



ROYAL MONETARY AUTHORITY OF BHUTAN



ANNUAL PAYMENT SYSTEM REPORT

2021

Department of Payment and Settlement System

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PREFACE

The Royal Monetary Authority (RMA) is delighted to present its Annual Payment System Report (PSR) 2021 as part of an initiative to present a comprehensive overview of Bhutan's digital payment landscape and its impact on the growing economy.

PSR 2021 reviews development in digital payments in Bhutan along with a summary of key initiatives in the regulatory framework, payment infrastructure, and oversight policies undertaken in the year 2021 (January to December) to improve and enhance the payment ecosystem in the country.

The report has been categorized as follows for easy reference:

1. Key Initiatives
2. Digital Payment Acceptance Infrastructure
3. Digital Payment Performance

Part I: Domestic payments;

Part II: Regional payments; and

Part III: International payments

RMA would like to thank all those who have contributed to the information contained in this Report.

1. KEY INITIATIVES

Licensing & Authorization

- ❖ Digital Kidu Bank's integration to the RMA's Payment Infrastructure
- ❖ 25 Domestic Payment Gateway Merchants
- ❖ goBoB wallet (BoBL's mobile wallet service)
- ❖ Renewal of e-money license to Tashi InfoComm and Bhutan Telecom

Enabling Regulatory Frameworks

- ❖ Data Residency Policy for Payment Systems Data 2021
- ❖ Procedural Guideline for Bhutan Inter-Bank Real Time (BIRT) -Fund Transfer System 2022
- ❖ Pilot Project on Central Bank Digital Currency (CBDC)

Payment Infrastructure

- ❖ RuPay Issuing (Phase II) Project with NPCI, India
- ❖ BHIM QR Code (Beta launch) with NPCI, India

Oversight & Monitoring

- ❖ Pilot Oversight of Bhutan Development Bank Ltd. & Bank of Bhutan Ltd.
- ❖ Capacity building of Compliance officers of all banks through sensitization and training programs

Operation & Settlement

- ❖ Enhancements in the mobile banking apps to enhance safety and security
- ❖ Digitalization of interbank fund transfer through BIRT-Fund Transfer system
- ❖ Study on straight-through settlement- Dispute Management System for Bhutan Financial Switch transactions
- ❖ Forced Credit and Debit Authorisation for BFS transactions to minimise failure rate and maintain customer confidence in the system
- ❖ Uniform accounting and settlement procedures for payment transactions by the banks and the RMA
- ❖ Classification and Accounting of payment and settlement transactions in the RMA's financial statements

Operation and settlement of following payment systems operated by the RMA:

| | PAYMENT SYSTEM | VOLUME (in thousands) | VALUE (in billions) |
|----|--------------------------------|----------------------------------|--------------------------------|
| 1. | BIRT-Fund Transfer System | 218.25 | Nu. 96.00 |
| 2. | CTS (Cheque Truncation System) | 63.73 | Nu. 32.99 |
| 3. | BFS (Bhutan Financial Switch) | 13,009.24 | Nu. 65.10 |
| 4. | Rupay | 7,614 | INR 0.03 |
| 5. | Asian Clearing Union (ACU) | 0.51 | USD 0.15 |
| 6. | SWIFT | 1.58 | |

2. DIGITAL PAYMENT ACCEPTANCE INFRASTRUCTURE

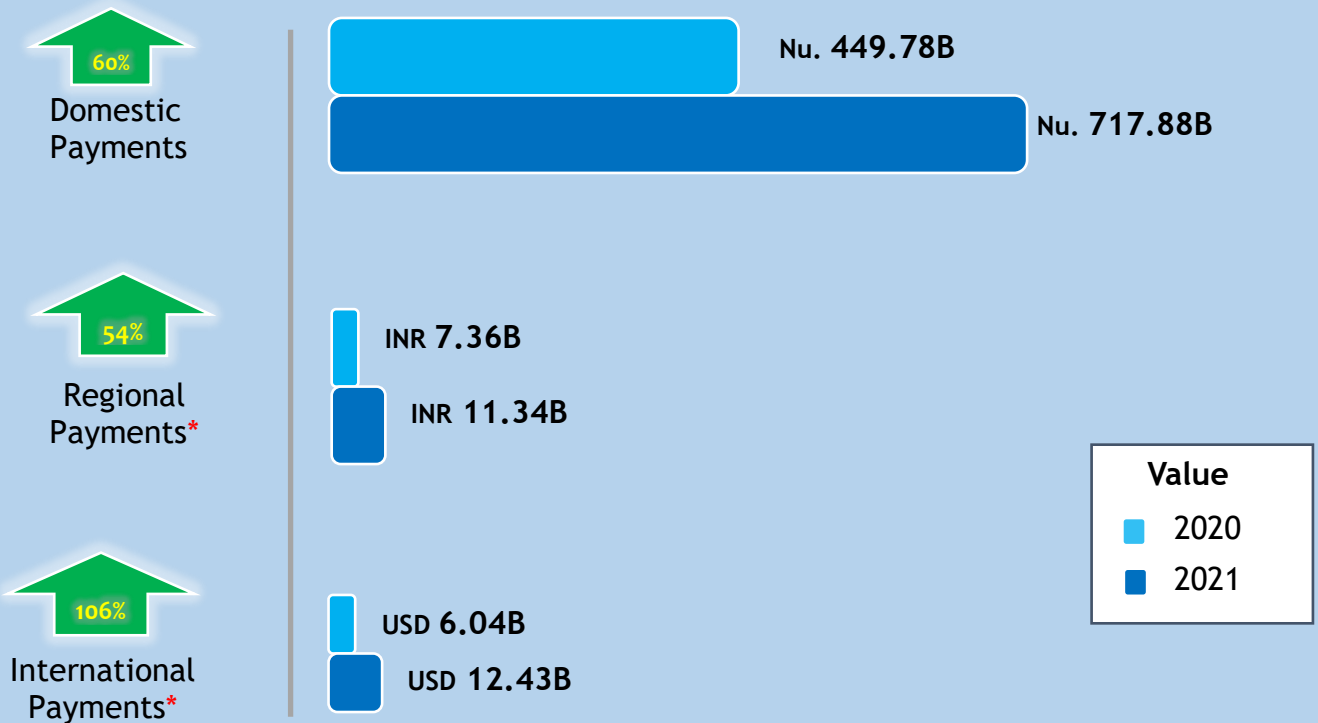
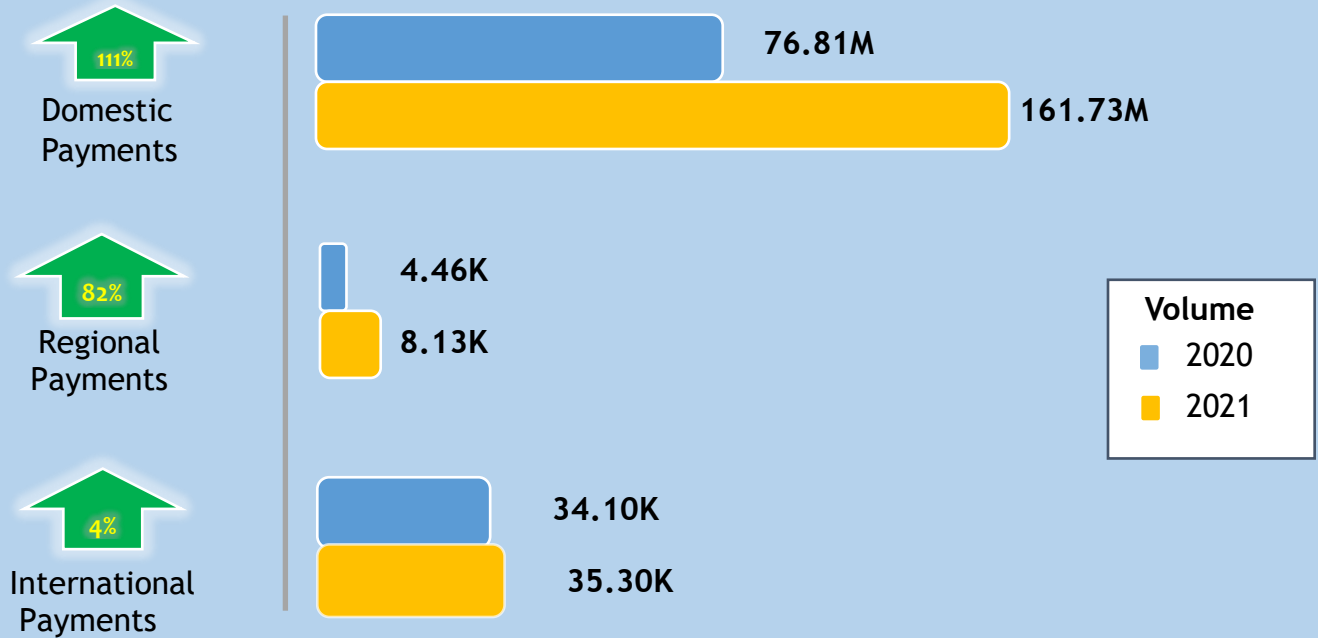
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PAYMENT SERVICE PROVIDERS

(6 Banks & 2 Telcos)

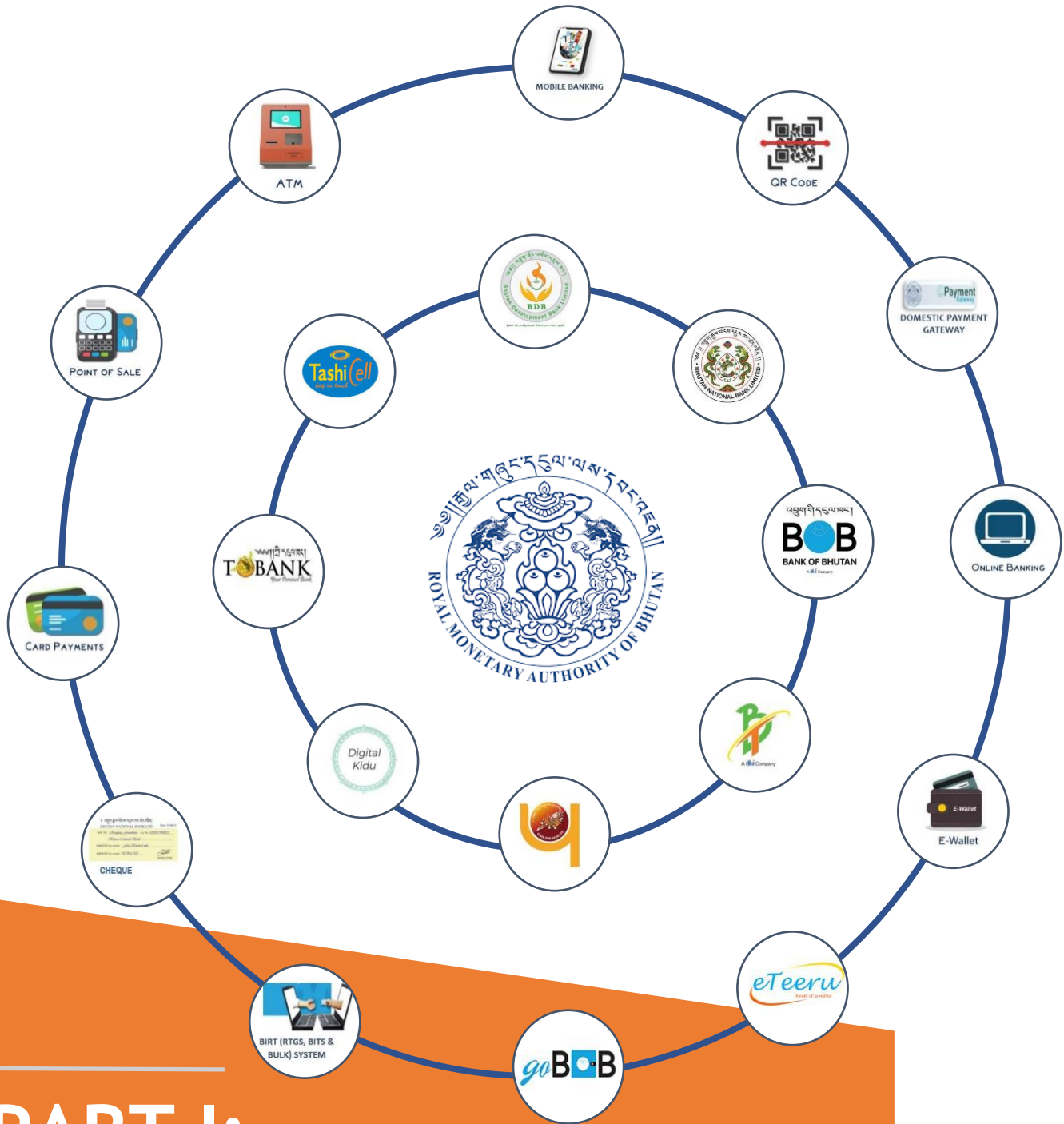


3. DIGITAL PAYMENT PERFORMANCE



*Regional payments includes only ACU and RuPay transactions.

*International payments includes only SWIFT transactions.

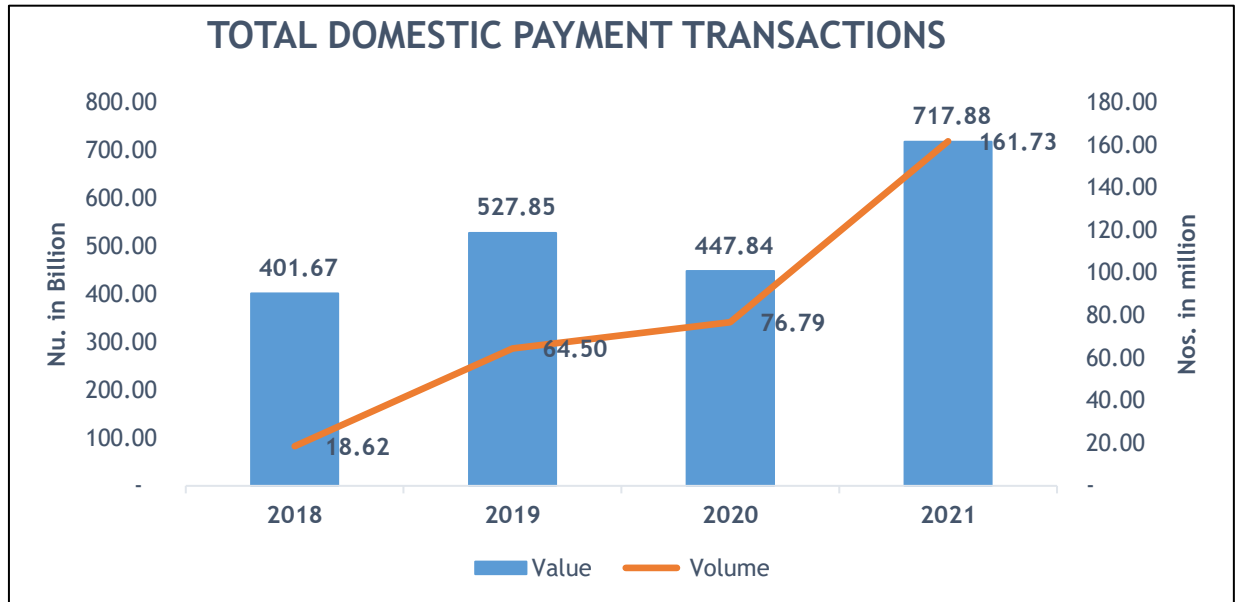


PART I:

DOMESTIC PAYMENTS

PART I: DOMESTIC PAYMENTS

Domestic payment transactions comprise of payments made through digital payment channels (Mobile Banking Apps, QR, Payment gateway, Internet banking, mobile wallets (e-money), electronic fund transfer (BIRT -fund transfer system), ATM, PoS and paper based (cheques).



