DIGITALIZATION IN BANKING AND FACTORS THAT MAKES IT MORE COMPELLING

Digitalization in banking does not only mean online banking, internet banking, mobile banking or paperless banking rather it is the application of new technologies to transform the existing banking business model into a new banking business model. A model which will itself produce new customer base, unveil new financial services, ensure faster and seamless services to clients with reduced operational cost, zero error, ease of use and apparently, maximum security. Therefore, it's not only a new channel; rather it's a whole new way of transforming existing transaction-based banking into the experience-based banking. So that, banking can be accessed by customers anytime and from anywhere. Now some factors make digitization in banking compelling, which are-

Capturing future customer equity, enhancing internal connectivity, ensuring maximum reach with customer engagement, making banking attractive, ensuring effective decision-making, providing banking anywhere, anytime, Establishing internal e-process etc.

For the last decade, the rapid advancement in information and communication technology has significantly influenced the banking industry in Nepal. Banks and financial organizations have improved their services as a financial intermediary through adopting various IT solution services.

Technology now has become a tool that facilitates bank's organizational structures, business strategies, customer services and related functions. Nepalese banking industry has come a long way over the last 30 years though still in these days we are unable to do much other than the management of cross-border trade volume increasing.

Nepal's banking industry is confined to large classified loans, small automation, the least possible number of retail banking solutions, low access to Internet banking, concentration of banking limits, or exposure to few groups or families (that too in cash credit) hypothecation of assets, import loans, and term loans.

Even though cell phone companies have more to do here than banks, banks should be seen investing more in information technology along with the creation of newly educated entrepreneurs through venture capital funding, alternate banking channels, and capital market-linked product development to optimize profitability of the banking sector.

CONCEPT OF FINTECH

The term "FinTech," which is the short form of the phrase financial technology, denotes companies or representatives of companies that combine financial services with modern, innovative technologies. As a rule, new participants in the market offer Internet-based and application-oriented products. FinTechs generally aim to attract customers with products and services that are more user-friendly, efficient, transparent, and automated than those currently available. Traditional banks have not yet exhausted the possibilities for improvements along these lines. In addition to offering products and services in the banking sector, there are also FinTechs that distribute insurance and other financial instruments or provide third party services. In a generous sense of the term, "FinTech encompasses companies that simply provide the technology (such as software solutions) to financial service providers.

Over the last few years, banks worldwide have achieved something great—they've transformed their fear to an opportunity, their enemy to an ally. The result: Traditional banking is working with FinTech side by side and the CEOs and shareholders are jubilant because they offer new products that are relevant to their customers' needs such as:

- Saving time
- Saving costs
- Improving compliance
- Reducing exposure to risks (e.g., fraud)
- Offering a better client experience

It is almost impossible to predict exactly how FinTech will redefine traditional banking as we know it, especially when the estimated investment in FinTech globally is expected to be rising every year. It is almost certain though, that no one can stay unaffected by those changes.

Over the next few years, there will be a change in the profile of bank customers with millennials assuming more significant roles in the global economy. Such customers compare or will start comparing their experiences in using Google and Facebook with their experience from their financial service providers.

FinTech is the mean of offering relevant products to your clients. Things move quickly and if an organization cannot keep up and meet the needs of their existing customers, there are other options from which to choose. As a whole, FinTech redefines the whole spectrum of how do we engage with customers.

DIGITALIZATION WORLDWIDE

Wealthier Market Vs Emerging Market

What's happening in Wealthier Market?

Mobile payments, machine learning, and robotic investing are among the latest win-win disruptive innovations that are reshaping transactions, lending practices, and customer experiences in the financial sector. Just last year, CB Insights reported more financial technology (FinTech) startup acquisitions occurred in 2017 by leading U.S. banks than any other year.

To add to the disruption, FinTech startups worldwide are transforming how consumers manage their money. Banking apps are reshaping mobile payment systems, live chatbots are in full effect, and interfaces are redefining the traditional banking models. Banks are realizing how much stronger the customer experience is when it's delivered through FinTech rather than simply offering free checking and savings accounts as promotions.

Internet has transformed the manner in which we perform a lot of our regular requirements. One such breakthrough that recently emerged is the digital banking forum. It helps save your time and effort spent in long queues while tackling counterfeit notes.

In India, especially, digital banking solutions helped people in rural areas take advantage of banking services. Most of the rural population got involved in the banking process with the evolution of digital banking. In addition to this, people can make their transactions online. This does not cause problems, even if the government decide to stop circulation of certain currency notes. (World Bank)

You can also get the best digitized banking experience with Arttha. (Arttha, Digital Banking)It is a platform wherein you have access to all the banking solutions and services. This ensures you can sit in the comfort of your home and carry out various bank related procedures such as card-less ATM withdrawals and API banking among others with ease.

