

Q1

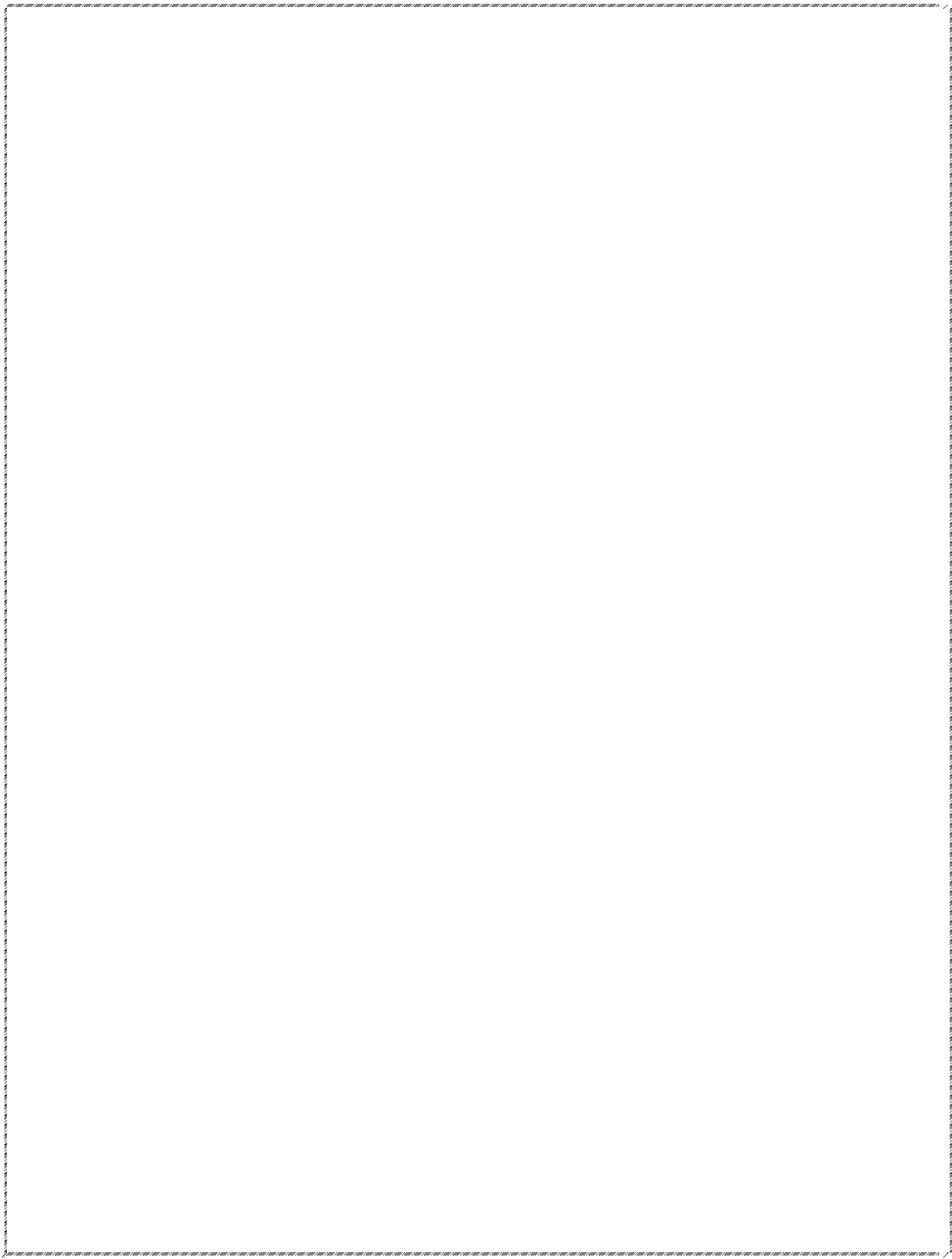


Quarterly Payment System Report

Q1, 2023

(January - March)

Department of Payment and Settlement Systems.



PREFACE

We are delighted to share the **quarter 1, 2023** report. The report highlights the outlook of digital payment channels – in terms of volume, value, usage, and users observed in the first quarter (January 2023 – March 2023). The report also shows the performance in comparison to the same quarter of the previous years (2020, 2021 and 2022).

For easy reference, the report has been categorized as –

- 1) Domestic payment transactions
- 2) Regional payment transactions and
- 3) International payment transactions.

We would like to thank all our contributors for submitting the report on time.

PAYMENT TRANSACTIONS AT A GLANCE

(Q1, 2023)

VOLUME & VALUE OF DOMESTIC PAYMENT TRANSACTIONS –2023 Q1 IN FOCUS

(In comparison to the same quarter of the previous year)



Mobile & Internet Banking

37.22 million transactions (9.3% increase) amounting to Nu. **125.77** billion (38.1% increase)



QR Code Payments

20.78 million transactions (120.7% increase) amounting to Nu. **19.76** billion (126.8% increase)



Wallets

2.14 million transactions (75% increase) amounting to Nu. **559.58** million (38.3% increase)



Domestic Payment Gateway

934.89 thousand transactions (43.4% increase) amounting to Nu. **521.69** million (58.5% increase)

VOLUME & VALUE OF DOMESTIC PAYMENT TRANSACTIONS –2023 Q1 IN FOCUS

(In comparison to the same quarter of the previous year)



Bhutan Inter-bank Real Time Fund Transfer

68.73 thousand transactions (7.6% increase)
amounting to Nu. **29.58** billion (128.9% increase)



Card – ATM & POS

583.82 thousand transactions (58.2% increase)
amounting to Nu. **3.05** billion (81.6% increase)



Cheque

113.63 thousand transactions (118.8% increase)
amounting to Nu. **57.68** billion (166.2% increase)

VOLUME & VALUE OF REGIONAL PAYMENT TRANSACTIONS – 2023 Q1 IN FOCUS

(In comparison to the same quarter of the previous year)



Acquirer

0.29 thousand
transactions (314.3% increase)
earning INR **1.20** million
(492.5% increase)



Issuer

12.16 thousand
transactions (293.8% increase)
spending INR **60.00** million
(417.8% increase)

VOLUME & VALUE OF INTERNATIONAL PAYMENT TRANSACTIONS – 2023 Q1 IN FOCUS

(In comparison to the same quarter of the previous year)



SWIFT - inflow

8.22 thousand transactions
(82.22% increase)
amounting
to Nu. **8,780.24** million.
(64.80% increase)



SWIFT - outflow

6.39 thousand transactions
(202.13% increase)
amounting
to Nu. **12,122.63** million.
(44.54% decrease)



International Payment Gateway

2,941 transactions
(397.6% increase)
earning to Nu. **146.81** million
(5762.98% increase)

SUMMARY

The payment transactions in Table 1 report the total transactions made through various digital payment channels operated by the RMA and the 6 banks at the domestic, regional (India), and international levels from January to March 2023. It also shows the comparison of these transactions with the same quarter of the past 3 years.

Table 1: Payment Transaction Comparison – Q1 for 2020, 2021, 2022 and 2023.

Instrument	Q1, 2020		Q1, 2021		Q1, 2022		Q1, 2023		% Change	
	Volume (thousands)	Value (millions)	Volume (thousands)	Value (millions)	Volume (thousands)	Value (millions)	Volume (thousands)	Value (millions)	Volume (thousands)	Value (millions)
Paper-Cheques	219.03	65,893.02	108.72	39,737.21	51.94	21,666.17	113.63	57,679.27	118.78%	166.22%
Mobile & Internet Banking	11,222.28	27,697.26	26,634.53	64,807.37	34,049.96	91,070.33	37,223.05	125,772.53	9.32%	38.10%
QR Code Payments			3.57	3.89	9,414.62	8,712.59	20,780.44	19,760.11	120.73%	126.80%
Payment Gateway	54.32	33.16	115.65	117.26	652.16	329.24	934.89	521.69	43.35%	58.45%
Wallets	7.21	5.51	230.40	105.67	1,221.37	433.49	2,137.33	599.58	74.99%	38.32%
Bhutan Inter-bank Real Time	20.32	2,160.72	40.10	6,492.21	63.86	12,925.10	68.73	29,583.91	7.61%	128.89%
ATM	2,281.57	8,708.51	1,218.27	4,377.71	368.87	1,678.93	583.82	3,049.06	58.27%	81.61%
PoS	3.13	25.88	0.29	0.97	0.16	0.70	6.05	149.71	3613.50%	21282.25%
Domestic Payment	13,807.85	104,524.06	28,351.53	115,642.29	45,822.95	136,816.55	61,847.94	237,115.85	34.97%	73.31%
RuPay ATM & PoS Acquiring	2.76	9.76	0.32	1.40	0.07	0.20	0.29	1.20	314.29%	492.51%
RuPay ATM & PoS Issuing			0.33	1.40	3.09	11.59	12.16	60.00	293.75%	417.76%
Regional Payment	2.76	9.76	0.65	2.80	3.16	11.79	12.45	61.20	294.20%	419.04%
SWIFT -Inflow	10.86	7,365.43	7.85	4,312.62	4.51	5,327.78	8.22	8,780.24	82.22%	64.80%
SWIFT -Outflow		6,239.06		9,242.05	2.11	21,858.68	6.39	12,122.63	202.13%	-44.54%
International Payment Gateway	2.56	115.99	0.39	27.90	0.59	2.50	2.94	146.81	397.63%	5762.92%
International Payments	13.42	13,720.48	8.24	13,582.56	7.22	27,188.97	17.55	21,049.68	143.19%	-22.58%

HIGHLIGHTS:

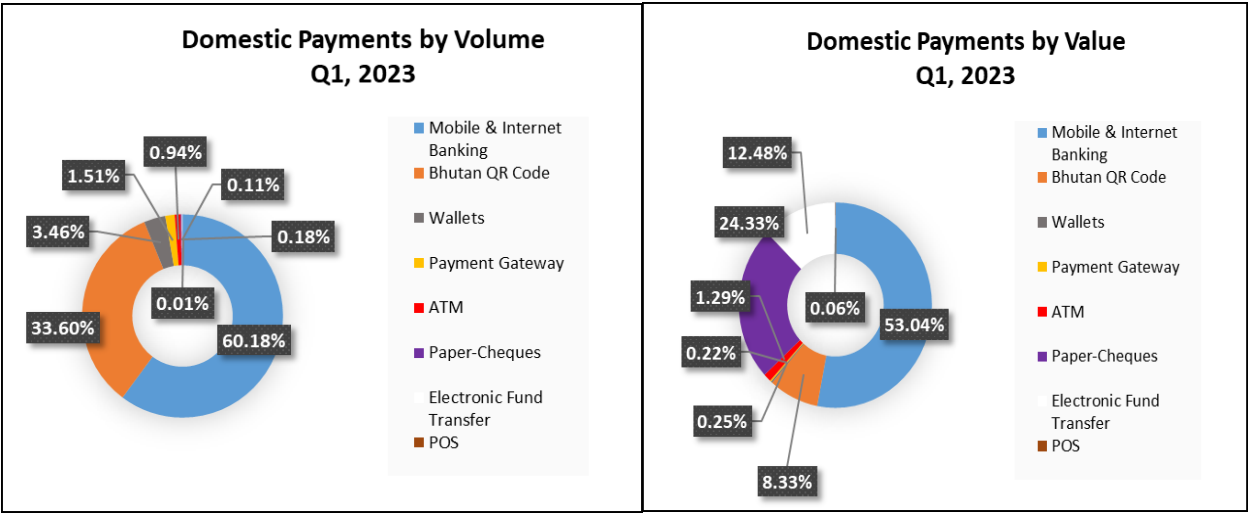
During the first quarter of 2023, there was a significant surge in both the volume and value of PoS, paper cheque and QR code transactions compared to the same quarter in the previous year. This surge can be attributed to the fact that the first quarter of 2022 was predominantly characterized by lockdowns, preventing people from engaging in transactions that required physical presence. As Covid restrictions eased and movements became more relaxed, these transaction methods experienced a remarkable increase in usage.

DOMESTIC PAYMENTS

Domestic payments recorded 61.84 million transactions comprising intra and interbank domestic transactions worth **Nu.237.11 billion** during the first quarter of 2023. There is an increase of 34.97% by volume and 73.31% by value as compared to the first quarter of 2022. The increase in both volume and value of the domestic payments in the first quarter of 2023, is mainly contributed by an increase in the transactions of PoS, QR code payments, and paper cheques.

The PoS transactions saw an increase of 3613.50% by volume and 21282.25% by value amounting to Nu. 149.01 million. The QR Code payments saw an increase of 120.73% by volume and 126.80% by value amounting to Nu. 11.05 billion. The paper cheques saw an increase of 118.78% by volume and 166.22% by value amounting to Nu. 36.01 billion.

Pie chart 1: Domestic Payment Transaction – Q1, 2023.



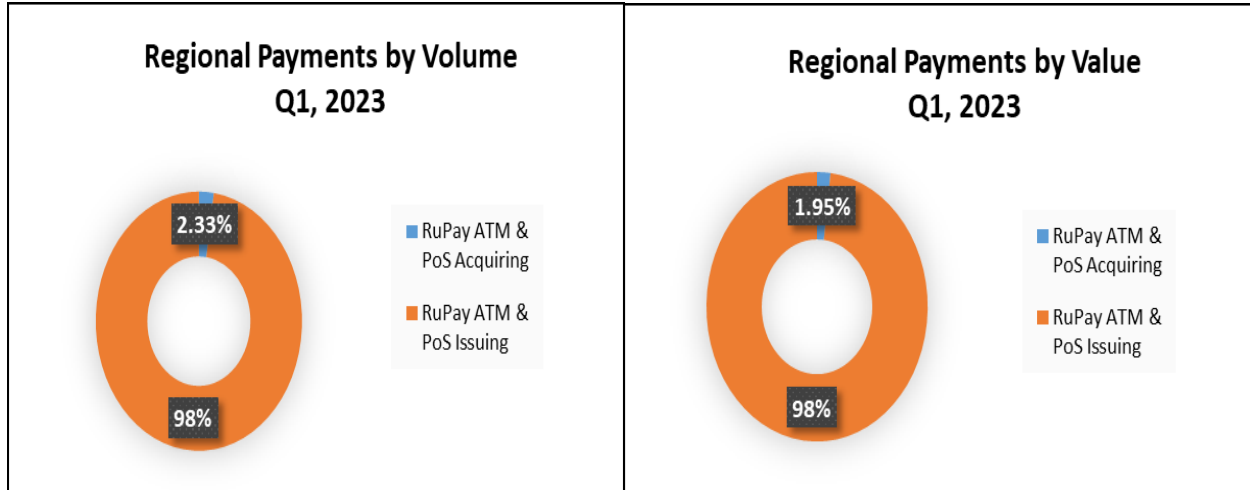
In Q1 2023, mobile and internet banking dominated the domestic payment space followed by QR code payment in terms of volume and terms of value, it is followed by paper cheques and electronic fund transfers.

Although mobile banking and QR code payments are one channel, it is segregated because it is independently integrated with separate settlement accounts. The share percentage of QR payments is increasing more than other channels including mobile banking over the years.

REGIONAL PAYMENTS

Regional payments include RuPay card transactions through the ATM and PoS terminals in India and Bhutan. During the 1st quarter of 2023, a total of **12,445** regional payments amounting to **Nu. 61.20 million** were transacted. However, the RuPay ATM & PoS **Acquiring transactions** are **much less than** the RuPay ATM & PoS **Issuing transactions**.

Pie chart 2: Regional Payment Transaction – Q1, 2023.

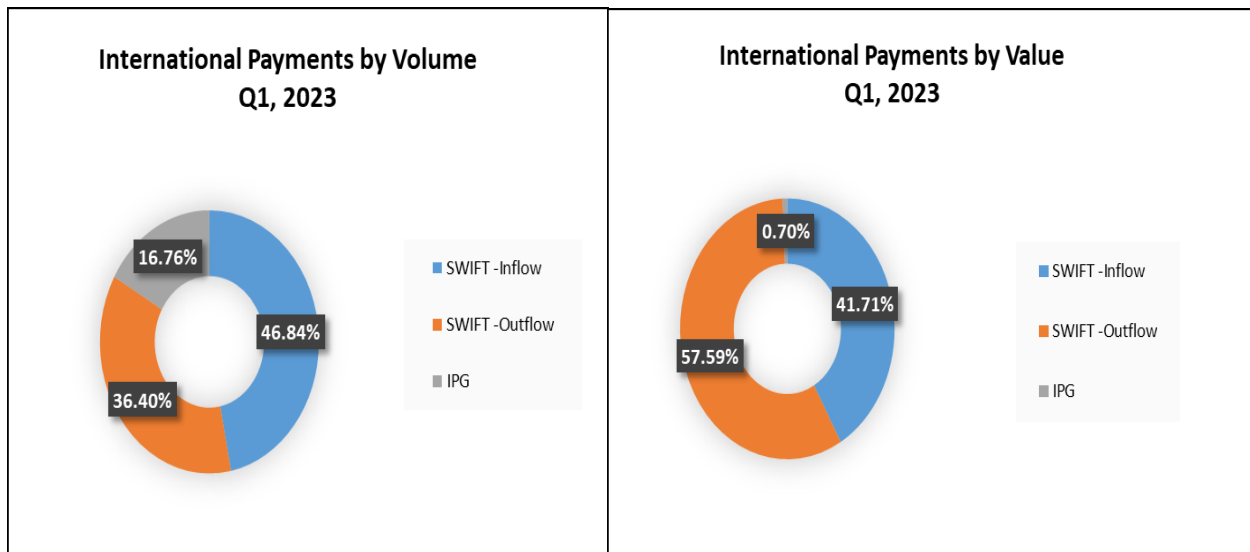


INTERNATIONAL PAYMENTS

International payments contain the SWIFT and International Payment Gateway (IPG) transactions made from the banks. During the 1st quarter of 2023, international payments recorded 17,546 transactions of **Nu. 21.05 billion**. There is an increase of 143.19% by volume but a drop of 22.58% by value as compared to the same quarter of the previous year.

The IPG recorded **2,941** transactions while the SWIFT recorded a total of **14,605** transactions.

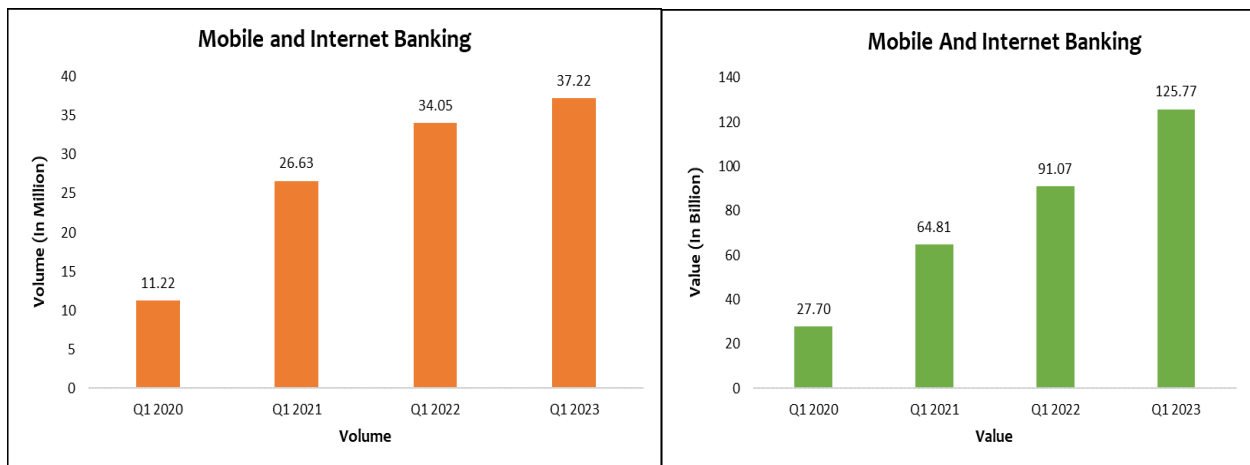
Pie chart 3: International Payment Transaction – Q1, 2023.