Under these payment channels, there are two kinds of transactions; ON-US or intra-bank transactions which include transactions made between the account holders of the same bank and OFF-US or inter-bank transactions which are made between the account holders of two banks. Generally, ON-US transactions are initiated and settled by the respective banks through their own banking system. While, interbank transactions are routed and settled through the RMA's payment infrastructure like Bhutan Financial Switch for mobile/QR/payment gateway/internet banking/ATM/POS transactions, BRIT-Fund Transfer system for electronic fund transfer of retail and large value payments, and Cheque Truncation System for clearing and settlement of interbank cheques. For this report, the volume and value of payment transactions includes both On-Us and Off-Us interbank transactions of all 6 commercial banks.

In 2021, an aggregate of 161.73 million transactions of value Nu. 717.88 billion were processed by 6 commercial banks and 3 wallet service providers through the above-mentioned payment channels. The entry of two additional payment service providers-Digital Kidu and BoBL (goBOB) during the year and the continued efforts of the RMA and the banks contributed to the overall as well proportionate growth at the banks level particularly in the digital payment channels as shown in the table below.

SPECIFIC PAYMENT INSTRUMENT PERFORMANCE



The total volume of transactions in 2021 grew by 111% from 76.79 million in 2020 to 161.73 million in 2021 with equivalent growth in the value by 60% from Nu.447.84 billion to Nu.717.88 billion.

As shown in the table below, the growth in the domestic payment transaction was mainly contributed by the consistent growth in the digital payment channels specifically mobile & internet banking and QR payments complemented by equivalent decline in

the cheques and ATM hits. As such, in 2021 digital payment dominated the payment space in terms of volume and also in terms of value.

| Instrument | 2020 | | 2021 | | % Change | |
|--------------------------|-------------------------|---------------------------|-------------------------|---------------------------|----------|-------|
| | Volume (In thousand) | Value (Nu. in million) | Volume (In thousand) | Value (Nu. in million) | Volume | Value |
| Paper-Cheques | 604.36 | 221,607.75 | 465.70 | 226,882.12 | -23% | 2% |
| Mobile Banking | 65,070.09 | 144,709.58 | 118,515.59 | 343,029.58 | 82% | 137% |
| Bhutan QR Code | 2,722.24 | 3,453.19 | 34,106.02 | 33,078.91 | 1,153% | 858% |
| Internet Banking | 10.49 | 1,451.57 | 27.67 | 1,508.14 | 164% | 4% |
| Payment Gateway | 266.35 | 279.85 | 1,991.71 | 1,099.00 | 648% | 293% |
| Wallets | 922.94 | 342.87 | 2,385.18 | 895.91 | 158% | 161% |
| Electronic Fund Transfer | 163.57 | 52,212.81 | 218.25 | 96,000.37 | 33% | 84% |
| Cards | 7,038.06 | 25,232.12 | 4,015.68 | 15,375.83 | -43% | -39% |
| PoS | 8.52 | 485.28 | 1.55 | 6.38 | -82% | -99% |
| Domestic Payments | 76,806.61 | 449,775.04 | 161,727.34 | 717,876.26 | 111% | 60% |

PART I: DOMESTIC
PAYMENTS

1. Mobile
Banking



6

Financial Institution



393,287
Total active Users



118.52M
Volume



Nu. 343.03B
Value



235,756 Active Users
96.65M Transactions
Nu.295.06B



75,969 Active Users
16.40M Transactions
Nu.27.62B



8,407 Active Users
2.44M Transactions
Nu.8.64B



37,827 Active Users
1.74M Transactions
Nu.4.47B



16,820 Active Users
874.61K Transactions
Nu.4.66B

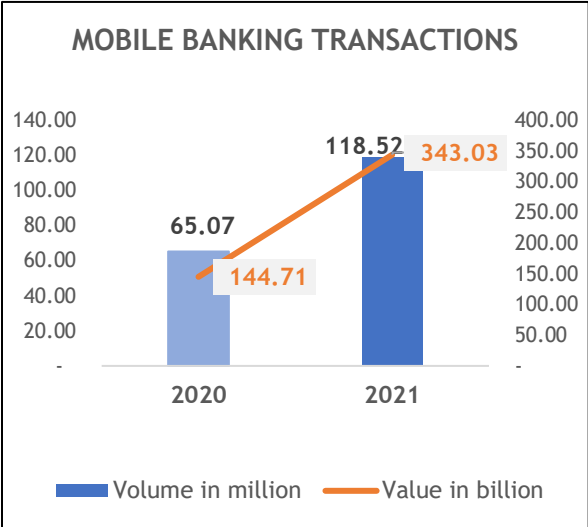


18,508 Active Users
411.87K Transactions
Nu.2.56B

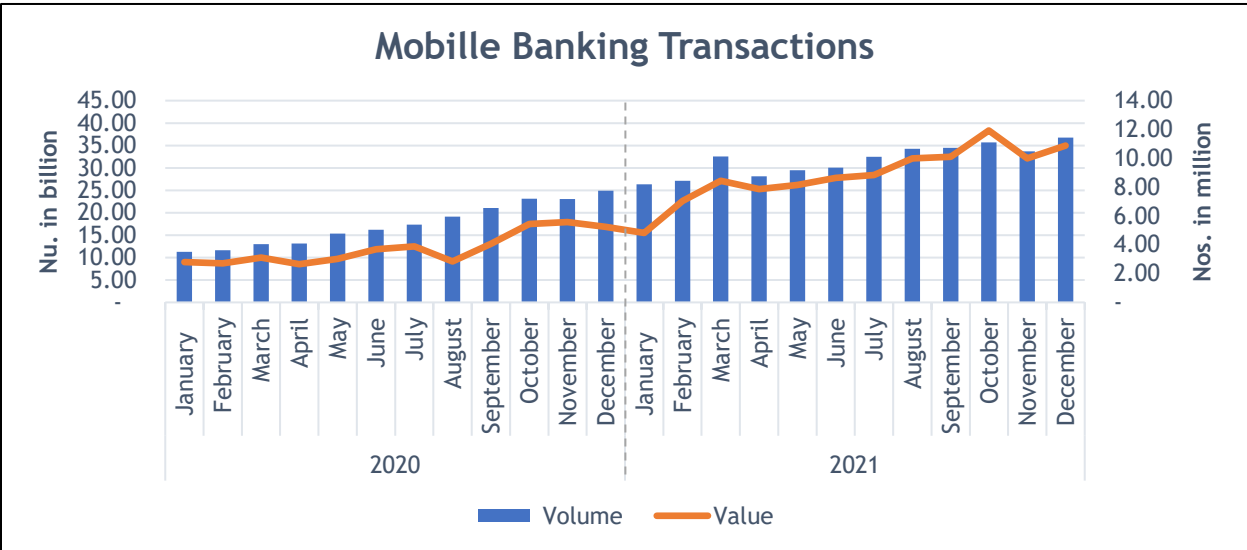
1. Mobile Banking

Mobile Banking transaction means transactions carried out using the mobile banking apps excluding QR and internet banking which are covered separately as it uses different payment channel.

Mobile banking has greatly helped Bhutanese particularly during this prolonged covid-19 pandemic by enabling nonphysical contact transactions. Mobile banking facilitates fund transfer for P2P payments, P2B payments & P2G payments, bill payments, opening of fixed and recurring account, closing of the accounts, recharge, voting, donation, deposit cheque, request money, card less withdrawal, loan repayment, tax payment, splits bill and scan and pay among others. Besides, the payment features, it also has self-help information sharing icons.



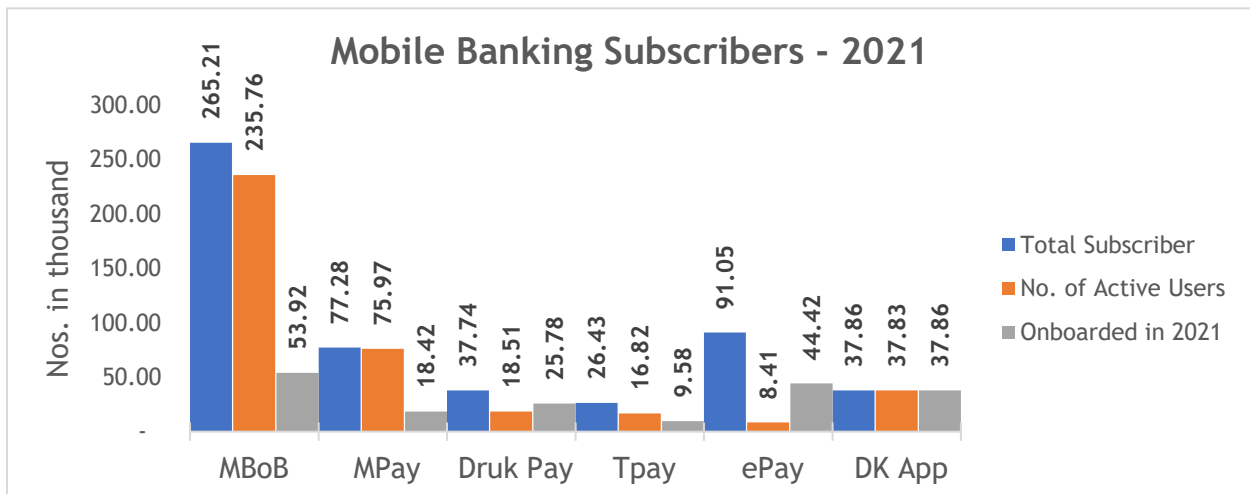
Mobile banking transactions grew by 82% with a record usage of 118.52 million transactions. In terms of value, the increase was greater with 137% and the monthly trend depicts an upward trajectory with the enhancement of transaction limits both by the banks for On-Us and by the RMA for off-us interbank fund transfer.



As a result of which, the average value per transactions have also increased from Nu.2223.91 per transaction in 2020 to Nu.2894.28 per transaction in 2021 indicating usage of mobile banking app for transfer beyond small value payments.

The growth is also complimented by constant effort of the RMA and the member banks in enhancing acceptance infrastructure and introducing new innovative secure features in the apps while continuously working towards reducing failure rate to retain customer confidence in the system. Starting in July 2021, the RMA extended providing interbank settlement to the banks from 5 days a week to all days in a week including weekends in order to facilitate timely settlement. As a result of this initiative, settlement as well as reconciliation of interbank transactions made during the weekend was reduced to T+1 which otherwise was deferred to the following week. In addition, a bank as well as its customers now gets their due credit latest by T+1 days for identified failed transactions (successful debit and unsuccessful credit) through the Debit Authorization initiative.

Further, in tandem to the advent of many new technologies these days, usage of mobile phones for financial transactions have become easy, convenient- more of a lifestyle that has helped boost the demand side of ecosystem effortlessly. In 2021 alone, 189.60 thousand new users subscribed to the mobile banking apps. The total subscription to the mobile banking apps in 2021 was 393,287 active users, which is an increase by 179% compared to the previous year. This increase in subscription powered the increase in the number of transactions.



1. Bhutan QR Code



6

Financial Institution



40,029 Merchants



393,287 Total active Users



34.11M Volume



Nu. 33.08B Value



23,263 Merchants
30.86M Transactions
Nu. 29.22B



7,611 Merchants
2.51M Transactions
Nu. 2.82B



5,335 Merchants
314.65K Transactions
Nu. 463.27M



1,619 Merchants
182.23K Transactions
Nu. 303.76M



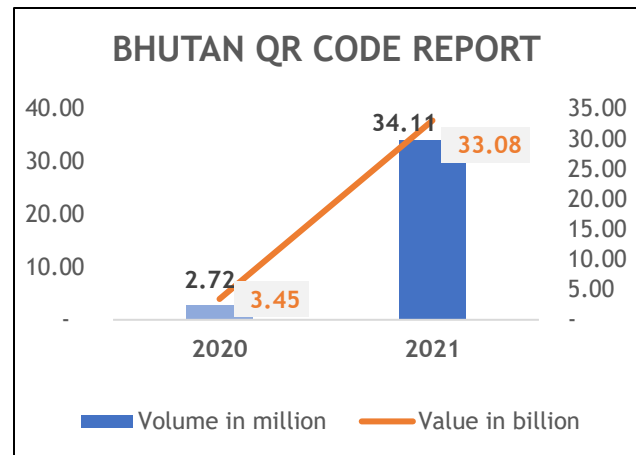
0 Merchants
162.59K Transactions (outgoing)
Nu. 134.20M



2,201 Merchants
76.73K Transactions
Nu. 140.49M

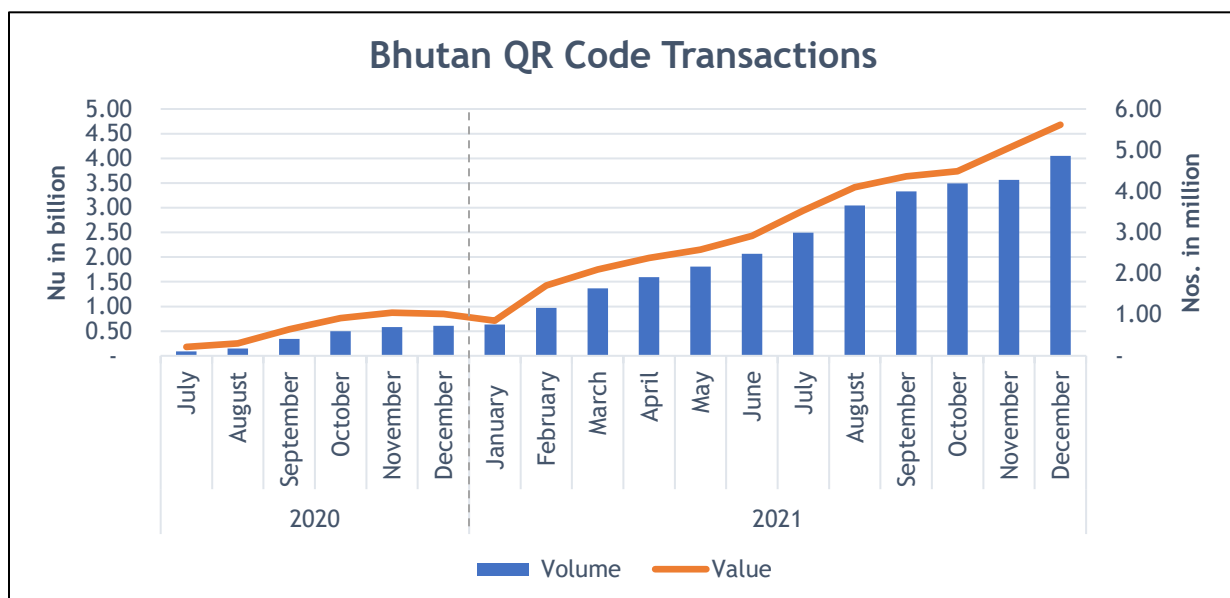
2. Bhutan QR Code

Prior to July 2020, QR codes of the member banks were operating on a standalone basis, which means customer could only scan and pay using their issuing bank's QR code. Since the RMA initiated Bhutan QR code to facilitate interoperability of the QR code payments, significant growth on both the demand and supply side was observed in 2021.