For Example, Standard Chartered has been actively working with tech companies to co-develop solutions to improve client experience and increase efficiency. Earlier this year, Standard Chartered set up SC Ventures, a business unit to catalyse intrapreneurship and innovation, invest in FinTechs, and set up disruptive ventures. SC Studios, in Silicon Valley, allows people to connect with the latest technologies, tech companies, FinTech and investor communities. To better enable innovation and access tech trends and start-ups in North Asia. (Standard Charter Bank (IOT))

What's happening in Emerging Market?

A large unbanked population and predominantly cash economy are the biggest barriers to the development of the financial services sector in emerging market. Very small portion of population have bank accounts because of lack of financial knowledge and geographical barriers in the emerging market, with consumption of financial solutions remaining low even for people with access to financial services. Mostly the developing economies like Nepal, Afghanistan, Kenya, Pakistan, Indonesia are inclined towards handling cash. The population in these economies receive cash for wages, government transfers, remittances, and agricultural, sales etc.

If we look at the saving behavior of population, semi-formal institutions are given more privilege than the banks and other formal institutions because of proximity, documentary requirements, returns, and ease in dealings. Even if the adults do have bank accounts, the societies in general pay education and utility bills in cash. Remittances are given to the receivers in cash rather than transferring into their accounts.

In emerging market digitization of payment is still in its nascent stage. Although telecom penetration has reached at maximum level with a huge amount of subscribers, the telecom providers and financial institutions have not been able to utilize advantage of this network. Most of the remittance flows are in the form of cash disbursements and is used for consumption purpose. The existing network for remittance is limited to urban and semi-urban centers and the beneficiaries have to travel a long distance for getting their money.

Banks in emerging markets are slow in investing in mobile money platform and development of agent network while Money Transfer Operators (MTOs), in some cases, are trying to digitize the payment through issuance of cards. Deposits and withdrawal information is available over phones. However, these economies are yet to experience a true digital payment system while experimentation is underway for the use of agent network and other payment infrastructure.

Financial literacy is a key. In geographically dispersed societies, where infrastructure is a constraint, developing relations and partnership with micro finance and other local service providers would help to reach out to maximum number of population who are living in rural places. As we move along in this process of digitization of financial services, it will be necessary to coordinate with the line ministries, telecom authorities and the central bank to promote a stable and sustainable environment for digital financial service innovation and mitigate risks associated with digital payments.

Banks in emerging markets can influence the regulatory landscape before structured supervisory guidance is introduced. But a lack of regulation also presents challenges as barriers to entry are lower, allowing more competition for traditional banks. And while structured external guidelines are still being developed, the pressure is on banks to develop their own internal frameworks that allow for disciplined but proactive innovation.

Finally, Emerging market needs to learn lessons from countries that have achieved a great mileage in the areas of digital financial payment innovations in order to expedite the current process and transform banking services.

All these suggest that technology can play a bigger role in serving the unbanked population and changing the shape of the traditional banking, thereby offering a great market for technology providers to participate in banking channels and enhancing the financial inclusion across the nation.

“There are an estimated 1.7 billion adults in the world without access to financial services,” said IMF Managing Director Christine Lagarde. (Bank, www.worldbank.org/en/news/press-release/2018/10/11/bali-FinTech-agenda-a-blueprint-for-successfully-harnessing-FinTechs-opportunities, n.d.)

CASE STUDY

DIGITAL REVOLUTION IN THE INDIAN BANKING SECTOR

Indian Government is aggressively promoting digital transactions. The launch of United Payments Interface (UPI) and Bharat Interface for Money (BHIM) by National Payments Corporation of India (NPCI) are significant steps for innovation in the Payment Systems domain. UPI is a mobile interface where people can make instant funds transfer between accounts in different banks on the basis of virtual address without mentioning the bank account.

Commercial Banks in India have moved towards technology by way of Bank Mechanization and Automation with the introduction to MICR based cheque processing, Electronic Funds transfer, Inter-connectivity among bank Branches and implementation of ATM (Automated Teller Machine) Channel have resulted in the convenience of Anytime banking. Strong initiatives have been taken by the Reserve Bank of India in strengthening the Payment and Settlement systems in banks. Today Indian banks aim to provide fast, accurate and quality banking experience to their customers. Today, the top most agenda for all the banks in India is digitization.

According to the RBI Report in 2016-17 there are 2,22,475 Automated Teller Machines (ATMs) and 25,29,141 Point of Sale devices (POS). Implementation of electronic payment system such as NEFT (National Electronic Fund Transfer), ECS (Electronic Clearing Service), RTGS (Real Time Gross Settlement), Cheque Truncation System, Mobile banking system, Debit cards, Credit Cards, Prepaid cards have all gained wide acceptance in Indian banks. These are all remarkable landmarks in the digital revolution in the banking sector. Online banking has changed the face of banking and brought about a noteworthy transformation in the banking operations.

National Electronic Funds Transfer (NEFT) is the most commonly used electronic payment method for transferring money from any bank branch to another bank in India. It operates in half hourly batches. At present there are 23 settlements. Real Time Gross Settlement (RTGS) is primarily used for high-value transactions which are based on 'real time'. The minimum amount to be remitted through RTGS is Rupees Two Lakhs. There is no upper limit. Immediate Payment Service (IMPS) is an instant electronic funds transfer facility offered by National Payments Corporation of India (NPCI) which is available 24/7.

