, banks and MFBs have started on-boarding more and more e-commerce merchants in order to provide payments related services and solutions to both merchants and customers. As of end FY22, 4,887 e-commerce merchants were registered with banks and MFBs.

Number of registered e-commerce merchants has increased by 62.7% compared to previous fiscal year. In terms of transactions, 91.8% of the total e-commerce transactions were locally settled transactions amounting to Rs. 82.9 billion while transactions settled internationally were 8.2% which amounted to Rs. 23.1 billion.

2.2.3. Paper-Based Transactions

Although e-banking channel is getting common, paper-based transaction still play an important role in retail payment transactions. Despite having relatively smaller transaction volume share in retail payments compared to e-banking channel, paper-based transactions captures 58% of all retail transactions by value. This implies that banking customers prefer cash/paper instruments for large value transactions rather than e-banking channel. Total paper-based transactions were 395.8 million in FY21 which reduced to 391.9 million in FY22. In contrast to this, value grew from Rs. 151.6 trillion to Rs. 190.4 trillion by end Jun-22. Cash withdrawal (37.3%), cash deposit (24.0%), funds transfer (19.3%) and utility bills payments (15.3%) were the most common transactions performed through paper-based instruments by customers. In terms of transaction value, funds transfer had the highest contribution share of 58.7% followed by cash withdrawal 13.5%, cash deposit 11.7% and utility bill payments 1.1% only.

2.2.4. Transactions through Payment Cards

As of Jun 30, 2022 there were 42.4 million payments cards in Pakistan's banking system among which 71.0% were Debit Cards, 24.4% Social Welfare Cards, 4.2% Credit Cards, 0.3% Prepaid Cards and 0.1% were ATM only Cards. Number of transactions processed through these cards in FY22 was 880.7 million as compared to 708.7 million transactions in FY21 which shows growth of 24.3%. Transaction value also grew by 22.9% with transactions value reaching Rs.10.3 trillion this fiscal year which was Rs.8.4 trillion in FY21.

Gender-wise segregated data on payment cards transactions by volume and value was also

compiled for the last quarter of FY22. As per the data of last quarter, it was found that all gender categories followed a similar trend.

Gender-wise Trend of Transactions through Payment cards by Volume

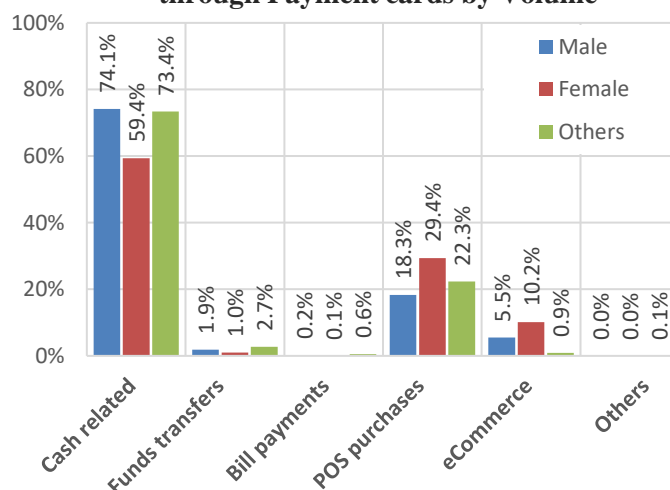


Figure 9: Gender-wise Trend of Transactions through Payment cards by Volume

Gender-wise Trend of Transactions through Payment cards by Value

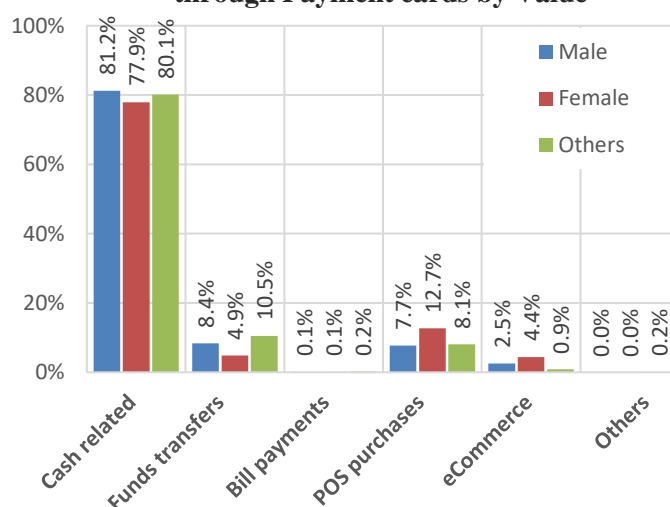


Figure 10: Gender-wise Trend of Transactions through Payment cards by Value

3. Major Developments in Payment Systems

Over the years, SBP has taken appropriate measures to strengthen payment systems infrastructure and regulatory framework in the country which also entails promoting and developing interoperable payments infrastructure, issuing enabling regulations especially for retail payment providers and FinTechs, ensuring the trust and security of digital payment channels in the country, bringing non-banking entities into the payments' landscape - issuing licensing to Electronic Money Institutions (EMIs) and promoting new technologies.

As a results of such initiatives, the payment systems in Pakistan has been evolving, resulting in increased accessibility and lower costs of financial services for customers especially through digital channels. Some of the major developments during the fiscal year FY22 are discussed below:

3.1. Image-Based Clearing System

In order to bring efficiency in the clearing process and reduce the Turn-Around-Time (TAT) of cheque clearing, SBP launched Image-based Clearing System (IBCS) in September, 2021 through NIFT platform. Before IBCS, cheques were routed physically among banks which was not only a labor intensive task to route the instruments manually but also cause delays in clearing settlements. Due to IBCS, clearing paper instruments are scanned the same-day at NIFT centers which are then routed to paying banks to decide the fate of paper instruments.