DOMESTIC PAYMENT TRANSACTIONS (Q1, 2023)

a) Mobile and Internet Banking

Graph 1: Mobile and Internet Banking Transaction (Volume & Value -Q1 for 2020, 2021, 2022, and 2023)



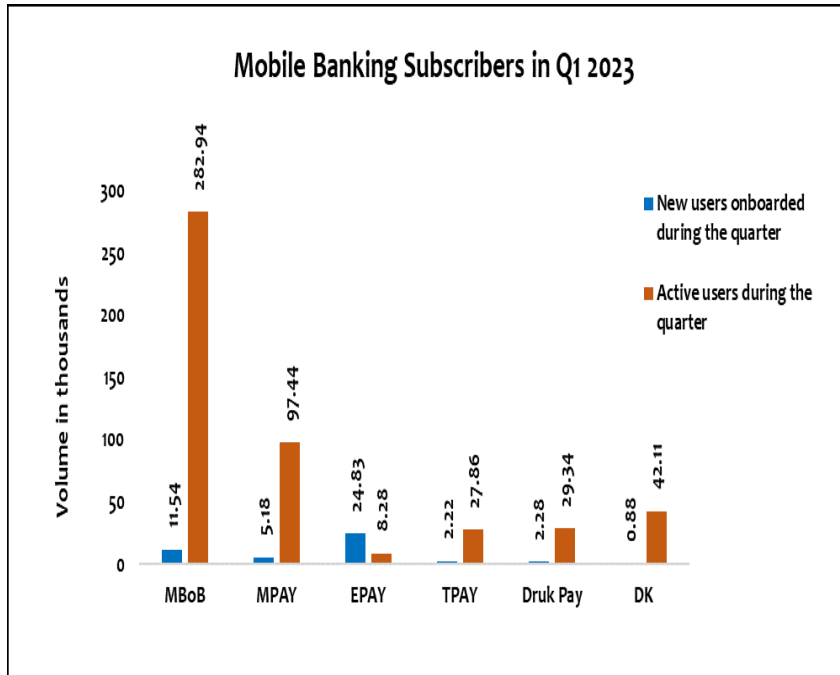
In Q1 2023, the volume of transactions reached 37.22 million, showing continued growth in the number of transactions, although the growth rate seems to have slowed down slightly compared to the previous year.

On the other hand, in Q1 2020, the value of transactions was 27.70 billion. Moving to Q1 2021, the value of transactions increased significantly to 64.81 billion, representing a substantial growth in the overall value of transactions compared to the previous year. Continuing into Q1 2022, the value of transactions increased to 91.07 billion, demonstrating a continued upward trend in mobile and internet banking transactions. In Q1 2023, the value of transactions reached 125.77 billion, indicating continued growth in the value of transactions, although the growth rate seems to have slowed down slightly compared to the previous year.

Compared to the same quarter of the previous year, there is an increase of **9.32%** and **38.10%** respectively in terms of volume and value. The average value per transaction is **Nu. 3,378.89** per transaction in 1st quarter 2023.

This suggests an increasing adoption of digital banking channels and higher-value transactions conducted through these platforms. The data reflects the convenience, accessibility, and trust individuals and businesses have in mobile and internet banking services for their financial needs.

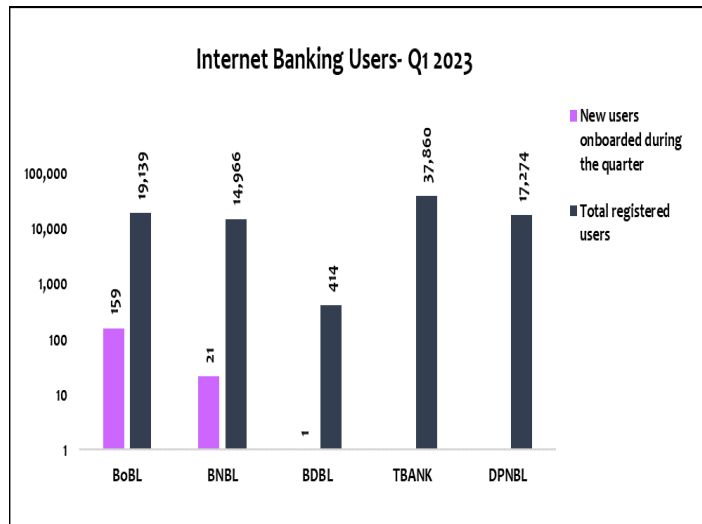
Graph 2: Mobile Banking Subscribers -Q1,2023



From January to March 2023, **46.93 thousand** new users subscribed to use the mobile banking apps making the active number of mobile banking subscribers **501,063** during the reporting quarter. These numbers give insights into the adoption and usage of mobile banking services in the specified quarter. Different services have varying numbers of new users and active users, indicating differences in popularity and customer usage pattern.

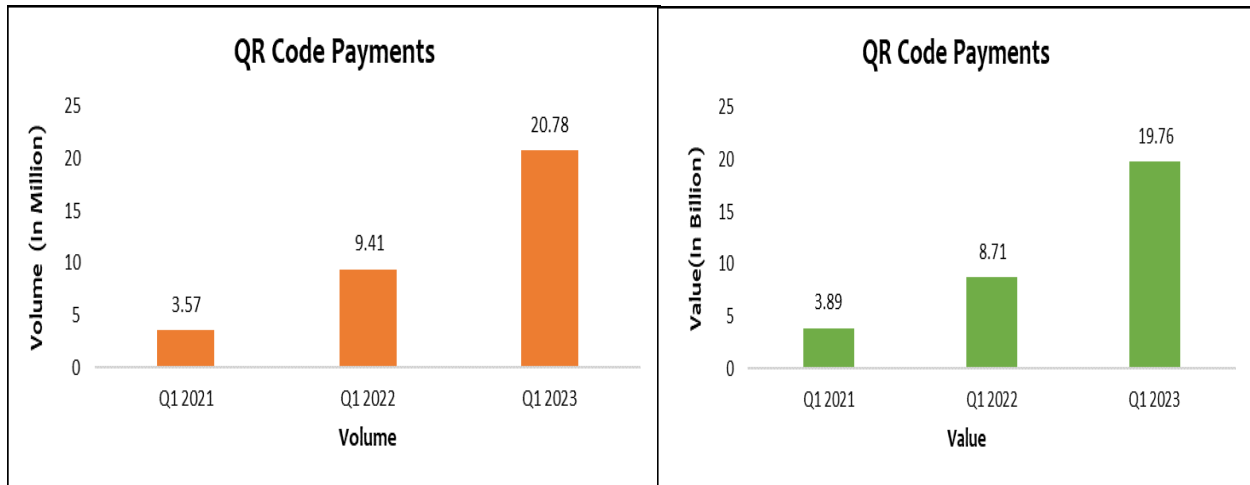
Graph 3: Internet Banking Subscribers -Q1,2023

For Internet banking, 181 new users subscribed during the first quarter taking the Internet net banking users to 29,946 as of the first quarter of 2023. Internet banking is a convenient way for customers to access their bank accounts and perform transactions online. The data provided suggests that the adoption of Internet banking in Bhutan is growing, but there is still significant variation between different banks in terms of the number of users.



b) Mobile Banking – QR Code Payments

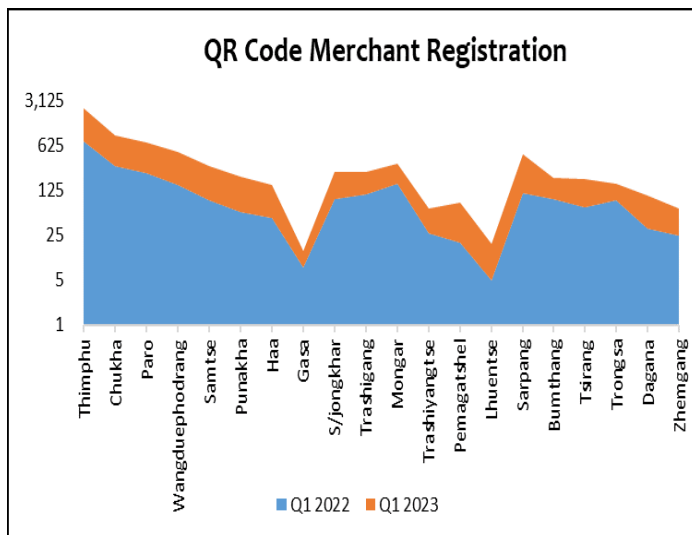
Graph 4: QR Code Payments (Volume & Value -Q1 for 2021, 2022 and 2023)



QR code payments saw a total of **20.78 million** transactions of value **19.76 billion** during the 1st quarter of 2023, equivalent to 55.83% of the mobile banking transactions in terms of volume and 15.71% in terms of value. The transactions have increased by 120.73% by volume and 126.80% by value compared to the same quarter of the previous year.

The increase is because of the ease of lockdowns and normalizing economic activities. Since then, QR scan codes have been gaining popularity in shops, restaurants, cafes, and even taxis as they are contactless, touchless, and easy to use.