The usage of Prepaid payment instruments (PPIs) for purchase of goods & services and funds transfers has increased considerably in recent years. The value of transactions through PPI Cards (which include mobile prepaid instruments, gift cards, foreign travel cards & corporate cards) & mobile wallets have jumped drastically from Rs.105 billion and Rs. 82 billion respectively in 2014-15 to Rs. 277 billion and Rs. 532 billion respectively in 2016-17. (Banking on Technology, Perspectives on the Indian banking Industry)

Another step towards digitalization is the demonetization policy that helped India to become cashless, corruption free country. This move helped the government to track the black money. Those individuals who have unaccounted cash are now required to show income and submit PAN for any valid financial transactions. The government can get income tax return for the income on which tax has not been paid.

This move helped stop funding to the unlawful activities that are thriving due to unaccounted cash flow. Banning high-value currency will rein in criminal activities like terrorism etc. The ban on high value currency will also curb the menace of money laundering. Now such activity can easily be tracked and income tax department can catch such people who are in the business of money laundering.

This move has generated interest among those people who had opened Jan Dhan accounts under the Prime Minister's Jan Dhan Yojana. They can now deposit their cash under this scheme and this money can be used for the developmental activity of the country. Even though deposits up to Rs 2.5 lakh will not come under Income tax scrutiny, individuals are required to submit PAN for any deposit of above Rs 50,000 in cash. This will help the income tax department to track individuals with high denominations currency.

The ultimate objective is to make India a cashless society. All the monetary transaction has to be through the banking methods and individuals have to be accountable for each penny they possess. It is a giant step towards the dream of making a digital India. (Singhal, livemint, 2018)

A SCENARIO OF BANGLADESH'S OLDEST COMMERCIAL BANK (CITY BANK)

If we take a glance at the case of Bangladesh's oldest private commercial bank "Bangladesh City Bank" which has adapted digital banking to keep up with time. City Bank is one of the top banks among the oldest five Commercial Banks in the country. Thus, to compete in the competitive market they were in need of making the banking faster, fresher, more secure and convenient. And for such mobile banking solution helped them with a complete mobile banking solution which brought banking quickly into every customers' pockets.

Mobile banking service provided by banks or other financial institution that allows its customers to conduct a range of financial transactions remotely by using a mobile devices and using software & app has made our day to day life way easier. And this comfortable life has been possible with good mobile banking app only. Now questions might come what makes a mobile banking app stand high. Well, there can be five benchmarks for judging, like-

1. Convenient as the app should be user/mobile friendly and have to contain functions like bill settlements, fund transfer management and details of account balances and historical data for transactions.

2. Bill Payments through mobile banking should be easy & hassle-free. Plus, should have the allowance for automatic utility bill payment settings, and a track record of all previous payments made with date ranges.

3. Fund transfers from within your account and external parties from within the same bank or outer banks should be available. These banking components of mobile banking for people need access to transfer funds to make banking fast & on the go.

4. Customer support and service is a vital part for anyone using mobile banking, and customers require 24/7 support for the best service solution. For example, if an individual faces a temporary issue or error while interacting with the app, they would most probably expect customer support to rectify the concern immediately.

5. Safety and security are also most crucial items for mobile banking apps. As users put their financial and private information into the app and thus it has to ensure that their connection is safe and secure in the process.

City Bank got all the features they wanted. The features include-

Key Features

Independent Platform, Advanced Technology and Architecture, Simplest Navigation Panel, Responsive to the Screen Size, Updated and Bug-Free etc.

Additional Features

Fingerprint log in, Pin login, First-time login authentication, enlisting favorite transactions, Bill payment list, transfer history, Payment history, Operator wise mobile bill payment, setting print, pin login, account preview, Credit card reward point, interest charge & pay mini statement, New user-friendly lucrative design, forget password recovery option, Finding ATM/branch location by GPRS without login etc.

Apart from banking services the App also provides ATM locator or Branch Locator. It can also be used for other general banking services by the customers. With all these solutions & services, City Bank is now serving their customers magnificently.

From the above case study what we can learn is how India went digital aggressively by promoting digital transactions, launching different payment system domains like United Payments Interface (UPI), Bharat interface for money (BIHM), National Payments Corporation of India (NPCI) etc. With the theme digitalization there has been a significant amount of increase in ATM'S, National Electronic Fund Transfer, Electronic Clearing Services, Real Time Gross Settlement, Cheque Truncation System, Mobile Banking System, Debit Cards, Credit Cards, Prepaid Cards etc. Similarly, the National Electronic Fund Transfer is now used commonly for the fund transfer in India a step towards cashless economy. Use of prepaid payment instruments for purchase of goods and services and funds transfers has increased considerably in recent years in India. Increase in the use of Mobile prepaid instruments, gift cards, foreign travel cards, mobile wallets, corporate cards are the example how India is rapidly stepping towards digitalization. Another step towards digitalization is the demonetization policy as it helped to some extent for India to go digital. So in the case of India we can see the strong regulatory and government support to go digital also the country itself is coping up with the technological change.

