# Internship Report on Overview of Information Systems of Jamuna Bank Limited



# submitted to Islamic University of Technology

in partial fulfillment of the requirements for the degree of BBA in Business and Technology Management (BTM)

# **Submitted by:**

I understand that my final report will become part of the permanent collection of the Islamic University of Technology BBA in Business and Technology Management Program.

Alvi Rahman

ID-170061028

Approved by:

Shobnom Munira
Assistant Professor
Department of Business and Technology Management
Islamic University of Technology (IUT)

LETTER OF TRANSMITTAL

Date: April 25, 2022

**Shobnom Munira** 

Assistant Professor,

Department of Business and Technology Management

Islamic University of Technology

Boardbazar, Gazipur

Subject: Internship Report on "Overview of Information Systems in Jamuna Bank

Limited"

Respected Madam,

As per the requirement by BBA in Technology Management program, under the department

of Business and Technology Management at IUT, I have completed my credited internship at

Jamuna Bank Limited and based on that experience I have prepared a report titled,

"Overview of Information Systems in Jamuna Bank Limited". My internship period in

that organization was about four months which was from November 03, 2021 to February 03,

2022. I sincerely hope that this report satisfies the overall objectives directed to complete the

internship program successfully and gets your kind attention for acceptance. I did my best to

finish the report using the relevant data in the most efficient and feasible manner.

I appreciate your invaluable assistance and kind cooperation in every aspect of my work on

this report. I will remain extremely grateful to you forever, if you could please take some

time to read through the report and evaluate my work.

Sincerely yours,

Alvi Rahman

ID: 170061028

Department of Business and Technology Management

Islamic University of Technology

# **ACKNOWLEDGEMENT**

Primarily, I'm thankful to department of Business & Technology Management, IUT for providing me such an excellent scope to complete my internship to blend my theoretical knowledge with practical experience. I would like to express my warm gratitude towards, my academic advisor, Shobnom Munira, Assistant Professor, Islamic University of Technology for constantly guiding me and giving me proper direction during my internship period. I was able to share my experience with my academic advisor and her guidelines helped me to complete my internship report. This report is a compulsory part of the BBA in Technology Management program under the Department of Business and Technology Management, Islamic University of Technology.

It was a pleasant experience doing the internship at Jamuna Bank Ltd. I'm grateful to my company supervisor Mohammad Zakir Hossain, FAVP (Lead Database Administrator) and Syeed Zahid Hossain, SVP & Head of ICT Division, Jamuna Bank Limited. They monitored my day-to-day activities, provided me guidelines and suggestions to do my everyday activities smoothly.

Last of all, I am highly indebted to all the people who were involved with me during the internship tenure and helped me by providing their valuable recommendations, suggestions, direction, and cooperation. During this internship period, I have learnt a lot of things from him that will undoubtedly assist me in growing and advancing my career goals. I will remain forever grateful to the employees of ICT division of Jamuna Bank Limited who has guided me all the way to complete this report.

# **EXECUTIVE SUMMARY**

The report is an attempt to summarize the three-and-a-half-month internship program that was aimed to provide me with practical professional experience. The paper outlines my experience as an intern in Jamuna Bank LTD's information, communication and technology division. The internship taught me about the realities of working in a banking financial institute. This gave me the chance to see firsthand how the digital banking solution and IT infrastructure are growing and evolving in Bangladesh. Apart from that, the chance broadened my experience of working in a corporate environment, which supported not only my professional development but also my personal growth. This has surely had a significant impact on my professional plans. It showed me where I have room to improve, learn, and contribute.

The whole report is divided into different segments. The introduction of the report includes the background and purpose of the report, scope of the study and terms of references. In the description of company/institution, the company history and its sector of operation is briefly detailed. It also includes organization's structure, mission, vision, core values, scale of the company and service offerings. Industry Analysis discusses the banking industry analysis using different strategy tools. The most important part is the analysis details of ICT division and Credit risk Management division of JBL, Head Office. To analyze the performance, data analysis has been done very carefully. Description of main duties discusses the field experience of the internship at Jamuna Bank Ltd. including the duties, schedules, responsibilities, and contribution to the organization. This section provides an overall view and learning of my internship journey. The final section of this report discusses the responsibilities and learnings of myself from this internship period, obstacles I've faced, solutions to the short comings and some suggestions based on my personal experience and understanding. Along with this, I maintained the weekly journal of my workings regularly and generated a power point list of necessary documents.

I wanted to give a pen picture of activities that I have done during my internship period and challenges that I have faced with a proper analogy of infrastructural development required in the banking sectors. My internship in Jamuna Bank Ltd. provided me the work experience that helped me put my studies into practice, strengthen my leadership skills, and provide me a competitive edge in my search for a permanent employment in future.

# **Table of Contents**

LETTER OF TRANSMITTAL	i
ACKNOWLEDGEMENT	ii
EXECUTIVE SUMMARY	iii
Chapter 1: INTRODUCTION	6
1.1 Background of Study	7
1.2 Purpose of Study	8
1.3 Scope of Study	8
Chapter 2: COMPANY OVERVIEW	9
2.1 The Company	10
2.2 Scale of Company	11
2.3 Vision	12
2.4 Mission	13
2.5 Core Values	13
2.6 Objectives	13
2.7 Products and Services Offered	13
2.8 Company Analysis	15
2.8.1 Porter's Five Forces Model	15
2.8.2 SWOT Analysis of Jamuna Bank Limited	19
Chapter 3: OBJECTIVES & METHODOLOGY	22
3.1 Statement of Problem	22
3.2 Objective of Study	22
3.3 METHODOLOGY	23
Chapter 4: INDUSTRY ANALYSIS	24
4.1 Banking Industry Analysis	25
4.2 Industry Size and Growth Trends	26
4.3 Asset Growth in Banking Industry	27
4.4 Deposit Growth	28
4.5 Banking Sector Profitability	29
4.6 Electronic Banking Operations	30
Chapter 5: DESCRIPTION OF MAIN DUTIES	32
5.1 Duties in Information Communication and Technology Division	33

5.2 Working on Core Banking Software34
5.3 Working On Credit Risk Management Division36
5.4 Working Environment36
Chapter 6: ANALYSIS
6.1 Company Level Analysis38
6.2 Market-Level Analysis
6.3 Professional-level Analysis:
Chapter 7: RECOMMENDATIONS
CONCLUSION47
REFERENCES
List of Figures
Figure 1: Operational Branches of Jamuna Bank Limited 10
Figure 2: Corporate Organogram of Jamuna Bank Limited
Figure 3: Justpay services and iconnect service of JBL
Figure 4: Porter's Five Forces Model
Table 1: Credit rating of JBL21
Figure 5: Life cycle of an Industry25
Figure 6: Growth Trends in Banking Industry27
Figure 7: Total Assets Growth Year by Year
Figure 8: Loans and Deposits Growth Year-wise
Figure 9: Interest Rate Spread in Decreasing Trend
Table 2: Online banking scenario at the end of December 202030
Figure 10: Trends of customers using internet banking31
Figure 11: Flora Bank Modules
Figure 12: Operating Profits of Private Commercial Banks
Figure 13: Annual Performance of Jamuna Bank Limited
Figure 14: Strategic Focus of JBL46

# Chapter-1 INTRODUCTION

#### 1.1 Background of Study

Every academic course of study should have a practical application of the knowledge gained. Because a great deal of theoretical information is useless if it is not implemented in real life. So, I need to use my knowledge in the right way to get some benefit from it and make it more useful. This type of application is feasible through an internship.

The internship program is crucial because it gives students a chance to get hands-on experience in their field of study. Students collaborate with the employees of a company and learn about the company's functions. These programs help students improve their analytical and scholastic abilities.

