

ANNUAL PAYMENT SYSTEM REPORT

2022



Department of Payment and **Settlement System**

Royal Monetary Authority

TABLE OF CONTENT

KEY DEVELOPMENTS 2022	5
DIGITAL PAYMENT SYSTEM MILESTONE	6
PART 1: DOMESTIC PAYMENTS	8
DOMESTIC PAYMENT STATUS	9
DOMESTIC PAYMENTS TRANSACTIONS	10
1. MOBILE BANKING	12
1. 1 MOBILE BANKING TRANSACTIONS	13
1.2 MOBILE BANKING SUBSCRIBERS	16
2. BHUTAN QR	17
2.1 BHUTAN QR CODE TRANSACTIONS	18
2.2 BHUTAN QR CODE MERCHANTS	19
3. DOMESTIC PAYMENT GATEWAY	20
3.1 DOMESTIC PAYMENT GATEWAY TRANSACTIONS	21
3.2 DOMESTIC PAYMENT GATEWAY MERCHANTS	22
4. INTERNET BANKING	23
4.1 INTERNET BANKING TRANSACTIONS	24
5. E-WALLET	25
5.1 E-WALLET TRANSACTIONS	26
5.2 E-WALLET USAGE	27
6. BHUTAN INTER BANK REAL TIME (BIRT) FUND TRANSFER	28
6.1 BIRT FUND TRANSFER TRANSACTIONS	29
6.2 TYPES OF BIRT FUND TRANSFER TRANSACTIONS	30
7.CHEQUE	32
7.1 CHEQUE TRANSACTIONS	33
8. ATM (Automated Teller Machine)	36
8.1 Automated Teller Machine (ATM) Transactions	37
9. Point of Sales (PoS)	38
9.1 POINT of Sales (PoS) Transactions	39
REGIONAL PAYMENTS	40

REGIONAL PAYMENTS STATUS	41
1. ACU	42
(Asian Clearing Union)	42
1.1 Asian Clearing Union	43
2. RuPay Acquirer	44
2.1 RuPay Acquirer transactions	45
3. RuPay Issuer	47
3.1 RuPay Issuer transactions	48
3.2 RuPay Card Issuance	48
INTERNATIONAL PAYMENTS	49
1. SWIFT	50
1.1 SWIFT transactions	51
2. International Payment Gateway	53
2.1 International Payment Gateway TRANSACTIONS	54
2. International Cards (Issuing Transactions)	
3.1 International CREDIT Cards	
3.2 International DERIT Cards	

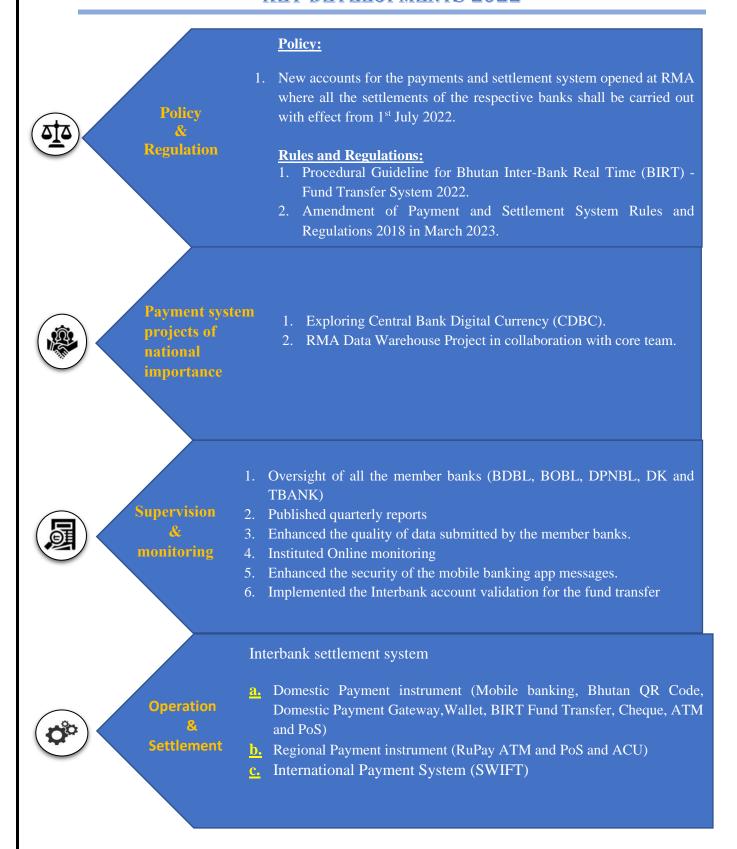
PREFACE

With great pleasure and enthusiasm, the Department of Payment and Settlement System presents the Annual Payment System Report (PSR) for the year 2022. The PSR is part of an initiative undertaken by the RMA to present a comprehensive report analyzing the payment landscape in Bhutan and the exponential growth of digital payments and its impact on the growing economy.

This report encapsulates the developments of payment systems in Bhutan for the year 2022 and the key developments updates as of publication of this report and progress made over the past years and strategic initiatives of the department. In an ever-evolving business landscape, we must reflect upon our past endeavors and chart a course for the future. Throughout this report, the detailed report of payment transactions of domestic, regional and international, outlining the voutlines transactions against each value and users of the instruments.

The Department would like to express our deepest appreciation and gratitude to all those who have contributed to the creation and successful completion of this Annual Report. Their unwavering support, dedication, and expertise have been instrumental in capturing the essence.

KEY DEVELOPMENTS 2022

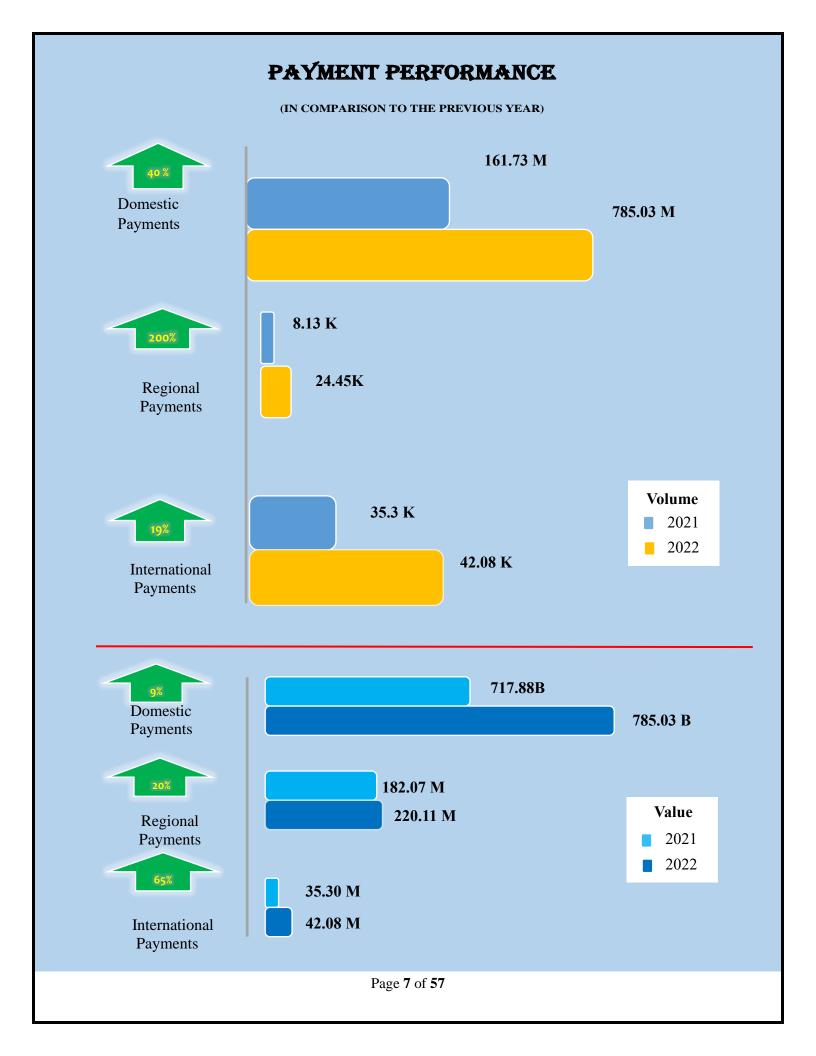


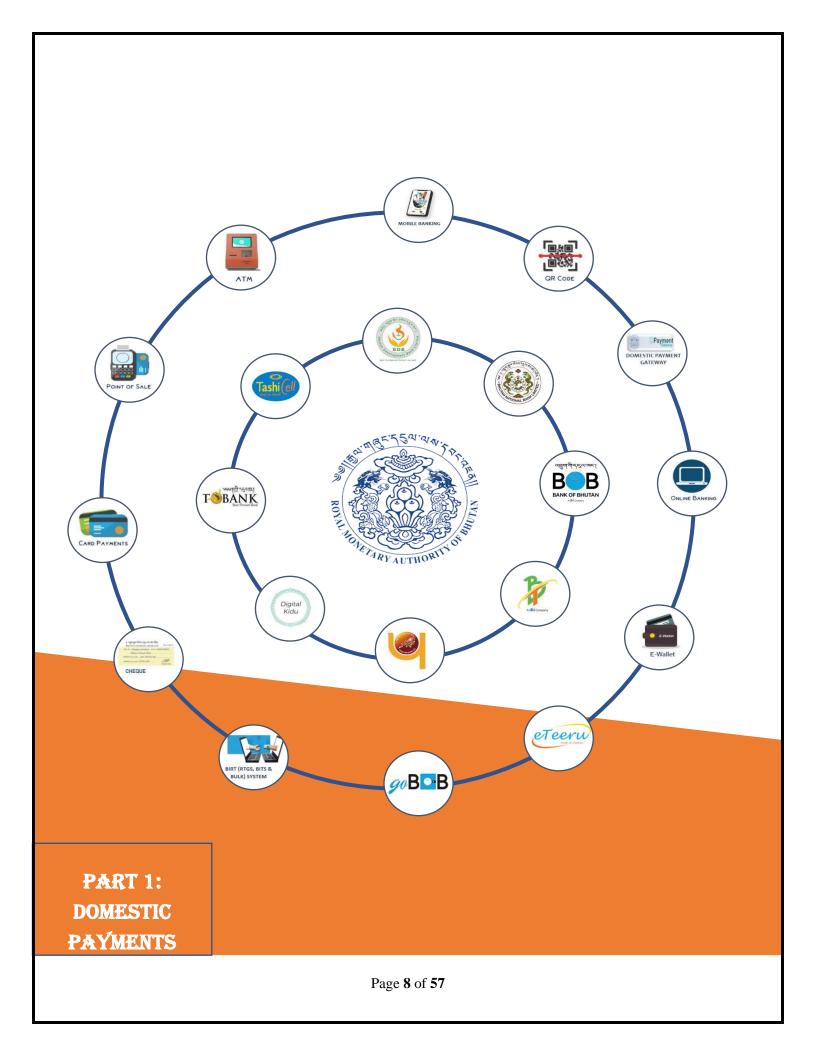
DIGITAL PAYMENT SYSTEM MILESTONE

In recent years, Bhutan has made significant strides in the development and adoption of digital payment systems. Here are some key milestones in the digital payment system evolution in Bhutan:

- 1. Introduction of Online Banking Services: Banks began offering online banking services, allowing customers to access their accounts, check balances, view transaction history, and initiate fund transfers through Internet banking platforms. This milestone provided customers with the convenience of managing their finances online.
- 2. Launch of Mobile Banking Services: Banks introduced mobile banking applications that enabled customers to perform various banking activities using their smartphones. Mobile banking apps provided features such as balance inquiries, fund transfers, bill payments, and mobile top-ups, bringing banking services to the fingertips of customers.
- 3. Introduction of the Bhutan Financial Switch (BFS): The BFS allows customers to access multiple banking services from different member banks through a single switch. This milestone promoted interoperability and convenience for users, enabling them to seamlessly conduct transactions across various banks.
- 4. Launch of e-Wallet: Currently, there are three wallet providers where that allow users to make payments, transfer funds, and perform other financial transactions using their mobile devices. e-Wallet aimed to enhance financial inclusion and reduce reliance on cash-based transactions.
- 5. Integration of Payment gateway with Government Systems: The Bhutan government integrated with payment gateway with various government systems, enabling citizens to make utility bill payments, tax payments, and other government-related transactions using mobile payment solutions. This integration streamlined the payment process and improved efficiency.
- 6. Promotion of Digital Payment Awareness and Education: Bhutan's government and financial institutions focused on promoting digital payment awareness and educating the public about the benefits and usage of digital payment systems. Financial literacy programs, workshops, and campaigns were conducted to enhance understanding and encourage the adoption of digital payment methods.
- 7. Expansion of Point-of-Sale (POS) Terminals: The availability of POS terminals expanded across Bhutan, allowing businesses to accept debit and credit card payments. This milestone facilitated electronic transactions in retail outlets, restaurants, and other establishments, reducing dependence on cash transactions.

These milestones highlight Bhutan's progress in embracing digital payment systems, empowering individuals, businesses, and the government with efficient, secure, and convenient financial transaction options.





DOMESTIC PAYMENT STATUS

5
Internet Banking
App Subscribers

29,766 ernet Bankir

Subscribers

Mobile Banking App Subscribers

625,905

8

*353,224*Cards Issued

266
ATM Terminals

543
PoS Terminals

PAYMENT SERVICE PROVIDERS

(6 Banks & 2 Telecos)

63,786

Bhutan QR Code Merchants 45

Institutions onboarded on BIRT System

130

BIRT Service Centers



68

Domestic PG merchants

70

CTS service Centers 343

e-Wallet Agents

339,526

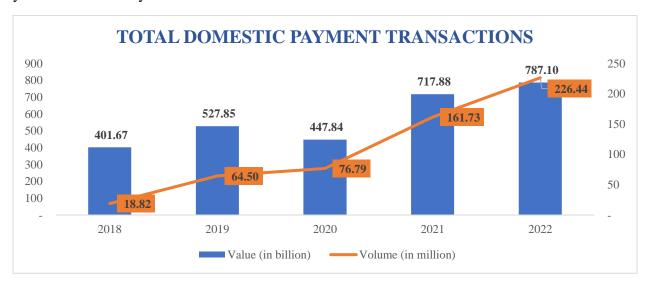
e-Wallet Subscriber 58,273

e-Wallet

Merchants

DOMESTIC PAYMENTS TRANSACTIONS

The following chart shows the total payment transactions (volume and value), compared every year over the last 5 years.



The domestic payments consist of three payment systems: Cheque Truncation system (CTS), Bhutan Financial Switch (BFS) and Bhutan Interbank Realtime Fund Transfer System (BIRT) and eleven payment channels -Cheque, mobile banking, Bhutan QR code, Payment gateway, internet banking, e-wallet, electronic fund transfer (BIRT-RTGS, BIRT-BULK, BIRT-BITS), ATM and PoS.

In 2022, a total of 226.44 million transactions worth of Nu. 787.10 billion were recorded through various domestic channels. There is an increase of 64.71 million transactions an (increase of 40 percent) compared to last year. In terms of value, it has increased by Nu. 69.22 million (9.6 percent) in 2022 compared to 2021. The increase in transaction volume and value is mainly driven by increase in mobile banking and Bhutan QR code.

DOMESTIC PAYMENTS TRANSACTIONS 2022





1. MOBILE BANKING





6 Financial Institutions





145.13 M Volume





273,918 Active Users115.74 M TransactionsNu. 380.04 B



94,435 Active Users21.16 M TransactionsNu. 39.43 B



160,412 Active Users3.01 M TransactionsNu. 13.37 B



26,459 Active Users1.16 M TransactionsNu. 7.47 B

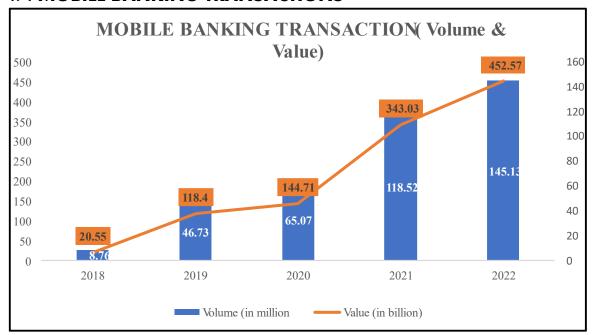


30,216 Active Users1.07 M TransactionsNu. 6.27 B



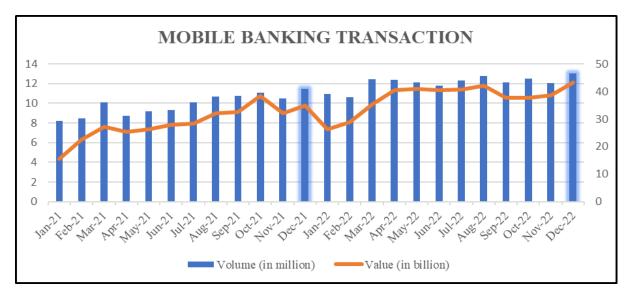
40,465 Active Users2.99 M TransactionsNu. 5.98 B

1. 1 MOBILE BANKING TRANSACTIONS



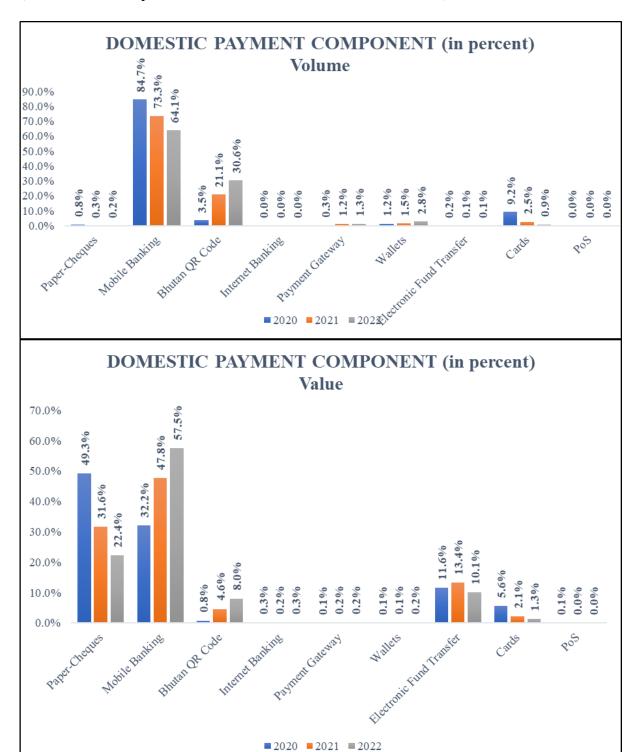
The above graph shows the transactions of mobile banking (banking apps) showing an increasing trend due to pandemic and increase in digitalization. In 2022, the highest transaction, both in volume and value, was recorded in December 2022 with volume of 145.13 million worth of Nu. 452.57 billion. Compared to 2021, the volume increased by 22.5% and value by 31.9%. Over the years there is an increasing trend in mobile banking in terms of both volume and value.

The graph below shows the monthly trend of mobile banking transaction for past two years. The highest transaction volume of 13,026 against Nu. 43.40 million was recorded in December 2022. The second highest was recorded in August 2022 with volume of 12,772 amounting to Nu. 42.06 million.