The another case was of one of the oldest commercial bank of Bangladesh i.e. City Bank which has been satisfying its customers through mobile banking service which shows the adaptation of digital banking to keep up with time. The bank has been satisfying its customers through the mobile banking app where they can conduct a range of financial transactions remotely by using a mobile device. It has a high standard mobile banking app which is safe, easy to operate, convenient, supportive etc. apart from just banking service the app also provides ATM locator or Branch locator so we can see how city bank used high standard mobile banking app to serve its client which not only helped bank to go digital but also helped banking easy for customers.

In the case of Nepal, we are still far behind in the digitalization process in the banking sector, unsupportive regulatory framework, lack of government initiatives, huge chunk of unbanked population, financial illiteracy are the major hindrances for slow rate of digitalization. Although telecom penetration in Nepal has reached about 90 percent with a subscriber base of 23.95 million, the telecom providers and financial institutions have not been able to utilize advantage of this network. According to a recent study, 79 percent of adult population uses cellphone, 14 percent use internet facilities and nine percent emails. But only 0.2 percent of adults use cellphone/SMS banking, 0.3 percent internet/online banking, 0.5 percent credit cards, and seven percent use ATM cards. Study shows that 37 percent of adults are not aware about ATMs. The government has announced in the fiscal budget for 2016/2017 that it will channelize the social security payment and other benefits through the banking channel. Nepal Rastra Bank has recently issued licensing policy to allow non-bank payment operators to involve in digital banking services. However, banks in Nepal are slow in investing in mobile money platform and development of agent network while Money Transfer Operators (MTOs), in some cases, are trying to digitize the payment through issuance of cards. Deposits and withdrawal information is available over phones. However, Nepal is yet to experience a true digital payment system while experimentation is underway for the use of agent network and other payment infrastructure. (Atreya, myrepublica.nagariknetwork, 2018)

CURRENT SCENARIO OF NEPALESE BANKS

Though government and the central bank are committed to enhancing financial inclusion through digitization of banking services, its pace is slow in Nepal**.** Financial system is no longer a prerogative of banking institutions due to innovation and application of technology in delivering products and services. New players such as telecom and Mobile Network Operators (MNOs) have evolved as a strong force in delivering the financial services through technology-based products and delivery channels. ATMs, credit cards, debit cards, agent banking, mobile banking, branchless banking, among others, are becoming popular these days to enhance people's access to financial services. (Source: World Bank Report) is mainly attributed to innovation in technology—especially mobile banking, which is helping to rapidly expand the financial services in all parts of the world.

Fig:1 Number of customers using various banking products and digital channels.

S.No	Particulars	F/Y 2071	F/Y 2072	F/Y 2073	F/Y 2074	F/Y 2075
1	No. of Branches	1547	1672	1869	2274	3023
2	No.of Loan Accounts	647701	703205	753636	898710	953310
3	No. of Deposit Accounts	9791383	11343425	13010175	16119614	19295273
4	No. of Branchless Banking Centers			812	1008	1284
5	No. of Branchless Banking Customers			213084	127004	130553
7	No. of Mobile Banking Customers			1604578	2438222	4711097
8	No. of Internet Banking Customers			489835	766958	816074
9	No. of ATMs	1362	1483	1661	1874	2552
10	No. of Debit Cards	3641960	4146237	4142390	4694066	5307970
11	No. of Credit Cards	57898	43895	52014	68966	104721

Source: Nepal Rastra Bank

From the above table we can see the growing banking industry in Nepal, as in the past five years there has been significance increase in the number of branches. The major concern of us is have banks been able to digitally transform themselves? In order to answer this question, we can take a glance at the increasing number of ATMs, the number of debit card holders, the number of credit card holders, the mobile banking users, the internet banking users and the branchless banking centers/customers.

The branchless banking center is one of the step towards digitalization which Nepalese banks have taken towards in the rural areas. Branchless banking is an economical channel for delivering financial services without relying on the traditional bank branches. Branchless banking provides basic banking services through Banks agents having Bio-metric POS devices (with finger print scanner). Branchless Banking customers are also provided with VISA Card, which along with their finger prints can be used to avail services through the POS. The Branchless banking service can be availed by new customers by enrolling to this system and opening account with concerned bank or availed by existing customers by simply enrolling to this system. Branchless Banking Services is provided only in VDCs where it is difficult for banks to open its branch. In the above figure we can see the increase in the branchless banking center however the number of branchless customers decreased in the F/Y 2074 by huge proportion and then again increased in the F/Y 2075 this can be linked with the increase in the number of branches by the bank in the rural areas, as per the NRB's new rule banks now have to open 2 branches outside the valley in order to open 1 branch inside the valley.