It is observed to be gaining popularity in making small value retail payments at merchant points because of its easy, convenient, and secure features.

In 2021, a total of 34.11 million transactions of value Nu.33.08 billion was carried out using QR codes, which was a remarkable growth from 2.72 million transactions worth Nu.3.45 billion in 2020. A marked shift from mobile banking to this channel is also being observed particularly in making retail payments contributing to increase in its market shares in the total payment space from 4% in 2020 to 21% in 2021 surpassing the other payment channels such as Mobile, wallet, BRIT-Fund Transfer, cheques, and ATM.



On the supply side, as at the end of 2021, a total 40,029 Bhutan QR code were issued by the banks to the merchants across the country as shown in the table below. However, the total number of acquirers are more than reported as banks now allow any mobile banking app user to self-generate their own QR code without their assistance.

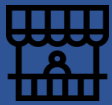
| Region | Dzongkhag | 2020 | 2021 | TOTAL | Percentage Increase | |
|--------------------------|------------------|---------------|---------------|---------------|---------------------|------|
| Western & Central Region | Paro | 854 | 2,815 | 3,669 | 230% | 51% |
| | Gasa | 37 | 106 | 143 | 186% | |
| | Bumthang | 296 | 797 | 1,093 | 169% | |
| | Wangdue Phodrang | 655 | 1,435 | 2,090 | 119% | |
| | Haa | 144 | 292 | 436 | 103% | |
| | Trongsa | 224 | 448 | 672 | 100% | |
| | Punakha | 442 | 533 | 975 | 21% | |
| | Thimphu | 7,559 | 8,942 | 16,501 | 18% | |
| Southern Region | Samtse | 375 | 1,048 | 1,423 | 179% | 140% |
| | Sarpang | 447 | 1,239 | 1,686 | 177% | |
| | Chukha | 1,372 | 3,582 | 4,954 | 161% | |
| | Dagana | 192 | 316 | 508 | 65% | |
| | Tsirang | 273 | 400 | 673 | 47% | |
| | Zhemgang | 181 | 217 | 398 | 20% | |
| Eastern Region | Lhuentse | 83 | 173 | 256 | 108% | 52% |
| | Samdrup Jongkhar | 466 | 902 | 1,368 | 94% | |
| | Trashigang | 327 | 603 | 930 | 84% | |
| | Tashiyangtse | 107 | 177 | 284 | 65% | |
| | Pemagatshel | 210 | 281 | 491 | 34% | |
| | Mongar | 718 | 761 | 1,479 | 6% | |
| Total | | 14,962 | 25,067 | 40,029 | 68% | |

2. Domestic Payment Gateway



6

Financial Institution



68

Merchants



1.99M
Volume



Nu. 1.10B
Value



61 Merchants
1.71M Transactions
Nu. 926.53M



5 Merchants
155.79K Transactions
Nu. 106.96M



0 Merchants
49.98K Transactions (outgoing)
Nu. 31.69M



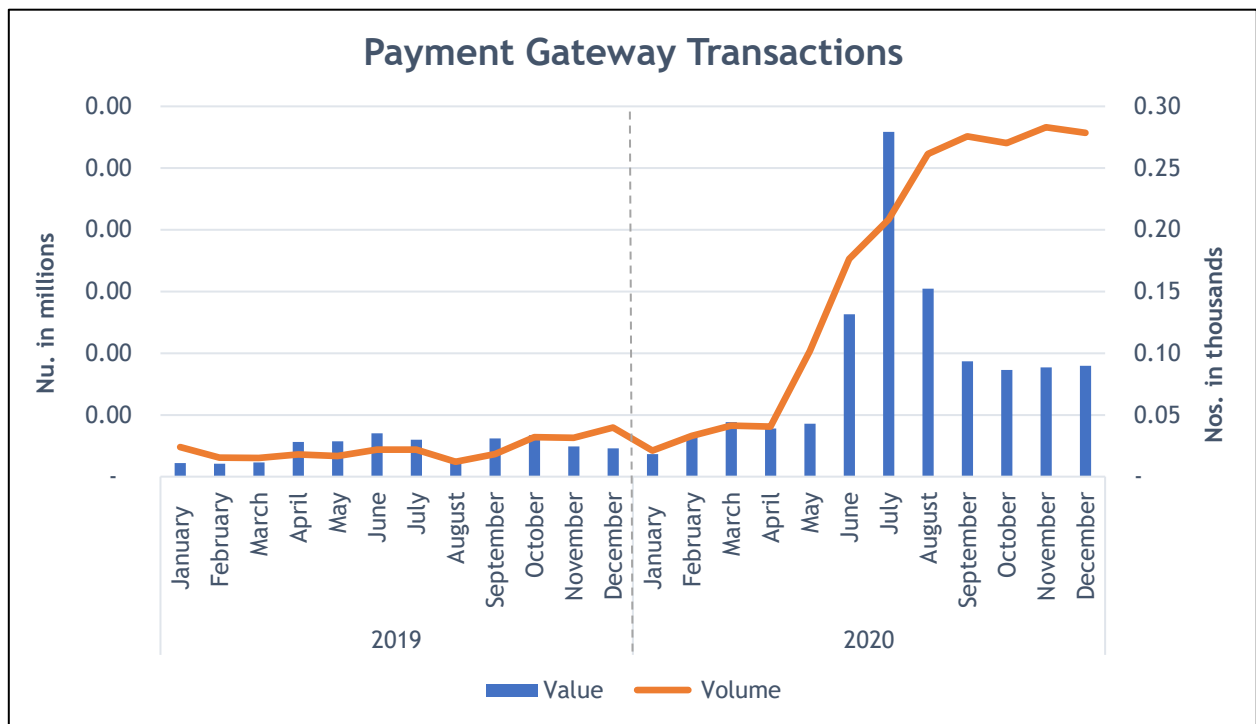
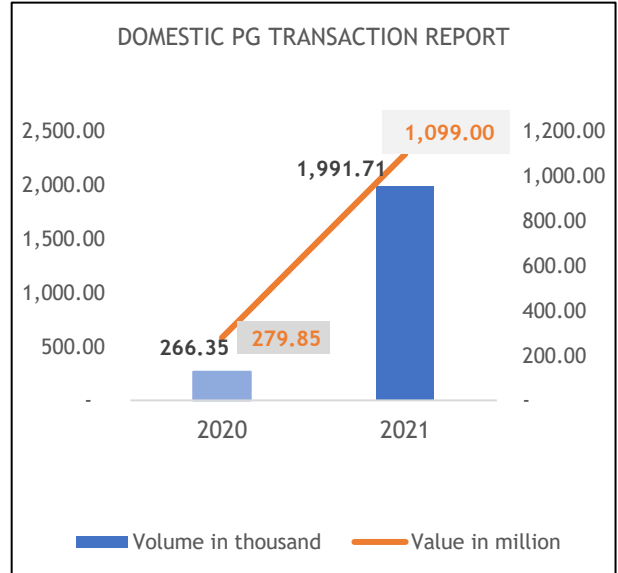
1 Merchants
37.34K Transactions
Nu. 19.07M



1 Merchants
33.69K Transactions
Nu. 14.84M

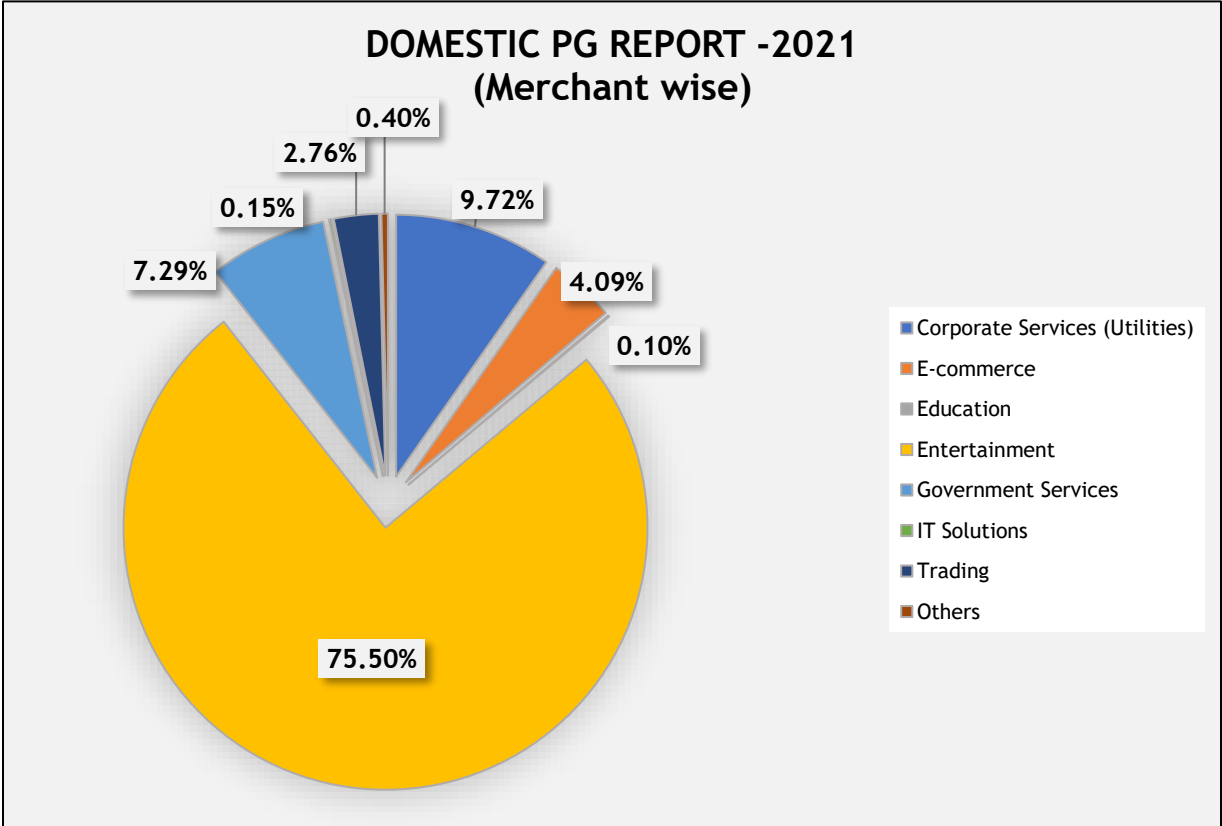
3. Domestic Payment Gateway

Domestic Payment gateway was first introduced in 2016 as an online payment platform to receive payment for Thimphu Thromde services and gradually extended to other government entities, corporates, payment solution providers, e-commerce businesses, entertainment sectors, and others. As of 2021, there are a total of 68 payment gateway merchants registered and integrated to the RMA's payment gateway, with 37% of the merchants registered in 2021 alone.



The number of transactions carried out by these merchants have also increased significantly from 266.35 thousand transactions in 2020 to 1,991.71 thousand in 2021. The pandemic and the digitalization of most of essential services offered by government entities and commerce going online have spurred the growth in these transactions.

Further, as shown in the monthly graph above, significant growth in PG transactions were recorded in the month of July when Royal Security Exchange of Bhutan Ltd. offered its sale of shares of Sungchob Fund and Kidu Fund online for the first time. The transactions have been consistently growing post July too at a growth rate higher than previous months mainly contributed by the entertainment sectors (75.50%) such as Bhutan Lottery and Samuh.



The modality of the payment gateway set requires individual merchants to maintain a designated account with one of the commercial banks in Bhutan to receive its sale proceeds. As such, in 2021, 90% of the payment gateway proceeds went to BoBL, 8% to BNBL and 1% each to TBank and DPNBL.

4. Internet Banking



5

Internet Banking
Service Provider



29,238

Total Subscribers



27,666
Volume



Nu. 1.51B
Value



5,834 Internet Banking Subscribers
21,177 Transactions
Nu.1.42B



12,267 Internet Banking Subscribers
4,094 Transactions
Nu.21.55M



4,881 Internet Banking Subscribers
2,181 Transactions
Nu.59.32M



5,758 Internet Banking Subscribers
214 Transactions
Nu.9.97M



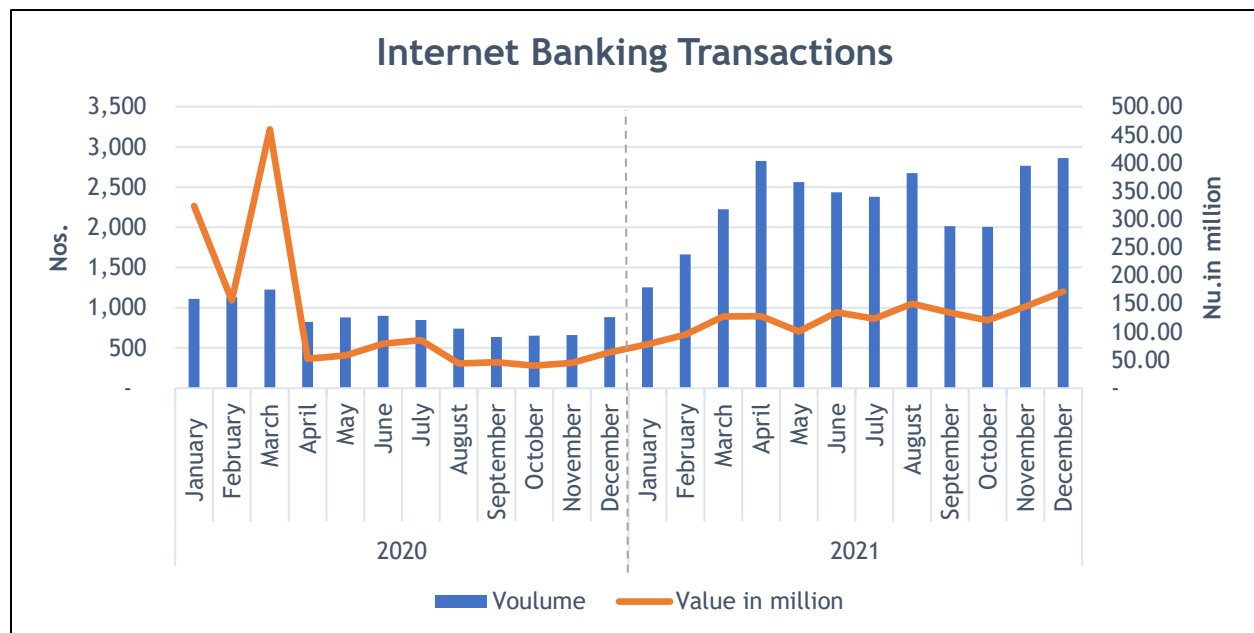
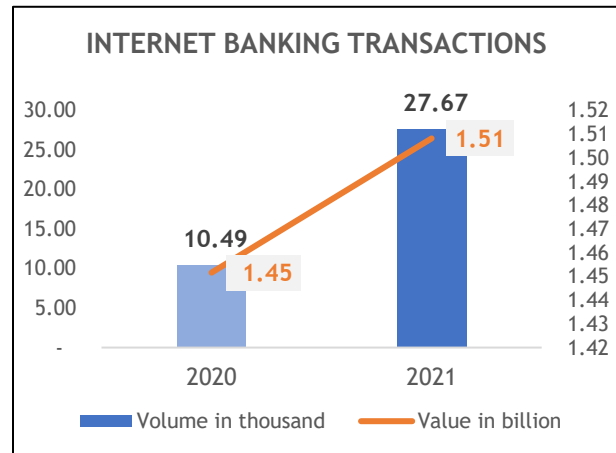
138 Internet Banking Subscribers
0 Transactions

4. Internet Banking

Internet Banking is a secure and easy way to manage money online anytime, anywhere. It allows users to view account balance, view and print account statement, and transfer fund within and to other banks. This facility is mostly availed by corporates and entities to transfer large value fund online.