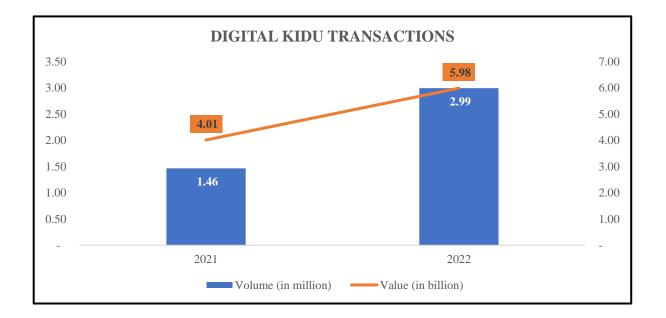


Among the eleven domestic payment channels, the mobile banking dominates over other payment channels indicting that it is the most preferred digital payment channel. It constitutes around 64.1 percent of total volume of domestic payment and 57.5 percent of total value. The graph below shows the trend of the domestic payment over the past three years.

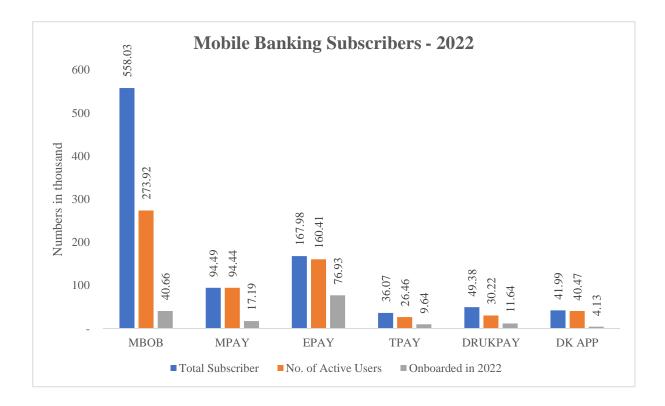
(Note: 0.0% corresponds to the value less than Nu. 219.08 million)



As compared to the previous year, the mobile banking transactions of the youngest established bank- Digital Kidu Bank saw increase of 1.53 million in terms of volume (increase of 22.5 percent) and Nu. 1.97 billion by value (increase by 31.9 percent). In 2022, DK recorded a transaction volume of 2.99 million worth of Nu. 5.98 billion which was an increase of 104.4 percent in volume and 49.2 percent in values.



1.2 MOBILE BANKING SUBSCRIBERS



With the subsequent increase in the mobile banking transactions, new users registered with six banks has also increased to 215,752 from 160,183 in 2021, which is an increase of 55,569 new users. As indicated in the graph above, Bank of Bhutan (BOBL) has the highest number of total subscribers to its banking app — mBoB, however, in year 2022, Bhutan Development Bank Limited (BDBL) has seen the highest number of new users of its app- EPay. Digital Kidu has recorded the lowest number of new users and has the least subscribers compared to other banks as it is relatively new in the market.

2. BHUTAN QR







63,786 Merchants







36,231 Merchants
61.65 M Transactions

Nu. 52.15 B



10,860 Merchants

5.12 M Transactions

Nu. 5.55 B



2,915 Merchants

752.73 K Transactions

Nu. 859.02 B



10,388 Merchants

1.16 M Transactions

Nu. 2.96 B



3,392 Merchants

527.60 K Transactions

Nu. 1.75 B



No Merchants

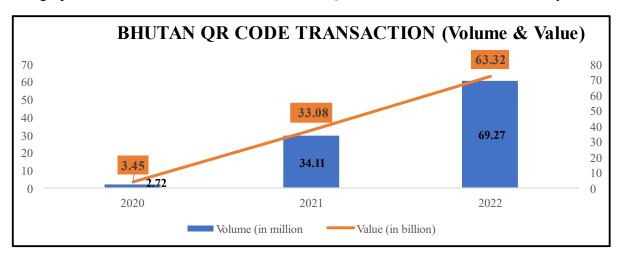
162.59K Transactions

Nu. 134.20M

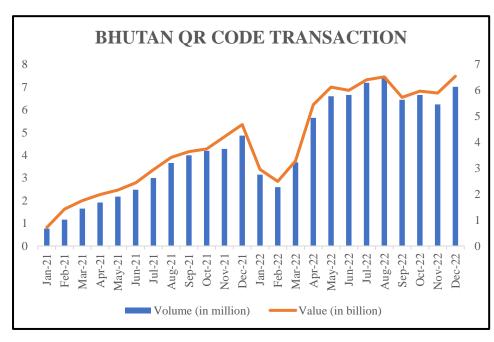
2.1 BHUTAN QR CODE TRANSACTIONS

Bhutan QR code has gained popularity after its introduction in 2020 in shops, restaurants, cafes and even in collection of parking fees as they are contactless, touchless and easy to use. It came into handy especially during the pandemic as it limits in-person transactions making it less likely for the COVID to spread to others through exchanges. Moreover, the availability of self-generating features on the mobile banking apps has helped the individuals and merchants to generate their QR code for receiving payments instantly.

The graph below shows the volume and value of QR Transactions over the last three years.



The QR Code volume and value has shown a big jump from 2.72 million to 34.11 million from 2020 to 2021 indicating an increasing penetration of the use of QR code. Similarly, the QR code volume in 2022 has increased to 69.27 million from 34.11 million in 2021 which is an increase of 103.1 percent. In terms of value, it has increased by 94.1 percent from Nu. 33.08 billion to Nu. 63.32 billion in 2022.



Due to the national wide lockdowns, the QR code transactions for January to March 2022 is recorded the least. However. transaction the has peaked in April 2022 Nu. 5.44 billion from Nu. 3.28 billion in March

due to the relaxation of national wide lockdown and resumption of regular activities

2.2 BHUTAN QR CODE MERCHANTS

Region	Dzongkhag	2020	2021	2022	Total	% Change (2021 & 2022)	
Western & Central Region	Paro	854	2,815	1,615	4,430	-43%	
	Gasa	37	106	161	267	52%	
	Bumthang	296	797	657	1,454	-18%	
	Wangdue Phodrang	655	1,435	1,569	3,004	9%	11%
	Наа	144	292	281	573	-4%	1170
	Trongsa	224	448	682	1,130	52%	
	Punakha	442	533	724	1,257	36%	
	Thimphu	7559	8,942	9,375	18,317	5%	
	Samtse	375	1,048	996	2,044	-5%	-1%
Southern Region	Sarpang	447	1,239	1,525	2,764	23%	
	Chukha	1,372	3,582	3,113	6,695	-13%	
	Dagana	192	316	278	594	-12%	
	Tsirang	273	400	487	887	22%	
	Zhemgang	181	217	174	391	-20%	
Eastern Region	Lhuntshe	83	173	88	261	-49%	
	Samdrup Jongkhar	466	902	749	1,651	-17%	
	Trashigang	327	603	786	1,389	30%	-3%
	Tashiyangtshe	107	177	260	437	47%	
	PemaGaltshel	210	281	124	405	-56%	
	Mongar	718	761	983	1,744	29%	
	Total	14,962	25,067	24,627	49,694		

As shown in the above table, the merchants in 2022 have decreased to 24,627 from 25,067 in 2021, a decrease by 1.8 percent. Pema Gatshel and Lhuntse have recorded the highest decline in merchants compared to 2021. The decrease in merchant due to the self-generating features on the mobile banking apps. However, Gasa and Trongsa has recorded the highest increase in merchant for the year.

3. DOMESTIC PAYMENT GATEWAY







68 Merchants



2.89 M Volume





61 Merchants1.71M TransactionsNu. 29.22B



5 Merchants155.79K TransactionsNu. 2.82B



No Merchants
49.98K Transactions
Nu. 31.69M



1 Merchants37.34K TransactionsNu. 19.07M



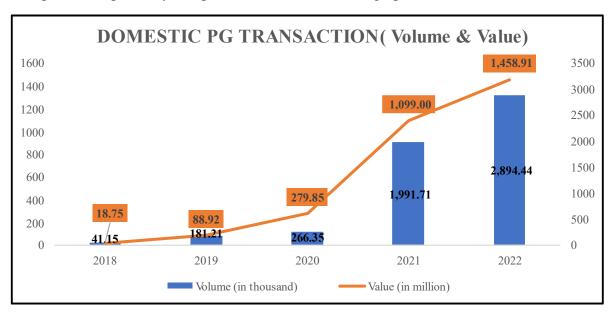
1 Merchants
33.69K Transactions
Nu. 14.84M

3.1 DOMESTIC PAYMENT GATEWAY TRANSACTIONS

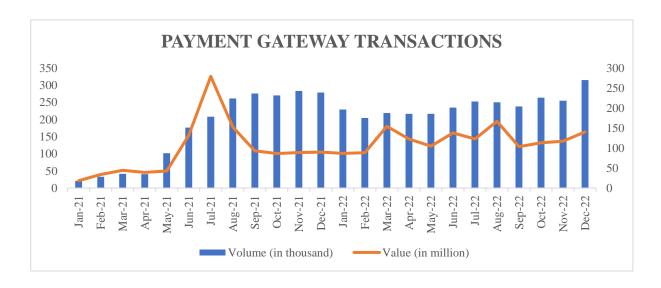
Under the domestic payment gateway, Bhutanese citizens can now avail G2C services and initiate inter-bank fund transfer and payments on an instant, secure and real-time manner with any participating banks. It provides interoperability of payments across the banks and agencies and facilitates e-payments between Citizens-to-Government, Government-to-Citizens, Business-to Business, and Customer-to-Business.

Over the past five years, the transactions in payment gateway have gradually increased.

The domestic payment gateway has increased drastically over the last five years with the high jump in 2021 compared to 2020. In 2022, volume and value has increased by 45.4 percent and 32.7 percent respectively compared to 2021 as shown in graph below.