3.2. Mobile Payment Applications Security Framework

Mobile payment applications (apps) have become center-stage of digital financial services in Pakistan. Over the past few years, SBP has issued different regulations to standardize security requirements of various digital financial products/services.

In light of this, PSP&OD has issued mobile payment apps security framework for the Digital Financial Services (DFS) industry in Pakistan with the objective to give common standards and provide security baselines for regulated entities while

developing mobile apps. This is in line with SBP's strategic objective with the aim to modernize payments and clearing & settlements infrastructure to improve efficiency and security.

The app security framework was developed after comprehensive review and study of international standards and best practices including International Telecommunication Union Open Web Applications Security Project (OWASP) National Information Assurance Partnership's Protection Profile for Application Software and US National Institute of Standards & Technology (NIST) standards.

International Telecommunication Union (ITU) has acknowledged SBP's draft "App Security Framework" as best practices in their Digital Financial Service Security Assurance Framework. Through the platform of ITU, the draft framework has also been presented to different global audiences including DFS regulatory authorities in Mexico, Egypt and Kenya.

The app security framework aims to provide baselines security requirements for the mobile apps broadly covering the areas of data storage, network communication with endpoints, authentication and authorizations, interaction with mobile platform, code quality and exploit mitigation and anti-tampering etc. The framework is addressed to "App Owners" i.e. all SBP regulated entities, which are using mobile apps (developed in-house or through 3rd party) for providing an alternate payment channel to their customers. All existing app owners are required to ensure that their mobile apps and associated IT environments are aligned with this framework latest by September 30, 2022.

3.3. Cyber Threat Information Sharing

Timely and precise cyber threat information is a highly valuable asset in terms of preparing and possibly averting largescale and destructive cyber-attacks. Effective cyber threat information sharing can provide access to information that would otherwise be not easily accessible to an organization. Using shared resources and

infrastructure, financial institutions can strengthen their security posture by leveraging the data, experience, and capabilities of other industry participants in a proactive manner.

Cyber threat information shared within a particular industry or sector can be particularly useful because the member organizations often face actors that use common tools, tactics, and procedures for targeting organizations of a similar type such as banks, PSOs/PSPs, EMIs and other financial institutions. Cyber defense can be made most effective when financial institutions work together to deter and defend against well-organized, capable actors. Such collaboration helps to reduce risk and improve security posture of all the member organizations.

PSP&OD worked with financial institutions to create dedicated information sharing teams in banks and laid down the policy contours for establishment of a financial sector oriented cyber threat information sharing community. As per SBP-PSD Circular No. 03 of 2020 advised financial institutions:

- a) To create dedicated Cyber Threat Intelligence Units (CTI-U) and Emergency Response Teams (ERTs) with the objective to minimize and control the damage resulting from cybersecurity incidents, offer guidance for response & recovery activities and affiliated proactive measures. To create emergency response teams in their organizations
- b) Nominate focal persons to liaison with SBP and share cyber threat information with the industry as and when needed
- c) Dedicated information sharing channels were established with each FI so as to create and develop trust and confidence in the industry
- d) Actively participate in information-sharing communities/groups and
- e) Subscribe to threat intelligence platforms within the country to receive, assess/validate and share cyber threat intelligence and information about suspicious cyber activities, Indicators of Compromise (IoCs) and early warning indicators relating to cyber threats.

3.4. Joint SBP-ITU Workshop on the Security of Digital Financial Services

Digital Financial Services Group (DFSG), SBP in collaboration with the International Telecommunication Union (ITU) arranged a series of workshops on the security of Digital Financial Services (DFS). Two technical workshops of 2-days each, were arranged for SBP officials and PTA in April 2022 and for financial industry in June, 2022. Workshops were attended by IT security professionals, security auditors, and policymakers from the telecom regulator — Pakistan Telecommunication Authority (PTA), financial industry, and SBP officers from various departments.

In opening remarks by Ms. Sima Kamil, Deputy Governor (FI, DFS & IT) while delivering her key note speech to one of the sessions, underscored the importance of building trust in digital financial services by taking measures to control digital frauds. She highlighted that emerging security on threats such as identity theft, SIM cloning and SIM swaps and call spoofing etc. need to be jointly countered by SBP, DFS industry and telecom regulator.

The purpose of these DFS security workshops was to share experiences about emerging fraud prevention techniques and security methods for ensuring that the service providers address DFS vulnerabilities. ITU's DFS Security Clinic shared the findings and recommendations from the Financial Inclusion Global Initiative (FIGI) Security Infrastructure and Trust working group for regulators and DFS providers about addressing security challenges for digital finance.

Participants learned about the different infrastructure and application vulnerabilities within the DFS ecosystem, DFS security assurance framework, security governance, and how to manage security risks in the DFS ecosystem.

Both the workshops provided insights about security best practices for SIM swaps frauds, mobile payment applications operating on USSD, STK, and Android, methodology for testing the

security of mobile payment applications, and addressing key issues of SS7, SIM swaps, SIM recycling, and SIM vulnerabilities like SIM jacket that could be used to compromise DFS.

At the conclusion of one of the technical workshop session, Syed Sohail Javaad, Executive Director, DFSG, stressed that as part of its ongoing initiatives to promote digital financial services, DFSG is closely working with national and international stakeholders such as ITU to share experience about emerging fraud prevention techniques and security methods for ensuring that the service providers address DFS vulnerabilities.