Also there has been a significant increase in the number of ATM's from F/Y 2071 to F/Y 2075 and this increase can be linked directly with the increase in the number of debit card holders. What banks could for now do is promote debit card even in the rural areas. Banks should be able to make people clear about the concept of debit cards to people so this could be the first step. With the increase in the number of ATM there has been increase in the number of debit card holders so here we can see that if banks keep on increasing the ATM machine over the country then what we can say is many people will start going to

ATM center for cash rather than standing in the long queue, they may even pay with card hence a step towards creating a cashless economy but again banks should take the initiative to make people clear about the concept of debit card. From the above table if look at the credit card then it has increased rapidly in the past five years which we can take as a step towards financial literacy and digitalization at the same time because in Nepal few people know about the concept of credit cards as how it works.

QUICK FACTS

Only half of bank account holders withdrew money from their accounts in the past year

15% of salaried employees receive wages through bank account.

45% of Nepalese are formally banked

16% Nepalese have made or received a digital payment

1% of Nepalese own credit cards.

9% of Nepalese own debit card.

As we can be clear from the above table as how properly people in Nepal are using the banking services effectively and what is the role of banks to engage customers to use the products they offer. Also we can analyze that there is a serious need of financial inclusion in the country which is only possible through Digitalization.

Where are we heading?

In the era of Technological advancements, some of the banks in Nepal like Laxmi Bank, Kumari Bank, Sanima Bank, Nabil Bank, SBI Bank etc. has been continuously taking steps to upgrade the systems and processes and adopt world class technologies to facilitate banking services to its customers in Nepal. These banks have taken various steps towards digitalization. In the recent time among the most trending one in the Nepalese banking industry is the system of online inquiry, customers now can sit at home and chat with the banks representative about their queries, banking service, banking products etc. Which is sort of time saving for customers because they have customers issue solved in real time. Beside this SMS

Banking, Internet Banking and Mobile banking have been there for a long time but still people here has not been able to use it properly due to less knowledge.

Viber Banking, AI are the recent trends that we can see currently in the Nepalese banking industry. Likewise, SBI has come up with the various Auxiliary services where they offer InTouch outlet, Nepal SBI Digital Village, IRCTC Ticket Booking Facility Using Ebanking.

Banks in Nepal have now been partnering with different hospitals like Norvic hospital, Grande hospital, Nepal Mediciti hospital etc. so that the customers of that particular Bank could get discount when they go for any medical services which can be also seen as a step towards digitalization as now people will use their cards to pay in order to get the discounts. Also, the system of paying the share amount through bank, paying the share broker fee through your bank account, Bancassurance (Bancassurance, is a relationship between a bank and an insurance company, aimed at offering insurance products or insurance benefits to the bank's customers) etc. can be seen as the recent trends in Nepal’s banking sector.

Likewise, SBI Bank has taken a huge step towards digitalization by opening Nepal SBI InTouch outlet at Durbar Marg, Kathmandu. The InTouch outlet not only provides Alternate channels to our customers for banking but also helps in making paperless banking a reality. To start with Nepal SBI InTouch Outlet at DurbarMarg offers following services like Account opening, debit card printing, Internet banking issuance, Cheque Deposit, Cash Deposit/Withdraw.

Development of the digital financial services ecosystem at existing banks and financial services institutions is integral to driving all aspects of the economy. In 2002, Kumari Bank pioneered digital payment services in Nepal with the introduction of Internet banking services for its customers. In recognizing the proven opportunities digital payment services offer, more digital solutions are beginning to become available in Nepal from traditional financial institutions and FinTech start-ups such as eSewa, IMEPay, Khalti, PrabhuPay and iPay.

Increasing in the number of ATMs, Debit Cards, Credit cards are the step towards cashless economy, with this pace we can project that in the years to come our economy could be paperless however, a large unbanked population and predominantly cash economy are the biggest barriers for banking sector to go digital.

According to a recent study, 79 percent of adult population uses cellphone, 14 percent use internet facilities and nine percent emails. But only 0.2 percent of adults use cellphone/SMS banking, 0.3 percent internet/online banking, 0.5 percent credit cards, and 7 percent use ATM cards. Study shows that 37 percent of adults are not aware about the ATM’S.

However, the strong impact of digitalization in the banking industry can be seen from the above figure Fig:1 as it is in the increasing trend, though we need to take into consideration as how actively these banking products have been used by the customers which is directly linked with the financial inclusion.

Emerging Market vs Nepal

In comparison within emerging market, Nepal is still lagging behind in terms of Digitalization. The first and the foremost problem is the financial illiteracy followed by a large proportion of unbanked population. As illustrated in the case study of Bangladesh's city bank as how it has used the mobile banking service platform to maximize the customer's satisfaction. Because of financial illiteracy, banks in Nepal has not been able to convert digitalization for its benefit. Most of the users in Nepal has the account in the bank but they have not been able to use all of the banking services properly due to less knowledge, less user friendly apps, most of them are unknown about the products bank is offering, unable to operate because of having less idea as how it works etc. so what banks could do here is design their mobile money platform in such a way that it would be more user friendly like they could ask their users/customers and identify what are the difficulties they face while they use it, what are the things that confuses them the most, is it the language here which is the barrier, for that banks can translate the application language in Nepali so everyone can understand.