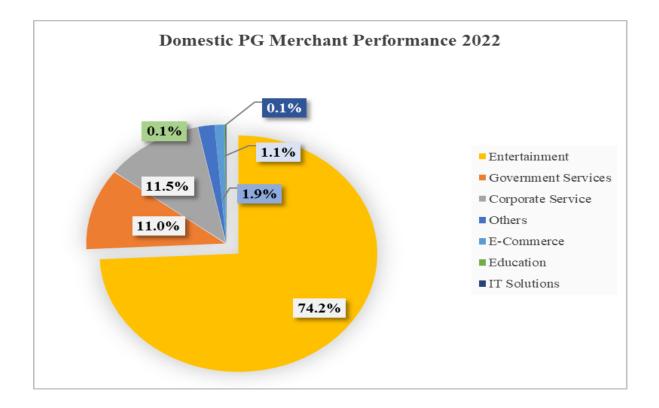


The monthly trend of domestic payment gateway is shown below. Compared to 2021, the transaction in the year 2022 is increasing and recorded the highest in December 2022.



3.2 DOMESTIC PAYMENT GATEWAY MERCHANTS

In 2022, 56 payment gateway merchants were recorded in various categories such as entertainment, government services, corporate services, E-commerce, educations, IT solutions and others. Entertainment has observed the highest transactions over the past years, constituting around 74.2 percent in 2022, followed by governments services of 11.1 percent. IT solutions has recorded the least transaction of 0.1 percent.



4. INTERNET BANKING





6,277 Internet Banking Subscribers27,810 TransactionsNu. 1.99 B





4,973 Internet Banking Subscribers2,735 TransactionsNu. 76.31 M



29,766
Total Subscribers



138 Internet Banking Subscribers No Transaction



32,335 Volume



12,620 Internet Banking Subscribers747 Transactions

Nu. 11.67 M



Nu. 2.17 B Value

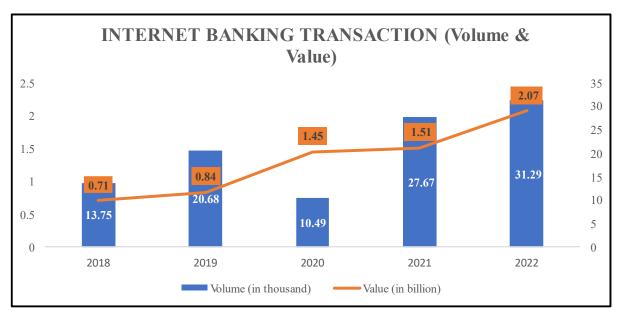


5,758 Internet Banking Subscribers No Transactions

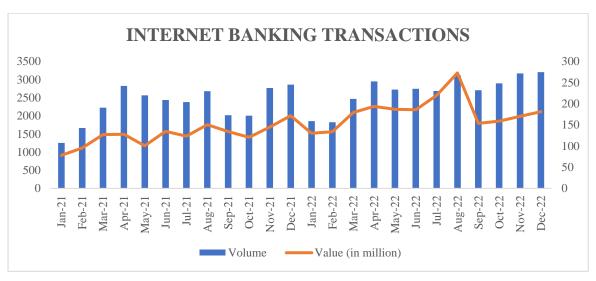
4.1 INTERNET BANKING TRANSACTIONS

Internet banking allows its users to conduct a range of financial transactions through the financial institution's website. The internet banking provides the security from online frauds and account hacking. Moreover, customers can view account balance, and view and print account statement.

The internet banking volume and value shows an increasing trend over the last 5 years. In 2022, only three banks, BOBL, Bhutan National Bank Limited (BNBL) and T Bank has recorded transactions. These three banks recorded transaction volume of 31,292 worth of Nu. 2.07 billion which is an increase of 13.1 percent and 37.5 percent in terms of volume and value respectively. The volume and value for internet banking is shown in graph below:



In 2022, three banks provided internet banking and recorded a total of 29,766 subscribers which was an increase of 2 percent as compared to last year and out of which 650 new subscribers were observed. Out of the three banks, major transaction took place for BOBL of Nu. 1,985.16 million followed by BNBL of Nu. 76.31 million.



5. E-WALLET





3 e-Wallet Issuer







6.32M Volume

1,963.71M Value



343 Agents28 Merchants14,258 Wallet Subscribers2.07M Transactions

Nu. 820.90M



82,418 Wallet Subscribers3.74 M TransactionsNu. 932.98M



17 Agents5 Merchants23,030 Wallet Subscribers50.497K Transactions

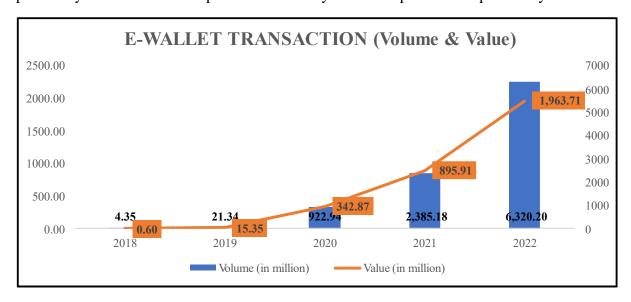
Nu. 209.83M

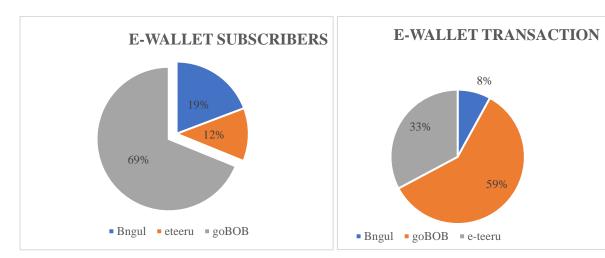
5.1 E-WALLET TRANSACTIONS

Currently, there are three registered e-wallet issuers, that is two telecommunication companies and BOBL. One of the distinct features of e-wallet is that the users do not need the valid account number to transfer funds rather a people with Bhutanese mobile number can easily register and transfer the fund instantly. BOBL is only the financial institutions that has launched the e-wallet.

As of 2022, these three e-money issuers have onboarded 119,706 subscribers, 28 merchants and 343 agents.

Over the last five years Internet Banking too has increased drastically in terms of volume and value with a high jump in 2021 from 2020 and similar trend in 2022. In terms of the transactions, it has increased from 2.39 million to 6.32 million and the value has also increased from Nu. 859.91 million to Nu. 1,963.71 million in the year 2022. It is an increase of 165 percent by volume and 119.2 percent increase by value compared to the previous year.

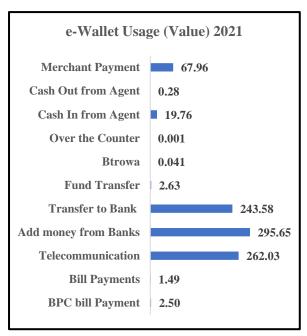


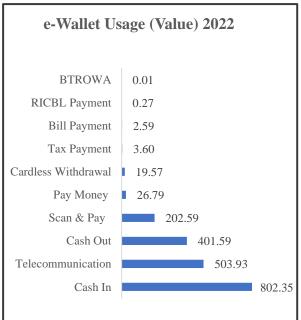


In terms of performance in 2022, goBOB has the highest number of subscribers with 68.9 percent followed by Bngul with 19.2 percent subscribers. The transactions have also recorded

mostly in the goBOB wallet with 59.2 percent of the total wallet transactions, e-teeru with 32.8 percent and Bngul with 8 percent in 2022.

5.2 E-WALLET USAGE





In terms of usage from these three wallets, the highest usage in terms of volume was observed under the telecommunications with over 3.78 million transactions followed by Cash In from Agents. In terms of value Cash In from agents had highest transactions with over value of Nu. 802.35. The increase of 119 percent of value in 2022 is because of onboard of gobob wallet which brought in additional four payment category and because of an increase of in all the category compared to 2021.

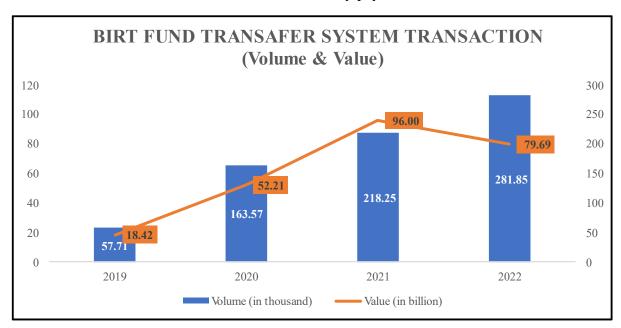
6. BHUTAN INTER **BANK REAL TIME** (BIRT) FUND **TRANSFER** 6 BOB Sandidanari TOBANK Financial Institutions 61 14 35 9 1 10 130 **BIRT Service** Center 45 11 3 1 0 27 **Bulk Payment** Institution 0001 1,920 154 449 1 49 Volume: **3,175** 281.85K **RTGS** Value: 21.93B 17.12B 1.50B 10.48B 12.27M 0.28B Volume 5,076 864 32,353 9,182 Volume: 177.35K 27,986 **BULK** 79.69B 7.46B 3.51B 1.47B 450.48M 865.90M Value: 11.71B Value 118 217 683 10,131 Volume: 12,313 46 1.10M 23.94M 49.5M 112.92M Value: 1.22B 1.5B

6.1 BIRT FUND TRANSFER TRANSACTIONS

Bhutan Inter Bank Real Time (BIRT) fund transfer system is initially known as Global Interchange for Financial Transactions (GIFT) established on 22nd July 2019. Coming up with its Rules and Regulation, the system was renamed later in late 2021.

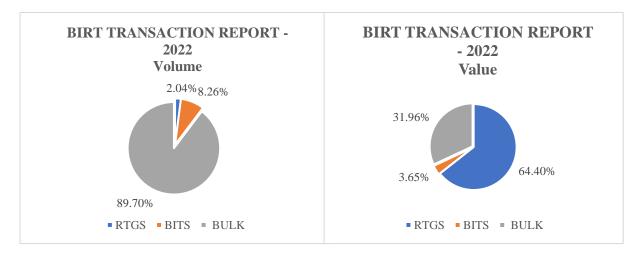
The system supports three types of payment services, namely "Bulk" for single debit and multiple credit especially for salary disbursement, and pension disbursement. "BITS" a batch settlement service and "RTGS" a real time gross settlement service.