He shared that recently issued app security framework is one of the key initiative to provide security baselines to the industry for development of mobile apps.

He underscored that such workshops would prove to be exceedingly useful in improving cyber security posture of the financial services sector in Pakistan.

3.5. Implementation of SBP Regulatory Approval System (RAS)

In order to promote digitalization and encourage eco-friendly practices, PSP&OD has implemented online portal called SBP Regulatory Approval System (RAS) to enable regulated entities (i.e. Banks, MFBs, EMIs, PSOs/PSPs, etc.) to submit cases/proposals and receive regulatory decisions digitally. The industry-wide roll out of RAS will make submission of requests and proposals by regulated entities efficient, easy to track and paperless. Moreover, it will also allow the dissemination of regulatory decisions to regulated entities electronically through RAS portal.

Further, it is expected that the move will create trust and allow regulated entities to get used to the new system. To facilitate users of RAS, a Service Help Desk has also been set up where complaints regarding business and technical aspects of RAS may be lodged.

3.6. Issuance of Licenses/Approvals to EMIs

Since the issuance of Regulations for EMIs in the year 2019 and as part of the licensing regime under the regulations, SBP has been issuing approvals to entities under different stages i.e. In-Principle approval, approval for Pilot operations and Commercial launch. As of June 30, 2022, four EMIs (namely M/s NayaPay Pvt. Ltd, M/s Finja Pvt. Ltd, M/s CMPECC Ltd and M/s SadaTech Pakistan Pvt. Ltd) are operating live after attaining commercial license from SBP. These EMIs are providing e-money wallets for consumers as well as merchants. Net position of e-money issued by these EMIs was Rs. 5.0 million as of Jun, 2022 with 514,961 payment cards issued to their customers. Total active accounts were 262,558 while 4,941 merchants were on-boarded till the year-end by these EMIs. List of authorized EMIs is available at <https://www.sbp.org.pk/ps/PDF/List-of-EMIs.pdf>.

3.7. Raast Payment System

Raast is Pakistan's first instant payment system that is fully interoperable and enables end-to-end digital payments among individuals, businesses and government entities in near real-time. It is used to settle small-value retail payments in real-time whilst at the same time provide cost effective and universal access to all players in the financial industry, including banks and FinTechs, thereby fostering innovation and competition.

Raast is a fully interoperable digital payments platform and ecosystem, which fosters innovation by providing players in the market the opportunity to introduce easy to use, safe and efficient payment products and services at a low cost. Based on the ISO-20022 global message standard for payments, it supports data-rich interoperability locally with the potential to be extended regionally and internationally. It also provides APIs to Participants and designated government entities to make integration with Raast simpler.

Raast first use case, bulk payment, went live in January, 2021 with the disbursement of dividend via Central Depository Corporation (CDC). Raast second use case, Person to Person (P2P), went live

in February, 2022. P2P offers free transfers between two individuals instantly using mobile number as their Raast ID or through IBAN. As of end Jun-22, there were 15.0 million P2P users. Data on transactions through Raast is presented in table below:

Quarter	Transaction Volume	Transaction Value (in PKR mn)
Bulk Payments Transactions		
Q1-FY22	12,842	2,518.8
Q2-FY22	51,434	5,701.0
Q3-FY22	9,622	2,149.9
Q4-FY22	19,620	4,794.6
Total	93,518	15,164.3
P2P Transactions		
Q1-FY22	-	-
Q2-FY22	-	-
Q3-FY22	764,438	8,504.7
Q4-FY22	7,091,010	93,592.1
Total	7,855,448	102,096.8

3.7.1. Available Raast Channels

Further, participants are offering Raast services to their customers on following channels:

- Over the Counter (OTC)
- Internet Banking
- Mobile Application
- Unstructured Supplementary Service Data (USSD)

3.7.2. Salient Features of Raast

In essence, Raast is a payment scheme which enables:

- Instant transfer of funds from Payer (Consumer, Business, Government entity) account to Payee account (Consumer, business, Government entity)
- Level playing field for all non-bank regulated entities such as PSPs, EMIs and PSO to access banks
- Same day and potentially multiple cycles of settlement of funds thereby reducing cost of funds to entities providing payment services
- Operated as a public utility for general public

3.8. QR Payments

SBP, in March, 2022, has issued standards on Quick Response (QR Code payments) in Pakistan which has provided a value-addition to the digital payment processes for the customers. The first use-case of this initiative 'Person-to-Person' or P2P QR is being offered by certain banks while other banks are in the development phase. This initiative will enable the customer to generate personalized QR code through mobile application and internet banking channels for onward sharing with others to receive funds in the bank account. The P2P QR will also allow an accountholder to generate a dynamic QR Code which is based on a specific amount to satisfy one's payment needs. By the issuance of the standard on QR codes and its subsequent implementation by the banks, Pakistan has become one of the few countries that have a mechanism of Person-to-Person fund transfers through QR codes.