Graph 5: QR Code Merchant registration (Dzongkhag wise) -Q1, 2022 & Q1, 2023



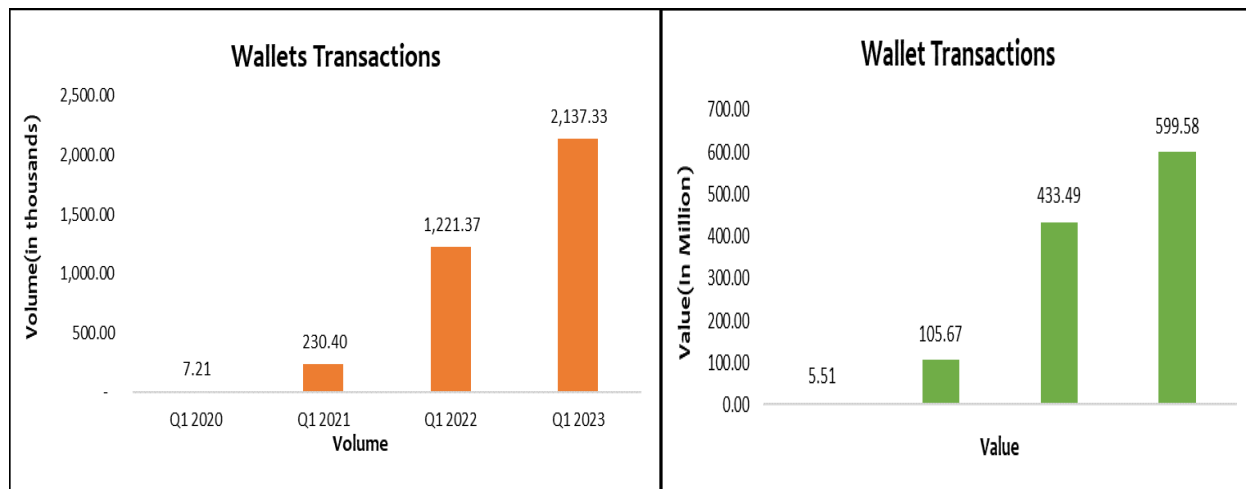
During the 1st quarter of 2023, the banks have onboarded **4,849** new QR code merchants, taking the total QR issued till now to **69,505** an increase of **7.50%** compared to the total merchant registration in the 4th quarter of 2022.

A drastic increase was seen in Pemagatshel Dzongkhag with 69.84%, an increase from 19 registered in the same quarter of 2022. This is followed by Sarpang Dzongkhag and Lhuentse Dzongkhag with 67.61% and 61.54% increases respectively. The highest issuance is still in Thimphu Dzongkhag.

c) Wallets

As of the first quarter of 2023 Bhutan Telecom has onboarded **10** Bngul merchants with **102,602** users, Tashi Cell has onboarded **58,263** merchants for eTeeru with **95,604** users and BOBL has registered **168,902** goBoB users.

Graph 6: Wallets Transaction (Volume & Value -Q1 for 2020, 2021, 2022, and 2023)

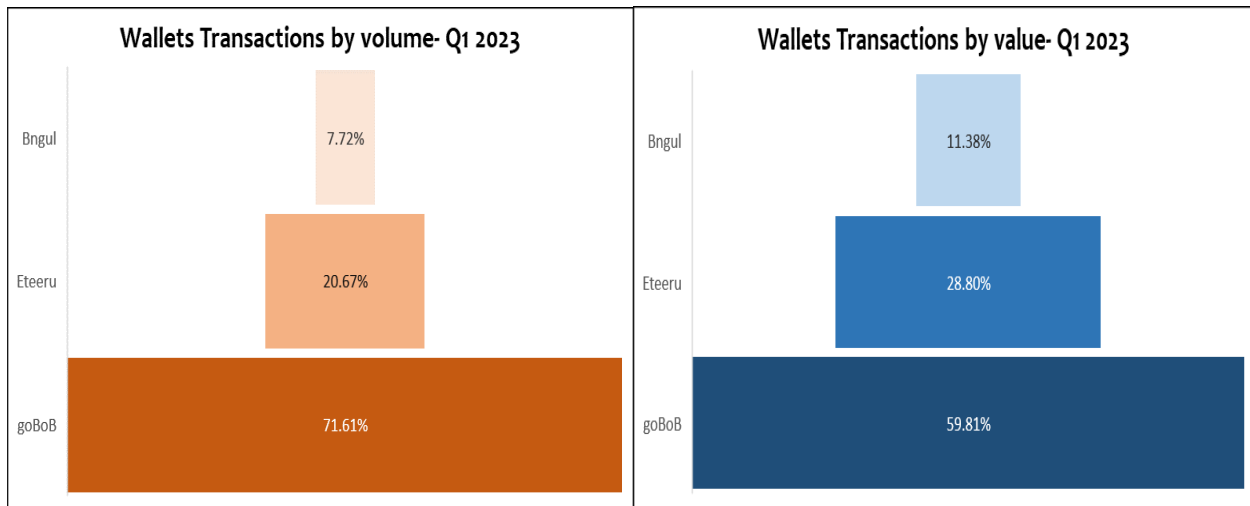


Wallet transactions are quicker and more efficient than mobile banking. Wallets are designed to be a fast and seamless way of making payments, with most transactions taking just a few seconds to complete. Further, wallet transactions offer more flexibility and accessibility than mobile banking, which can be used by anyone with a smartphone, regardless of whether they have a bank account. This makes it easier for individuals without access to banking services to participate in the digital economy.

In Q1 2020, **7,210** transactions took place using wallets. The total value of these transactions was **5.51** million. In Q1 2021, there was a significant increase in both volume and value. The transaction volume rose to **230.40** thousand, indicating a substantial growth in wallet usage. The total value of these transactions also increased to **105.67** million, showing a considerable surge in transactions.

By Q1 2022, the transaction volume experienced another significant increase, reaching **1,221.37** thousand transactions. This demonstrates a substantial growth in wallet usage compared to the previous quarters. The total value of these transactions rose to **433.49** million, indicating a notable increase in the overall worth of transactions. Finally, in Q1 2023, both transaction volume and value continued to rise. The transaction volume reached **2,137.33** thousand, showing continued growth in wallet usage. The total value of these transactions further increased to **599.58** million. Overall, the data illustrates a significant upward trend in wallet transactions over time, with both transaction volume and value experiencing notable increases from Q1 2020 to Q1 2023.

Graph 7: Wallet Transaction (Bngul, eeteru and goBOB) – volume and value



In terms of volume, Bngul accounted for **7.72%** of the total transactions. Eteeru accounted for **20.67%** of the transactions, indicating a higher share compared to Bngul. goBoB had the largest share, accounting for **71.61%** of the total volume of transactions.

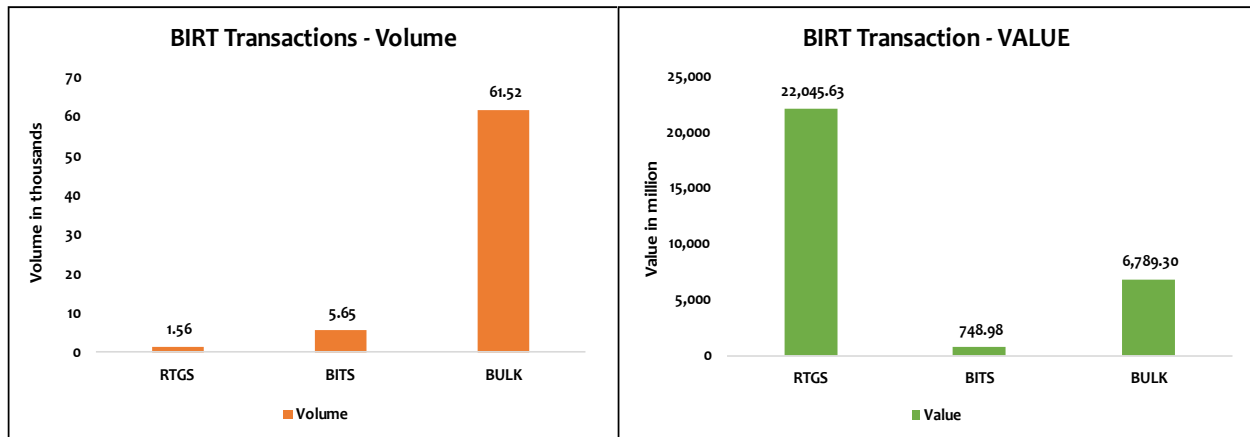
Regarding the value of transactions, Bngul accounted for **11.38%** of the total value of transactions attributed to the Bngul wallet. Eteeru accounted for a higher share in terms of value, with **28.80%** of the total value. goBoB, despite having the highest volume share, accounted for **59.81%** of the total value of transactions, indicating that it was associated with higher-value transactions compared to the other wallets.

The goBoB dominates wallet transactions due to the easy interoperability with other wallet accounts and can top up mobile numbers of both telcos and most importantly bank accounts can also be provided by BoBL. Bngul had a relatively smaller share in both volume and value, indicating a lower usage compared to the other two wallets.

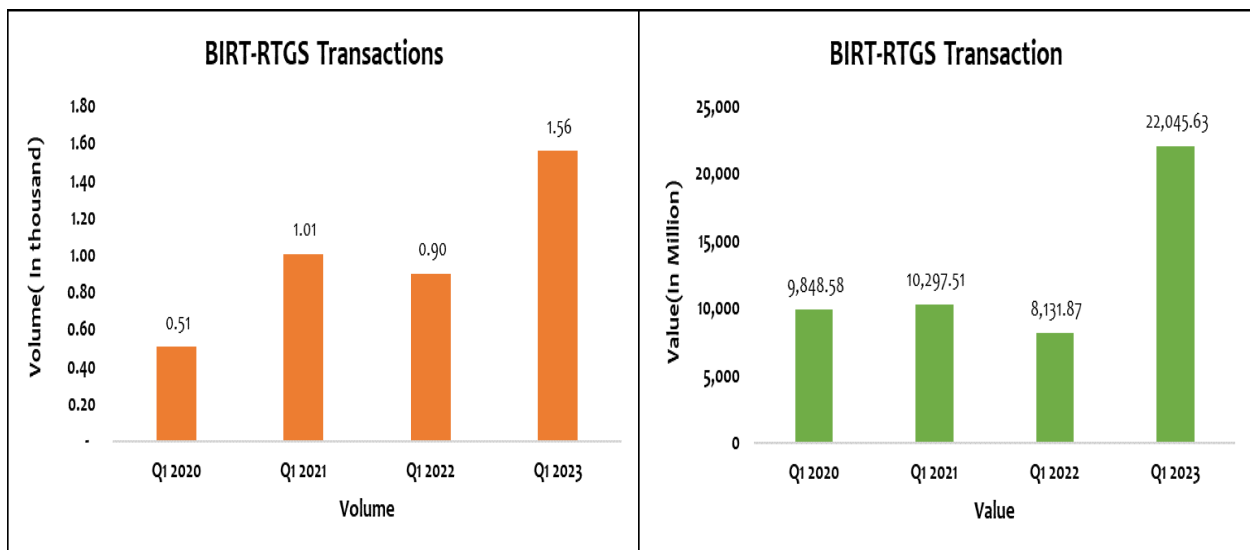
d) Electronic Fund Transfer – BIRT Fund Transfer System

During the 1st quarter of 2023, **68,730** transactions amounted to **Nu. 29.58 billion** were transacted through BIRT Fund Transfer System. The total BIRT transactions in the 1st quarter of 2023 have increased by 7.61% by volume and 128.89% by value as compared to the same quarter of the previous year. The maximum transactions were received in the BULK settlement in terms of volume and RTGS in value, as shown below.