As a requirement for completing my Bachelor of Business Administration in Technology Management at the Islamic University of Technology's (IUT) Department of Business & Technology Management, I was required to do a three-month internship. It was not quite possible to have holistic view of the banking functions, but some general idea was taken from different executives.

In this report, I have presented the information systems of Jamuna Bank Limited, their mode of operations, enhancing the general processes and automating the general system with some modifications. This includes the daily operations carried out by the information systems and the total integrations of the system. I have collected all the necessary information for this report while working for this analysis. I got a chance to work in the ICT division of JBL and it is one of the most important divisions of Banks, my interest was to analyze the functions of that division. In this report, I have presented the information systems of Jamuna Bank Limited, their mode of operations, enhancing the general processes and automating the general system with some modifications. This includes the daily operations carried out by the information systems and the total integrations of the system. I have collected all the necessary information for this report while working for this analysis. I got a chance to work in the ICT division of JBL and it is one of the most important divisions of Banks, my interest was to analyze the functions of that division.

The commercial banks have been witnessing a major upheaval in the past few years. The amount and range of products available have changed dramatically as a result of bank branches, mergers, and acquisitions. The competitive environment's ferocity and the rapid

rise of information technology have necessitated the reorganization of retail banking businesses. Recent improvements in information systems technology, i.e., ATM (Automated Teller Machine), E-banking etc. provide new means of managing banks' interactions inside national banking environment.

#### 1.2 Purpose of Study

The major goal of this report is to analyze the overall information systems of Jamuna Bank Limited. I have tried to pen-picture the whole procedure of their systems with some simple modifications in order to make it up-to date. Also sorting out some major findings in the information systems that is prevailing in the current system

# 1.3 Scope of Study

The worldwide financial situation has remained unfavorable as a result of the epidemic, making it difficult to maintain and attain sound progression for a country like Bangladesh and its alike. The banking system of any country play a vital part in its economy. It is very crucial to a country 's growth. In this regard, Jamuna Bank Limited is performing admirably. In 2021, the banking sector continued to produce significant profits.

This report covers JBL 's background, activities Information, Communication and Technology division and in particular, core banking solutions. This report offers a prospect to gain a complete understanding of the bank's information systems. It's a good chance to learn and practice the entire process of Banking and IT related activities in a proper way.

# Chapter-2 COMPANY OVERVIEW

# 2.1 The Company

Jamuna Bank Limited (JBL), a commercial bank of Bangladesh was incorporated under the Companies Act, 1994, on 2nd April 2001. On 3rd June 2001, the private Bank initiated its operation. This bank has a huge network of 149 branches, 28 sub-branches, 15 banking booths, and 314 ATMs all over the country (Annual Report 2020). Currently, it has 157 operating unit throughout country. The bank has earned trust & confidence of the customer for its reasonable and satisfactory service.

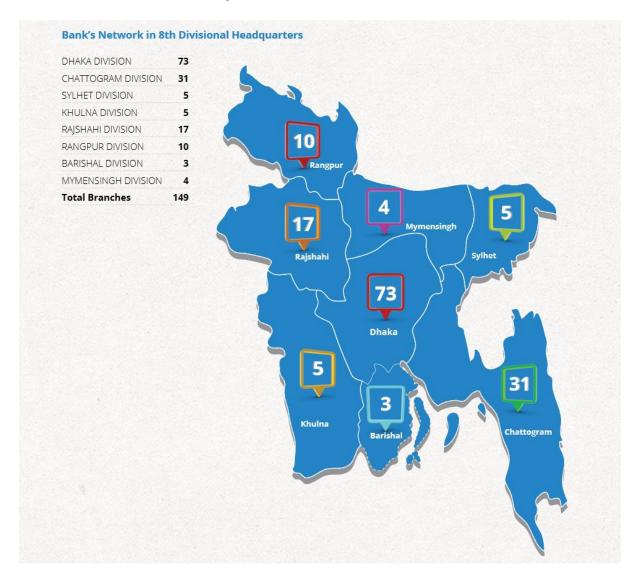


Figure 1: Operational Branches of Jamuna Bank Limited

All the branches operate as independent operating units. The bank uses the most advanced way to record every transaction. All the branches are required to present a report of activities

returns to head office. After that, on the last working day of each week of each month all the

transactions and affairs are consolidated as balance sheet of the bank.

Jamuna Bank Limited (JBL) is offering several services & products and has gained

popularity & authenticity. New entrepreneurs are getting supports from this bank and the

bank maintains a strong relationship with customers. A highly professional team is

conducting the operation and management activities in the bank.

Conventional & Islamic banking services both are offered by Jamuna Bank Limited. In order

to cope up with the changing needs of customers it is constantly upgrading its strategies to

serve new products & services. During its 20 years of journey which starts from 2001, JBL

has achieved remarkable success and has built a reputation in the Banking sector of

Bangladesh.

2.2 Scale of Company

Jamuna Bank Limited has moderate ability to adapt itself with the changing market demands.

It has benefitted from the previous and existing economies of scale by quickly ramping up the

products and services. JBL has increased technological I different banking divisions to

increase scalability.

According to Annual Report 2020,

o The ownership of JBL is composed into 4 entities: General Public, Directors, Foreign

Investors and Financial Investors.

o Total number of Employees: 3096

o Total Eligible Capital: BDT 28,197.42 (Million)

o Key People: Chairman: Md. Ismail Hossain, Managing Director & CEO: Mr. Mirza

Elias Uddin

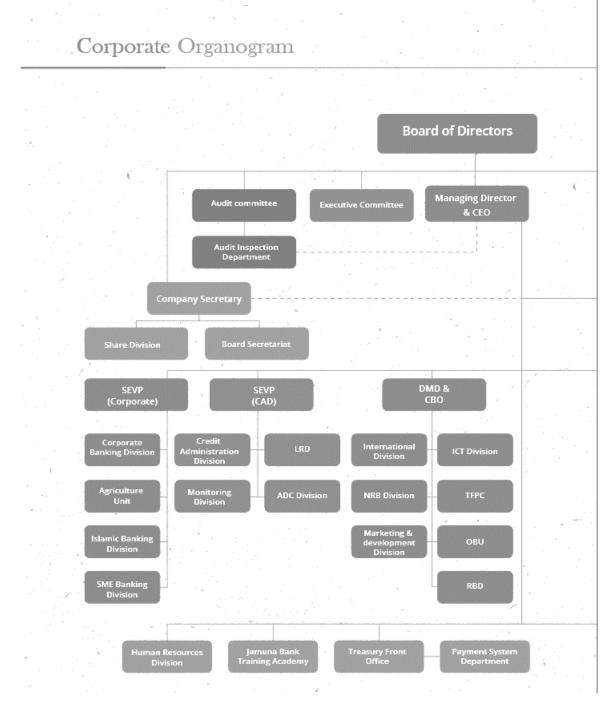


Figure 2: Corporate Organogram of Jamuna Bank Limited

# 2.3 Vision

Jamuna Bank Limited wants to establish itself as one of the major banks of Bangladesh. Its **target** is to contribute in the economic growth of this country and play a pivotal role in it.

#### 2.4 Mission

Jamuna Bank Ltd. is dedicated to fulfilling the various need of its customers. To ensure sustainable growth & to contribute to the country's development Jamuna bank offers various products with the help of technology by maintaining a competitive price. The motivated & professional workforce helps in contributing to the development of the country.

#### 2.5 Core Values

JBL believes in providing quality services maintaining status quo irrespective of customers' and stakeholders. It is committed to comply with the regulations and guidelines provided by Central Bank. It also maintains professional ethics and trust.