Annexure A: Annual Payment Systems Data

Annual Payment Systems Data is appended on following pages:

Table A-1: Payment Systems Infrastructure*(Actual numbers)*

Number of	FY18	FY19	FY20	FY21	FY22 ^P
Commercial Banks	34	34	33	33	33
Microfinance Banks (MFBs)	11	11	11	11	11
Development Financial Institutions (DFIs)	8	8	8	8	9
Payment Service Operators (PSOs)/ Service Providers (PSPs)*	3	3	4	6	6
Electronic Money Institutions (EMIs) *	-	-	-	-	4
PRISM Participants	43	45	50	54	59
Commercial Banks/ MFBs Branches	14,970	15,598	16,067	16,308	17,031
<i>of which;</i>					
<i>RTOB Branches</i>	<i>14,850</i>	<i>15,481</i>	<i>15,922</i>	<i>16,170</i>	<i>16,603</i>
<i>Manual/Overseas Branches</i>	<i>120</i>	<i>117</i>	<i>145</i>	<i>138</i>	<i>428</i>
ATMs	14,019	14,722	15,612	16,355	17,133
POS Machines	53,511	56,911	49,067	71,907	104,865
Internet Banking Users	3,113,728	3,278,611	3,983,235	5,239,301	8,369,872
Mobile Phone Banking Users	3,385,889	5,626,137	8,451,997	10,872,844	12,339,053
Call Centers/ IVR Banking Users	26,484,765	29,748,743	32,322,973	33,436,122	35,351,561
e-Commerce Merchants Registered with Banks	1,094	1,307	1,707	3,003	4,887

*Includes only commercial licensed

Table A-2: Composition of Payment Cards*(In unit number)*

Payment Card Category	FY18	FY19	FY20	FY21	FY22 ^P
ATMs only Cards	8,586,819	8,485,391	6,943,385	5,771,429	42,144
Credit Cards	1,453,867	1,589,120	1,655,030	1,720,949	1,799,702
Debit Cards	21,712,069	24,831,777	26,698,046	29,849,278	30,162,289
Pre-Paid Cards	234,098	228,417	134,586	127,670	109,010
Social Welfare Cards	8,932,140	7,103,294	7,383,380	8,467,023	10,327,551
Total	40,918,993	42,237,999	42,814,427	45,936,349	42,440,696

Table A-3: Payment Systems Transactions – Summary*(Volume in Million & Value in PKR Billion)*

Transaction Type	FY18		FY19		FY20		FY21		FY22 ^P	
	Volume	Value	Volume	Value	Volume	Value	Volume	Value	Volume	Value
PRISM System	1.70	361,048.2	2.50	398,168.9	2.60	394,293.0	4.16	444,574.2	4.37	681,580.8
E-Banking	756.2	47,403.7	869.8	58,820.7	905.9	65,987.3	1,183.1	86,482.3	1,611.8	137,857.1
RTOB	165.7	39,857.7	187.4	49,430.7	173.7	54,433.2	186.6	67,308.4	207.2	105,308.8
ATM ¹	470.6	5,549.4	523.3	6,399.6	512.1	6,429.4	598.7	8,075.6	692.3	9,627.5
POS ²	63.5	297.0	72.4	366.2	70.3	364.2	88.9	453.1	137.5	707.2
Internet Banking	31.2	1,262.4	39.7	1,722.2	56.6	2,952.7	93.4	5,661.3	141.7	10,249.9
Mobile Phone Banking	21.8	409.8	41.1	866.8	82.8	1,763.6	193.4	4,915.2	387.5	11,850.7
Call Centers/ IVR Banking	0.30	8.7	0.30	9.2	0.20	9.2	0.22	8.1	0.15	7.0
E-Commerce ³	3.4	18.7	5.7	26.1	10.2	34.9	21.9	60.6	45.5	106.0
Paper-Based	466.5	150,362.1	465.3	145,853.9	424.6	131,193.8	395.8	151,615.1	391.9	190,393.4
Total	1,224.4	558,814.0	1,337.6	602,843.4	1,333.1	591,474.1	1,583.1	682,671.6	2,008.1	1,009,831.4

¹ Based on data provided by ATMs acquirers² Based on data provided by POS acquirers³ Based on data provided by e-commerce merchants**Table A-4: PRISM Transactions***(Volume in Thousand & value in Trillion-PKR)*

Transaction Type	FY18		FY19		FY20		FY21		FY22 ^P	
	Volume	Value	Volume	Value	Volume	Value	Volume	Value	Volume	Value
Government Securities	63.5	256.4	62.3	274.9	83.1	262.7	76.7	302.9	91.7	484.1
Inter-Bank Fund Transfers	230.4	65.6	272.0	76.3	290.9	80.4	314.8	83.1	347.1	108.0
3 rd Party Customer Transfers	1,334.1	24.6	2,091.2	31.4	2,173.8	35.5	3,679.8	41.6	3,872.4	66.8
Ancillary Clearing Settlement	61.6	14.5	61.1	15.6	59.0	15.7	60.1	17.0	61.7	22.6
Total	1,689.6	361.0	2,486.7	398.2	2,606.9	394.3	4,131.4	444.5	4,372.9	681.6

Table A-5: Real-Time Online Branches (RTOBs) Transactions*(Volume in Million & Value in Billion-PKR)*

Transaction Type	FY18		FY19		FY20		FY21		FY22 ^P	
	Volume	Value	Volume	Value	Volume	Value	Volume	Value	Volume	Value
Cash Deposits	75.9	7,815.8	89.0	9,790.7	82.5	10,906.7	86.9	14,056.2	93.6	17,870.0
Cash Withdrawals	34.5	2,927.1	37.1	3,559.5	35.8	4,461.1	40.3	6,157.3	45.1	8,456.8
Intra-Bank Funds Transfers	55.3	29,114.8	61.3	36,080.4	55.4	39,065.5	59.5	47,094.9	68.5	78,982.0
Total	165.7	39,857.7	187.4	49,430.7	173.7	54,433.2	186.6	67,308.4	207.2	105,308.8