At present, five banks (BDBL, BNBL, BoBL, DPNBL and TBank) provides internet banking service and there are a total of 29,238 internet banking subscribers. Out of which, 745 were subscribed during the year.

Like other digital payments, internet banking transactions have also increased from 10.49 thousand to 27.67 thousand in 2021, and value from Nu.1.45 billion to Nu.1.51 billion.



5. E-Money



3

e-Wallet Issuer



219,820

Total Subscribers



58,245
Merchants



172
Agents



2.39M
Volume



Nu. 895.91M
Value



155 Agents

58, 235 Merchants

75,675 Wallet Subscribers

1.89M Transactions

Nu.718.18M



71, 945 Wallet Subscribers

293.83K Transactions

Nu.98.44M



17 Agents

510 Merchants

72,200 Wallet Subscribers

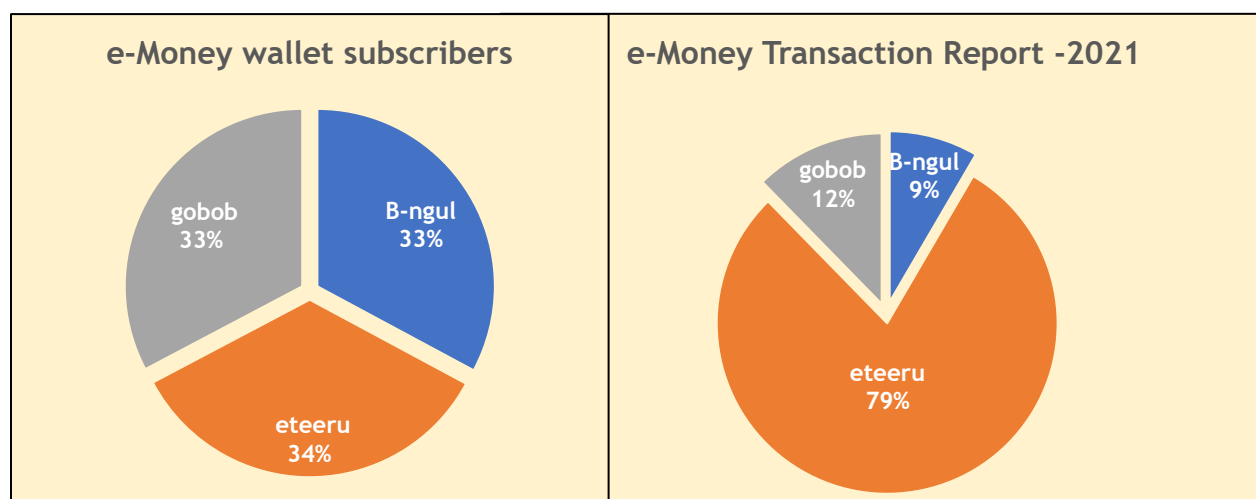
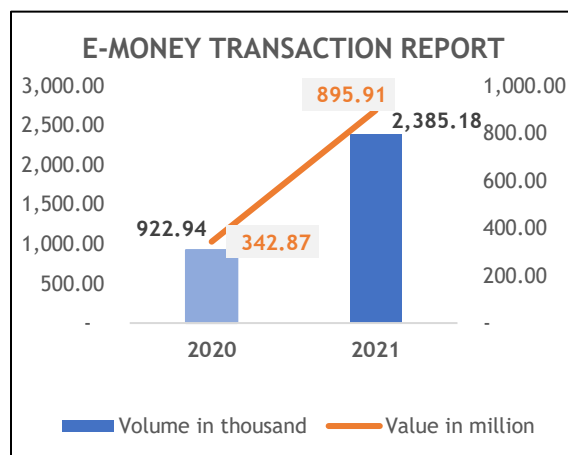
200.86K Transactions

Nu.79.29M

5. Mobile wallet (e-Money)

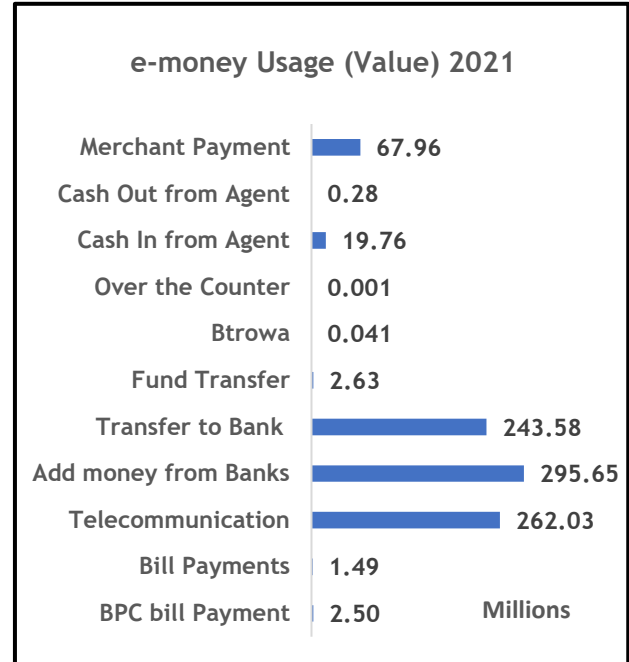
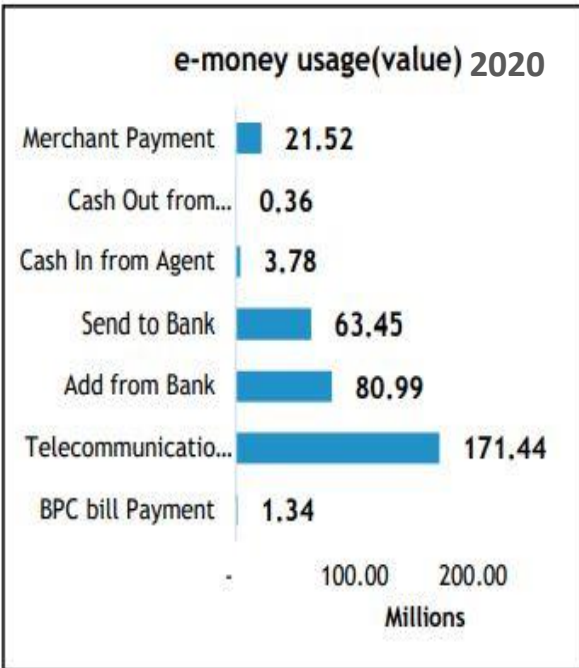
RMA licensed Bhutan Telecom Limited as the first e-money institution to issue B-ngul (mobile wallet) in 2017 with the aim to include non-account holder Bhutanese into the payment ecosystem and deepen financial inclusion in the country. Mobile wallet enables individual to make payments similar to that of mobile banking such as top-up, bill payments, merchant payment, fund transfer, request money, cash in and cash out facilities among others. Presently, there are three authorized e-money issuer, Bhutan Telecom Limited (B-ngul), Tashi Infocomm Limited (eteeru) and Bank of Bhutan Limited (gobob) offering mobile wallet service.

In 2021, three e-Money issuers have on boarded a total of 219,820 subscribers and 58,245 merchants across the country with subsequent transactions of 2,385.18 thousand transactions of value Nu.895.91 million. The annual growth was recorded at 158% in terms of volume and 161% in value terms.



In terms of specific performance, majority (79%) of the transactions were recorded by e-Teeru during the year.

Mobile Wallet Usage



In usage, mobile wallets are observed to be used mostly for telecommunication services and now increasingly for transfer to and from the bank accounts too indicating evolution of mobile wallets as convenient means of digital payment alongside the bank issued digital payment channels. The increase is recorded in all payment category in 2021 as compared to previous year as shown in the chart above.

6. Bhutan Inter-Bank Real Time (BIRT) -Fund Transfer System



6
Financial Institution



107
BIRT Service Center



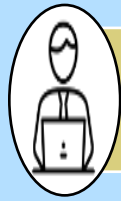
45
Bulk Payment Institution



218.25K
Volume



Nu. 96B
Value



42

12

35

8

0

10



27

11

3

3

1

0



RTGS

Volume: 3,102

1414

338

230

1

63

Value: 26.55B

17.19B

1.99B

6.60B

4.80M

1.74B



BULK

Volume: 135.69K

14,026

12,401

6,348

176

32,349

Value: 20.68B

694.75M

4.32B

3.51B

145.11M

10.11B

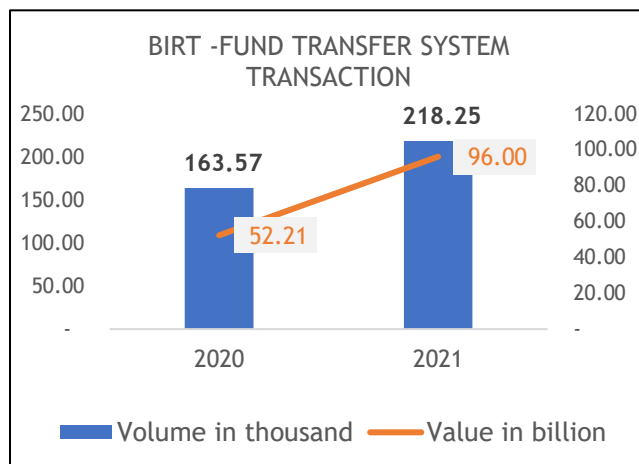
6. Bhutan Inter-Bank Real Time (BIRT) -Fund Transfer System

Bhutan Inter-Bank Real Time (BIRT) -Fund Transfer system initially known as Global Interchange for Financial Transactions (GIFT) was launched on 22nd July 2019 as an innovative replacement to the National Electronic Fund Transfer System (NEFTS/NECS) which was in existence since 2015.

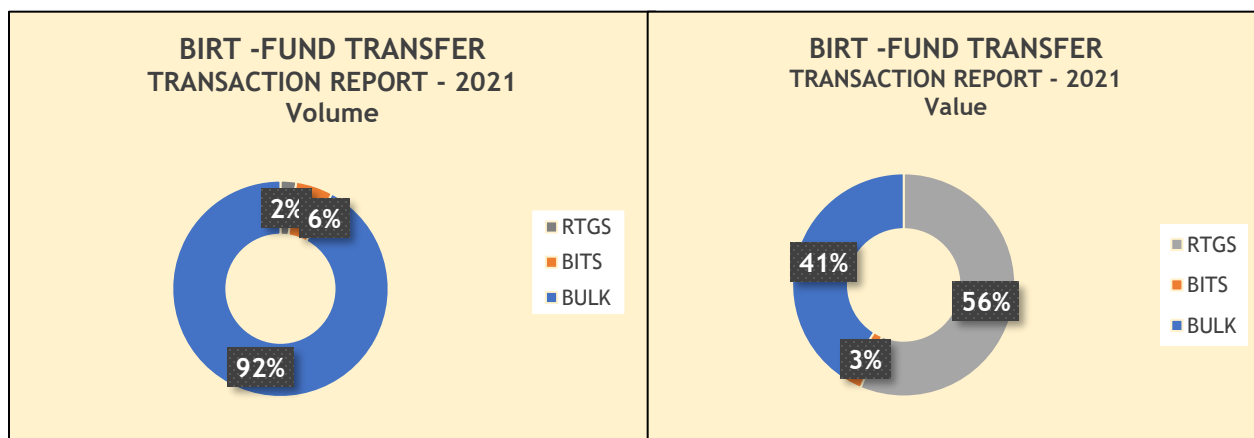
This fund transfer system supports three types of payment services, namely “Bulk” for single debit and multiple credit used for salary disbursement, pension disbursement, etc. “BITS” a batch settlement service for retail fund transfer below Nu.1 million, and “RTGS” a real time gross settlement service for large value fund transfer above Nu.1 million.

Presently, all six banks provide BIRT-Fund Transfer services from its 108 centers to 45 entities and general public across the country.