#### 2.6 Objectives

The objective of JBL is to become a leader in the banking industry by providing high-quality banking services. Jamuna Bank Ltd. desires to be an important player in the country's economic progress. JBL maintains a high quality and standard of services while providing products & services. The organization believes in professional ethics & regulatory guidelines. The corporate slogan of the Bank is "Your Partner for Growth"

#### 2.7 Products and Services Offered

Jamuna Bank Ltd. offers a wide variety of products to their respected clients to satisfy them. JBL is always concerned to provide the right combination of products and guidance to the customers. These are described below:

**Personal Banking Services:** Jamuna Bank Limited provides different personal banking services such as Savings Bank (SB) Account, Special Savings Bank Account, Fixed Deposit Account, Current Account, Current Deposit (CD) Account, Monthly Benefit Scheme (MBS), Resident Foreign Currency (RFCD) Account, etc. Besides these JBL provides other banking services such as locker facilities, collection of cheques, Jamuna Bank Card Services such as VISA Debit Card, VISA Platinum Credit Card, VISA Local Gold Credit Card, etc.

**Deposit Schemes & Loan Product:** Jamuna Bank Ltd. provides different deposit Schemes such as Lakhpati Deposit Schemes, Millionaire Deposit Schemes, Kotipati Deposit Schemes, Pension Deposit Schemes, Mudaraba Monthly Saving Scheme, Mudaraba Monthly Benefit

Scheme, Rural Deposit Schemes, etc. JBL also provides Personal Loan, Salary Loan, Education Loan, SME financing, Agriculture & Rural Credit.

**Corporate Loan Products:** Jamuna Bank Limited provides a broad array of financial solutions through its corporate banking. These includes Short Term Finance such as SOD, CC, Time Loan etc., Long Term Finance such as Lease Finance, Estate Finance etc., and Work Order Finance such as SOD, Bid Bond, APG etc.

**Islamic Banking Investment Products:** In terms Islamic investment JBL offers different Bai Muzzal schemes and Sirkatul Meik schemes.

**International Banking Service:** In terms of foreign trade and foreign transactions JBL is providing extensive trade service through its worldwide network. JBL provides different services related to trade finance such as import finance, BTB L/C, Overdraft, Foreign Documentary Bill Purchase (FDBP), Offshore Banking Services, Local Documentary Bill Purchase (LDBP) etc. As a member of SWIFT JBL provides the fastest service around many countries of the world. SWIFT code for JBL is JAMUBDDH.

**Online Banking:** JBL is providing different online & SMS banking services to satisfy the changing needs of the customers. Through ATM customers can get 24-hour banking facilities.

**Subsidiary Services:** Besides the traditional banking services JBL is providing some other services such as Utility Bills Pay Service, Mobile Banking i.e. Just Pay, Cash Deposit Machine, Gift Cheque, Salary Accounts for Institutions, Customs duties, etc



Figure 3: Justpay services and iconnect service of JBL

# **JustPay**

Jamuna Bank's hassle-free digital banking wallet technology enables one to transfer money to any bank in the country. No more standing in line at the bank branch to transfer money. Send money to anyone in the world with a single click. Notable functions are:

- BEFTN (Bangladesh Electronic Funds Transfer Network)
- NPSB (National Payment Switch Bangladesh)
- Add money to Bkash
- Add money from debit/credit cards to justpay wallet
- NRB Banking

# 2.8 Company Analysis

#### 2.8.1 Porter's Five Forces Model

The Five Forces Model is a framework for analyzing the competitive landscape in order to devise a company's overall strategic direction. The strength of competition among enterprises varies significantly among industries. In the banking industry, there is rivalry between public and private banks. Because of the proliferation of commercial banks in Bangladesh, there is a competitive climate in which all banks strive to maintain their position in a difficult competitive environment.

The model focuses on five forces that shape competition within an industry:

- 1. The Risk of New Entry by Potential Competitors
- 2. The Degree of Rivalry Among Established Companies Within an Industry
- 3. The Bargaining Power of Buyers
- 4. The Bargaining Power of Suppliers
- 5. The Threat of Substitute Products

# **Potential Competitors**

If a company is capable of competing in an industry, it is considered a potential rival. Our country's financial sector is still in its development. That means there is a greater risk of newcomers entering the market. Typically, established businesses attempt to prevent new rivals by establishing certain entrance barriers. Banks in Bangladesh are grappling with the subject of brand loyalty. Local or government-owned banks are less likely to lose customers who have had a lengthy relationship with the institution. A bank account with a global corporation, no matter how attractive the rewards appear to be. This makes it difficult for newcomers to get in. Due to the industry's fragmentation, there is no cost advantage for banks. Due to their lengthy history and widespread presence, most government and local banks enjoy a degree of economic advantage. Multinational financial institutions are likewise working toward economic size. This is supported by the fact that there are more and more branches. New bank establishments benefit greatly from a favorable regulatory environment. As a result, this isn't a big barrier to entrance in this industry.

# **Rivalry Among Established Banks**

Rivalry among established enterprises is the second of Porter's five competitive factors. Companies can raise prices and profit more if the competition is weak. In a market where competition is low, businesses may charge higher prices and make more money. An existing industry's level of competition is mostly determined by three factors:

a) The competitiveness of the business

- b) Demand conditions
- c) Industry exit hurdles

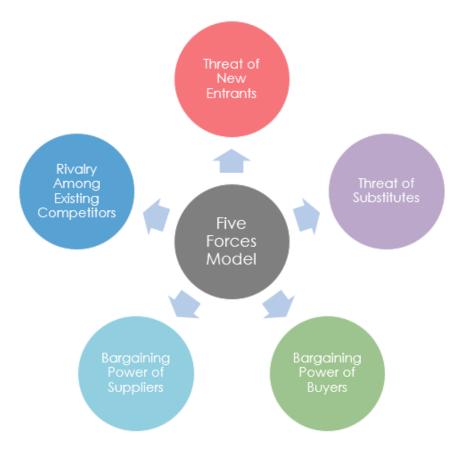


Figure 4: Porter's Five Forces Model

# **Buyer and Supplier Defined in Banking Industry**

The purchasers in a typical industry are the people who use the services provided by the established businesses. Suppliers, on the other hand, are businesses that offer manufacturers with raw materials. The companies make things and sell them to customers using their raw resources. The banking business, on the other hand, is a little different from the rest of the economy. A bank's main functions are to accept deposits and provide loans. The buyer in this case is the individual who obtains a loan from the bank. Depositing money at the same bank means that he is now the provider. As a result, one person can be both buyer and seller at the same time. Directors of the bank can be the supplier of that bank.

# **Bargaining Powers of Buyers**

When a buyer has the capacity to demand cheaper pricing from a firm or to demand better service that increases operational expenses, they might be considered as a competitive threat. However, a corporation can raise its pricing and make more money if purchasers are unwilling to pay the current prices. Customers who borrow money from banks are considered buyers in the banking business. Buyers' negotiating strength is influenced by the following factors:

#### A. Amount of People Applying for Loans:

It is estimated that our banking industry has more than 50 banks, including global and nationalized institutions. The number of people applying for business loans in our country is low. However, other reasons are to blame for the lack of growth in investment possibilities. As a result, banks are using their idle cash to disburse loans, the majority of which are in the form of consumer credit. As a result of this, competition among established banks is increasing on a daily basis.

#### **B.** Cost Switching:

Banking is a low-cost business to switch from. At the same interest rate, all banks are offering identical loans. This means that an individual may quickly transfer banks if they are dissatisfied with the conditions of a loan from a bank. Customers of Jamuna bank are leaving for a variety of reasons, including a low interest rate. Industry becomes more competitive when switching costs get lower.