Table A-6: ATM Transactions*(Volume in Million & Value in Billion-PKR)*

Transaction Type	FY18		FY19		FY20		FY21		FY22 ^P	
	Volume	Value	Volume	Value	Volume	Value	Volume	Value	Volume	Value
Cash withdrawals	446.7	4,838.3	498.7	5,669.0	492.7	5,833.8	577.3	7,292.4	670.6	8,699.2
Intra-Bank Fund Transfer	9.3	304.6	8.7	340.0	6.3	226.0	6.2	243.3	5.2	245.7
Inter-Bank Fund Transfers	8.0	380.7	7.4	349.1	6.5	323.3	8.8	434.7	9.6	524.1
Utilities Bill Payments	6.2	13.6	7.9	20.5	6.0	19.0	5.4	21.3	5.5	28.2
Cash/Instrument Deposits	0.3	12.1	0.5	20.2	0.5	27.4	1.0	83.2	1.3	129.8
Total	470.6	5,549.4	523.3	6,398.9	512.1	6,429.4	598.7	8,075.1	692.3	9,626.9

*Based on data provided by ATM acquirers***Table A-7: POS Transactions***(Volume in Million & Value in Billion-PKR)*

Transaction Type	FY18		FY19		FY20		FY21		FY22 ^P	
	Volume	Value	Volume	Value	Volume	Value	Volume	Value	Volume	Value
Cash withdrawals	-	-	-	-	0.6	18.4	0.5	19.8	0.6	30.2
Purchase on POS - Local	-	-	-	-	67.1	317.2	85.8	410.7	128.6	634.5
Purchase on POS - International*	-	-	-	-	2.6	28.6	2.7	21.8	8.4	42.7
Total	63.5	297.0	72.4	366.2	70.3	364.2	89.0	452.2	137.6	707.4

**Transactions performed through foreign cards on local POS machines but settled in foreign country*

Table A-8: Internet Banking Transactions*(Volume in Million & Value in Billion-PKR)*

Transaction Type	FY18		FY19		FY20		FY21		FY22 ^P	
	Volume	Value	Volume	Value	Volume	Value	Volume	Value	Volume	Value
Intra-Bank Fund Transfers	7.7	323.8	9.3	437.5	22.3	1,208.5	32.7	2,084.2	48.2	3,884.4
Inter-Bank Fund Transfers	10.0	462.1	14.9	767.4	17.7	1,024.2	38.8	2,440.3	67.4	4,533.8
Utilities Bill Payments	11.0	29.7	12.6	63.7	13.5	150.1	16.9	464.5	20.6	583.1
Miscellaneous Payments	2.5	446.8	2.9	453.6	3.2	569.9	4.9	672.3	5.6	1,248.5
Total	31.2	1,262.4	39.7	1,722.2	56.6	2,952.7	93.4	5,661.3	141.7	10,249.9

Table A-9: Mobile Banking Transactions*(Volume in Million & Value in Billion-PKR)*

Transaction Type	FY18		FY19		FY20		FY21		FY22 ^P	
	Volume	Value	Volume	Value	Volume	Value	Volume	Value	Volume	Value
Intra-Bank Fund Transfers	5.8	186.2	10.9	364.7	20.2	730.2	38.9	1,702.8	82.0	4,743.0
Inter-Bank Fund Transfers	5.0	196.4	9.1	367.2	23.2	765.4	86.6	2,516.0	208.1	5,923.4
Utilities Bill Payments	10.1	10.5	18.8	20.6	34.4	43.5	60.1	106.2	75.0	174.3
Miscellaneous Payments	0.9	16.7	2.3	114.4	5.0	224.6	7.9	590.2	22.4	1,010.1
Total	21.8	409.8	41.1	866.8	82.8	1,763.6	193.4	4,915.2	387.5	11,850.7

Table A-10: Call Center/IVR Banking Transactions*(Volume in Million & Value in Billion-PKR)*

Transactions Type	FY18		FY19		FY20		FY21		FY22 ^P	
	Volume	Value	Volume	Value	Volume	Value	Volume	Value	Volume	Value
Intra-Bank Fund Transfers	0.00	0.7	0.00	0.8	0.02	1.4	0.02	1.4	0.01	0.5
Inter-Bank Fund Transfers	0.00	0.1	0.00	0.0	0.00	0.0	0.00	0.0	0.00	0.0
Utilities Bill Payments	0.10	0.9	0.10	1.1	0.03	0.5	0.03	0.5	0.04	0.7
Miscellaneous Payments	0.20	7.1	0.20	7.3	0.15	7.4	0.12	6.3	0.10	5.8
Total	0.30	8.7	0.30	9.2	0.20	9.3	0.17	8.1	0.15	7.0

Table A-11: e-Commerce Transactions*(Volume in Million & Value in Billion-PKR)*

Transaction Type	FY18		FY19		FY20		FY21		FY22 ^p	
	Volume	Value	Volume	Value	Volume	Value	Volume	Value	Volume	Value
Local Transactions	-	-	-	-	9.4	26.2	20.3	44.0	41.7	82.9
International Transactions*	-	-	-	-	0.7	8.6	1.6	16.6	3.7	23.1
Total	3.4	18.7	5.7	26.1	10.1	34.7	21.9	60.6	45.5	106.0

*Card-not-present transactions on international e-commerce websites through domestic issued card