Graph 8: BIRT Transaction (Volume & Value -Q1 2023)



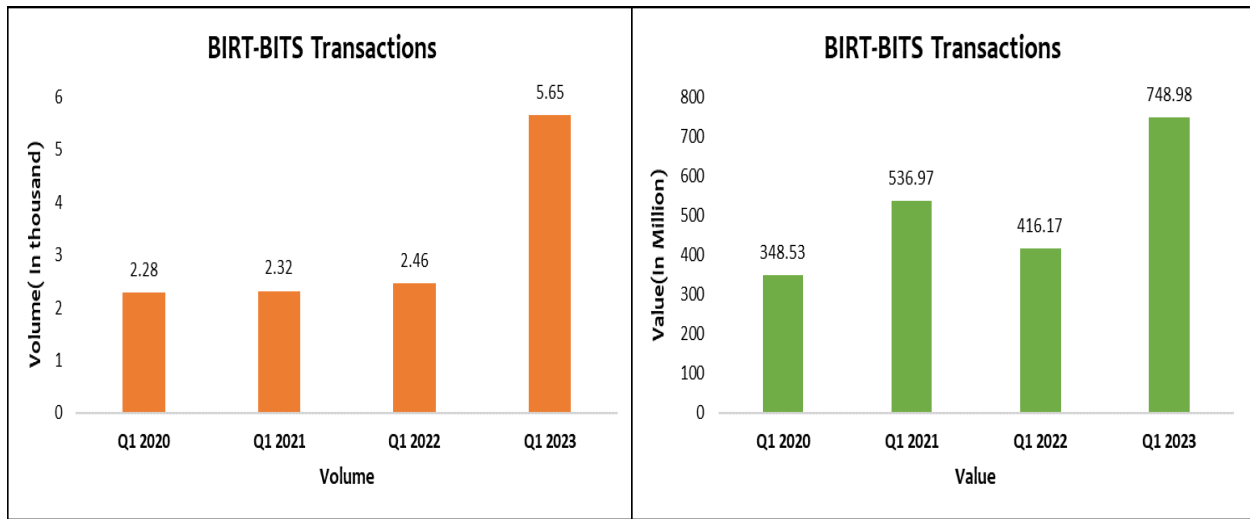
Graph 9: BIRT-RTGS Transaction (Volume & Value -Q1 for 2020, 2021, 2022 and 2023)



BIRT RTGS allows real-time fund transfers above Nu. 1m. During the 1st quarter of 2023, **1,560** transactions worth **Nu.22.05 billion** were transacted which is an increase in the volume by 73.72% and a decrease of 171.70 % by value as compared to the same quarter of the previous year. That is because most of the previous quarter was in lockdown and people couldn't perform in-person transactions.

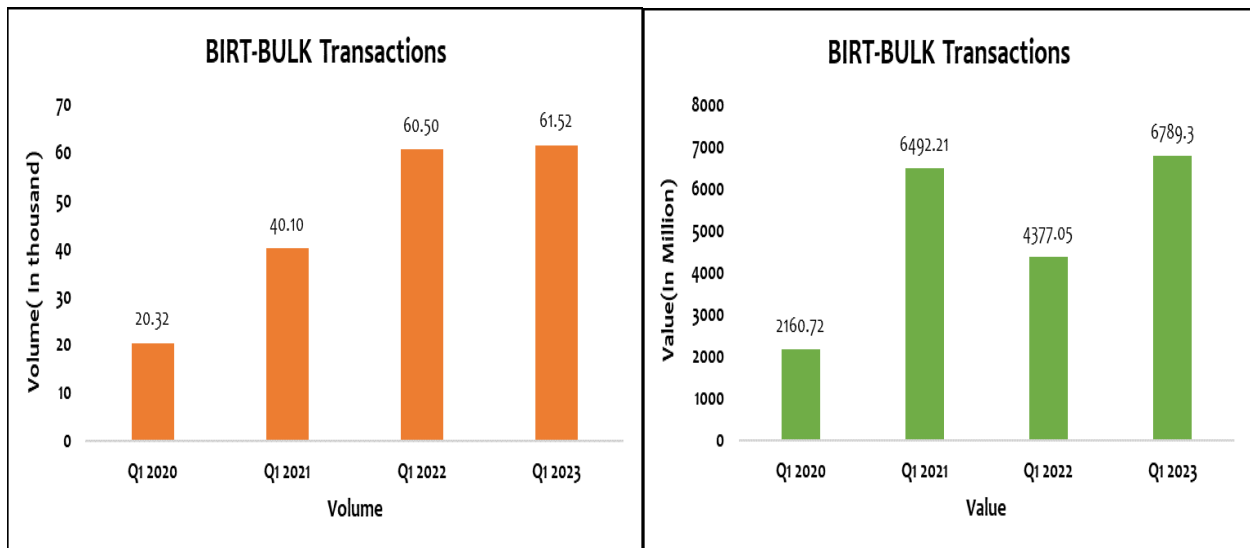
e) Domestic Payment Gateway

Graph 10: BIRT-BITS Transaction (Volume & Value -Q1 for 2020, 2021, 2022 and 2023)



BIRT BITS permits the users to transfer funds below Nu. 1m in the batch settlement (10 transactions in a batch) every 30 minutes. There were **5,648** transactions worth **Nu. 748.98 million** transacted in the 1st quarter of 2023. There is an increase of 129.31% by volume and 79.97% by value as compared to the same quarter of the previous year.

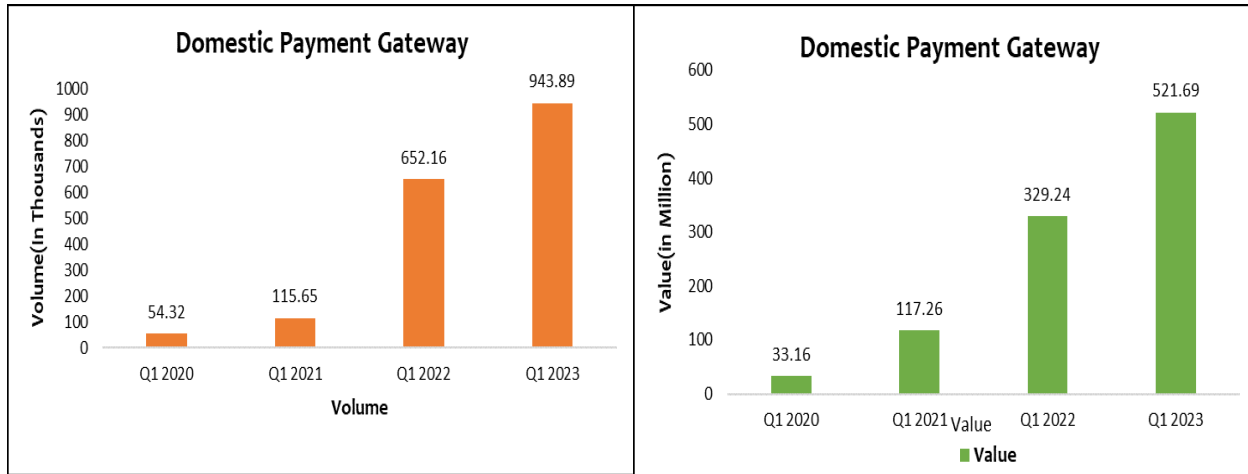
Graph 11: BIRT-BULK Transaction (Volume & Value -Q1 for 2020, 2021, 2022 and 2023)



Likewise, **BIRT BULK** allows single debit and multiple credits for the users. In the 1st quarter of 2023, there were **61,519** BULK transactions amounting to **Nu. 6.79 billion**. It is an increase in volume by 1.68% and 55.1% by value compared to the same quarter of the previous year.

e) Domestic Payment Gateway

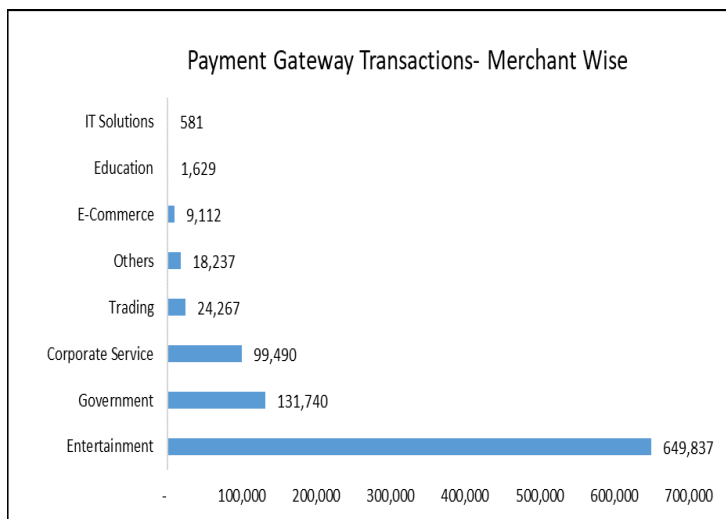
Graph 12: Payment Gateway Transaction (Volume & Value -Q1 for 2020, 2021, 2022, and 2023)



A domestic Payment gateway is a merchant service provided by RMA for direct payment processing for e-commerce, government services, and e-corporate utilities. During this quarter, **934.89 thousand** transactions amounting to **Nu. 521.69 million** were transacted. In comparison to the same quarter of the previous year, there is an increase both in terms of volume and value of 43.35% and 58.45% respectively.