#### C. Backward Integration:

Backward integrations are always a risk in the banking business. The commercial banks might be threatened by large firms or multinationals that they would organize their finances by establishing another bank with lower funding costs than other banks. The clients of this business are always more powerful than their banks, because of this fact. Individual non-corporate customers, on the other hand, lack this sort of negotiating strength.

#### **Bargaining Power of Suppliers**

Supplier bargaining power may be perceived as a danger when suppliers are able to increase the price a business must pay for inputs or degrade the quality of the inputs they offer, consequently reducing the business's profitability. However, if a company's suppliers are weak, it has the ability to lower pricing and demand better quality inputs. The depositor is the primary source of funds for the bank. The directors of the bank also provide financial support. Accordingly, a company's ability to compete is influenced by the following factors:

### A. Suppliers' amount:

The fund providers' bargaining leverage is limited in the banking business since the economy has a high level of individual savings, but banks do not have an abundance of investment alternatives.

#### **B.** Forward Integration

Suppliers of cash might occasionally pose a hazard to the bank as well. Threatening to start a new bank for depositing their money can be made by corporations or large multinational companies. None of their money will be given to any other bank. It's quite known to us than banks make money by investing general public's money on different projects. As a result, there may be more rivalry for obtaining funding.

#### **Threat to Substitute Product**

In Porter's approach, replacement products are the deciding factor. Consumer demands are comparable to those of the business being studied, therefore substitute items can be found in other industries. There are various alternatives to loans, which are the most common kind of bank credit. Some affluent individuals, frequently usurers, lend money at exorbitant interest rates. Unlike other types of loans, they don't require collateral and don't have any unique requirements, such as a certain age, a specified service time, or a set monthly salary. But most of these acts are illegal and hence dangerous. As a result, most people shun these avenues of communication. Based on this, it would appear that the danger of alternative goods has not been all that prominent in Bangladesh's banking industry as of yet

# 2.8.2 SWOT Analysis of Jamuna Bank Limited

The initials SWOT is used to describe a company's strengths, weaknesses, opportunities, and threats. The basic premise of a SWOT analysis is that managers can better design a successful strategy after assessing the organization's strengths and weaknesses considering external threats and opportunities. Wrong strategy can lead to disaster, while the proper plan can help start-ups succeed. Using a SWOT analysis, an organization's plans must be well-suited to its internal and external contexts.

Following are the key aspects for SWOT Analysis of Jamuna Bank Limited:

#### **Strengths**

- High capitalization bank with room for future growth.
- Third-generation banks, like Jamuna Bank, have excellent credit portfolios compared to first and second-generation banks, as well.
- A strong information technology infrastructure that can keep up with new techniques and services such as real-time online banking, SMS banking, debit card and credit card booths.
- Profits and deposits at JBL have grown at an astronomical rate. The quantity of deposits, as well as loans and advances, is quickly expanding.
- JBL's company culture is highly engaged. The workplace atmosphere is friendly and cheerful.
- All of Jamuna Bank Limited's branches are in commercially significant areas around the country.
- Strong brand value.

#### Weaknesses

- Lack of full automation.
- Jamuna Bank's marketing in both print and electronic media is weak.
- Number of ATM booths are less compared to other banks.
- Low access to rural market.
- From customer's point of view JBL's service is not satisfactory

#### **Opportunities**

- JBL has a plenty of untapped geographical region where they need to establish branches.
- JBL could provide unique offers and benefits to corporate clients who earn more than service holders.
- Jamuna Bank Foundation also might play a crucial part in CSR initiatives that boost the image of the bank.
- Licensing of Islamic Banking could help them target more uniformed customer base.

- Penetration in the rural market through wide branches' network.
- Centralization of all aspects will lead the bank tech savy.

#### **Threats**

- JBL is working in an exceedingly competitive field for this, they lose clients to other financial institutions.
- Global market downturn.
- Political instability.
- Competitors are offering huge pay-scale which is making employee turnover more.
- Cyber Attack.
- Entry of foreign banks and financial institution in the local market.
- Economic crisis and volatile market.

# **Credit Rating of Jamuna Bank Limited**

Credit Rating Agency of Bangladesh (CRAB) based on certain parameters usually define the credit condition of different financial institutions. Jamuna Bank Limited has been rated AA2 in this year.

	Long Term	Short Term	
Rating 2021	AA2	ST-2	
	(Very Strong and High	ery Strong and High (High Grade)	
	Capacity)		
Rating 2020	AA2	ST-2	
	(Very Strong and High	(High Grade)	
	Capacity)		
Rating 2019	AA3	ST-2	
	(Very Strong and High	(High Grade)	
	Capacity)		
Outlook	Stable	Stable	

Table 1: Credit rating of JBL

The Outlook of the credit rating is defined as Stable, and the validity of the credit rating will be expired on December 2022.

# Chapter-3

# OBJECTIVES & METHODOLOGY

#### 3.1 Statement of Problem

The primary duty of a bank is to borrow money from the public by collecting deposits and lending it to businesses and individuals for the advancement of trade, commerce, industry, and agriculture. A bank is a money and credit trader. Banks operate as brokers between savings and investors. It is, like any other commercial or industrial organization, a profit-seeking enterprise.

Commercial banks collapse mostly because of bad loans caused by inefficient loan administration and portfolio management not proper utilization of technology. Credit portfolio is not only an asset for the Banks, but also a significant factor in the Banks' success. The critical step in eradicating the default mentality in the banking industry is to implement a policy of peer review and approval via proper using of technology. If debtors are adequately assessed, the likelihood of default is lowered.

This paper mostly covers the credit risk assessment of clients and the information technology infrastructure of Jamuna Bank Limited

#### 3.2 Objective of Study

The general objective of the study is identifying the overall information systems of the Jamuna Bank Ltd. But some of the specific objectives are stated below:

- 1. Internal controls over data entry, transaction processing, and reporting.
- 2. Standardized processes for comparable transactions and a system architecture that reduces excessive data input duplication.
- 3. Standardized data classification for documenting financial events.
- 4. Identifying areas for improvement in information systems
- 5. Automating processes where necessary
- 6. Discussing JBL's different information systems

7. Evaluating the right idea and execution of e-banking

# 3.3 METHODOLOGY

# **Primary Sources:**

- i. Face to face conversations with the officials of Jamuna Bank Limited
- ii. Observing different scenarios and working closely with my supervisor
- iii. Study materials provided by the officials for the overview of the structure
- iv. Observations

# **Secondary Sources:**

- i. Annual report of Jamuna Bank Limited
- ii. Training materials
- iii. Websites
- iv. Journals from various online sources

# Chapter-4 INDUSTRY ANALYSIS

#### 4.1 Banking Industry Analysis

To quote Hill, "a set of companies supplying near alternatives for each other's products or services can be characterized as an industry." These are goods or services that meet the same basic customer demands as the original product or service. A closer look at the industry in which a company operates is necessary to have a better understanding of its business model.

#### Industry Life Cycle Model

A useful tool for examining how the evolution of a sector influences competitive pressures is the industry life cycle model. This model allows us to identify five unique industrial settings, each of which corresponds to a different stage in the growth of a particular sector. The five stages of Industry analysis are given below:

- 1. Prototypic Development
- 2. Growth with pace
- 3. Maturity of growth
- 4. Stability of market growth
- 5. Declining phase

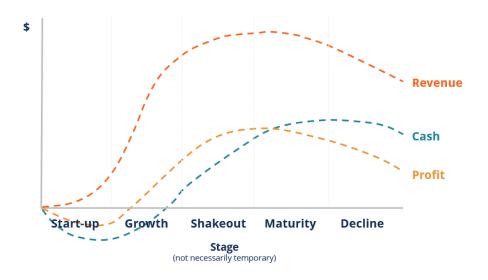


Figure 5: Life cycle of an Industry

The above figure shows different phase a company generally faces starting its journey until its demise. To give a proper idea the description is stated below

Having a firm grasp of the industry's life cycle is critical for every company. At each step of the life cycle, a new and distinct approach must be developed. According to the life

cycle model, Bangladesh's banking sector is now in its expansion phase. But the shakeout stage does not appear to be too distant. The shakeout stage has already begun to show some of its traits on the JBL banking environment.