Table A-12: Paper-Based Transactions*(Volume in Million & Value in Billion-PKR)*

Transactions Type	FY18		FY19		FY20		FY21		FY22 ^p	
	Volume	Value	Volume	Value	Volume	Value	Volume	Value	Volume	Value
Cash Deposit - OTC	-	-	-	-	97.3	14,812.3	94.9	18,440.1	94.2	22,228.1
Cash Withdrawal - OTC	-	-	-	-	153.8	17,278.6	146.7	20,849.1	146.1	25,624.9
Intra-Bank Fund Transfers	-	-	-	-	42.2	58,405.8	36.4	59,546.5	36.4	78,674.4
Inter-Bank Fund Transfers	-	-	-	-	40.7	23,327.7	38.3	28,930.7	39.2	33,018.4
Pay Order/Demand Draft/Banker's Cheque	-	-	-	-	11.2	7,127.0	11.4	9,583.2	12.7	13,287.4
Direct Debit	-	-	-	-	2.4	7,219.7	2.6	9,701.3	2.6	12,784.2
Utility Bill Payments	-	-	-	-	76.1	825.4	64.5	2,473.9	59.9	2,167.5
Others Paper-Based Instruments*	-	-	-	-	1.0	2,197.4	0.9	2,090.3	0.8	2,608.5
Total Transactions	466.5	150,362.1	465.3	145,853.9	424.7	131,193.8	395.8	151,615.1	391.9	190,393.4

Table A-13: Payment Cards vs Transaction Channel*(Volume in Million & Value in Billion-PKR)*

Payment Card type	ATM				POS				E-Commerce			
	FY21		FY22		FY21		FY22		FY21		FY22	
	Volume	Value	Volume	Value	Volume	Value	Volume	Value	Volume	Value	Volume	Value
ATM only cards	25.1	278.1	4.2	15.6	-	-	-	-	-	-	-	-
Debit Cards	547.1	7,527.8	662.6	9,327.9	64.6	270.3	105.2	443.8	22.5	62.0	41.6	129.1
Credit Cards	0.3	3.1	0.5	6.9	36.1	204.7	48.2	305.7	11.0	62.3	16.3	110.0
Pre-Paid Cards	0.3	1.8	0.2	1.4	0.1	0.2	0.1	0.3	0.1	0.3	0.1	0.4
Social Welfare Cards	1.4	4.2	1.7	5.1	0.1	1.4	0.0	0.0	-	-	-	-
Total Cards	574.2	7,815.0	669.2	9,356.9	100.9	476.6	153.5	749.8	33.6	124.6	58.0	239.4

Annexure B: Quarterly Payment Systems Data

Quarterly Payment Systems Data is appended on following pages:

Table B-1: Payment Systems Infrastructure*(Actual numbers)*

Number of	Q4-FY21	Q1-FY22	Q2-FY22	Q3-FY22	Q4-FY22 ^P
Commercial Banks	33	33	33	33	33
Microfinance Banks (MFBs)	11	11	11	11	11
Development Financial Institutions (DFIs)	8	9	9	9	9
Payment Service Operators (PSOs)/ Service Providers (PSPs)*	6	6	6	6	6
Electronic Money Institutions (EMIs) *	0	2	2	3	4
PRISM Participants	54	56	58	59	59
Commercial Banks/ MFBs Branches	16,308	16,457	16,714	16,788	17,031
<i>of which;</i>					
<i>RTOB Branches</i>	<i>16,170</i>	<i>16,321</i>	<i>16,571</i>	<i>16,643</i>	<i>16,603</i>
<i>Manual/Overseas Branches</i>	<i>138</i>	<i>136</i>	<i>143</i>	<i>145</i>	<i>428</i>
ATMs	16,355	16,546	16,709	16,897	17,133
POS Machines	71,907	79,134	92,153	96,975	104,865
Internet Banking Users	5,239,301	6,862,249	7,089,441	7,831,251	8,369,872
Mobile Phone Banking Users	10,872,844	11,326,984	12,102,898	11,977,624	12,339,053
Call Centers/ IVR Banking Users	33,436,122	34,224,117	34,322,055	34,663,576	35,351,561
e-Commerce Merchants Registered with Banks	3,003	2,993	3,968	4,445	4,887

* Includes commercial licensed, pilot phase and in-principle approval stage

Table B-2: Composition of Payment Cards*(In unit number)*

Payment Card Category	Q4-FY21	Q1-FY22	Q2-FY22	Q3-FY22	Q4-FY22 ^P
ATMs only Cards	5,771,429	4,605,196	4,781,926	4,881,677	42,144
Credit Cards	1,720,949	1,758,130	1,739,901	1,739,466	1,799,702
Debit Cards	29,849,278	29,714,882	30,919,816	29,419,406	30,162,289
Pre-Paid Cards	127,670	128,003	125,369	127,624	109,010
Social Welfare Cards	8,467,023	9,997,081	11,096,417	11,017,162	10,327,551
Total	45,936,349	46,203,292	48,663,429	47,185,335	42,440,696

Table B-3: Payment Systems Transactions – Summary*(Volume in Million & Value in PKR Billion)*