The highest domestic PG transactions in the first quarter of 2023 were recorded in the entertainment category followed by government services -G2C Payment aggregator and then e-corporate utility services.

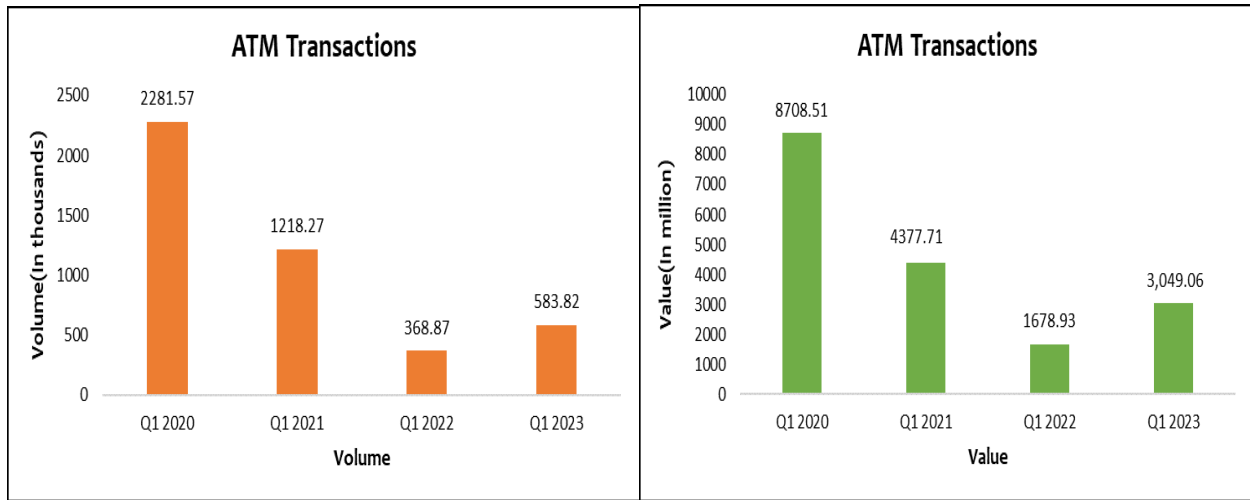
Graph 13: Domestic PG Transactions- Merchants Wise -Q1 2023



There are a total of **90** registered merchants in the domestic PG portal as of March 2023, out of which 59 merchants are active while the services are blocked for 28 merchants, and 3 are under the testing phase.

f) Cards - ATM

Graph 14: ATM Transaction (Volume & Value -Q1 for 2020, 2021, 2022, and 2023)



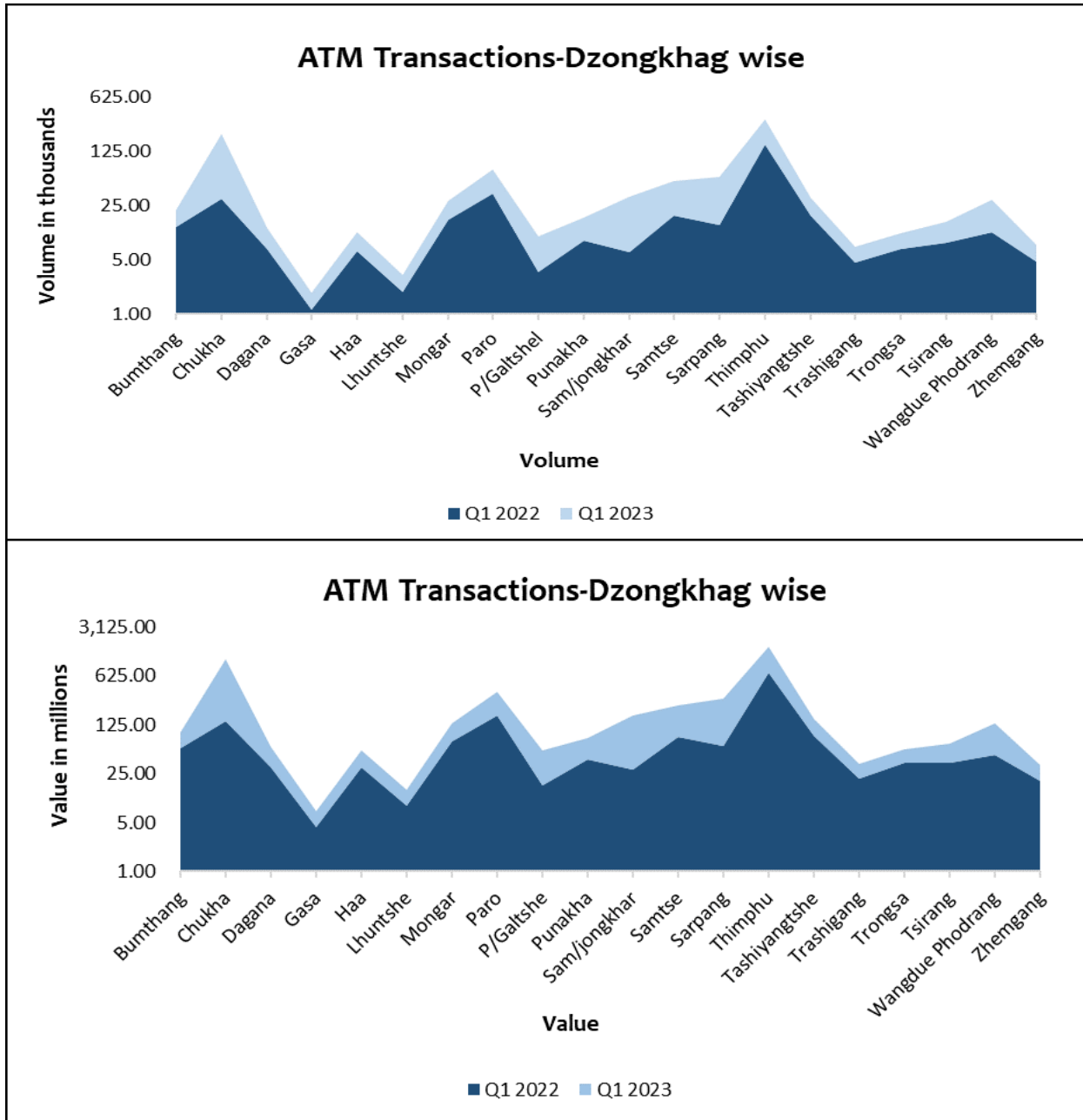
Card payments refer to cash withdrawals/transactions from ATM terminals in the country using domestic ATM cards. In the 1st quarter of 2023, a total of **583.82 thousand** transactions worth **Nu. 3.05 billion** were transacted.

Unlike other payment instruments, we are observing a decreasing trend for card payments every quarter. But the increase in this quarter is because most of the previous quarter was in lockdown and people couldn't perform in-person transactions.

Chukha district had the highest value of ATM transactions in both quarters, with an enormous increase from Nu. **141.22** million in Q1 2022 to Nu. **938.09** million in Q1 2023, which is an outstanding 564.3% growth. Similarly, other districts such as Samtse, Sarpang, Thimphu, and Wangdue Phodrang experienced significant growth in ATM transaction values.

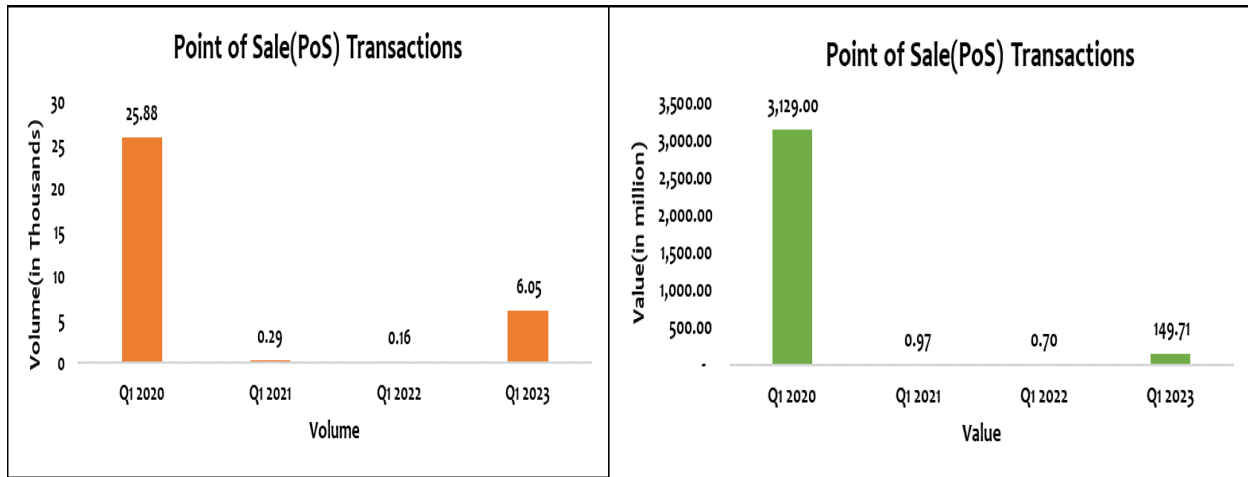
In contrast, some districts like Bumthang, Dagana, Gasa, Lhuntshe, Trashigang, and Zhemgang experienced a decrease in transaction value in Q1 2023 compared to the previous year. The volume of ATM transactions in Bhutan also increased significantly from 368.87 thousand in Q1 2022 to 583.82 thousand in Q1 2023, indicating a 58.3% growth.