In terms of transactions, compared to 2020, volume has increased by 33% and value by 84% recording 218.25 thousand transactions of value Nu.96 billion in



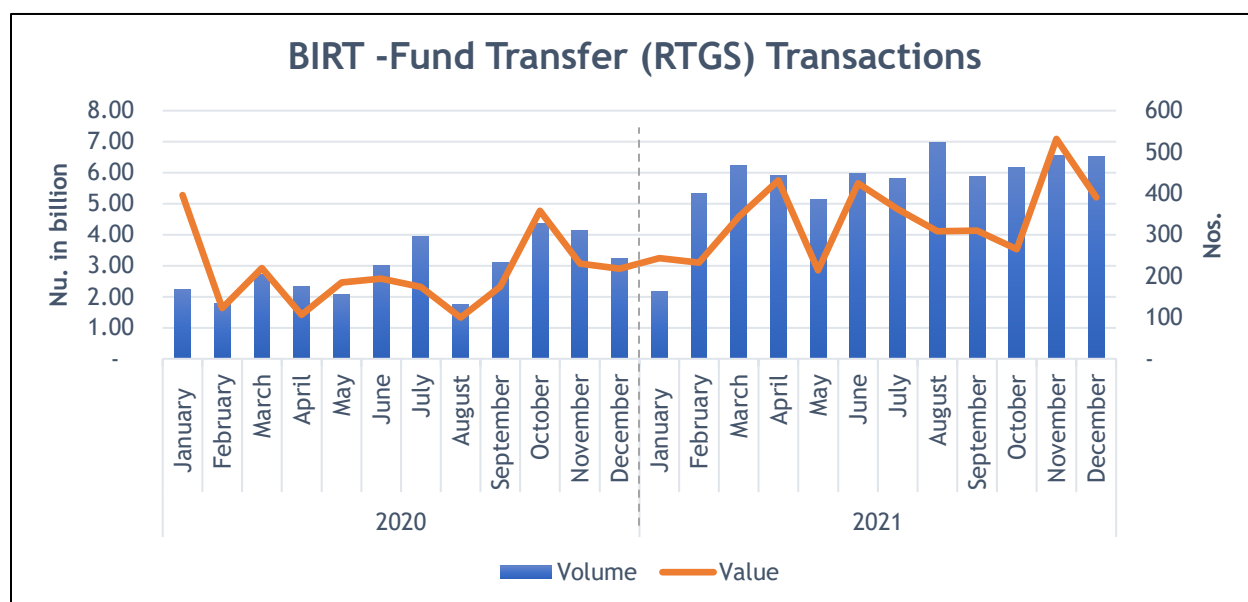
2021. As shown in the chart below, in terms of usage, bulk is the most used among the three services under BRIT-Fund Transfer system and it is observed to be largely used by entities for disbursements of payments to businesses, and salaries and other benefits



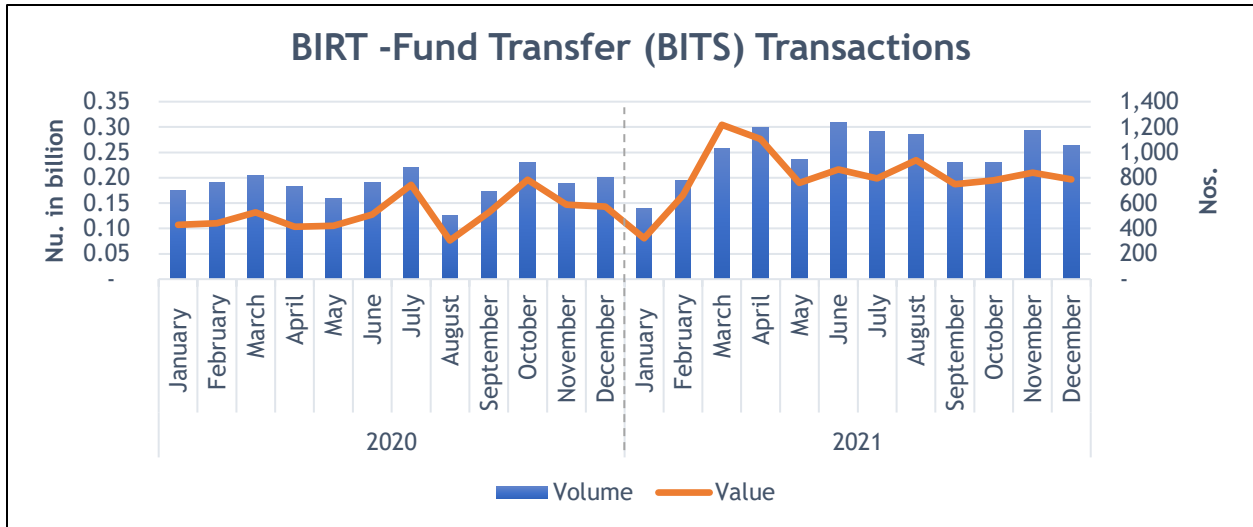
to employees and individuals. However, in terms of value, RTGS dominates with 56% of the total value transacted through the system and the value is seen to be increasing every year indicating more users switching from cheques which has been predominantly used for large value transactions in the earlier years.

As per the table below, the ratio of value of transactions done through BIRT-Fund Transfer system as compared to cheques have increased from 1.03 in 2020 to 2.91 in 2021 meaning for interbank fund transfer, usage of BIRT-Fund Transfer system is almost 3 times more than cheques in 2021.

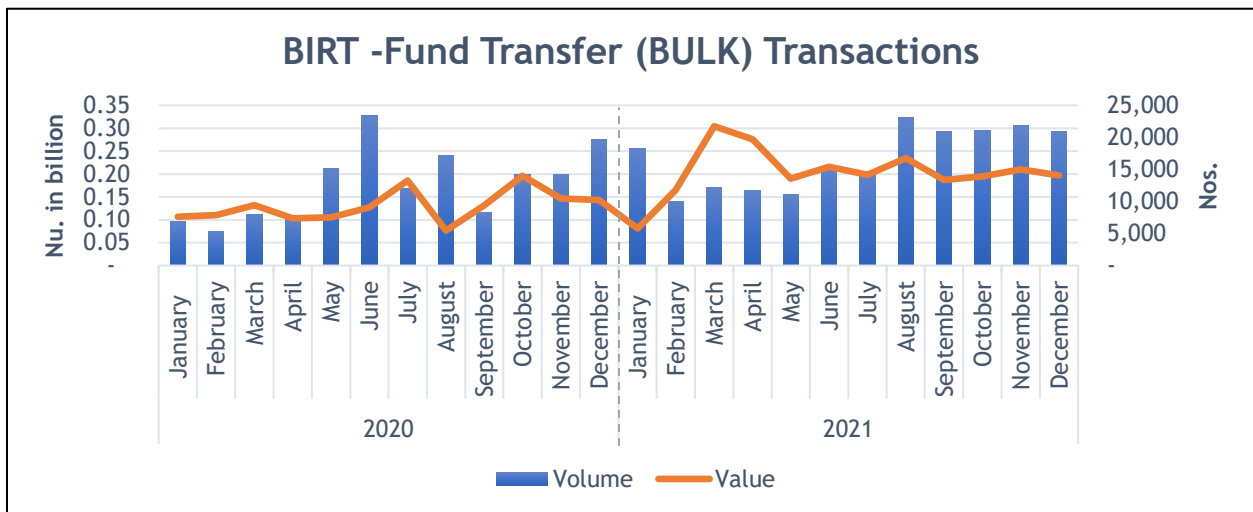
| | BIRT-Fund Transfer (Value in Billion Nu.) | Interbank Cheques (Value in Billion Nu.) | Ratio |
|-------------|--|---|-------|
| 2020 | 52.21 | 50.72 | 1.03 |
| 2021 | 96 | 32.99 | 2.91 |



Individually, RTGS payment services from the BIRT -Fund Transfer system has increased by 98% by volume and 64% by value compared to last year with a record of 5.15 thousand of transactions worth Nu.54.08 billion in 2021.



Similarly, BITS payment services from BIRT-Fund Transfer system have also increased from 8.96 thousand transactions in 2020 to 12.11 thousand in 2021. And value from Nu.1.56 billion to Nu.2.45 billion, an increase of 35% by volume and 57% by value.



Likewise, an average of 550 BULK transactions from BIRT -Fund Transfer system totaling to 152 thousand transactions of value Nu. 39.47 billion were processed during the year. Although designed for retail payments, since there is no applicable transaction limits and fees, this system has surpassed the other two payment services not only in terms of number of transactions but also in value. Entities who have made institutional arrangements with the banks are observed to be making all its institutional payments using this system irrespective of the amount.

7. Paper Cheques



5

Financial Institution



70

CTS Service Center



465.70K
Volume



Nu. 226.88B
Value



12 CTS Service Centers
318.51K Transactions
Nu. 156.52B



13 CTS Service Centers
81.78K Transactions
Nu. 22.82B



3 CTS Service Centers
28.05K Transactions
Nu. 36.61B



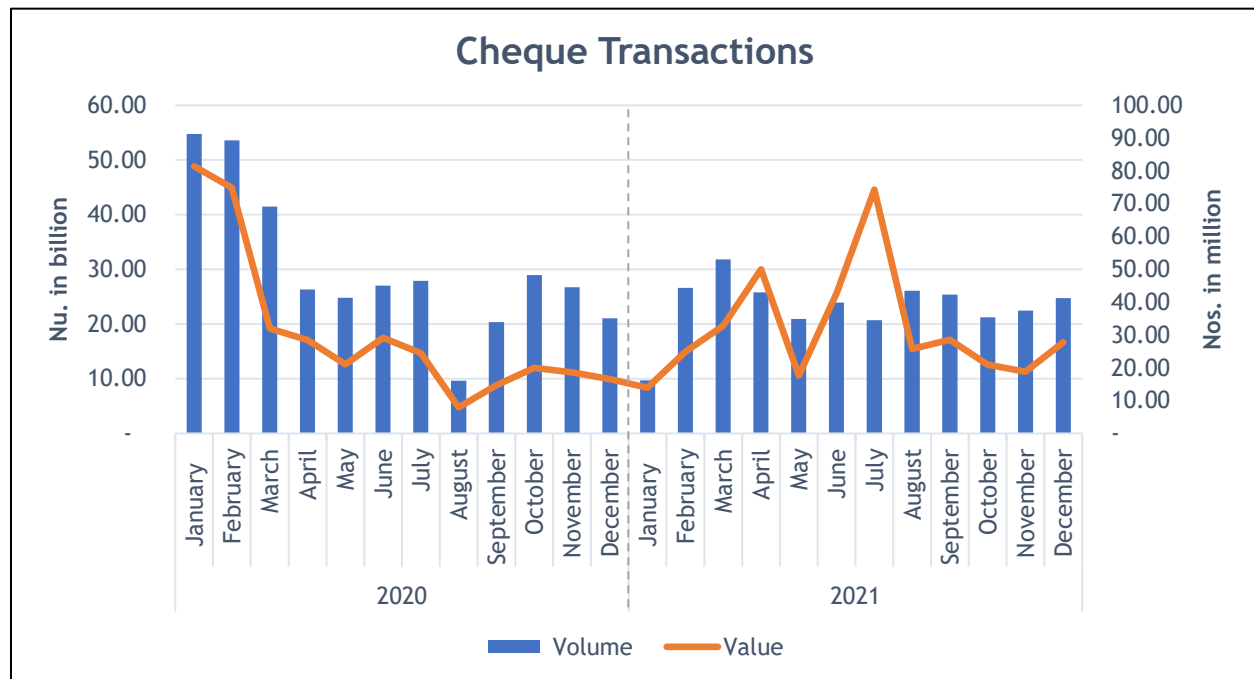
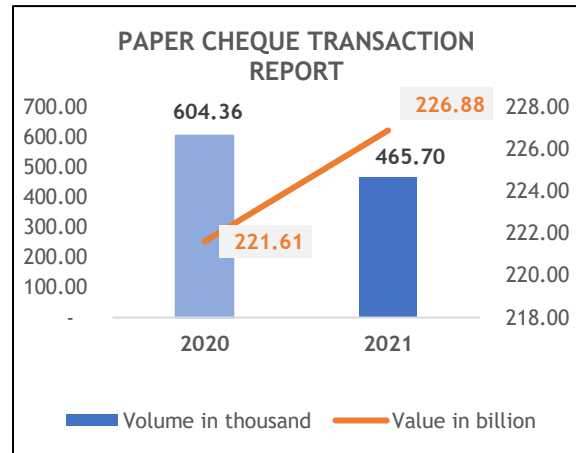
7 CTS Service Centers
25.24K Transactions
Nu. 8.26B



35 CTS Service Centers
12.12K Transactions
Nu. 2.67B

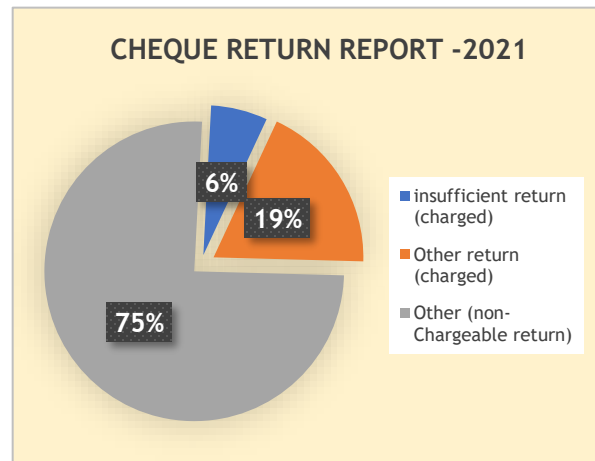
7. Paper Cheque

Paper cheques is the oldest payment instrument in Bhutan and it is still being largely used by businesses and individual as mode of payments within the country. However, the transaction record of both on-us and interbank cheques show 23% fall in the number of transactions and sustained growth of only 2% in value terms from 2020 to 2021. Its market shares in the total payment space also declined from 0.8% to 0.29% in volume and from 49.3% to 31.60% in value from 2020 to 2021 indicating a positive shift from paper cheques to digital channels including for large value payments. Further, even for interbank fund transfer, the value of transaction done using cheque (Nu.32.99 billion) in 2021 is 2.91 and 1.75 times less than through BRIT-Fund Transfer (Nu.96 billion) and Mobile Banking (Nu.57.80 billion) respectively.

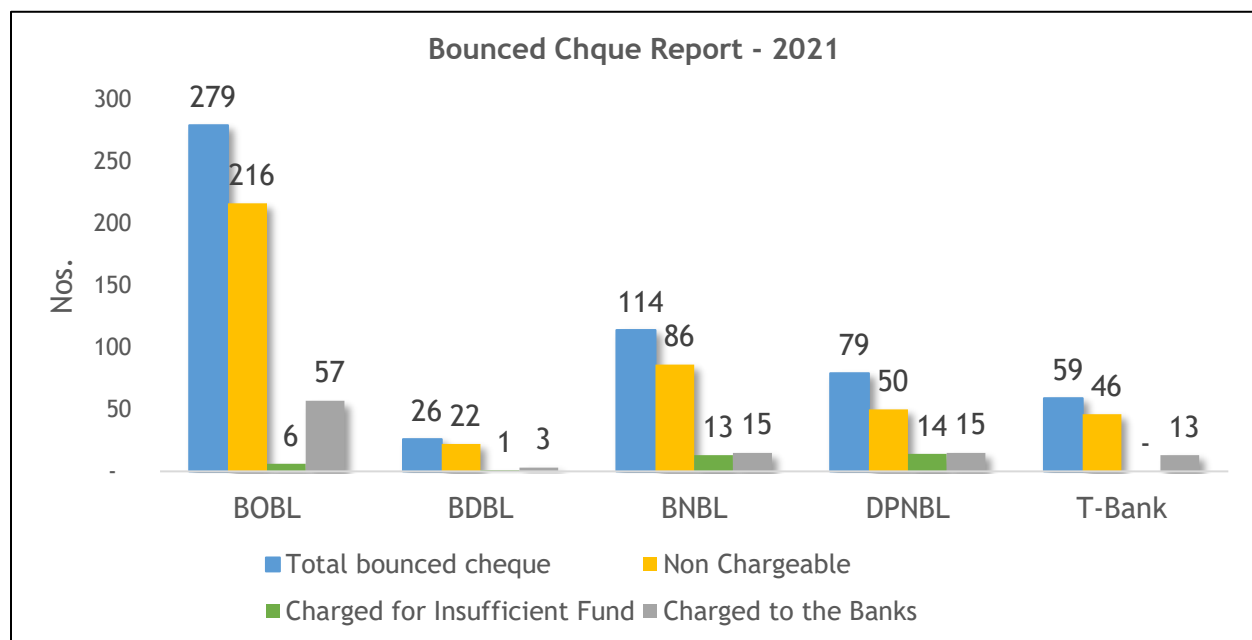


Cheque Charges

In line with the Negotiable Instrument Act of Kingdom of Bhutan 2000 and the Penal Code of Bhutan 2011, the RMA approved imposition of penalty of Nu.300 per cheque for insufficient balance and Nu. 100 penalties per cheque to the member banks for failure in their due diligence. The penalty was later revised upward in April 2020, as penalty for insufficient balance to



Nu. 300 + 10% of the cheque value for both intra and interbank cheque clearing. With this initiative the issuance of cheque with insufficient balance have reduced significantly over the years. Prior to April 2020, total chargeable cheques to the total cheques returned was 70%, however, with the revision, it has dropped to 24% in 2021.