All six banks provide BIRT services from their service centers across the country. BoBL have the 61 service centers and has onboarded 27 institutions on BULK services for institution's salary payment. Similarly, BNBL have 14 service centers and 11 institutions onboarded. Likewise, BDBL has 35 service centers (from all the branch offices) and have 3 institutions onboarded. Also, DPNBL have 9 service centers and 3 institutions. T Bank have 10 service centers and DK has 1 institution onboarded for salary payment.



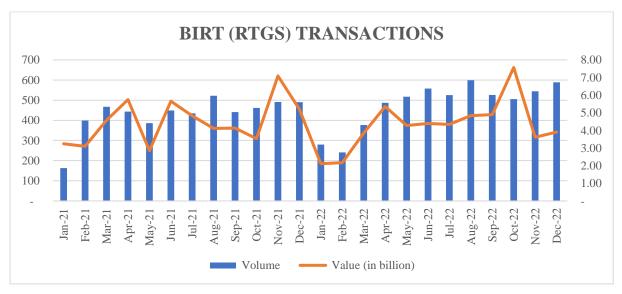
Over the years, BIRT transaction shows a steady increase and then in 2022 there is a slight decline. In terms of y-o-y comparison, it has increased from 218.25 thousand transactions to 281.85 thousand and from value of Nu. 96.00 billion to Nu.79.69 billion. Therefore, it is an increase of 29.1 percent by volume and 17 percent in decrease by value compared to the previous year 2021.

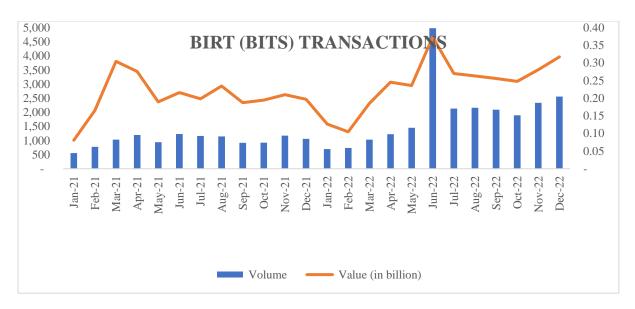
6.2 TYPES OF BIRT FUND TRANSFER TRANSACTIONS



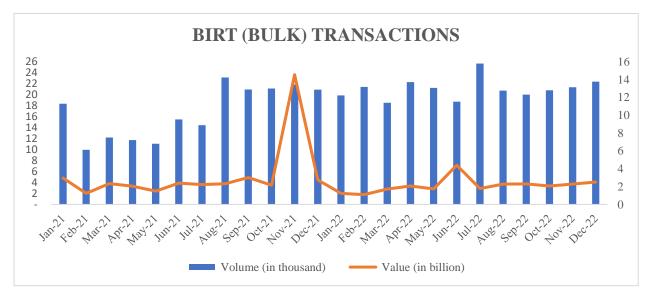
The volume and value of these three payment services of the BIRT system have recorded 281.25 thousand transactions amounting to Nu. 79.69 million in 2022. The highest transaction was observed in the BULK service followed by BITS and RTGS. However, in terms of value, the highest amount was routed through RTGS system, followed by BULK and BITS. The reason for huge value in RTGS and BULK services is due to large value payments through these services.

Individually, RTGS payment services decreased from 5.15 thousand transactions amounting to Nu. 54.80 billion in 2021 to 5.75 thousand of transactions amounting to Nu.51.32 billion in 2022. It is an increase of 11.61 percent by volume and decrease of 6.4 percent by value. q-o-q comparison of 2021, the RTGS transaction is decreasing in both volume and value with average of 16 transactions settled daily.





BIRT-BITS have also increased from 12.11 thousand transactions in 2021 to 23.29 thousand in 2022. In terms of value, it has increased from Nu.2.45 billion to Nu.2.91 billion. It is an increase of 92 percent by volume and 19 percent by value. The system has processed over 64 transactions on an average daily.



Likewise, BIRT BULK has also increased from 209.99 thousand transactions in 2021 to 252.81 thousand transactions with the increase of 20.4 percent in 2022. Whereas value has decreased from Nu. 39.47 billion to Nu. 25.47 billion with a decrease of 35.5 percent in 2022. It has processed over 693 transactions on an average per day.

7.CHEQUE



5 Financial Institution



70 CTS Service Center



419.8K Volume



175.92B Value





12 CTS Service Centers 277.53K Transactions **Nu. 117.61B**



13 CTS Service Centers 75.12K Transactions Nu. 23.78B



35 CTS Service Centers
9.40K Transactions
Nu. 2.09B



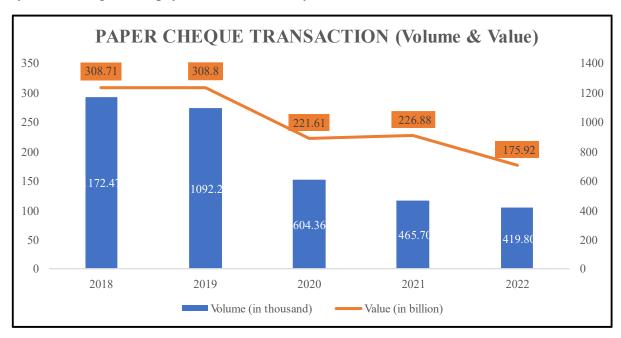
7 CTS Service Centers 29.64K Transactions Nu. 9.87B



3 CTS Service Centers 28.43K Transactions **Nu. 22.60B**

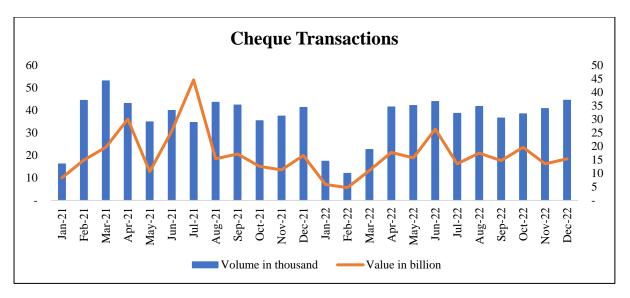
7.1 CHEQUE TRANSACTIONS

Bhutan has initiated the cheque payment since 1997. It has evolved from manual to image-based settlement. Due to its legacy system and process, clearing and settlement took 3 days or even more for the branches and extension offices in the outskirt leading to delay, loss of cheque and customer complaints. With the introduction of Cheque Truncation System (CTS) even for the member banks in 2017, the interbank settlement time has reduced to T+1 day. It is an important system for large value payments in the country.



For the efficient cheque receipt, clearing banks have established 70 service centers across the country; BoBL 12, BNBL 13, DPNBL 3, T Bank 7 and BDBL 35. However, with the introduction of rest of the payment systems, cheque transactions have gradually decreased. Even more so when the daily limit of the mobile banking is enhanced.

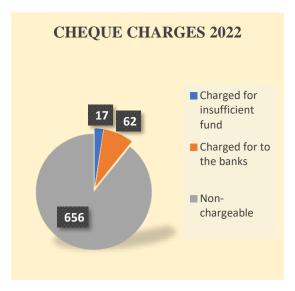
Over years, there is a declining trend in usage of cheque in terms of both volume and value due to introduction of digital payment platforms. The cheque payments have decreased from 465.70 thousand transactions in 2021 to 420.13 thousand transactions in 2022. It is a decrease of 9.9 percent over the year. The value has also decreased from Nu. 226.88 billion to Nu.175.92 billion leading to a decrease by 22.5 percent over the year.



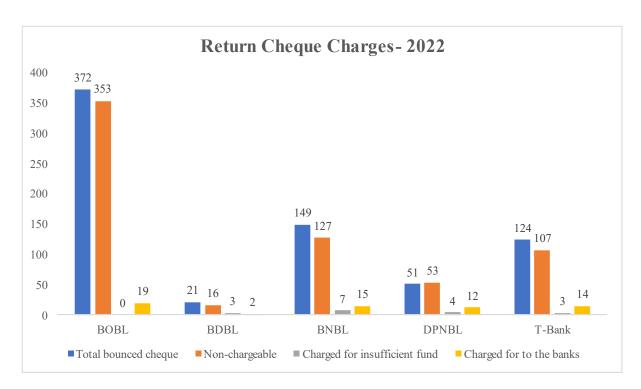
On an average, the cheque system process over 1,151 cheques daily while the mobile banking process over 398 thousand transactions daily. The decreasing trend as shown above over the months is due to the adoption of current real time processing system such as mobile banking and BIRT which are safe, efficient and real time.

7.2 CHEQUE CHARGES

According to Negotiable Instrument Act of Kingdom of Bhutan 2000 and the Penal Code of Bhutan 2011, "Issuance of cheque with insufficient balance in the account is a criminal offense". The RMA observed increasing number of cheques issued with insufficient balance, hence in 2017 interbank cheque charges was introduced with a penalty of Nu.300 per cheque for insufficient balance and Nu. 100 penalty per cheque to the member banks for failure in their due diligence. However, the penalty did not serve its purpose and later in April 2020, penalty for insufficient balance was revised to Nu. 300 + 10 percent of the cheque



value for both intra and interbank cheque clearing. With this initiative, the issuance of the cheque with insufficient balance has reduced significantly over the year. Prior to April 2020, the total chargeable cheques to the total cheques returned was 70 percent, however, with the revision, it has dropped to 23 percent in 2020, 24 percent in 2021, and 9 percent in 2022.