The demand for the industry's goods begins to rise in the growth stage. The need for financial institution in Bangladesh has risen with the time. This is bolstered by the growing number of banks and their unique products. Rivalry between the banks is intensifying daily. Shakeout stage rivalry is at its peak. Anyone may enter the market and make money since demand is high and supply is low. Our country's banks have passed that point, and the market is now declining at an alarming rate. The rate of expansion has slowed, and the demand is gradually nearing the point of saturation. Banks are preparing for the fierce rivalry that characterizes this phase of the shakeout. Interest rates and fees for various financial services are projected to fall considerably in the coming years. We have seen this scenario during covid-19 where whole world was facing economic crisis and financial institutions were facing funds crisis and to outstand from such position, they offered high rate of returns for cash deposits which was not feasible in the long run.

#### **4.2 Industry Size and Growth Trends**

In 2020, the banking industry in Bangladesh seemed to be cautious, but strong, at the same time. The sector's assets grew at a moderate pace, underpinned by a significant increase in deposits. This year's deposit growth may be credited to the Bangladesh Bank's conservative policy measures and many revival programs for various sectors of the economy after COVID-19, together with large gains in foreign remittances and reduction of levies and fees on deposit products. Since last year, both the net and gross non-performing loan ratios have decreased significantly, indicating that the quality of the sector's assets has improved significantly. However, prudent use of this year's stimulus funds, careful observation of restructured loans, and prudent risk management are critical to preserving asset quality in the coming years.

Every subsector of the financial sector had its growth rate decline in the most recent fiscal year (2019- 21). The sub-sector of monetary intermediation had its worst year in a long time. The financial sector's total contribution to GDP has declined. Covid-19's continuous outbreak affected the industry in the fourth quarter.

Experts say that lending frauds, rising non-performing loans (NPLs), interest rate issues, and a lack of demand for money from the private sector all played a role in the financial sector's big drop in growth. BSS data shows that from 2020 to 2019, growth fell from 7.38 percent to 4.46 percent.

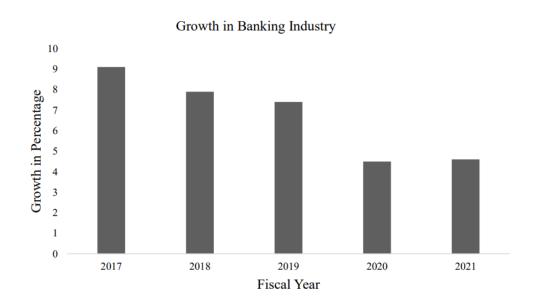


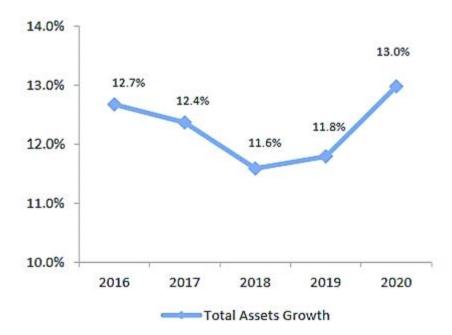
Figure 6: Growth Trends in Banking Industry

It is Bangladesh Bank's job to make sure that all of the country's scheduled banks and other financial institutions are running smoothly. A total of 34 financial institutions (FIs) and six state owned commercial banks (SOCBs) are presently operating in Bangladesh.

#### 4.3 Asset Growth in Banking Industry

CY19 and CY20 were both good years for the banking sector, with asset growth of 11.8 percent and 13.0 percent, mostly due to a rise in deposit growth rate.

In CY20, the banking sector's assets valued at BDT 18,406.0 billion, an increase of 13.0 percent over the previous year. Indeed, asset growth resumed its upward trajectory in CY20, as it did in CY19, after experiencing a significant slowing over the previous few years. The main cause behind this expansion is increased deposit growth.



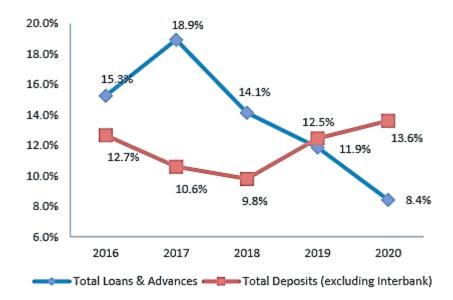
Source: DOS, BB; compilation: FSD, BB.

Figure 7: Total Assets Growth Year by Year

#### 4.4 Deposit Growth

In CY20, deposits grew faster than loans (excluding interbank deposits). This shows that there was a positive gap between the number of deposits and the amount of loans at the end of the year.

Like in CY19, deposit growth (excluding interbank) outpaced loan growth (8.1 percent) towards the end of December 2020. (Chart 2.32). Due to this, the difference between deposits and loans grew significantly in CY19. Despite the greater rise in deposits, the banks' loan growth of 8.4% reflects a cautious approach. It's possible that the COVID-19 epidemic, which has caused a slowdown in total investments in the nation, has something to do with the decreased loan growth. Investment in government securities, as a means of securing the banks' financial stability, was a popular option for banks. If the economy is to continue growing at a steady rate, banks will have to make use of their larger deposit bases and guarantee that credit is flowing freely to the booming private sector.



Source: DOS, BB; compilation: FSD, BB.

Figure 8: Loans and Deposits Growth Year-wise

# 4.5 Banking Sector Profitability

Banks' net profit after taxes fell in CY20, compared to CY19, when compared to the previous year. Banks' operating profits fell by 8.0% in CY20, down from BDT 278.4 billion the year before. And the net profit declined by 33.2 percent. Net income fell despite an increase in total non-interest revenue of 24.5 percent (i.e., BDT 73.5 billion), mostly owing to a decline of 9.4 percent (i.e., BDT 93.84 billion) in interest income in this review year. Considering the COVID-19 pandemic, a ceiling on interest rates, a difficult economic condition, and a prohibition on charging interest on interest accrued during this era, banks may have seen a decrease in interest income.

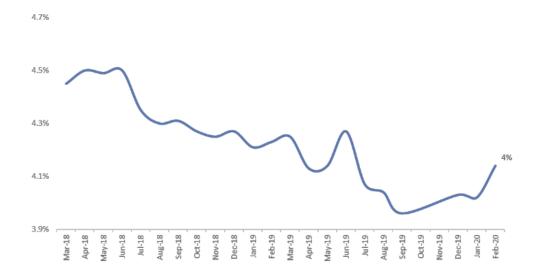


Figure 9: Interest Rate Spread in Decreasing Trend

# **4.6 Electronic Banking Operations**

Electronic banking activities expanded somewhat in 2020, owing to an increase in the number of card-based transactions.

Electronic banking is a type of banking where information and transactions are exchanged electronically. Any technology that enables a bank to do business electronically is included in this umbrella term. E-payment, e-banking, online banking, and internet banking are all forms of electronic banking. Since the end of December 2020, all 57 banks in Bangladesh have at least one online branch, with 36 of them offering internet banking.