Transaction Type	Q4-FY21		Q1-FY22		Q2-FY22		Q3-FY22		Q4-FY22 ^P	
	Volume	Value	Volume	Value	Volume	Value	Volume	Value	Volume	Value
PRISM System	1.06	148,047.5	1.08	159,050.1	1.14	161,315.3	1.08	155,677.4	1.07	205,538.0
E-Banking	323.4	23,399.9	361.6	27,189.4	400.3	33,260.4	410.9	35,422.3	439.0	41,985.0
RTOB	45.3	17,767.5	48.4	20,816.4	54.0	25,331.7	52.3	26,774.1	52.5	32,386.6
ATM ¹	157.8	2,177.6	163.7	2,158.8	173.6	2,371.0	171.3	2,437.2	183.7	2,660.5
POS ²	24.2	122.0	28.1	134.9	31.4	178.1	38.3	189.7	39.8	204.6
Internet Banking	28.0	1,720.7	29.6	1,894.1	33.8	2,424.7	38.3	2,906.9	40.0	3,024.1
Mobile Phone Banking	61.3	1,591.6	79.1	2,161.2	94.0	2,926.6	101.5	3,085.8	112.9	3,677.1
Call Centers/ IVR Banking	0.04	2.14	0.04	1.68	0.04	1.64	0.03	1.59	0.03	2.09
E-Commerce ³	6.8	18.4	12.7	22.3	13.6	26.7	9.1	27.0	10.1	30.0
Paper-Based	93.7	40,485.0	98.0	41,596.3	101.4	46,680.7	96.5	46,412.1	96.0	55,704.3
Total	418.1	211,932.4	460.7	227,835.8	502.9	241,256.4	508.5	237,511.9	536.0	303,227.3

¹ Based on data provided by ATMs acquirers² Based on data provided by POS acquirers³ Based on data provided by e-commerce merchants**Table B-4: PRISM Transactions***(Volume in Thousand & value in Trillion-PKR)*

Transaction Type	Q4-FY21		Q1-FY22		Q2-FY22		Q3-FY22		Q4-FY22 ^P	
	Volume	Value	Volume	Value	Volume	Value	Volume	Value	Volume	Value
Government Securities	21.2	108.7	21.6	117.7	21.9	112.0	23.4	106.2	24.8	148.2
Inter-Bank Fund Transfers	78.1	22.1	84.3	23.1	87.2	27.7	86.4	27.9	89.2	29.3
3rd Party Customer Transfers	950.3	11.8	958.7	13.6	1,017.0	16.6	951.0	16.4	945.7	20.3
Ancillary Clearing Settlement	14.6	5.4	14.5	4.6	16.4	5.1	15.6	5.3	15.3	7.7
Total	1,064.2	148.0	1,079.1	159.1	1,142.5	161.3	1,076.4	155.7	1,074.9	205.5

Table B-5: Real-Time Online Branches (RTOBs) Transactions*(Volume in Million & Value in Billion-PKR)*

Transaction Type	Q4-FY21		Q1-FY22		Q2-FY22		Q3-FY22		Q4-FY22 ^P	
	Volume	Value	Volume	Value	Volume	Value	Volume	Value	Volume	Value
Cash Deposits	20.3	3,574.2	21.5	3,902.0	25.2	4,554.9	24.4	4,603.0	22.5	4,810.1
Cash Withdrawals	9.7	1,555.8	10.3	1,761.9	11.5	2,032.6	11.5	2,158.7	11.7	2,503.6
Intra-Bank Funds Transfers	15.2	12,637.5	16.6	15,152.5	17.3	18,744.2	16.4	20,012.4	18.2	25,072.9
Total	45.3	17,767.5	48.4	20,816.4	54.0	25,331.7	52.3	26,774.1	52.5	32,386.6

Table B-6: ATM Transactions*(Volume in Million & Value in Billion-PKR)*

Transaction Type	Q4-FY21		Q1-FY22		Q2-FY22		Q3-FY22		Q4-FY22 ^P	
	Volume	Value	Volume	Value	Volume	Value	Volume	Value	Volume	Value
Cash withdrawals	152.2	1,975.2	158.7	1,976.7	168.1	2,138.5	165.7	2,204.8	178.2	2,379.2
Intra-Bank Fund Transfer	1.4	58.1	1.3	55.0	1.4	63.1	1.3	63.3	1.3	64.3
Inter-Bank Fund Transfers	2.4	113.7	2.3	111.0	2.4	124.9	2.4	123.6	2.5	164.6
Utilities Bill Payments	1.4	5.9	1.5	8.7	1.3	6.3	1.5	5.5	1.3	7.6
Cash/Instrument Deposits	0.3	24.5	0.1	7.3	0.4	38.0	0.4	39.7	0.4	44.8
Total	157.8	2,177.4	163.7	2,158.7	173.6	2,370.9	171.3	2,437.0	183.7	2,660.3

*Based on data provided by ATM acquirers***Table B-7: POS Transactions***(Volume in Million & Value in Billion-PKR)*

Transaction Type	Q4-FY21		Q1-FY22		Q2-FY22		Q3-FY22		Q4-FY22 ^P	
	Volume	Value	Volume	Value	Volume	Value	Volume	Value	Volume	Value
Cash withdrawals	0.2	5.2	0.1	6.0	0.2	7.4	0.2	8.8	0.1	7.9
Purchase on POS - Local	23.3	110.0	26.8	121.2	29.0	160.1	35.5	168.2	37.2	185.0
Purchase on POS – International*	0.7	5.8	1.2	7.6	2.2	10.8	2.6	12.6	2.5	11.7
Total	24.2	121.0	28.1	134.9	31.4	178.2	38.3	189.7	39.8	204.6

**Transactions performed through foreign cards on local POS machines but settled in foreign country*

Table B-8: Internet Banking Transactions*(Volume in Million & Value in Billion-PKR)*

Transaction Type	Q4-FY21		Q1-FY22		Q2-FY22		Q3-FY22		Q4-FY22 ^P	
	Volume	Value	Volume	Value	Volume	Value	Volume	Value	Volume	Value
Intra-Bank Fund Transfers	9.8	628.8	10.4	720.7	11.2	865.5	12.7	979.6	13.9	1,318.7
Inter-Bank Fund Transfers	12.4	767.6	13.2	876.6	16.3	1,246.2	18.9	1,116.8	19.0	1,294.3
Utilities Bill Payments	4.6	157.0	4.8	124.7	4.8	116.2	5.3	150.5	5.7	191.7
Miscellaneous Payments	1.2	167.2	1.3	172.2	1.5	196.7	1.4	660.0	1.4	219.5
Total	28.0	1,720.7	29.6	1,894.1	33.8	2,424.7	38.3	2,906.9	40.0	3,024.1