During the 2022, a total of 717 cheques were returned/bounced out of which maximum (91.5 percent) were not charged, however, 8.5 percent were charge to member banks for their failure to do their due diligence and 2.4 percent charged to customer for issuing insufficient balance cheque. A total of Nu. 98,936.81 was collected as a penalty in 2022.

8. ATM
(AUTOMATED
TELLER MACHINE)





83 ATM Terminals

226,030 Debit Card Issued

1.57M Transactions

Nu. 7.64B



5 Financial Institutions



67ATM Terminals

83,209 Debit Card Issued

273.09K Transactions

Nu. 1.12B



266 ATM Terminals



57 ATM Terminals

26,678 Debit Card Issued

52.40 K Transactions

Nu. 227.80M



353,224 Debit Cards



30 ATM Terminals

1,921 Debit Card Issued

133.67K Transactions

Nu. 609.26M



(\$), 9.85B



TOBANK

29 ATM Terminals

15,386 Debit Card Issued

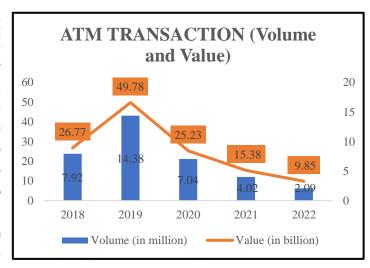
62.10K Transactions

Nu. 247.18M

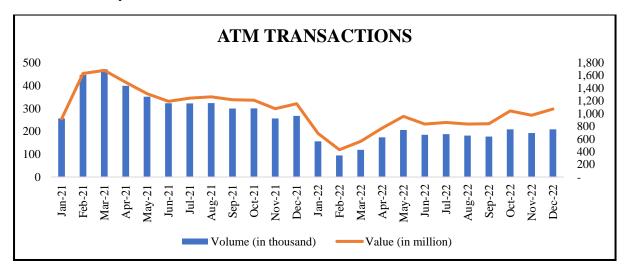
8.1 AUTOMATED TELLER MACHINE (ATM) TRANSACTIONS

ATM is also one of the oldest payment instruments in Bhutan available since 2000s. People can withdraw cash without having to visit bank. It has greatly benefited the general public to save cost, time and energy even more so when the ATM is made interoperable in 2010 by the RMA. ATM was dominating the payment system until 2018 when the mobile banking took over it since then.

Over the years there is a decreasing trend in the usage of ATM transactions and its mainly due to introduction of other forms of digital payments like QR. In terms of its performance in 2022, ATM volume have decreased from 4.02 million to 2.09 million and value has also decreased from Nu.15.38 billion to Nu. 9.85 billion. It is a decrease by 48 percent and 36 percent by volume and value respectively compared to



2021. The decrease in the ATM is also because of the introduction of online national QR payments started from 2020. The ATM system has processed on an average of 5,718 transactions daily.



There is a steep decline in ATM transaction from 2021 till February 2022. The transaction in 2022 shows an incline after May 2022 and then a steadiness due to lockdown. Again, after October 2022, there is a rise which mainly occurred due to opening of lockdowns and borders.

According to the data collected, a total of 2.09 million has been transacted from the ATMs across the country. The highest ATM terminal is in Thimphu Dzongkhag, and the highest transactions was also done in Thimphu with over 872.94 million transactions (42.1 percent) and the least is in Gasa Dzongkhag with 4,086 transactions (0.2 percent).

9. POINT OF SALES (POS)





Financial
Institutions



543 PoS Terminals



8,820 Volume



219.08M Value



120 PoS Terminals8,820 TransactionsNu. 219.08M



91 PoS Terminals No Transaction

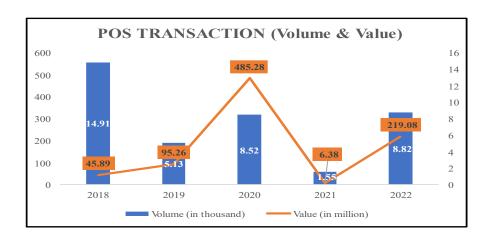


34 PoS Terminals No Transaction



298 PoS Terminals
No Transaction

9.1 POINT OF SALES (POS) TRANSACTIONS



PoS machines and services is available since 2000s. The interoperable of its service within the member banks was made later in 2012 by the RMA. The PoS machines have

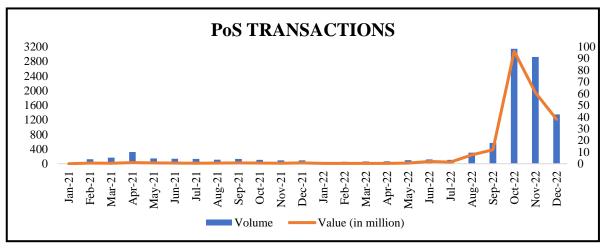
helped the tourism industry by facilitating the safe and secure transactions of the international debit and credit cards. It was also used to be a means of payment across the shops, fuel stations and hotels for the domestic debit card users until the Bhutan QR code took over the market.

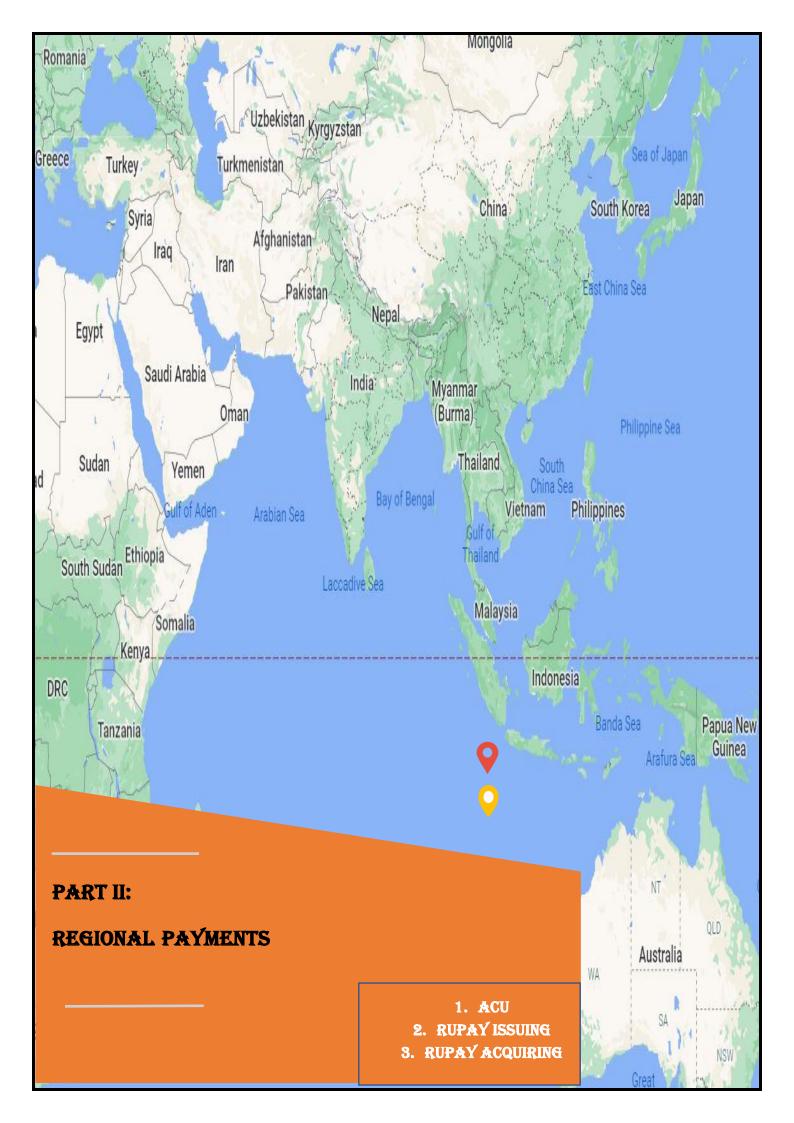
Like ATM, PoS machines and its transactions have declined over the years. From 543 PoS Machines available in the market, the transactions have been recorded only from only one bank (BOBL).

In the year 2021 there was a steep decrease in usage of POS for transactions, but it picked up pace in the year 2022. The

2022			
Bank	PoS Terminal	Volume	Value
BOBL	120	8,820	219,075,660.24
BNBL	91		
BDBL			
DPNBL	298		
TBANK	34		
TOTAL	543	8,820	219,075,660.24

decrease in transaction is due to the Europay, Mastercard and Visa (EMV) compliance that the banks need to fulfil. The volume has increased from 1.55 thousand to 8.82 thousand which is 469 % and the value has increased from Nu. 6.38 million in 2021 to Nu.219.08 million in 2022 which is an increase of 3334 percent. The transactions have picked up from September 2022 due to the opening of borders.





REGIONAL PAYMENTS STATUS

(IN COMPARISON TO THE PREVIOUS YEAR)



Regional Payments consist of Asian Clearing Union (ACU) for regional payments within Asia and the Pacific region, RuPay Acquiring & Issuing and BHIM QR Code for interoperable payments of ATMs, PoS and QR Code both in Bhutan and India.

In 2022, Bhutan recorded 449 volume transactions of ACU transactions, which is a decrease of 12 percent compared to 2021. In terms of value, USD 61.54 M payments were collected while USD 61.44M were spent for make payments. The inflow has decreased by 20 percent and outflow by 19 percent compared to the previous year 2021.

Likewise, for RuPay Issuing, a total volume of 23.74 thousand transactions was recorded amounting to Rs. 96.43 million. RuPay Issuing transactions have increased significantly by 274 percent and 300 percent in 2022 compared to the previous year.

However, the lack of tourism and labor import caused by the CoVID-19 pandemic has impacted the RuPay acquiring transactions. The volume has declined by 79 percent and value by 86 percent in 2022 compared to the previous year.