Type of Bank	No. of ATMs	No. of Total Branches	No. of Branches with Online Coverage	% of Online Branches
SCBs	204	3,732	3,004	80.5
SDBs	0	1,410	70	5.0
PCBs	9,763	4,826	4,825	100.0
FCBs	168	66	66	100.0
Total	10,135	10,034	7,965	79.4

Source: Sustainable Finance Department, BB

Table 2: Online banking scenario at the end of December 2020

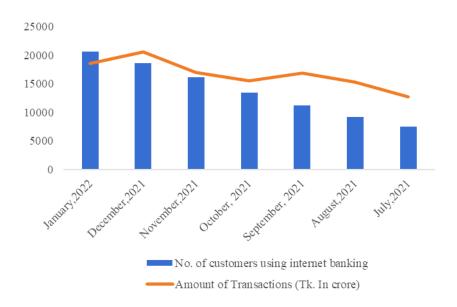


Figure 10: Trends of customers using internet banking

Over the year, we can see the amount of customers as well as the transactions increased in the upward trend and the banking industry is trying to influence general people to rely on this internet banking service. The analysis shows how digital transformation has given a positive impact on the banking industry of Bangladesh.

# Chapter-5 DESCRIPTION OF MAIN DUTIES

I joined as an intern of Information, Communication and Technology Division of Jamuna Bank Limited. Although this was my assigned division, I had privilege to see the activities of other divisions as well. My assigned team was Database Administrator Team (DBA) where I worked mostly trained to work on Oracle Platform Enterprise Edition. I also worked with Core Banking Solutions team where I was trained how to solve different transaction issues based on different scenarios.

#### **5.1 Duties in Information Communication and Technology Division**

I mostly worked in this division throughout the tenure of my internship. From the very beginning I was trained up with the system used in the banking systems and the servers involved in generating the transactions. Different learning materials were provided, and training sessions were conducted for me. ICT division is considered as the heart of the bank as all the things are automated in banks. Each and every transaction are monitored are connected with the central database which is maintained by my assigned team. Some key points pf my daily duties are cited below in a nutshell:

- Working on the Oracle platform to find out error logs and then note it down for further reference
- Using SQL queries to control different transactional operations
- Documenting the trouble-shoot server associated with the Transaction Processing
   System (TPS) and sending the details to my supervisor
- Report generation from system according to the need
- Data extraction for controlling the environment
- Report generation from DBMS and then send it to MIS
- Co-relating reports to give feedback on the annual reporting system
- Checking on the documents for internet banking
- Checking and verifying on the user and certification/ permission given to the users

A part of my daily task was to integrate the report from database and then merge it in the central system in a format which is easily readable. First two weeks was designed to give me training for knowing about the central database system. I was taught the whole procedure of collecting the data and then integrating it with analytics to give a proper output.

Throughout my internship period I was assigned with different assignments on the business case scenarios and figure out solutions and the scope to implement those alternatives in the existing system. Again, the work-related activities which help in doing different business activities.

#### 5.2 Working on Core Banking Software

While working in the CBS of Jamuna Bank Limited, I was trained for few days with following sort of accessibility:

- User creation and deletion from central stem
- Providing password access to the newly opened branches and sub-branches
- Listing out the user credentials and permission accessibility subject to designations
- Hands on training on how to resolve different transactional issues from backend and front end
- Working on charging and billing system in a quarterly circle
- Using generated codes to make new accounts for different schemes/ products
- CIF (Customer Information File) preparation form and updating it once at a time

The main tool that was used throughout my internship period was FloraBank, MS Excel, Word, and PowerPoint. Both tools were used to generate report for different managerial decision making. The tasks were fully automated and continuous monitoring was ensured. Sometimes I need to find certain users using queries and then report those users to my supervisor.

On the other half I worked on giving credentials to branches on for internet banking. The process of giving was checking on the form of request from the user end and then properly compile the information on the central database.

Adjustments of different accounts were made manually with proper authentication, and I have seen how things work from the backend. As most of the things were confidential and fully accountable to the permanent employees, I had very definite access to the resources but I got chance to solve different case based scenarios which helped me to gain hands on experience.

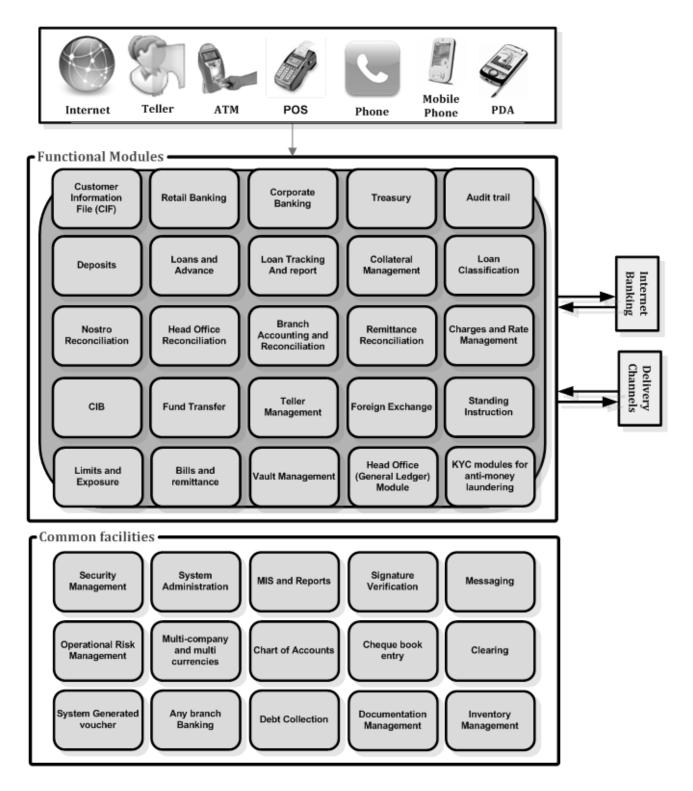


Figure 11: Flora Bank Modules

Above are the modules which were basically used for operative and business functionalities of Jamuna Bank Limited. A pen picture drawn to give brief idea about the whole process in Information, Communication and Technology division.

### 5.3 Working On Credit Risk Management Division

Working tenure in this division was comparatively less compared to ICT division. However, I was initially trained on different aspects of the division. The major job of this division is to review the risks in the Corporate Division's credit proposal and analyze the recommended facility pricing on risks, security, structure, and terms and conditions to match the company and to please bank's higher management. In this division, they mostly work on approving/declining credit proposal provided from the branches all over the country within delegated authority and then recommend to higher authority if its beyond delegation.

- Here the activities were basically of documentation and file management of customers and the corresponding credit proposals
- ❖ Identifying all principal risk components i.e., Financial, business, management, security risks
- ❖ Input data in the Credit Assessment Score list and the determining the grade for the credit proposal
- Discussing about the latest loan offerings and providing the supported documents to the customers
- Processing the credit proposal for approval of the competent authority

### **5.4 Working Environment**

Working environment in Jamuna Bank Limited was very cordial and helpful. The employees working there used to help me whenever I face any problems. My supervisor used to guide me in the free timing about career path and goals. I was also part of different training session which held during my internship tenure.