Table B-9: Mobile Banking Transactions*(Volume in Million & Value in Billion-PKR)*

Transaction Type	Q4-FY21		Q1-FY22		Q2-FY22		Q3-FY22		Q4-FY22 ^P	
	Volume	Value	Volume	Value	Volume	Value	Volume	Value	Volume	Value
Intra-Bank Fund Transfers	11.9	532.6	15.2	748.1	19.7	1,262.7	21.8	1,245.8	25.4	1,486.3
Inter-Bank Fund Transfers	29.5	854.5	42.1	1,153.2	50.6	1,393.7	54.5	1,542.3	61.0	1,834.1
Utilities Bill Payments	17.5	29.7	17.8	44.1	18.1	38.0	19.2	42.2	19.9	50.0
Miscellaneous Payments	2.4	174.9	4.0	215.8	5.6	232.1	6.1	255.5	6.7	306.7
Total	61.3	1,591.6	79.1	2,161.2	94.0	2,926.6	101.5	3,085.8	112.9	3,677.1

Table B-10: Call Center/IVR Banking Transactions*(Volume in Million & Value in Billion-PKR)*

Transactions Type	Q4-FY21		Q1-FY22		Q2-FY22		Q3-FY22		Q4-FY22 ^P	
	Volume	Value	Volume	Value	Volume	Value	Volume	Value	Volume	Value
Intra-Bank Fund Transfers	0.00	0.3	0.00	0.1	0.00	0.1	0.00	0.1	0.00	0.1
Inter-Bank Fund Transfers	0.00	0.0	0.00	0.0	0.00	0.0	0.00	0.0	0.00	0.0
Utilities Bill Payments	0.01	0.1	0.01	0.2	0.01	0.2	0.01	0.1	0.01	0.2
Miscellaneous Payments	0.03	1.7	0.03	1.3	0.02	1.4	0.02	1.3	0.02	1.8
Total	0.04	2.1	0.04	1.7	0.04	1.6	0.03	1.6	0.03	2.1

Table B-11: e-Commerce Transactions*(Volume in Million & Value in Billion-PKR)*

Transaction Type	Q4-FY21		Q1-FY22		Q2-FY22		Q3-FY22		Q4-FY22 ^P	
	Volume	Value	Volume	Value	Volume	Value	Volume	Value	Volume	Value
Local Transactions	6.4	13.9	11.8	17.5	12.6	21.6	8.4	21.8	8.9	22.0
International Transactions*	0.5	4.5	0.8	4.7	0.9	5.1	0.8	5.3	1.1	8.0
Total	6.8	18.4	12.7	22.3	13.6	26.7	9.1	27.0	10.1	30.0

*Card-not-present transactions on international e-commerce websites through domestic issued card

Table B-12: Paper-Based Transactions*(Volume in Million & Value in Billion-PKR)*

Transactions Type	Q4-FY21		Q1-FY22		Q2-FY22		Q3-FY22		Q4-FY22 ^P	
	Volume	Value	Volume	Value	Volume	Value	Volume	Value	Volume	Value
Cash Deposit - OTC	22.3	4,857.0	23.0	5,237.1	24.8	5,659.8	23.5	5,194.1	23.0	6,137.2
Cash Withdrawal - OTC	35.7	5,338.3	36.1	5,668.2	37.3	6,360.5	36.5	6,482.3	36.1	7,113.9
Intra-Bank Fund Transfers	8.6	15,872.0	10.2	16,795.8	8.5	18,965.5	8.6	19,536.1	9.1	23,377.0
Inter-Bank Fund Transfers	9.3	7,733.2	9.2	7,289.5	9.8	7,975.7	9.7	8,148.2	10.5	9,605.0
Pay Order/Demand Draft/Banker's Cheque	2.7	2,825.4	2.8	2,689.3	4.6	3,276.7	2.8	3,166.6	2.6	4,154.8
Direct Debit	0.7	2,661.4	0.6	2,670.8	0.7	3,294.5	0.6	2,831.7	0.7	3,987.2
Utility Bill Payments	14.2	658.2	16.0	692.5	15.6	604.4	14.6	368.0	13.7	502.6
Others Paper-Based Instruments*	0.2	539.5	0.1	553.1	0.2	543.7	0.2	685.1	0.2	826.5
Total Transactions	93.7	40,485.0	98.0	41,596.3	101.4	46,680.7	96.5	46,412.1	96.0	55,704.3

Annexure C: Acronyms

ATM	Auto Teller Machine
CDM	Cash Deposits Machine
CNP	Card Not Present
IVR	Interactive Voice Response
MFB	Microfinance Bank
MPG	Micropayment Gateway
NIFT	National Institutional Facilitation Technologies (Pvt.) Ltd
OTC	Over the Counter
PRISM	Pakistan Real-time Interbank Settlement Mechanism
PSD	Payment Systems Department (erstwhile department merged into PSP&OD)
PSP&OD	Payment Systems Policy and Oversight Department
DI&SD	Digital Innovation and Settlements Department
RTGS	Real-Time Gross Settlement System
RTOB	Real-time online Branches
EMI	Electronic Money Institutions
PSOs	Payment System Operators
PSPs	Payment Service Providers
DFS	Digital Financial Services

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