1. ACU

(ASIAN CLEARING UNION)







449 Volume

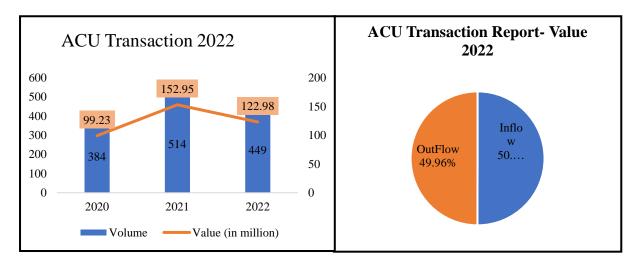


122.98M Value

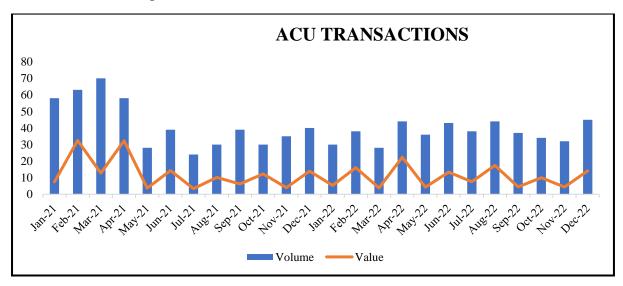


1.1 ASIAN CLEARING UNION

Asian Clearing Union (ACU) was established at the initiative of the United Nation Economic and Social Commission for Asia and the Pacific (ESCAP) in December 1970 at Kabul. According to asianclearingunion.org, ACU is a payment arrangement platform to settle payment for inter-regional transactions among the participating central banks. The regional payments first started when Bhutan joined as a member of ACU in the year 2000.



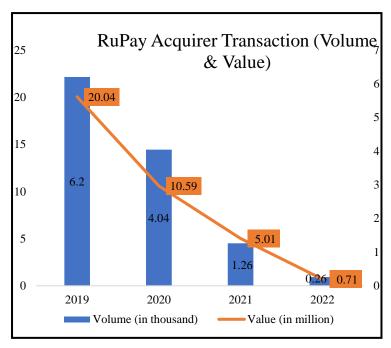
The ACU transactions have decreased from 514 amounting to USD 152.95 million in 2021 to 449 transactions amounting to USD 122.98 million in 2022, a decrease of 12.6 percent by volume and 19.6 percent by value over span of a year. Report shows an inflow of 50.04 percent and outflow of 49.96 percent of the total value in 2022.



The monthly transaction depicts steadiness in transactions throughout the year with highest in December 2022 by volume and in April 2021 by value.

RuPay Card 120 BOB **Financial Institution** of Bhutan (Acquirer) 3 1,158 **Financial Institution** TOBANK of India (Issuer) 0000 0000 **(\$)** 257 Volume 308.4K BOB BANK OF BHUTAN 92 (£) 45 52.00K 7 35.50K 707.20K 53 259.50K Value 51.80K 60 TOBANK

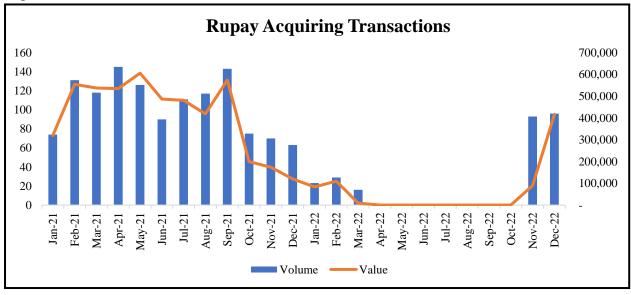
2.1 RUPAY ACQUIRER TRANSACTIONS

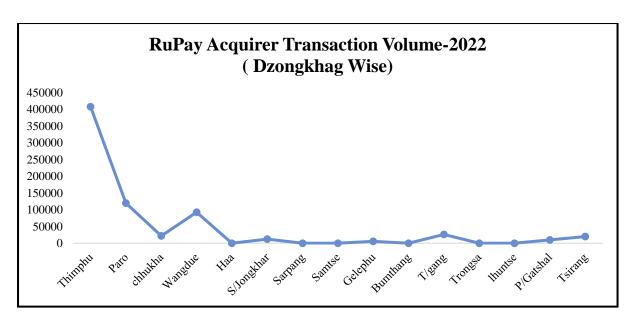


RuPay Acquiring is the second regional payment project undertaken by RMA to enhance cross-border payment with India by connecting Bhutan Financial Switch (BFS) with the National Financial Switch (NFS) of India in 2019. It enables Indian RuPay card issued by 1,158 authorized financial institutions to withdraw cash as well as make payment from the ATM and PoS terminals of 5 financial institutions of Bhutan; BoBL, BNBL, BDBL, DPNBL and TBank Ltd. This has helped the people from getting

easy access to cash without having to visit bank and fraudulent agents in both the country. People also need not have to carry burden of carrying huge cash and getting it stolen. During the year, the transaction has declined from 1.26 thousand to 0.26 thousand and value from 5.01 million to 0.71 million. The volume has decreased by 79 percent and 86 percent.

Looking into the year, it can be clearly seen that the RuPay acquiring transactions which is RuPay inflow from the Indian travellers into Bhutan has declined since the onset of the COVID-19 pandemic and lockdowns has continued to decline further with no transaction after March 2022 and a steep rise after October 2022 due to opening of Indo-Bhutan Border on September.





Looking the data Dzongkhag wise, the RuPay transactions has been happened only through the ATM channel. The withdrawal has been made from 14 Dzongkhags in Bhutan by the Indian citizens. The highest was withdrawn from Thimphu Dzongkhag with 408 thousand transactions, followed by Paro Dzongkhag with 120 thousand transactions. Dzongkhags like Haa, Sarpang, Samtse, Bumthang, Trongsa and Lhuentse had no transactions. The cash withdrawal by the Indian citizen during this time is mostly Indian officials and foreign workers working here in Bhutan.

3. RUPAY ISSUER





Financial Institution of Bhutan (Issuer)



3,821 Card Issued

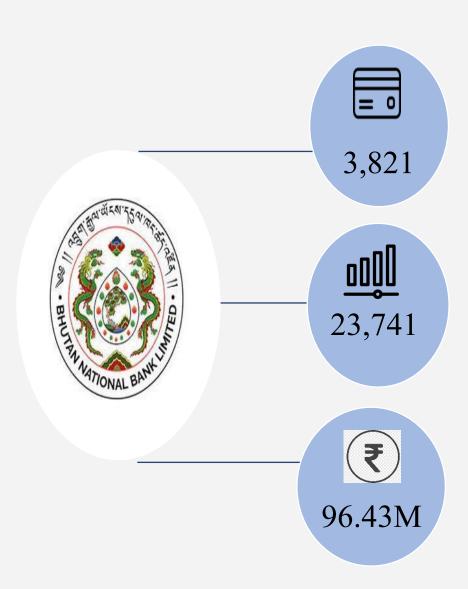


1,158
Financial Institution of India (Acquirer)

23,741 Volume

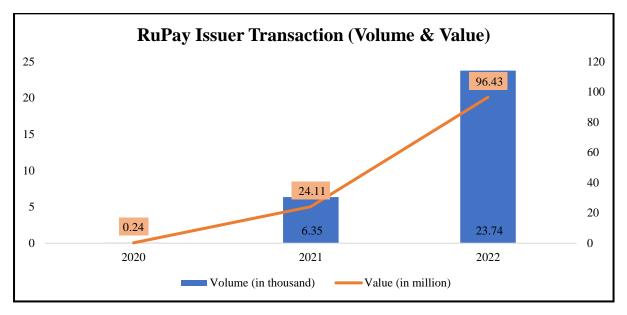


96.43M Value



3.1 RUPAY ISSUER TRANSACTIONS

The second Phase; RuPay Issuing was launched a year after the RuPay phase I; Acquiring where Bhutanese traveler to India can withdraw cash from the ATMs and make payments through PoS machines in India. This timely initiative has minimized Bhutanese in India and travelers 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 carryings huge amount of cash and related inconvenience especially getting it stolen.



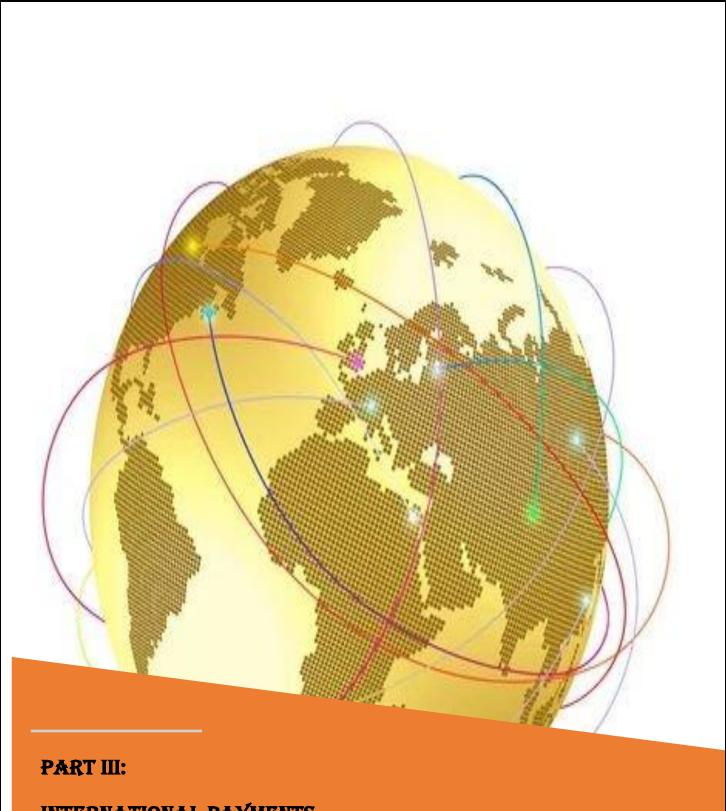
Currently, BNBL is the only issuer of RuPay Card to the Bhutanese for it to be used across ATM and PoS machines issued by 1,158 listed financial institution in India.