Chapter-6
ANALYSIS

### **6.1 Company Level Analysis**

In this section the key parts of working in the company has been highlighted which motivates the employees working in Jamuna Bank Limited. JBL always keeps on the flow of encouraging the employee and serving their customers with top-notch services. Some key points are discussed below in a nutshell:

- Communication: To communicate with the employees and being connected in making different processes and decisions JBL uses MS Teams as a platform. Effective communication and being connected with the peer employees is must for any growth of the organization for this I could see the coworkers used to communicate with each other regarding any problem without any hesitation
- **Team Collaboration:** Collaborative working was another notable finding during my internship tenure. I have seen employees working collaborately to solve different problems and new designing of systems.
- Management Meeting: In every quarter, the Board of Directors along with the
  Branch Managers and other key stakeholders hold a management meeting. The main
  purpose of this meeting is to give an overview of the current scenario and position of
  the bank and targets to achieve in the coming quarters.
- **Security Audit and Compliance:** The most integral part of the division under which I was working. From every network tracking to every customer's information privacy everything was in continuous monitoring in real time so that no case of privacy breach found.
- Employee Recognition: During my internship tenure, I have seen employees receiving different recognition awards along with performance bonus based on their KPI. Those awards and bonus had highly encouraged the employees to boost up their activities. Special recognition is given to
- **Data-Driven Decision Making:** Data is the next big thing in this era of modernization, and I have seen that JBL was no less in using those data to make decisions for the organizations. Starting from cost predictions to bandwidth allocation everything was handled on the basis of data extraction and reporting.

The thing that I did not like about JBL was their documentation process and manually updating the reports because its very time-consuming and erroneous method.

### **6.2 Market-Level Analysis**

Over the year, the performance of Jamuna Bank was quite consistent being a third-generation banks. Still, they had to fight with their competitors for capturing the market share. A comparative analysis among private commercial banks will give a clear picture of the current scenario and condition of Jamuna Bank Limited.

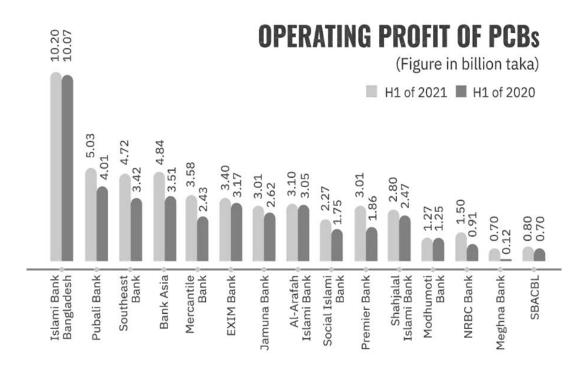


Figure 12: Operating Profits of Private Commercial Banks

Despite the pandemic condition effecting the economy of the country, JBL has turned up their operating profit in a good shape. Compared to other Private Commercial Banks JBL has a very good deposit reserved in their funds for which they were able to match up during the COVID-19 situation. During that crisis moment the management made some contingencies plan which was fruitful, and the crisis was handled very subtly.

Particulars	Annual Performance- Jamuna Bank Ltd. (Consolidated)		
	2020	2019	Y-o-Y Growth (%)
Net interest income	3,749.44	6,433.56	<b>↓</b> 41.72%
Investment income	4,537.06	2,322.40	<b>1</b> 95.36%
Commission, exchange and brokerage	1,966.51	2,002.29	<b>↓</b> 1.79%
Other operating income	607.69	681.28	<b>↓</b> 10.80%
Total operating Income (A)	10,860.69	11,439.53	<b>↓</b> 5.06%
Total operating Expenses (B)	5,771.86	5,597.68	<b>1</b> 3.11%
Profit/(loss) before taxation & provisions	5,088.83	5,841.84	<b>↓</b> 12.89%
Total provision	738.50	1061.94	<b>↓</b> 30.46%
Provision for taxation for the year	1,679.63	2,172.05	<b>₽</b> 22.67%
Net profit after taxation	2,670.71	2,607.85	<b>1</b> 2.41%

Figure 13: Annual Performance of Jamuna Bank Limited

The table above shows the performance financial analysis of JBL during the covid-19 pandemic. The core income of a banking financial institute is interest and this interest income decline to 41.72% due to the pandemic situation. The interest rate ceiling set by the government, low demand for funds from private sectors and declining import export conditions were the affecting factors of low interest income. Subsequently, the invest income has rose to 95.36% over the year.

Core Banking Software is considered as heart of the all-banking transactional activities. JBL also uses a vendor product named FloraBank and compared to other banking financial institutions this core software is weak and packed with less features. From my personal experience. I have used this software which was not user-friendly and high possibility of being privacy breached. Though they have plan to migrate into a newer software TCS which would fulfill the requirements and help them to give proper IT service to corporate clients as well. I have attached below the comparative table of software used by different banking institutions.

Name of the Banks	Banking Software		
	Present	Previous	
Sonali Bank	Bexibank 4000+, PC Bank,	Bexibank 3000+	
	Kurnel Banking System, Flora		
	Bank		
Janata Bank	BEXI Bank, Flora Bank	BEXI Bank	
Agrani Bank	BEXI Bank 3000+	N/A	
Rupali Bank Ltd.	Infinity Banking Solution (IBS)	IBS	
Pubali Bank Ltd.	PIBS	A2Z	
Uttara Bank Ltd.	UIBS	A2Z	
Bangladesh Krishi Bank	IBS and Flora Bank	N/A	
Arab Bangladesh Bank	KPATI	BEXI Bank	
National Bank Ltd.	BEXI Bank 4000+, BEXI Bank 3000+, A2Z, and Flora Bank	BEXI Bank	
The City Bank Ltd.	Finacle Core	PC Bank	
Islami Bank Bangladesh Ltd.	IBBS	BEXI Bank	
IFIC Bank Ltd.	BEXI Bank 4000+	BEXI Bank 3000+	
United Commercial Bank Ltd.	PC Bank	BEXI Bank 3000+	
The Oriental Bank Ltd.	PC Bank 2000	N/A	
BASIC Bank Ltd.	EAGLE	N/A	
Eastern Bank Ltd.	Flexcube		
National Credit and Commerce	Micro Banker (I Flex)	Bank Star 2000	
Bank Ltd.			
Prime Bank Ltd.	PC Bank	N/A	
Southeast Bank Ltd.	PC Bank		
Dhaka Bank Ltd.	Flexcube	PC Bank	
Al-Arafah Islami Bank Ltd.	BEXI Bank	N/A	
Social Investment Bank Ltd.	PC Bank	BEXI Bank	
Dutch-Bangla Bank Ltd.	PC Bank	PC Bank	
Mercantile Bank Ltd.	PC Bank	N/A	
Standard Bank Ltd.	BEXI Bank 4000+	N/A	
One Bank Ltd.	Micro Banker (I Flex)	PC Bank	
Export Import Bank of	PC Bank	N/A	
Bangladesh Ltd.			
Bangladesh Commerce Bank	Flora Bank	N/A	
Ltd.			
Mutual Trust Bank Ltd.	Flora Bank	BEXI Bank	
First Security Bank Ltd.	PC Bank/M, PC Bank 2000	PC Bank	
The Premier Bank Ltd.	PC Bank 2000	PC Bank	
Bank Asia Ltd.	Steller	Bexibank 4000+	
The Trust Bank Ltd.	Kernel Banking System		
Shahjalal Bank	PC Bank 2000	N/A	
Jamuna Bank Ltd.	Flora Bank	N/A	
BRAC Bank Ltd.	Millennium Banking System	N/A	
	(MBS)		
American Express Bank Ltd.	-	-	
Standard Chartered Bank	EBBS	BBS	
Habib Bank Ltd.	MOBS	N/A	

Source: Questionnaire

Above table shows the use of different core banking software in different private commercial, foreign commercial banks, etc. This analysis shows how impact CBS on banking system of a banking financial institution

### **6.3 Professional-level Analysis:**

Communication was the most integral part of my three-months long internship program because I have to work with the employees of JBL from various teams. Communicating with them and asking about every minute details of the work that I need to perform. Business communication course's learning was effective. Working at JBL made me understand the corporate culture and etiquettes which would help me in future.