During the year 2021, a total of 557 cheques were returned/bounced out of which maximum (75%) were not charged, however, 19% were charge to member banks for their failure to do their due diligence and 6% charged to customer for issuing with insufficient balance. A total of Nu. 273,727 was collected as a penalty in 2021.

8. ATM (Automated Teller Machine)



5
Financial
Institution



281
ATM Terminals



353,224
Debit Cards



4.02M
Volume



Nu. 15.38B
Value



95 ATM Terminals
226,030 Debit Card Issued
2.83M Transactions
Nu.11.43B



70 ATM Terminals
83,209 Debit Card Issued
687.96K Transactions
Nu.2.22B



57 ATM Terminals
26,678 Debit Card Issued
151.21K Transactions
Nu.488.87M



30 ATM Terminals
1,921 Debit Card Issued
221.13K Transactions
Nu.813.66M

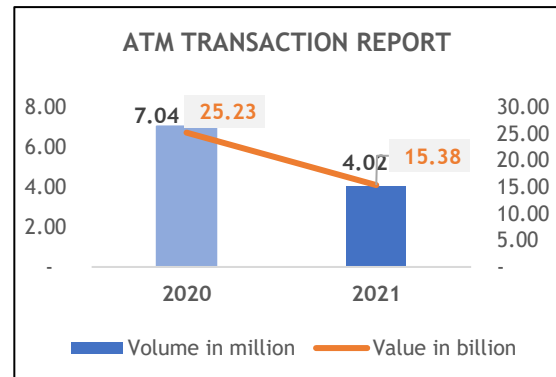


29 ATM Terminals
15,386 Debit Card Issued
128.33K Transactions
Nu.426.93M

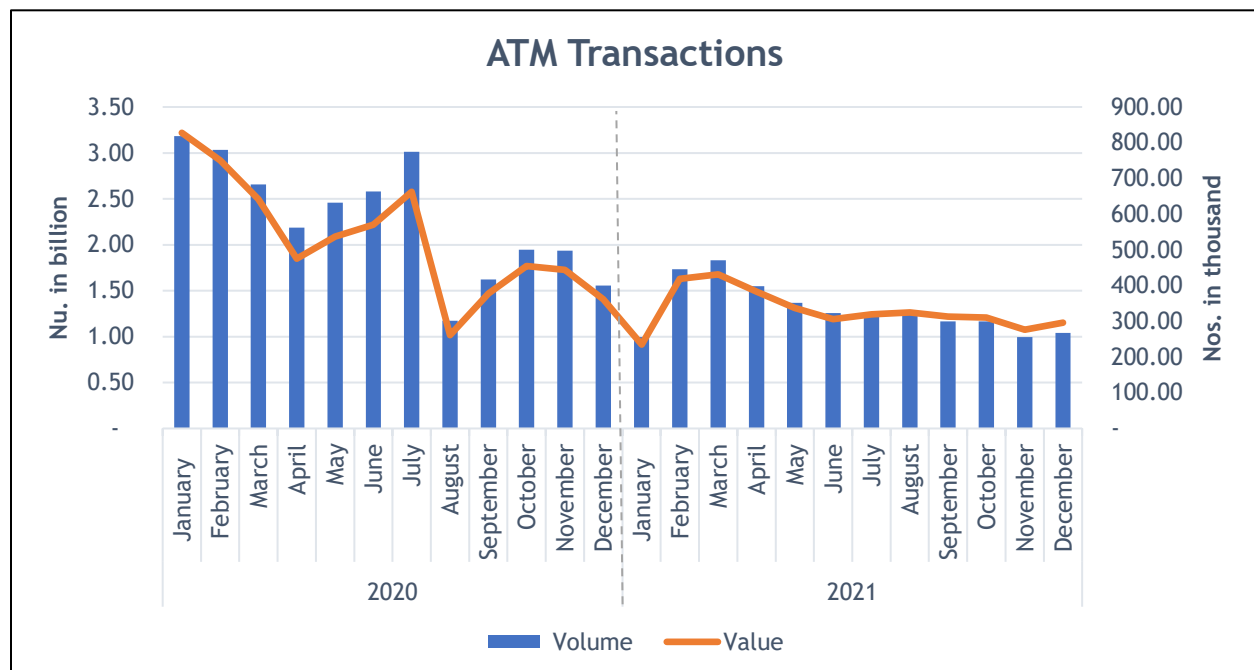
8. Automated Teller Machine (ATM)

ATM is also one of the oldest payment instruments in Bhutan available since 2000s. It has greatly benefited the general public to save cost, time and energy particularly after it was made interoperable in 2010 by the RMA. However, with the digital payment channels gaining popularity, the usage of ATMs has been declining over the years both in terms of volume and value.

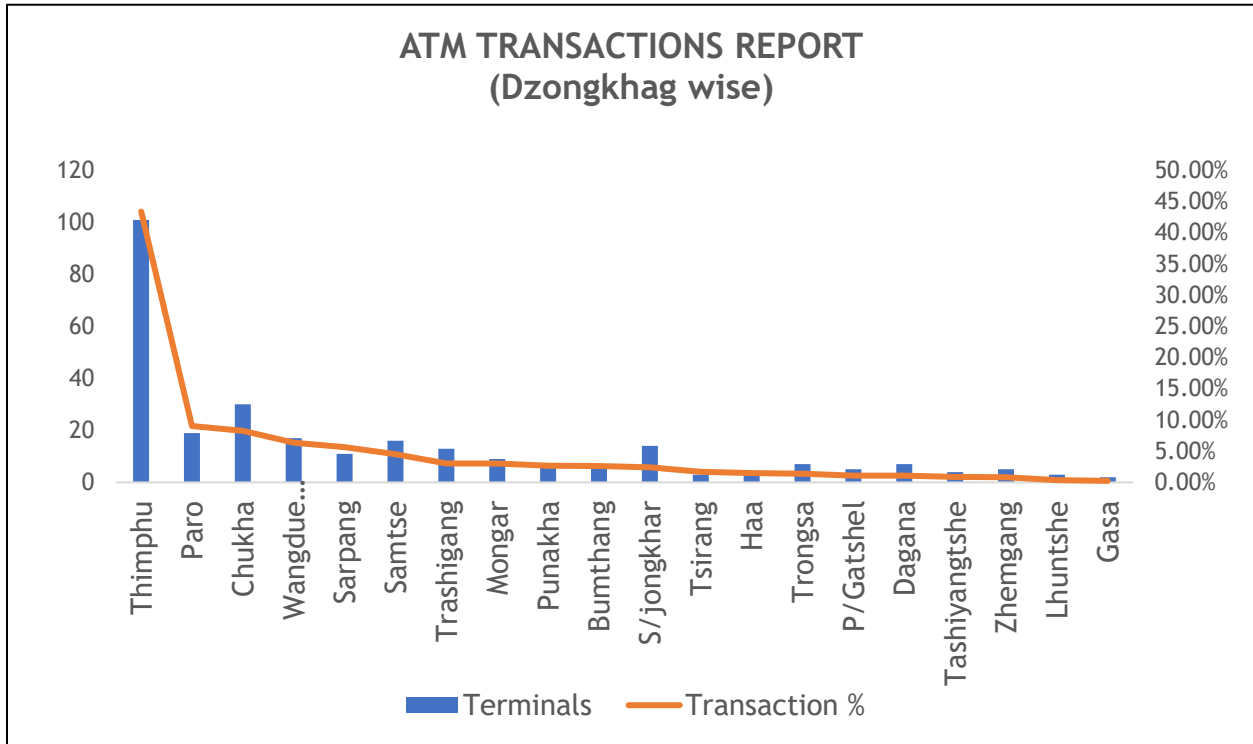
In 2021, ATM terminals across the country processed about 11,000 transactions per day. However, compared to the previous year, the total number and value of transactions dropped by 43% and 39% respectively from 7.04 million to 4.02 million transactions and from Nu.25.23 billion to Nu.15.38 billion. As per the monthly



report, the declining trend in ATM transaction was observed in September 2020 and January 2021 after the 1st and 2nd lockdown, owing to which, some of the banks discontinued their ATM services from certain locations in Thimphu. While there were 295 ATM terminals in 2020, there are only 283 ATM terminals operating in the country now.



As per the dzongkhag wise report, highest number of ATM terminal are located in Thimphu Dzongkhag, hence the highest transactions were also done in Thimphu with over 1 million transactions (43.42%) and the least is in Gasa Dzongkhag with 9,691 transactions (0.24%) from its two ATM terminals.



9. PoS (Point of Sales)



5
Financial
Institution



1,126
PoS Terminals



1,550
Volume



Nu. 6.38M
Value



708 PoS Terminals
1,015 Transactions
Nu. 5.24M



298 PoS Terminals
535 Transactions
Nu. 1.14M



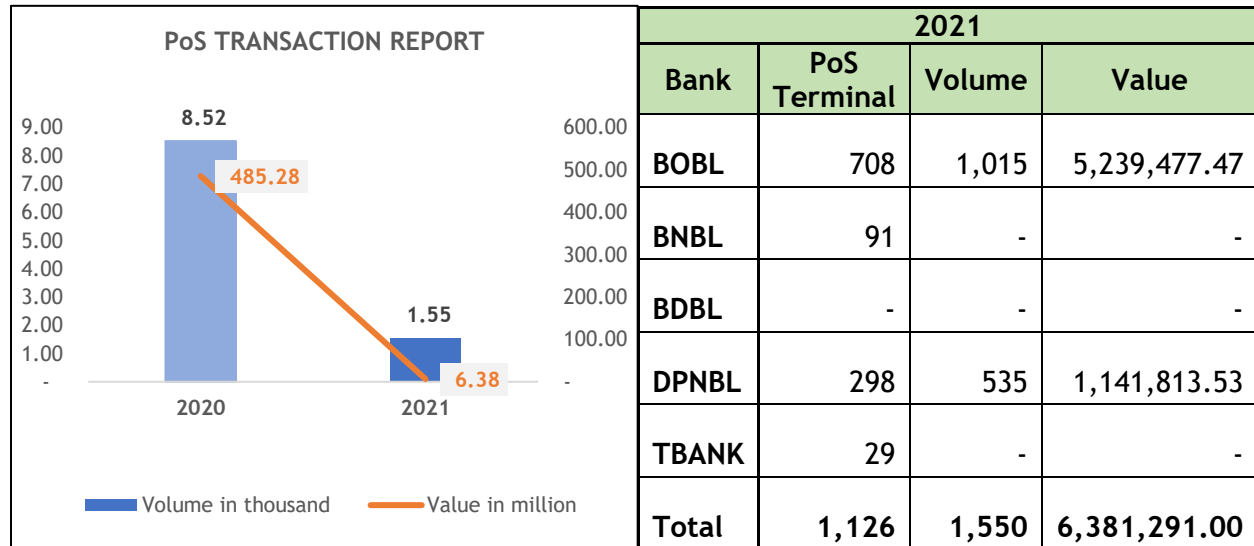
91 PoS Terminals
0 Transaction



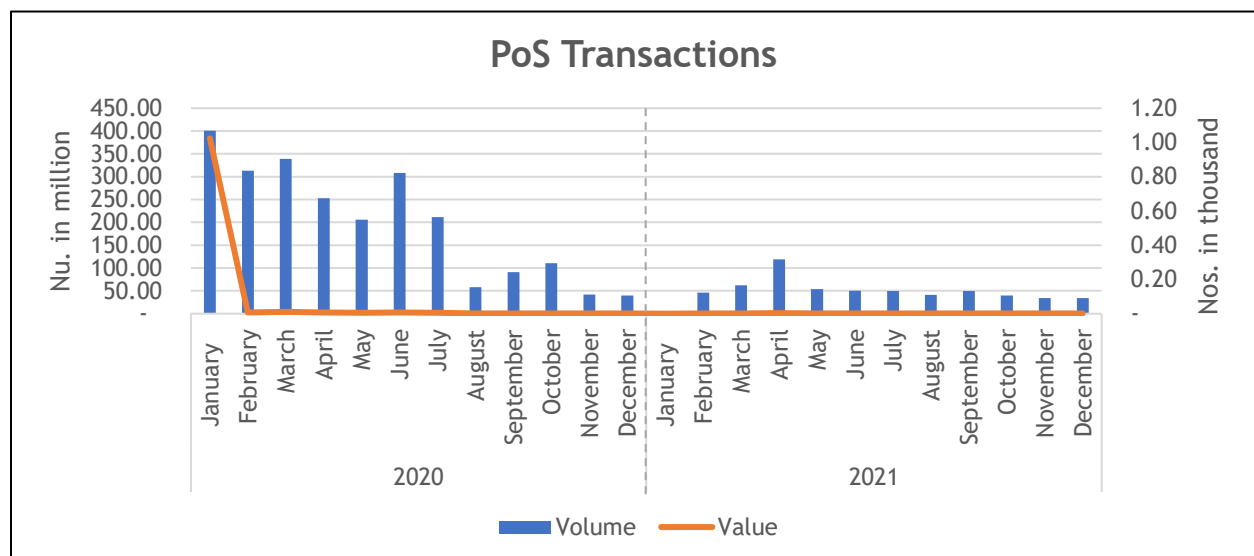
29 PoS Terminals
0 Transaction

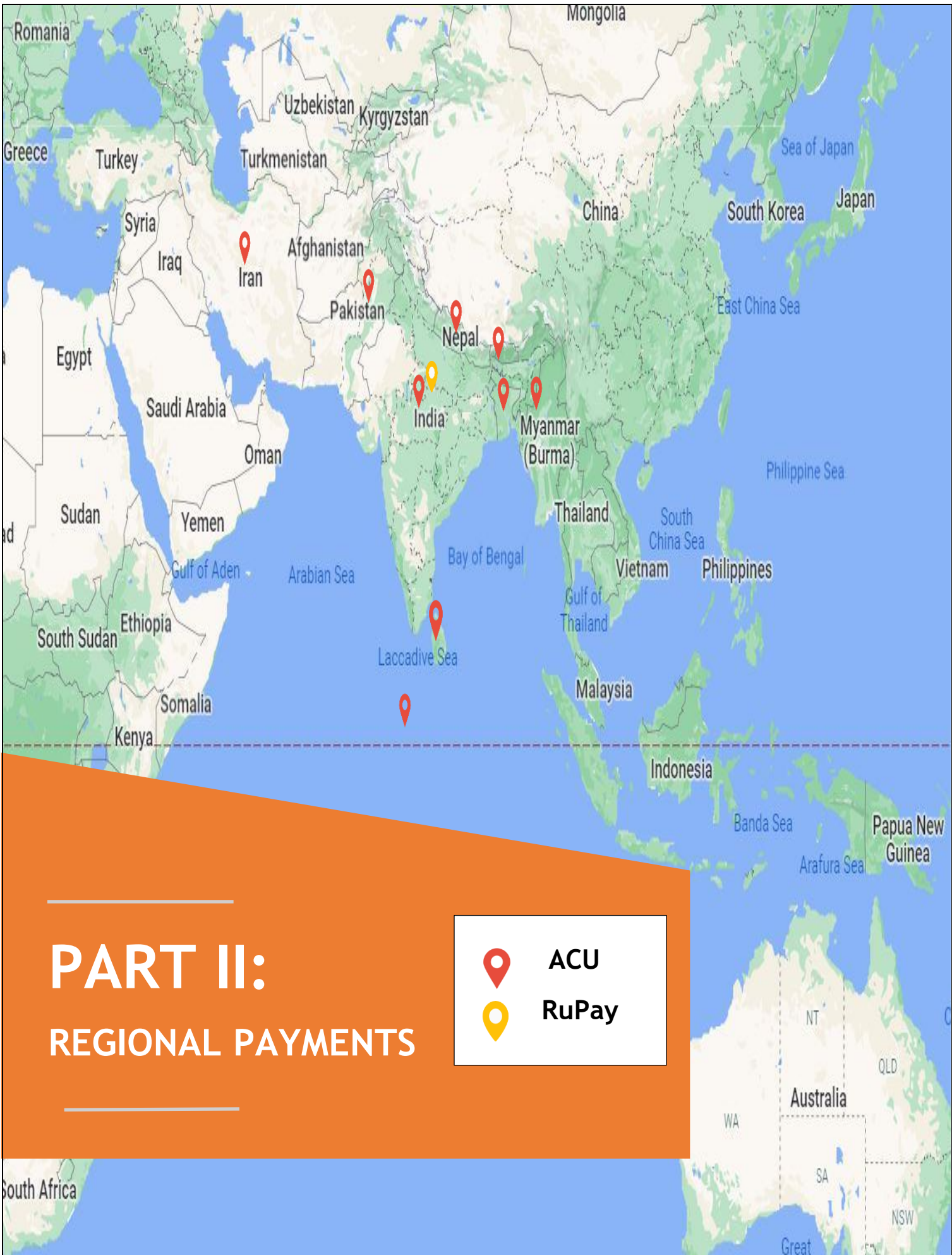
9. Point of Sales (PoS)