In terms of the transaction, during 2022, the total number of transactions have significantly increased from just 6,351 transactions in 2021 to 23,741 transactions in 2022. And similarly, the value from 24.11 million to 96.43 million.

Even across the month of 2022, the transactions volume has seen increasing throughout. The increase is because of the preference of the digital payments by the Bhutanese; especially by the students studying in India, travellers and businessman during pandemic and lockdowns.

3.2 RUPAY CARD ISSUANCE

BNBL has issued a total of 7,523 BNBL RuPay cards out of which 50.8 percent has been issued in 2022. The maximum issuance during the year was to private employees (36.0 percent), followed by foreign workers (15.0 percent) and others (11.0 percent).



INTERNATIONAL PAYMENTS

1. SWIFT

2. INTERNATIONAL PAYMENT GATEWAY 3.INTERNATIONSAL CARDS

1. SWIFT





4
Financial
Institutions of
Bhutan



+11K
Institutions
worldwide connected
to SWIFT.



42.08 K Volume



74.93 B Value

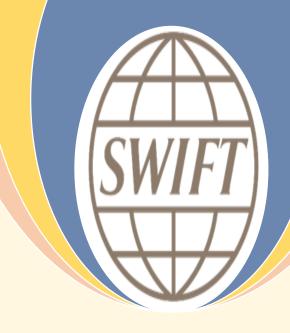
Inflow

Nu. 24.26 billion (value)

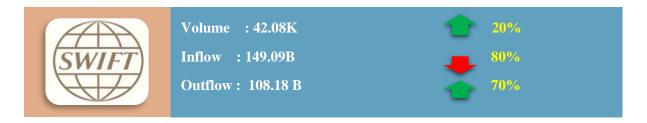
Outflow

Nu. 50.67 billion (Value)

42,084 (Volume)

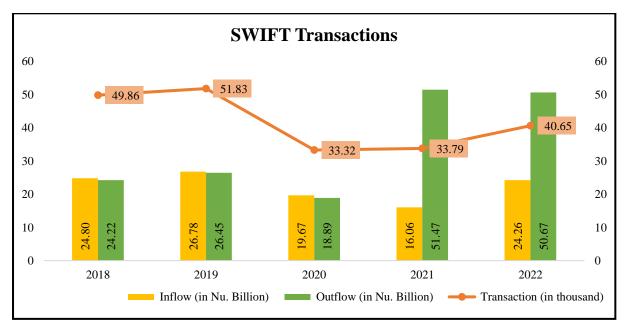


1.1 SWIFT TRANSACTIONS

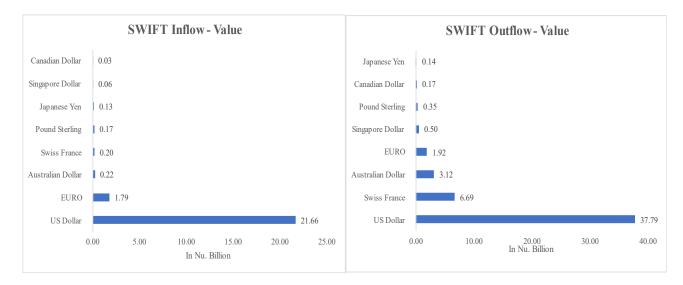


International payment system consists of Society for Worldwide Interbank Financial Telecommunication (SWIFT) System.

SWIFT is an international payment platform founded in 1973. Bhutan joined as its member in 2005 for sending messages for all international transactions carried out by RMA and member banks. The safe, secure and efficient platform has helped the Bhutanese to earn and exchange foreign exchange reserves for the economic development.

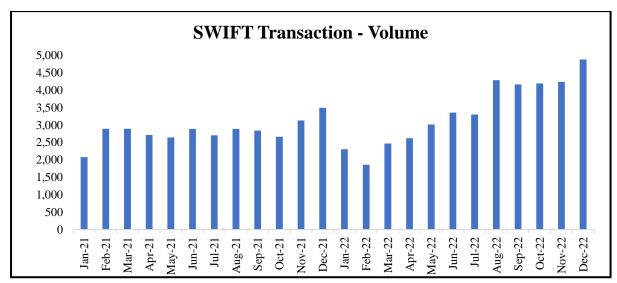


In term of y-o-y comparison, the SWIFT transaction has increased from 33.79 thousand in 2021 to 40.65 thousand in 2022, leading to increase of 20.3 percent. The total inflow in 2022 was recorded at Nu, 24.26 billion, an increase of 51.1 percent compared to 2021, whereas outflow amount to Nu. 50.67 billion, a decrease of 1.5 percent from 2021. The transactions are executed in eight foreign currencies.



The highest number of transactions was recorded in US dollar for both inflow and outflow.

The month-wise breakdown is shown below in the graph.



The highest transaction has happened in December 2022 and the least transaction has happened in February 2022.

2. INTERNATIONAL PAYMENT GATEWAY



2
Financial
Institutions of
Bhutan







4,316 Transactions

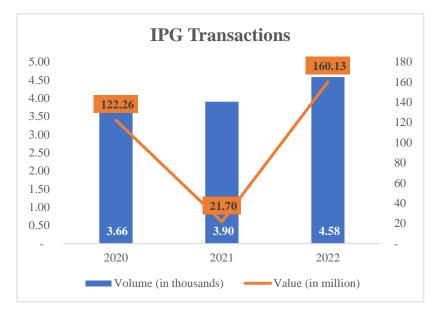
Nu. 104.84 M value



220 Transactions

Nu. 55.29 M Value

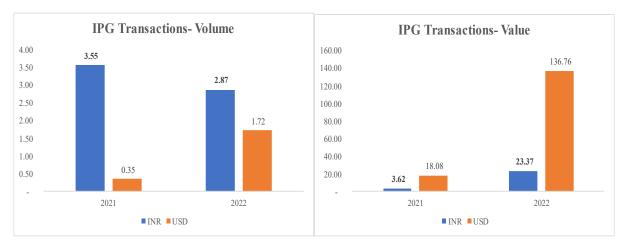
2.1 INTERNATIONAL PAYMENT GATEWAY TRANSACTIONS



The international Gateway (IPG) is a platform to acquire card payments made in USD and INR. Currently, **BOBL** BNBL facilitates **IPG** transactions. **BOBL** accepts Visa, Mastercard American Express while BNBL accepts Visa, Mastercard, Maestro, American Express, JCB card (Japan), Diner card, and Discover card.

In 2022, two banks have recorded Nu. 160.13 million against the transaction volume of 4,581. In comparison to 2021, volume and value has increased by 17.4 percent and 638 percent respectively.

In IPG, the highest transaction volume is recorded for INR for 2021 and 2022 whereas, the highest value is recorded for USD for both years as shown below.



2. INTERNATIONAL CARDS (ISSUING TRANSACTIONS)



966 Credit & 3 Debit cards issued52.60 K & 107 transactionsNu. 209.35 M & Nu. 0.85 M Value



3
Financial
Institutions of
Bhutan (Issuer)



120 Credit & 2,814 Debit cards issued
3.19 K & 6.75 K Transactions

Nu. 23.78 M & Nu. 17.39 M Value

68.16
Volume



No card issued

5.51 K Transactions

Nu. 41.44 M Value

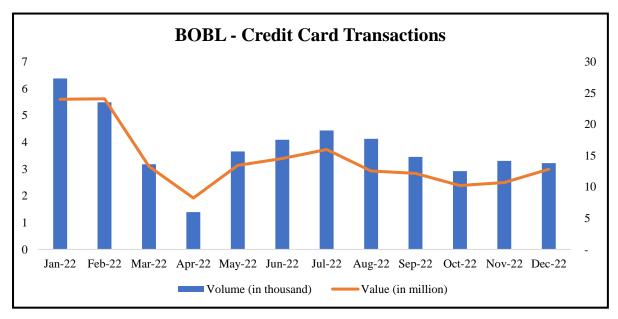
292.81 M Value

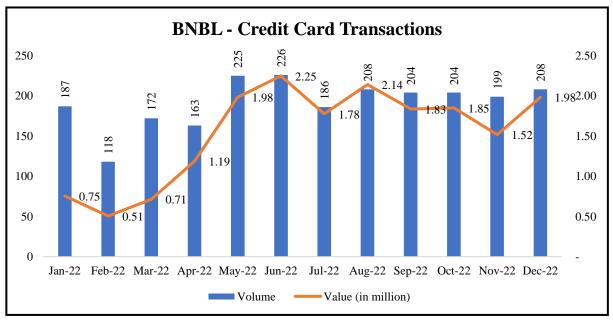
3.1 INTERNATIONAL CREDIT CARDS

An international card is classified into two; international credit card and international debit card. International credit card is a payment card that users can use for purchases and cash advances around the world. It gives access for shopping online, splurge or spend as users want while traveling around the world. It can be also used at Visa PoS and ATM terminals. The international card transactions include only the convertible currency.

In Bhutan, two financial institutions, BOBL and BNBL, issues the international credit card and in 2022, they have issued total of 1,086 cards. The distinct feature of credit card is the "*Use now, pay later*". As per the regulations, the maximum annual limit on credit cards is USD 1,000.

In 2022, 7,886 transaction worth of Nu. 51.83 million were recorded through these two financial transactions as shown in graph below.





3.2 INTERNATIONAL DEBIT CARDS

An international debit card is a payment card that allows you to access funds in the bank account to make purchases or withdraw cash from any ATM terminal connected to Visa Network for cash withdrawal. Unlike the international credit card which allows user to borrow money from the issuer, debit cards provide access to the funds users already have in the account.