In terms of technology advancement, we are still way behind on different aspects in comparison with emerging market. ICT policy in Nepal has remained relatively restrictive and centralized. The overall ICT development of Nepal is not considered satisfactory as the country lacks minimum ICT infrastructure throughout the country. Nepal had a very late start in terms of ICT in comparison to other emerging market however the development pace of Nepal is on rise currently. As now government of Nepal has started investing huge amount of budget in technology, the internet penetration rate is growing day by day, mobile penetration rate is growing day by day. In compared to Afghanistan, Pakistan and Bangladesh it is not the worst one regarding internet penetration and mobile penetration. So here the government has a major role to play by creating a foundation in order to facilitate different industry in Nepal in terms of digitalization.

In Nepal, lack of regulatory initiatives is also a major hindrance for digitalization in the overall economy as well as in the banking sector. The regulators in other emerging markets have initiated the digitalization like by adopting "Digital Revolution" as a theme in India, In the case of Kenya "M-Pesa" transforming the economy through mobile money services.

The M-Pesa mobile payment platform launched in March 2007 as a product developed by Vodafone, in partnership with Sagentia, by integrating a mobile wallet with Safaricom's rating, billing, and provisioning systems. Ultimately this is linked with the financial institutions as now its widespread usage in Kenya has been credited with raising 2% of Kenyan households out of extreme poverty through access to mobile money services between 2008 and 2016. It also plays a crucial role in offering opportunities to small businesses as well as a range of financial services such as international transfers, loans, and health provisions using mobile. (Mcgrath, 2016) So now in Kenya M-Pesa has revolutionized the way people spend, save, and send money, banks here can be benefited by partnering with the fin-tech companies. There is rise in fintech companies in Nepal like Esewa, Khalti, PrabhuPay, IMEPay etc. However, we can still not see the level of collaboration between them.

In the case of Bangladesh, it is moving closer to achieving its goal of a "Digital Bangladesh" by 2021, with stakeholders saying half of the work is done with four years to go. Bangladesh has seen a massive rise in the number of internet users, almost half of the population in this country is now online says the government of Bangladesh. In Bangladesh the year 2017 was the year of advancement, government showing strong initiatives for digitalization was the key thing that put Bangladesh to current position in terms of Digitalization. E-commerce policy, Formulation of the ICT guideline, IoT (Internet of Things), Augmented Reality, Motion Picture, Robotics and Virtual Reality are the landmarks they achieved in 2017 which helped every sector in the Bangladesh to grow. A recent study of BIBM shows that investment on IT have raised efficiency of banks over time in Bangladesh regardless of their ownership. These gains in efficiency have also improved bank's productivity and profitability.

Similarly, the other emerging markets are taking steps towards digitalization, cashless economy, strongly promoting financial inclusion etc. So there needs to be a back support for the banks in Nepal by the government and different regulatory bodies which be a major step towards digitalization.

CUSTOMER'S PRESPECTIVE

What are the benefits of digital banking or why people use digital banking? It is possible to ask: Why people use digital communication system? Most of people cannot remember when they last sent their formal letter. The people who need to communicate with other people from a large distance he or she uses digital (Gmail, Mobile phone, Facebook etc.) communication system. Because it is cheaper as well as reliable. Digital banking works as the same way of digital communication system.

Benefits of Digital Banking for Customers

1. Banking from any location that has an Internet connection (Internet based).

2. Working offline (bank program or personal finance software) after downloading account information.

3. Better control over money flows.

4. Monitoring check clearance.

5. Accessing account 24 hours a day, 7 days a week.

6. Monitoring account in real time (withdrawals, deposits, ATMs, debit card purchases).

7. Transferring funds from one account to another.

8. Setting up electronic bill payments.

Digital banking helps customers to get quicker service in a low cost. It also helps banks to increase service quality also helps in reduction of cost. Online banking is more cost effective for banks. This should result in lower fees for customers. Digitalization of banking industry in developed country started in 19th century. But in Nepal it is a new trend. Now almost every bank in Nepal are trying to make their services based on online. Number of Internet user in Nepal is rapidly growing over few years. According to Nepal Rastra Bank subscriber of internet in last few years are also increasing which shows positive results for digitalization.

As per the customer's view point, we can see that there is cost a benefit as well as the service is faster, with digitalization. With digitalization now we don't have to sit on a long queue to open an account, withdraw cash, get inquiry about the banking services, balance information etc. everything can be done with just a click at anywhere which saves a lot of time.