The PoS system have helped particularly the tourism industry by facilitating safe and secure transactions of the international debit and credit cards.



Like ATM, PoS terminals and its transactions have declined over the years. From the total of 1,126 PoS Machines available in the market, the transactions have been recorded only from the two banks (BoBL and DPNBL) in 2021. The volume has reduced from 8.52 thousand to 1.55 thousand and value from Nu. 485.28 million in 2020 to Nu.6.38 million in 2021. Thus, the volume has decreased by 82% and value by 99% in 2021.





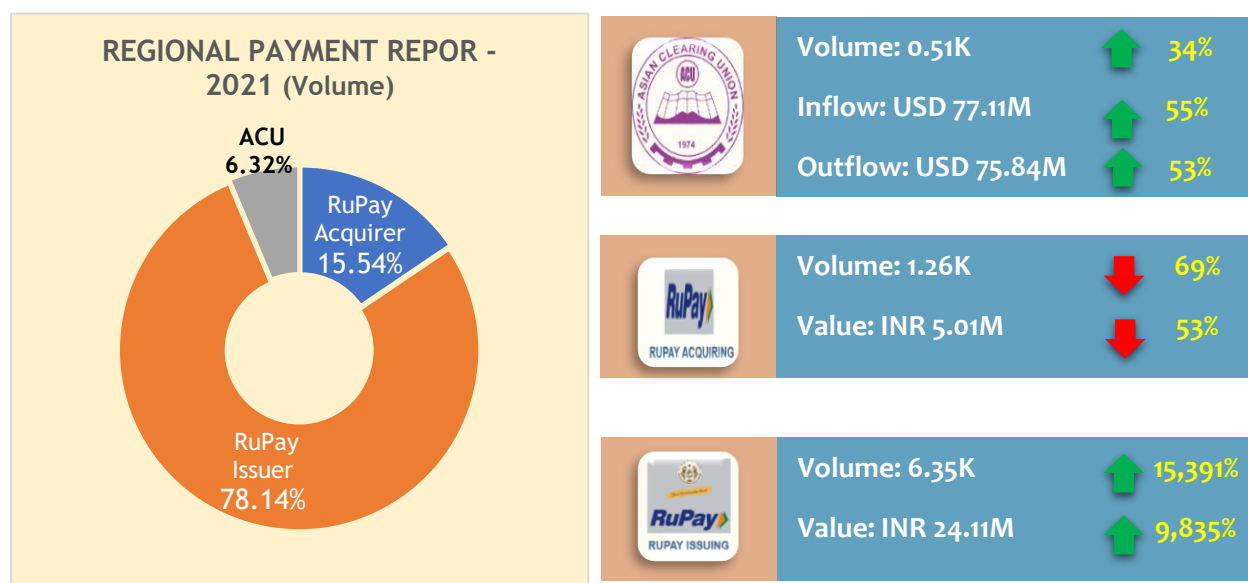
PART II:

REGIONAL PAYMENTS

| | |
|---|--------------|
|  | ACU |
|  | RuPay |

PART II: REGIONAL PAYMENTS

Performance of Regional Payment System



For this report, regional Payments consists of payment systems operated by the RMA for making cross border payments with India and other Asian countries in the region namely, Asian Clearing Union (ACU) and RuPay for now.

In 2021, Bhutan settled 514 transactions of aggregate value USD 152.95 million using the ACU mechanism mostly with Bangladesh Bank, Dhaka, recording an increase of 34% in volume and 54% in value over span of a year.

Likewise, for RuPay Issuing, a total volume of 1.26 thousand transactions was recorded amounting to INR 5.01M. Because of the lack of tourism and labor import caused by CoVID-19 pandemics, the RuPay Acquiring volume has declined by 69% and value by 53% in 2021 compared to the previous year.

Similarly, a total of 6.35 thousand RuPay Issuing transactions of value INR 24.11 million were spent by the Bhutanese in India. Presently, only Bhutan National Bank issues the RuPay Card.

PART II: REGIONAL PAYMENTS



1. ACU (Asian Clearing Union)



9

Central Banks



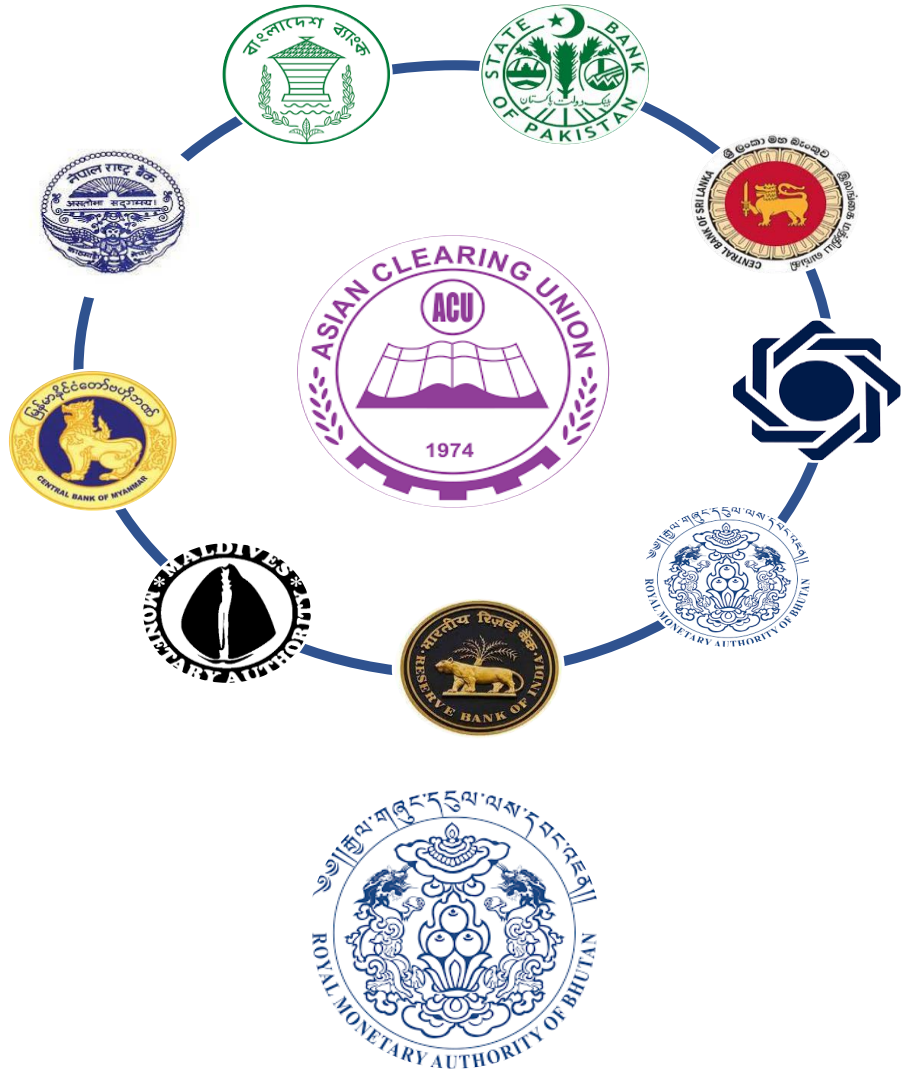
514

Volume



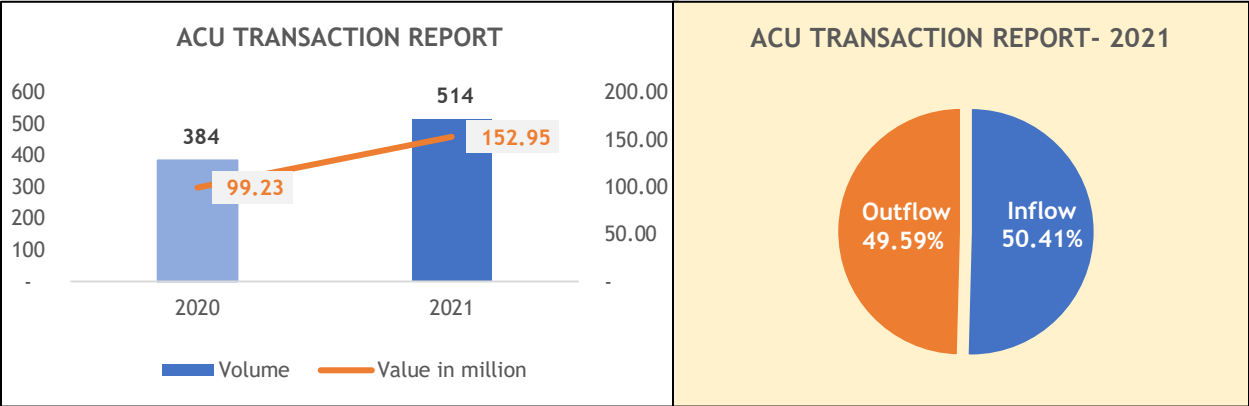
USD 152.95M

Value

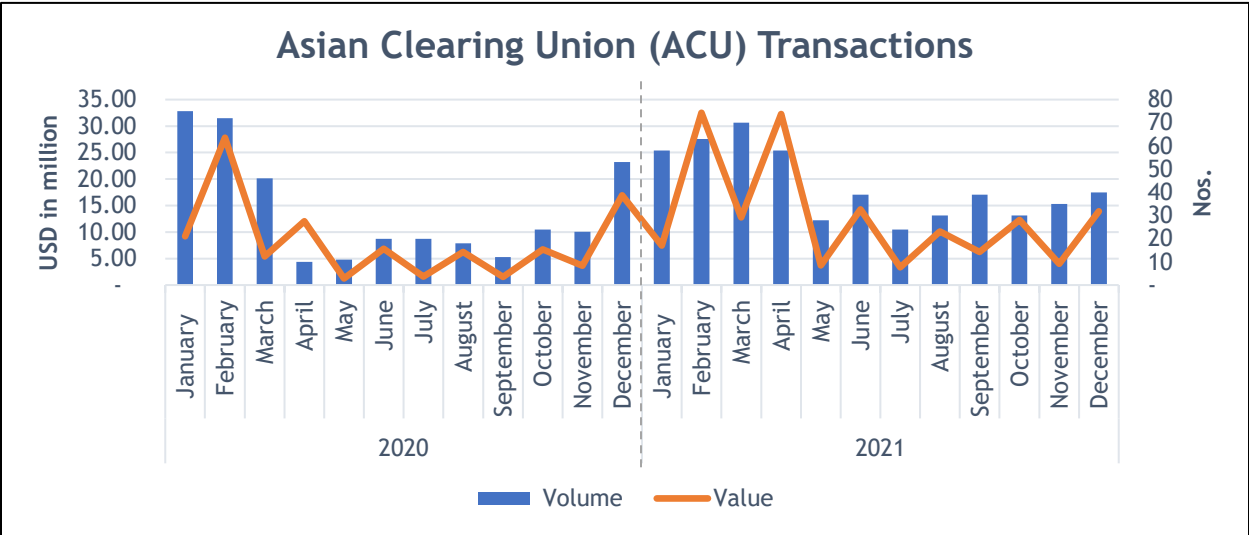


1. Asian Clearing Union

ACU was established as an initiative of the United Nation Economic and Social Commission for Asia and the Pacific (ESCAP) in December 1970 at Kabul. It is a payment arrangement between the member countries to settle payment for inter-regional transactions. The regional payments first started when Bhutan joined as a member of Asian Clearing Union (ACU) in the year 2000.



The ACU transactions have increased from 384 transactions worth USD 99.23 million in 2020 to 514 transactions worth USD 152.95 million in 2021, recording an increase of 34% by volume and 54% by value. Report shows an inflow of 50.41% and outflow of 49.59% out of the total value in 2021.



The Monthly transaction record depicts highest number of transactions recorded in the first quarter of 2021.