Graph 15: ATM Transaction Dzongkhag Wise (Volume & Value -Q1 2022 and Q1 2023)



f) Cards – PoS

Graph 16: PoS Transaction (Volume & Value -Q1 2022 and Q1 2023)



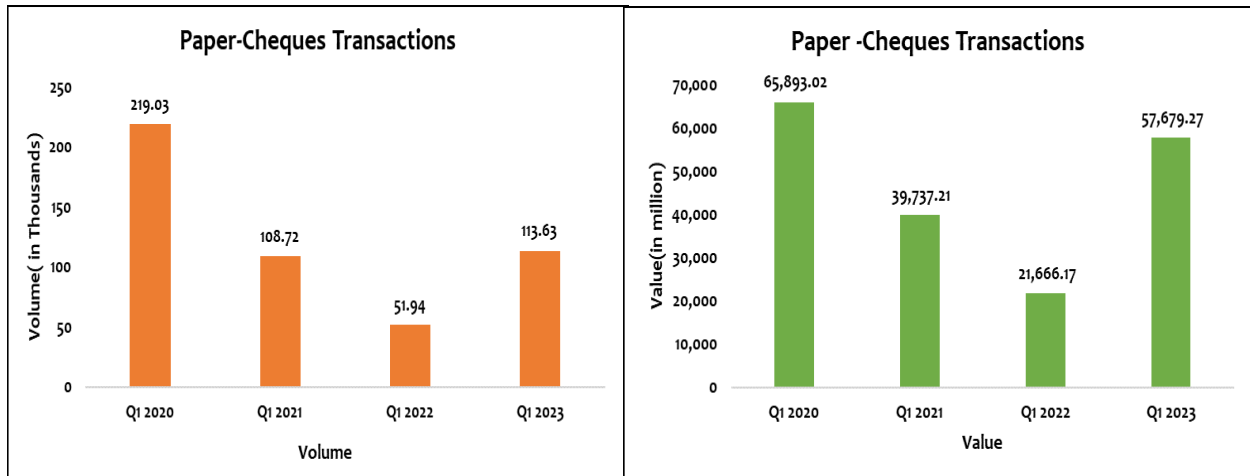
PoS transactions refer to payments made by customers (national as well as international) using debit or credit cards at physical retail locations or online within the country.

In Q1 2020, **25.88** thousand PoS transactions took place in terms of volume. The value of these transactions amounted to **3,129** million. However, in Q1 2021, both the volume and value of PoS transactions significantly decreased. The volume decreased to **0.29** thousand transactions, and the value decreased to **0.97** million. This sharp decline continued till Q1 2022. This could be attributed to various factors, such as the impact of the COVID-19 pandemic and the closure of international borders leading to decreased spending patterns.

However, in Q1 2023, there was a significant recovery in PoS transaction activity. The volume of transactions increased to **6.05** thousand and the value rose to **149.71** million. This could be due to the reopening of the national border and an increase in tourists.

g) Paper Cheque

Graph 17: Paper Cheque Transaction (Volume & Value -Q1 for 2020, 2021, 2022 and 2023)

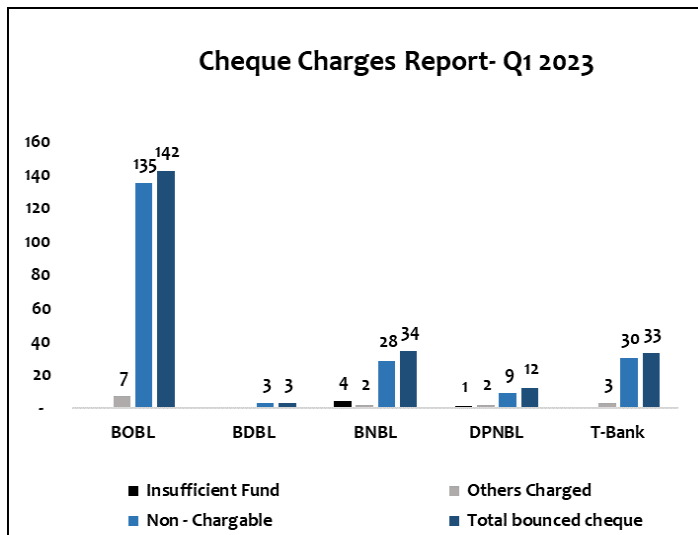


Cheque payments are still observed to be used for making large-value payments in the country. A total of **113,628** cheques worth **Nu. 57.68 billion** was recorded in the 1st quarter of 2023.

The cheque transaction experienced fluctuations over the observed period both in terms of volume and value. The transaction volume initially decreased from Q1 2020 and reached its lowest point in Q1 2022 before slightly rebounding in Q1 2023. On the other hand, the transaction value decreased consistently from Q1 2020 to Q1 2022 before experiencing a substantial increase in Q1 2023.

The decrease in cheque transactions could be attributed to various factors such as online banking, mobile payments, and digital wallets, which have gained popularity due to their convenience and speed.

Graph 18: Bounced cheque report -Q1 2023

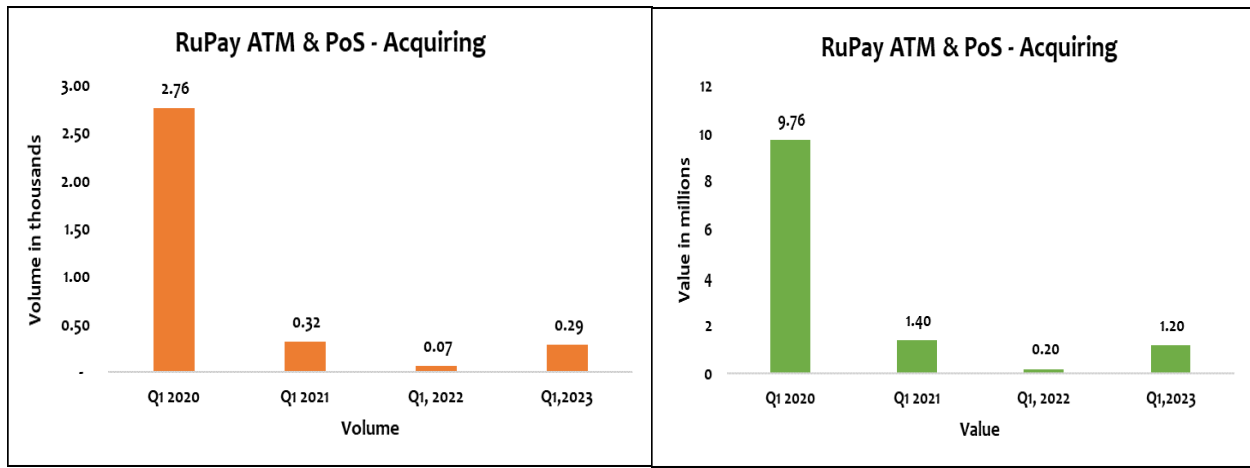


During the 1st quarter, a total of **224** cheques were bounced out of which, 5 cheques were charged to the customer for their insufficient balance and 14 cheques were charged to the banks for their failure to do due diligence. The maximum number of cheques were returned because of the invalid account number, cheques belonging to a different account, endorsement missing, drawers signing differently, etc.

REGIONAL PAYMENT TRANSACTIONS (Q1,2023)

a) RuPay Acquiring

Graph 19: RuPay Acquiring Transaction (Volume & Value -Q1 of 2020, 2021, 2022 and 2023)

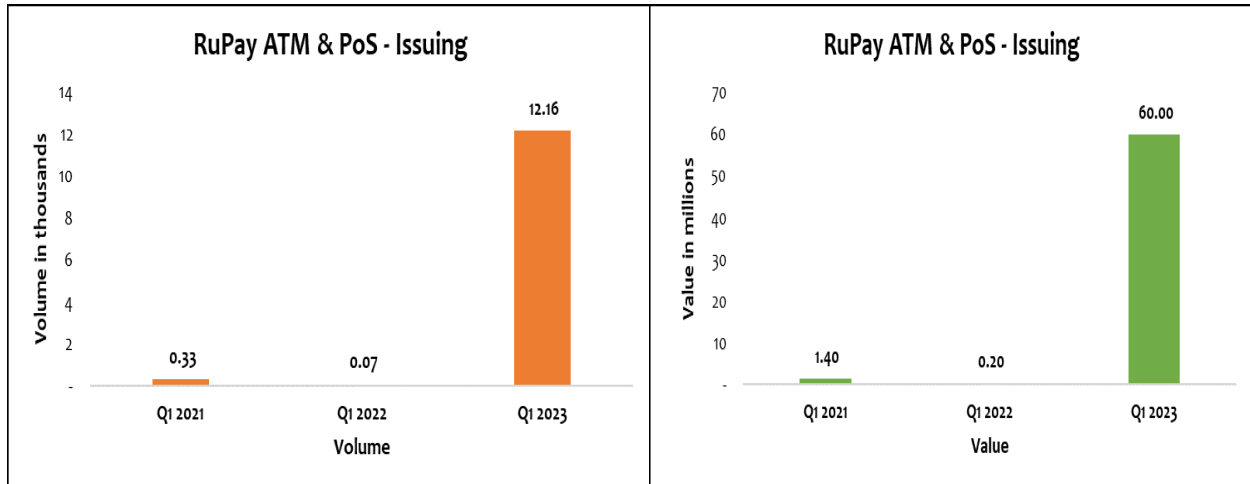


RuPay Acquiring allows Indian nationals to withdraw cash and make payments through all Bhutan ATMs and PoS terminals. During the 1st quarter of 2023, it recorded **290** transactions worth **Nu. 1.20 million**, an increase of 314.29% by volume and 492.51% by value as compared to the same quarter of the previous year.

It can be observed that both transaction volume and value for RuPay ATM and PoS acquiring experienced a notable decrease from Q1 2020 to Q1 2021. The decline continued into Q1 2022, indicating a reduced usage of RuPay cards at ATMs and PoS terminals during that period. However, a slight increase in transaction volume in Q1 2023 suggests a modest recovery due to the reopening of the border with the Indian government.

b) RuPay Issuing

Graph 20: RuPay Issuing Transaction (Volume & Value -Q1 for 2021, 2022 and 2023)



RuPay Issuing launched in November 2020, allows Bhutanese nationals to withdraw cash and make payments through all the ATM and PoS terminals in India. Currently, Bhutan National Bank Ltd. is the only issuing bank in Bhutan.