Nepal is a small country with population of a million! To cater to such number of people is not too much, why we see so much queue everywhere? Because everything goes through a process and it takes time, now-a-days our life has become fast and time is money, just think of people working in private sector, can those people afford to stand in the bank queue for petty works? Our Economy is mostly cash driven. Bill payments, grocery and all those needy things we buy through cash, we have to stand in line to get the cash out even if we have so many ATMs around us mostly run out of cash or no service. I will share some of my life experiences to prove that why Digital Banking is for our own benefit.

I started using digital banking since 2015, at that time I was in college and studying Bachelors, to pay the electricity bill I had to stand in for at least 1 hour then my turn would come and many a times they had server failures and what not, or if I had college then my mother would go but still she have to wait, I used to get angry because many people would ask you that they have office would I allow to go him/her ahead? Why am I standing here for fun and am I a free person? So as I grew up I told clearly at my home, either go digital or waste more time, I am not going to waste my time in queue, so everyone agreed and we started everything from utility to phone bills, grocery to pay either by Internet-Banking or Debit Cards. They charge a minor rupee or two on the transaction but it is affordable then to spend on the petrol and then waste time in the queue. Now I will come to bank why we need cash we all have major expenses on utility bills, phone, grocery, apparels, etc., if we pay it online then the need for cash gets eliminated. I see many people who will send their old parents or grandparents to stand in queue, we call ourselves educated and civilized, does a civilized person do such things? after all it is for our own benefit.

PROS AND CONS OF DIGITALIZATION IN BANKING SECTOR

SWOT ANALYSIS

The digital transformation of banking services allows an expansion of access by leveraging digital channels and customer information, and a reconfiguration of product and process value chains to offer new products and serve customers more efficiently. In this new context, each of the four challenges facing emerging market digital financial transformation, as enumerated below, presents the Strengths/Opportunities and Threats/Challenges for banks:

1. Low levels of formal financial services: Innovations such as mobile money can take hold more completely in emerging markets where there is a strong need and no incumbent service to displace. Building on the mobile money ecosystem, innovators in emerging markets have leapfrogged conventional financial infrastructures to offer a range of financial services engineered to sustainably service dispersed or low-income populations.

2. Low income levels: Operating bank branches is expensive in emerging and developed markets alike, and the shift to digital channels helps reach more customers at lower cost across markets. The imperative for complete digital transformation from front-end customer channels, through the credit and payments engines, to servicing and processing is greater, though, in emerging markets where financial access is a goal. In wealthier markets, mobile channels and improved processing efficiency are add-on benefits to help meet customer expectations and improve profitability. Among low-income communities, however,

these are must-have features that enable the sustainable provision of financial services to lower income consumers.

3. Underdeveloped technology and VC ecosystems: Flying under the radar of the global tech/venture capital community can create space for local innovators to serve their markets while the giants are looking elsewhere. For banks, this can also create opportunities if they can lead in introducing unique local value propositions.

4. Weak infrastructure: While forward thinking regulators in some countries have created an environment favorable to digital financial services, whether by offering a flexible regulatory environment like Kenya that allowed non-bank infrastructure to develop, or investing in critical identity and payments infrastructure and a tiered licensing system like India, in many countries much work remains to be done. Where general-purpose financial infrastructure is lacking, the networks and infrastructure of incumbent banks retain significant value. The opportunity for banks is to leverage their position of already having payments, identity and trust assets in place as new infrastructure comes on-line. Banks can leverage their capital, customer bases, and brands to expand rapidly in partnership with Fintechs that can help fill gaps in banks' channels, product sets, and processing capabilities. (Malaysia's Digital Economy: A New Driver of Development, September 2018)

Threats/ Challenges

- Security Risks - External threats such as hacking, sniffing and spoofing expose banks to security risks. Banks are also exposed to internal risks especially frauds by employees / employees in collusion with customers.
- Financial Literacy / Customer Awareness - Lack of knowledge amongst people to use e-banking facilities is the major constraint in Nepal.
- Fear factor - One of the biggest hurdle in online banking is preference to conventional banking method by older generation and mostly people from the rural areas. The fear of losing money in the online transaction is a barrier to usage of e-banking.
- Training - Lack of adequate knowledge and skills is a major deterrent for employees to deal with the innovative and changing technologies in banks. Training at all levels on the changing trends in IT is the requirement of the day for the banks.

MONETIZING THE DATA AND HOW BANKS CAN BE BENEFITED

You need only look at companies like Google, Facebook and Uber to see the vast benefits of being smart with data. Banks are in a uniquely powerful position with the volume of data they possess, and we are a seeing a global shift towards not only capturing and analyzing data, but monetizing it.

Developments in data analytics have allowed financial institutions to obtain a 360-degree view of the customer, enabling them to improve the range of services and enter new markets. Open banking will lead to a rise in data exchange between banks and third parties, and I think we will see banks increasingly recognize the value of offering free services in return for data. Ultimately, if a customer feels they are being offered a relevant, tailored product, they are far more likely to buy it.

WAY FORWARD

In a conventional bank branch, a clerk seated next to the cash dispensing teller was a sought after banker because he used to update the pass book of the account holder after the cash withdrawal or a deposit that job has almost vanished due to technological advancement.