2. RuPay Acquirer



5

Financial Institution of Bhutan (Acquirer)



1,158

Financial Institution of India (Issuer)



1,263

Volume



INR 5.01M

Value

ACCESS



95

708



70

91



57

0



30

298



29

29



192

INR 732K



337

INR 1.08M



141

INR 571.70K



453

INR 2.08M



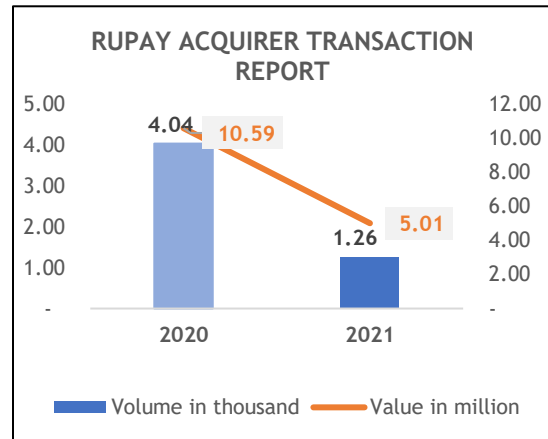
140

INR 543.60K

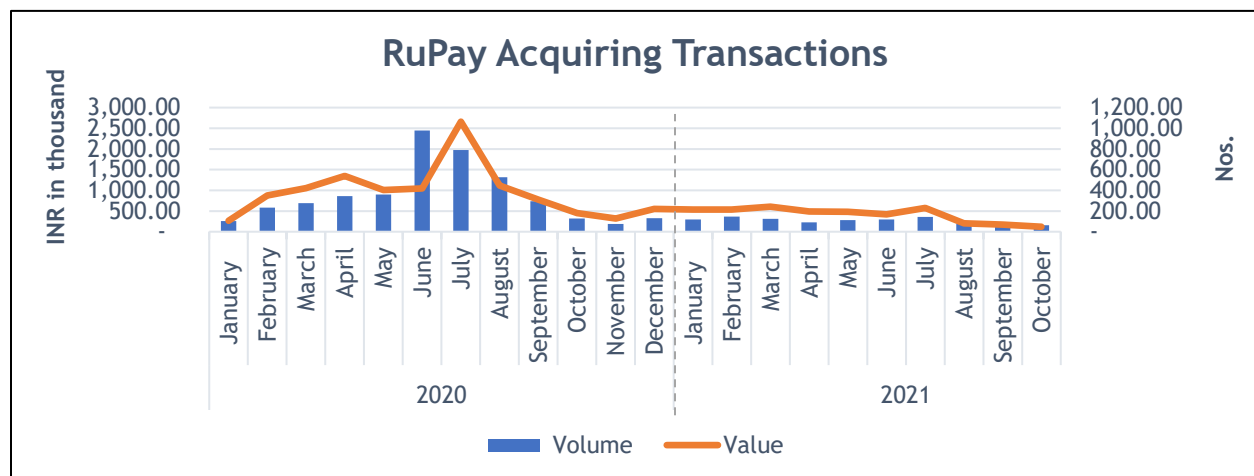
2. RuPay Acquiring

RuPay Acquiring is part of an initiative undertaken by the RMA to enhance and improve cross-border payments between Bhutan and India. In the first phase of the project, cross-border interoperability of RuPay card which allows Indian travelers to withdraw cash form ATM as well as make payment through PoS terminals in Bhutan was implemented in 2019.

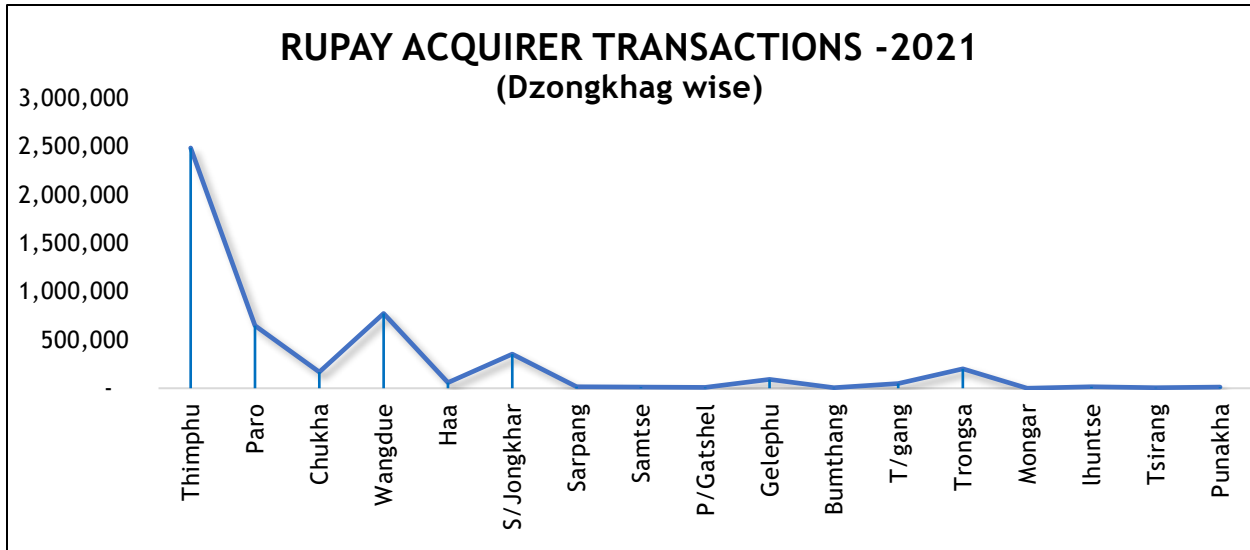
The RuPay cards issued by 1,158 authorized financial institutions in India can be used at the ATM and PoS terminals of 5 financial institutions of Bhutan; namely BoBL, BNBL, BDBL, DPNBL and TBank Ltd.



During the year, the RuPay Acquiring transactions declined from 4.04 thousand to 1.26 thousand and value from INR 10.59 million to INR 5.01 million, showing a decrease of 69% by volume and 53% by value.



it can be seen that the RuPay acquiring transactions which is RuPay inflow from the Indian travelers into Bhutan has declined since the onset of the COVID-19 pandemic and has continued to declines further in 2021.



The graph above shows the RuPay acquiring transactions Dzongkhag wise across the country. The RuPay acquiring transactions has happened only through the ATM channel and the withdrawal has been made from 17 Dzongkhags in Bhutan by the Indian citizens, mostly Indian officials and laborers working in Bhutan. The highest withdrawal was recorded from Thimphu Dzongkhag followed by Wangdue Dzongkhag.

This initiative has helped in getting easy access to cash without having to visit bank and agents and eliminate the need to carry cash.

3. RuPay Issuer



1

Financial Institution of Bhutan (Issuer)



3,702
Card Issued



1,158
Financial Institution of India (Acquirer)



6,351
Volume



INR 24.11M
Value



3,702



6,351



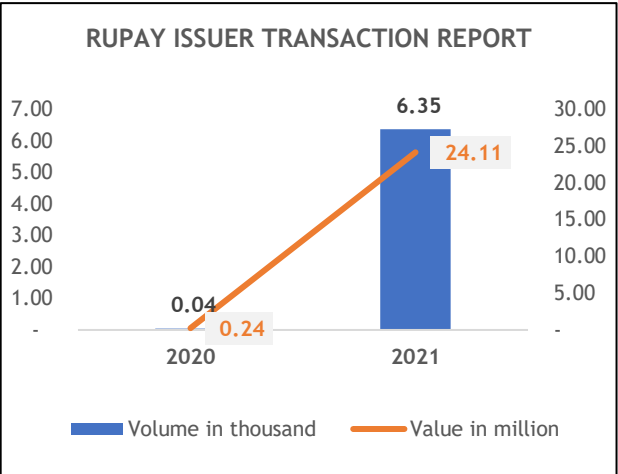
INR 24.11M

3. RuPay Issuing

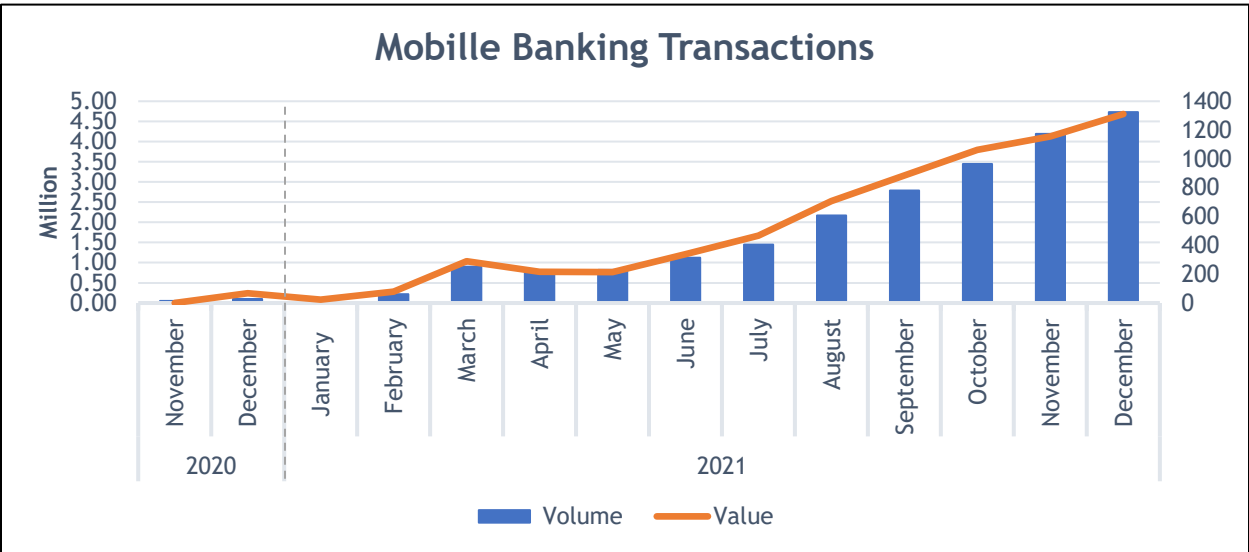
RuPay issuing was launched as a second phase of the initiative to enhance and promote cross-border payments between India and Bhutan. This initiative has enabled Bhutanese traveler in India to withdraw cash from the ATMs as well as make payments through PoS machines in India. This timely initiative has minimized Bhutanese in India from making physical contact during these times of global pandemic. Also, the safe, secure and efficient payment has help Bhutanese people from the burden of carrying huge amount of cash and related inconvenience.

Currently, Bhutan National Bank of Bhutan is the only issuer of RuPay Card to the Bhutanese citizen. The card can be used across ATM and PoS machines issued by 1,158 listed financial institution in Inda.

In terms of the transaction, during 2021, the total number of transactions have increased from 40 transactions in 2020 to 6,351 transactions in 2021. And similarly,



a significant rise in the value from INR 0.24 million to INR 24.11 million. The monthly trend shows an upward growth in the transactions over the months.



Card Issuance

| RuPay Card Issued by BNBL 2021 | | |
|--------------------------------|--------------|---------------------|
| Category | Nos. | Percentage Issuance |
| Arm force | 105 | 3% |
| Corporation | 161 | 5% |
| Business | 463 | 13% |
| Farmer | 176 | 5% |
| Financial Institution | 130 | 4% |
| Government Organization | 258 | 7% |
| Housewife | 138 | 4% |
| Monk | 76 | 2% |
| NGO | 8 | 0.2% |
| Private Employee | 1,452 | 42% |
| Student | 313 | 9% |
| Teacher | 120 | 3% |
| International Organization | 19 | 1% |
| Unemployed | 1 | 0.03% |
| Others | 73 | 2% |
| Grand Total | 3,493 | |

In terms of usage, BNBL has issued a total of 3,702 BNBL RuPay card out of which 94% has been issued in 2021. The maximum issuance during the year was to private employees (42%), followed by businesses (13%) and students (9%) as shown in the table above.

PART III:
INTERNATIONAL
PAYMENTS

SWIFT



4

Financial
Institution of
Bhutan



+11K
Institutions
worldwide
connected to
SWIFT



35.30K
Volume

TOP 3 SWIFT TRANSACTED

USD Dollar

29,703
Transactions

EURO

2,427
Transactions

AUD

738
Transactions



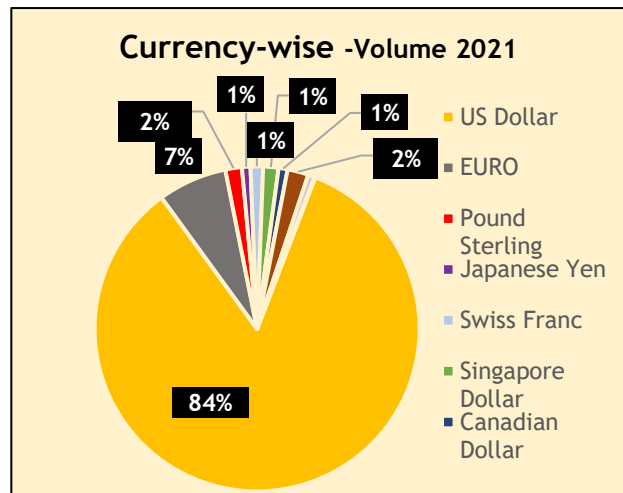
PART III: INTERNATIONAL PAYMENTS

Performance of International Payment System

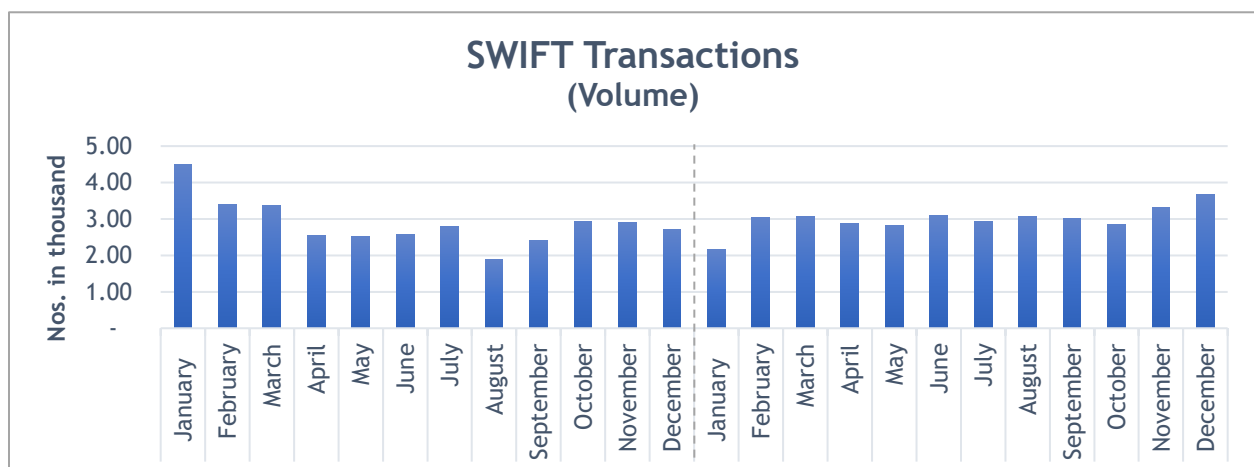
SWIFT

SWIFT is an international payment platform founded in 1973. The RMA joined as its member in 2005 to exchange financial messages for all international transactions carried out by RMA. Currently, four out of six banks are full members of the SWIFT network.

US Dollar seems to be the most dominant currency in SWIFT transactions in 2021, followed by Euro in terms of volume. This includes the number of both inward and outward transactions made by the country. In terms of Y-o-Y comparison, the SWIFT transaction has increased from 34.10 thousand in 2020 to 35.30 thousand in 2021, leading to an increase of 4% compared to the previous year.



The graph below shows volume of transaction recorded for the year 2020 and 2021.¹



¹ Average exchange rate of USD in 2020:

BTN: 74.12, INR: 74.12, CHF: 0.94, EUR :0.87, GBP: 0.78, JPY: 106.36, SDG: 1.38, AUD: 1.45, CAD: 1.34, SEK: 9.17

Average exchange rate of USD in 2021:

BTN: 73.96, INR: 73.96, CHF: 0.91, EUR :0.85, GBP: 0.73, JPY: 110.25, SDG: 1.34, AUD: 1.34, CAD: 1.26, SEK: 8.60