In Q1 2021, the volume was relatively low at 0.33 thousand, but there was a remarkable increase to 12.16 thousand in Q1 2023, indicating a significant surge in RuPay ATM & PoS issuing transactions.

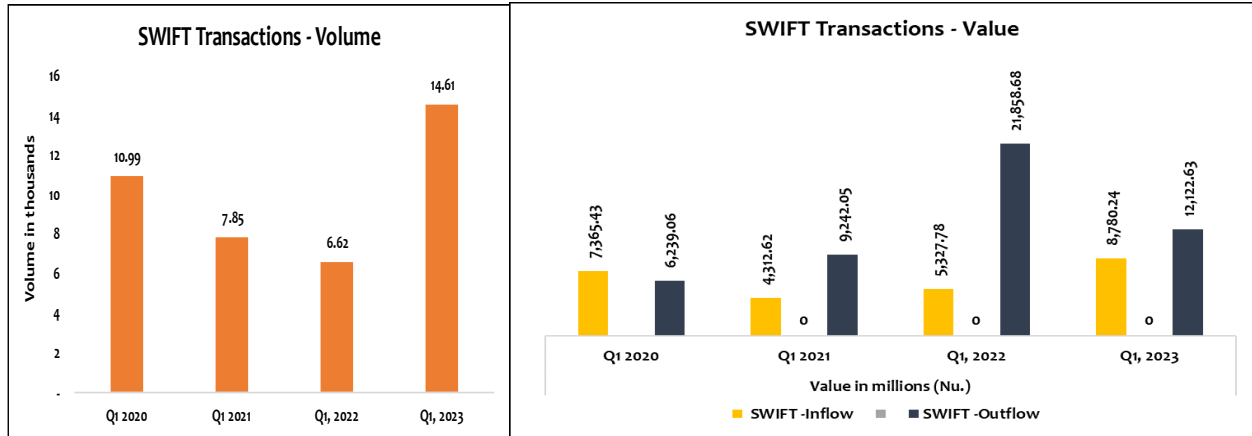
Similarly, the value also saw significant growth. Q1 2021, the value stood at 1.40 million, which drastically increased to 60.00 million in Q1 2023. This could be due to the opening of border with the Indian government whereby Bhutanese people could visit India.

During the first quarter of 2023, a total of **1,352** cards were issued. The highest issuance was to private firms with individuals with 425 cards followed by laborers with 135 cards. The minimum card issuance was to pensioners with 5 cards.

INTERNATIONAL PAYMENT TRANSACTIONS (Q1,2023)

a) SWIFT Transactions through the banks

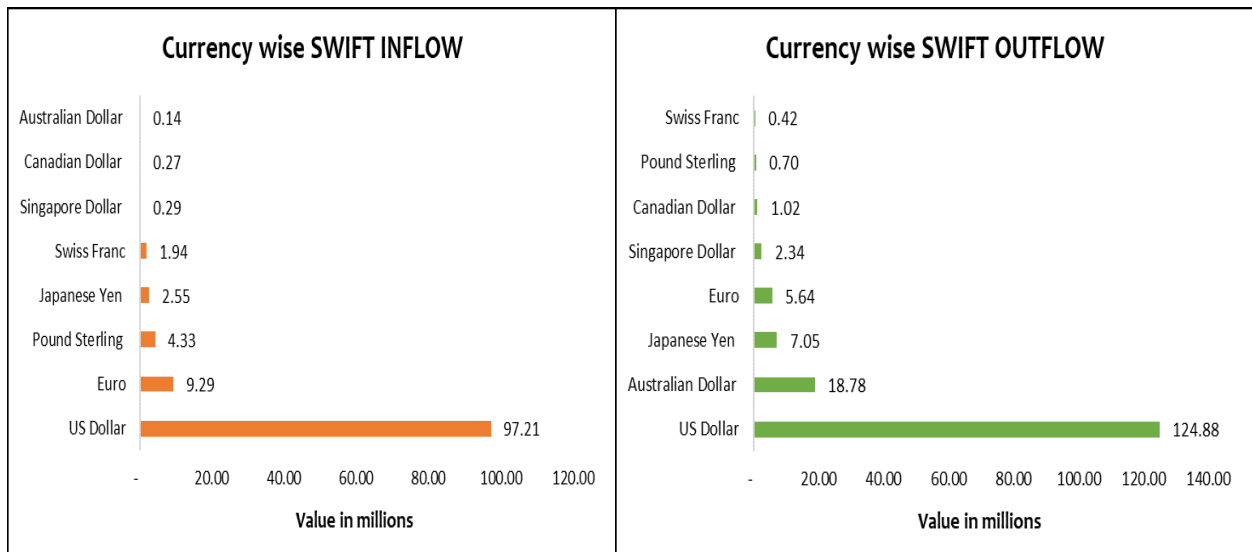
Graph 21: Member Bank SWIFT Transaction (Volume & Value -Q1 for 2020, 2021, 2022 and 2023)



In this quarter, the SWIFT transactions have recorded **14,605** transactions which is an increase of 120.49 % by volume as compared to the same quarter of the previous year.

The highest transacted currency is US Dollar with **10,970 transactions** followed by Australian Dollar with **1,910** transactions and EURO with **1,023** transactions.

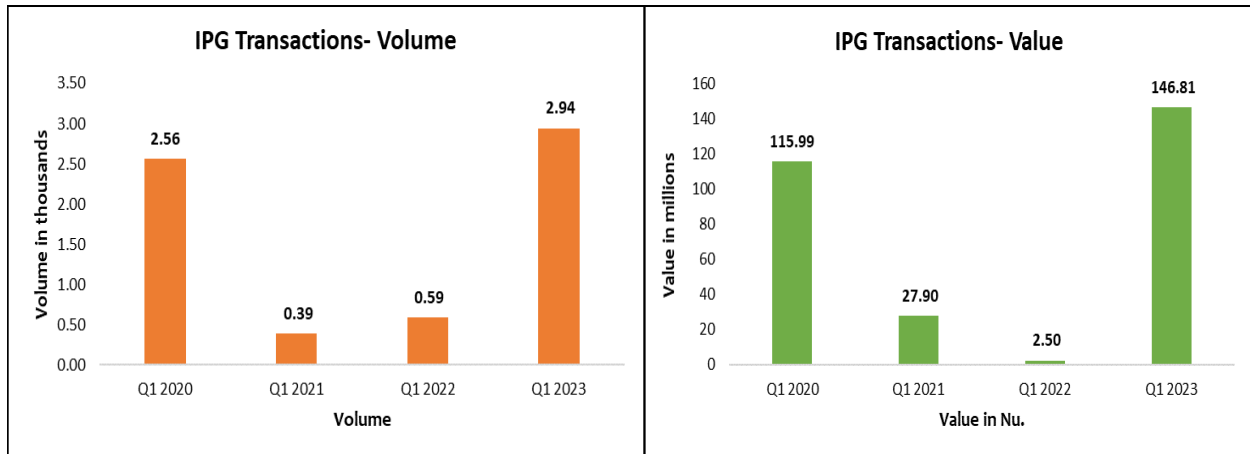
Graph 22: SWIFT inflow and outflow currency-wise for Q1 2023 (Value)



b) International Payment Gateway (IPG)

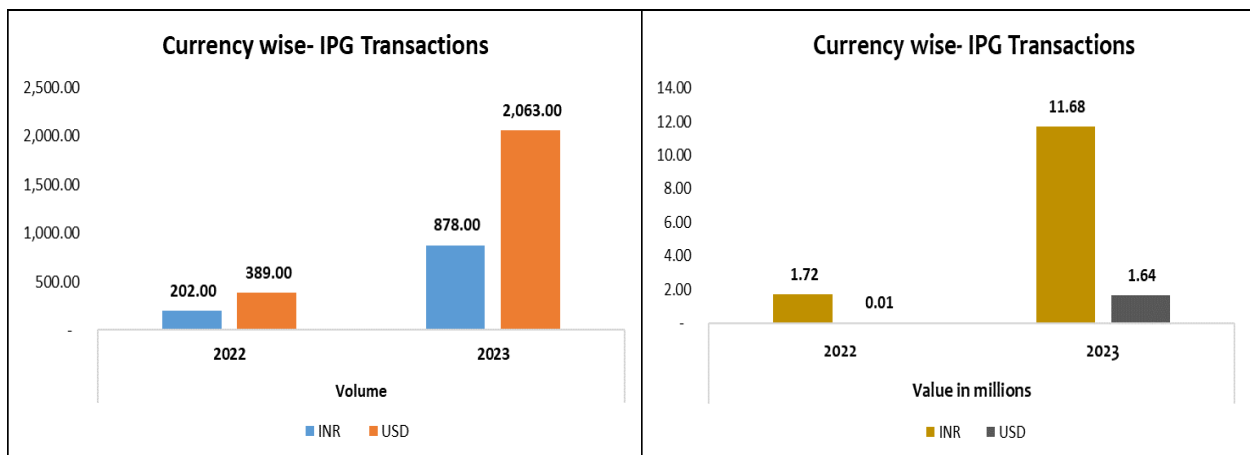
The International Payment Gateway (IPG) is a platform to acquire card payments made in USD and INR. There was a total of USD **2,063** transactions and INR **878** transactions of value **Nu. 146.81** transacted in the first quarter of 2023.

Graph 23: IPG Transaction (Volume & Value -Q1 for 2020,2021, 2022 and 2023)



During the first quarter of 2023, **110** merchants registered in the International Payment Gateway Platform in BoBL and **19** merchants registered in the International Payment Gateway Platform in BNBL. The total IPG merchant stands at **402** for BoBL and **312** for BNBL. The IPG transactions saw an increase of 397.63% by volume and 5762% by value as compared to the same quarter of the previous year.

Graph 24: IPG transactions (volume and value) in USD and INR for Q1 for 2022 and 2023.



In terms of INR, both the volume and value have increased by 334.65% and 577.68% respectively as compared to the same quarter the previous year.

In terms of USD, the volume has increased slightly by 430.33% and value by 17221.17% respectively as compared to the same quarter the previous year.