Coming years would see even the position of the teller, who is fast being replaced by sophisticated automated teller machines, and much more jobs going away as computing makes it possible to do more with less heads at the branches.

The banking industry which was among the big job creators along with the information technology industry in the past decades is at an inflection point where technology is enhancing efficiency by doing more and at a faster pace than what humans could do.

The banking industry in Nepal will witness slow transition from people-driven to machine controlled in the years to come.

Traditional jobs like passbook updating, cash deposit, verification of know-your-customer details, salary uploads are also going digital increasing job redundancies.

Not to go far Axis Bank, ICICI Bank and HDFC Bank in India are pushing the boundaries of technology by implementing robotics to centralize operations and for quicker turnarounds in things like loan processing and selling financial products to customers. This is reducing the need for a manual worker at the back end.

Today transactions go up the number of people should also go up —has been broken with the technological advancement. So in future there could be probability less hiring's.

Cheque book request can happen digitally in the days to come so that the customers need not have to walk into the branches since Nepal is still far behind on going cashless.

There could be increased automation within branches. In future Nepalese banks could have huge amount of cash deposit machines, so that they don't need a teller.

The technological development, which has made banking easier, could also lead to a slowdown in the hiring of staff at banks. Although there could be hiring's but the nature of skill sets required could change with a lot more focus on the front end talent.

Low-end back office jobs like data entries will no longer be required in the next coming years. The rate of growth of new jobs in the banking sector may come down.

"Low-skill workers do not have a bright future. They will have to reskill or perish." A sign of things to come is being witnessed at HDFC Bank, the country's most valuable lender and the most expensive one among top lenders. The bank has not only been slowing branch expansion and hiring's, it has also been reducing overall headcount even as it remains the gold standard of Indian banking. (A case of HDFC bank,India, 2016)

Analytics and artificial intelligence may come into use in Nepalese banks to do jobs once considered sacred, like underwriting loans. What this means is that human skills, which were considered imperative for basic, may not be required.

Branchless Banking could be the solution for the banks in the days to come in Nepal.

Around the globe in Wealthier Markets Business Analytics and Artificial Intelligence (AI) has a potential to bring a major change. Robotics, enabled by AI, is expected to be the future game changer in the banks. Many private banks are planning to deploy Robots for customer service, investment advisory and credit-approval process to improve the services and be cost effective in the long run. Digital Banking will be the most preferred form of banking in the coming years.

What Could Be Done?

Offering a better client experience are magic words for the banking industry. So Traditional bank's and FinTech organization should work together to offer more relevant products for their clients.

As per the PwC FinTech Global Report, 60 percent of all survey responders highlighted payments as the most likely sector to be disrupted by FinTech due to the introduction of cash-less payments such as Apple Pay and Bitcoin. In the case of Nepal eSewa, Khalti, IME Pay etc.

Transaction through digital systems encourages both parties to learn the formal banking system thereby supporting saving and entrepreneurship development. People become friendly with technology and familiar with financial literacy. It enables to create history of transaction and pave ways for availing credit facilities. Individuals normally feel secured dealing with the formal process and can restore security and control over the funds. This helps them to manage their risks appropriately.

Conclusion

Digital offers various opportunities in driving financial inclusion, from improving access to financial services to improving tax collection. In case of Nepal the Government is taking measures toward achieving this, such as digitalizing all government transactions to boost the adoption of digital payments. It has also started distributing social security allowances and all other government-to-citizen payments through banks to encourage financial inclusion which can lead the economy to go digital in future to come.

ATM network in Nepal is considered among the weakest in the world, with limited presence in remote parts of the country. A robust nationwide ATM and branch footprint is necessary.

High transaction fees for banking services (e.g., ATM withdrawals from other banks' ATMs, minimum balance requirements, high charges for online banking, debit/credit cards) are key hindrances for digitalization in banking industry of Nepal.

Nepal, which does not have a national ID card system currently, should consider rolling out a National Biometric ID card project to issue a National ID card to each Nepali citizen. The National ID card will not only enable underprivileged Nepali people to open bank accounts, but would also allow them to benefit from many other government schemes and allowances through bank accounts hence it helps to go cashless as there are large number of unbanked population.

According to the usage frequency and volume of digital payment platforms for transactions there should be a reward system for an individual as well as discount schemes and other incentives for selected users encourages people to use digital payment platforms.

NRB and National Telecom Authority (NTA) should work together to draft a policy framework that allows the involvement of telecom operators and IT companies in promoting digitalization in Nepal. such as M-Pesa and mobile wallets.

The Government of Nepal should consider introducing policies that encourage employers (public and private sectors) to transfer wages, salaries, and other payments directly to employees and suppliers bank account.

Educating the public about the importance of banking systems and their advantages could be critical to stimulating financial inclusion in Nepal hence promotes digitalization.

Advertisements on social media and radio/television that highlights the advantages of using digital payments can be more effective as people today actively use social media.