### 6.3.1 Correlation with academic knowledge:

In my internship period, I was able to correlate my academic knowledge with all the activities and managerial tasks. The courses that I could co-relate are discussed below:

- Organizational Behavior: I was taught how to behave properly with the colleagues and maintain a very decent connection with them. Throughout my internship journey, I have tried to follow the learnings from this course and practically implement them.
- **Business Communication:** This course has helped to maintain formal communication with the supervisors and managers in the organization, the way, and processes of discussing of scenarios and business environment in a professional manner.
- Computer Science and Technology: This course helped me most to fit with my everyday activities in JBL. The use of Oracle Cloud platform and Structured Query language (SQL) was most in my daily doings so I could see practically how things were working. SQL was used to fetch metadata from the central server then use them for different performance analytics. Database management was the prime task in my internship period
- **Project Management:** Project management tools and approaches were used to manage project task and meet deadlines accordingly. Assisting my supervisor to work according to the project outline and follow the charter.
- Operation Management: The process management of getting efficient and effective
  organizational effectiveness was applied following the learnings from the Strategic
  Operations Management course. In this course, we also learned about the strategic
  communication process, collaboration with stakeholders and assessing the problem
  which helped me to understand the real-life business scenarios easily.

### **6.3.2** Impact on my future career path

I always had the ambition of starting my career in Business Intelligence and Analytics, my wok in Jamuna Bank Limited was quite similar to this. During my interview I was asked about my career goals and after hearing this, my supervisor assigned me with such type of analytical activities and preparing reports on them. My supervisor used to take learning sessions where I was enlightened with different corporate affairs and technical aspects. Both implementing the theoretical course knowledge and experiencing the real-world perspectives have made positive outcomes in my everyday activities. Development of leadership, decision making, process and time management will be capitalized to reach my future goals.

## **6.3.3** Challenges

I was quite skeptical before starting of my internship as this was my first time in a corporate world. The friendly environment in Jamuna Bank Limited made my corporate journey smoother after a couple of days. The most challenging situation was learning the whole process from different learning materials that were provided and then practically implementing them in the main system. Most of the data was quite confidential and for this I had limited access to the main system, but I was given works on basis of different cases and scenarios.

# Chapter-7 RECOMMENDATIONS

During my three months long internship in Jamuna Bank Limited, I have seen their daily activities in the Information, Communication and Technology division and Credit Risk Assessment division. I would like to recommend some of alternate paths in their mode of operations. The recommendations that I would like them to implement in their business and functional units.

- ❖ A decision support system (DSS) for middle level management for non- routine decision making
- ❖ For competitive edge, a Customer Relationship Management module can be introduced
- ❖ For checking on employees and monitoring their performances Human Resource Management System (HRMS) to be developed
- ❖ Blockchain technology to be used in securing the transactional security for the customers. We have already seen many banks are very much into this new technology
- During reporting phase I have seen reports to be fetched from different stakeholders regardless MIS systems was functional. Employee knowledge about new technology to be enriched
- ❖ Using Business Intelligence to generate everyday reports which highly do not need any human intervention. Preparing performance analysis report based on historical data where use of BI can come handy. Automated generation of KPI (Key Performance Indicators) for different branches of JBL with some certain parameters like Loan to Advance ratio, number of deposits, amount of NPL and so on
- ❖ A uniform portal for the employees working in the company so that they can send files and keep track of different documents basically, introducing online documentation system
- ❖ Technological advancement in the bank is very much necessary. The bank is planning to shift to a new core banking software (CBS) named TCS Bancs in April 2022, so the employees should be trained on using the updating technology. Empowered employees will surely add more value to the organization. Moreover, the banking industry is going through a huge change in recent years. So, the employees should be trained enough with the updated knowledge so that they can cope up with the change.
- Data security should be more advanced so that only authorized users have access to segment of data

- ❖ A dedicated research and development team is necessary to work with different products/services to avail more enriched banking experience for the customer
- ❖ To increase deposit JBL can use a social media marketing strategy. According to their target market, they can provide ads on social media platforms. The bank should offer differentiated products for retaining customer satisfaction. The bank should take marketing & promotional strategy such as workshops, building brand image through advertisement, etc. to introduce new services.

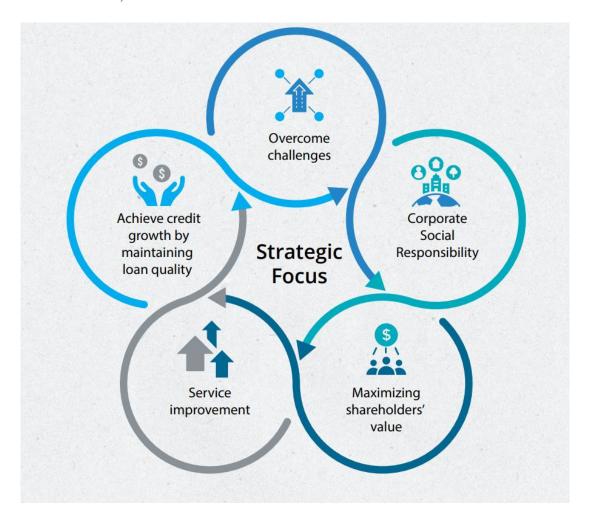


Figure 14: Strategic Focus of JBL

- More concentration should be given to loans and advance service because this will help to improve the condition of the bank thoroughly
- Analyzing the historical data, I have seen that JBL is giving long term loans to industrial sectors rather than giving in a diversified manner. A dedicated agriculture loan unit is there still they are not eager to give loans to that sector because of prevailing risk factors

# Chapter-8 CONCLUSION

In the current era of civilization, banks play a crucial part in keeping the economic development cycle going. We can observe that a large number of new commercial banks have been founded in the recent several years, which has made the banking market extremely competitive. Banks must manage their assets and liabilities efficiently if they are to thrive in today's competitive economy. JBL has a solid financial foundation and the assets to cover its debts, making it a financially secure and stable company. Jamuna Bank Limited was founded with the purpose of being the most efficient financial facilitator in the country, and the bank feels that day is not far off. In the future, JBL has a unique goal: to become a modern, competitive, and transparent institution like any other of its kind both at home and around the world.

Jamuna Bank Limited is trying to develop their IT infrastructure and taken necessary initiatives to achieve the highest level of success. As a part of improvement, they are already migrating to a newer system and introducing a new DBMS platform named Oracle to match with the current technological trends. JBL has made good growth in areas of operations and produced a remarkable operational income during the previous years despite intense competition from international and local banks operating in Bangladesh.

# REFERENCES

- 1. *Banking Industry: A Panel Data Analysis*. Bangladesh Development Studies, Vol. XXXV, pp. 14-15.
- 2. Frue, K. (2017, April 5). *Pestle analysis for the banking industry*. Retrieved February 23, 2022, from http://pestleanalysis.com/pestle-analysis-for-banking-industry/
- 3. A brief overview of the banking and finance sector of Bangladesh. (n.d.). Retrieved March 20, 2022, from http://www.assignmentpoint.com/business/banking/a-briefoverview-of-the-banking-and-finance-sector-of-bangladesh.html
- 4. *Core Banking Solutions*. (n.d.). Core Banking. Retrieved March 24, 2022, from https://www.enterpriseedges.com/role-core-banking-solutions-in-banking-system
- 5. *Jamuna Bank Annual Report 2020*. (2021, February 21). Jamuna Bank Limited. Retrieved April 02, 2022, from https://jamunabankbd.com/jb\_uploads/files/files/Annual\_Report\_2020.pdf
- 6. J. Melton and A. R. Simon, SQL:1999, *Understanding Relational Language Components*, Morgan Kaufmann (2001)