



## **AMERICAN INTERNATIONAL UNIVERSITY–BANGLADESH (AIUB)**

### **FACULTY OF SCIENCE & INFORMATION TECHNOLOGY**

#### **INTERNSHIP AFFILIATION REPORT ON “*Telco Growth Expansion and New Business Portfolio* *At Robi Axiata Limited*”**

An Internship Report Presented to the  
OFFICE OF PLACEMENT and  
DEPARTMENT OF CSE  
In Partial Fulfillment of the Requirements for the Degree  
***B.Sc. in Computer Science & Engineering***

**Submitted By**

**NOVA, FAHMIDA AKTER**

**ID: 18-37843-2**

**Department of CSE**

**Supervised By**

**SAZZAD HOSSAIN**

**Assistant Professor, Dept. of Computer Science,  
American International University-Bangladesh**

Date of Submission: **August 18, 2022**

## **LETTER OF SUBMITTAL**

August 18, 2022

**Sazzad Hossain**

Assistant Professor, Department of Computer Science

American International University-Bangladesh

408/1 Kuratoli Road, Kuril, Dhaka-1229

Subject: **Letter of Submittal of the Internship Program**

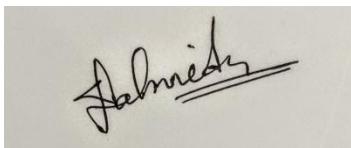
Dear Sir,

With due respect, I would like to inform you that I am Nova, Fahmida Akter; ID: 18-37843-2, a student of your Internship Summer [G81] group, and I am submitting the Internship report on "**Telco Growth Expansion and New Business Portfolio at Robi Axiata Ltd.**" in accordance with the requirements for the Degree B.Sc. in Computer Science & Engineering (CSE) at AIUB.

I completed my three-month internship with Robi Axiata Ltd., where I worked at the Robi Corporate Office (RCO-Gulshan-1). During this time, I've learned the fundamentals of a telco growth plan, an analytical market map, gross addition, churn compilation, reports on noticeable changes on graphs, and the company's campus activation visits have also advanced my practical understanding of the telecom industry. Also, I have taken part in the official tasks while setting a strong example of professionalism to promote both the reputation of my institution and my own identity there.

Thereby, I would like to convey my sincere gratitude to my esteemed Academic Supervisor, Organizational Supervisor, and all the concerned faculty members for their strong support and direction during the period to provide the platform of learning through this illuminating internship program towards the end of my undergrad studies.

Yours Sincerely,

A photograph of a handwritten signature in black ink, which appears to read "Nova Fahmida".

---

**NOVA, FAHMIDA AKTER**

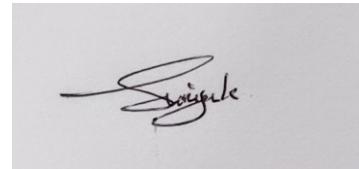
ID: 18-37843-2

B.Sc. in Computer Science & Engineering

Date: August 18, 2022

## LETTER OF ENDORSEMENT

The Internship Affiliation Report, titled "**Telco Growth Expansion and New Business Portfolio at Robi Axiata Ltd,**" has been submitted to the company and the Department of... CSE..., American International University-Bangladesh (AIUB), in partial fulfillment of the requirements for the degree of **B.Sc. in Computer Science & Engineering** by **NOVA, FAHMIDA AKTER; ID: 18-37843-2.** The report has been approved by the Internship Committee after being submitted for evaluation.



---

SAZZAD HOSSAIN

*Internship Supervisor (Academic)*

Assistant Professor, Dept of Computer  
Science, American International University-  
Bangladesh

SURIYA KHAN

*Internship Supervisor (industry)*

Lead Business Analyst,  
Research Specialist, Market Insight Analysis  
Robi Axiata Limited

---

Dr. Md. Abdullah - Al - Jubair

*Internship Supervisor (External)*

Assistant Professor & Head-In-Charge  
[Undergraduate Program], Dept of Computer  
Science

---

Prof. DR. Dip Nandi

Professor & Director,  
Computer Science,

Faculty of Science & Technology

## **ACKNOWLEDGEMENT**

To begin, I want to express my gratitude and praise to Almighty Allah for helping me in successfully completing my internship program at Robi Axiata Ltd. I would like to thank my esteemed Academic supervisor, **Mr. Sazzad Hossain Sir, Assistant Professor, Dept of Computer Science, AIUB**, for his invaluable assistance throughout the entire process of preparing all of the documents, letters, and so on for this program. I am also grateful to **DR. MD. Abdullah- Al- Jubair Sir** and **Dr. Khandakar Tabin Hasan Sir** for their tremendous help and guidance throughout the internship program.

I would like to express my heartfelt gratitude to my organizational supervisor, **Suriya Khan, Lead Business Analyst, Research Specialist, Market Insight Analysis Robi Axiata Limited**, for her endless support, assistance, and initiatives for my learning purposes, as well as for always presenting a welcoming environment for learning whenever I approached her for advice, problems, or guidelines. Moreover, I am immensely grateful to **Mr. Sakib Mahtab Khandakar, Business Insight Manager, Robi Axiata Limited**, for his continued assistance and direction throughout the period. I'd like to thank my on-site supervisor **Nahid Islam, Manager, Employer Branding & Modern Engagement Robi Axiata Limited** for her continuous suggestions and support. It was one of the most helpful opportunities to learn during my undergrad studies for which I would like to convey a heartfelt thanks to the Internship Committee members and the Department of CSE for working dynamically to attain our betterment.

Finally, I want to thank my parents, family members, and all of my well-wishers for their encouragement and support throughout my internship program.

## TABLE OF CONTENTS

TOPICS	<i>Page no.</i>
<b>I. Title Page</b>	1
<b>II. Letter of Submittal</b>	2
<b>III. Letter of Endorsement</b>	3
<b>IV. Acknowledgment</b>	4
<b>V. Table of Content</b>	5
<b>VI. List of Tables &amp;Figures</b>	6
<b>1. Introduction</b>	7
1.1. Organization Profile	7
1.2. Background of the Internship	8
1.3. Objectives of Report	11
<b>2. Activities</b>	12
2.1. Living Up Devotion	12
2.2. Market Invasion	12
2.3. Market Expansion	13
2.4. Market Timing	14
2.5. Diversification in Telecom Sector	15
2.6. RPA in Telecommunication	16
2.7. Insight into the future workforce	17
2.8. Technical Information of Associated Department	18
2.9. Other Relevant Activities	19
2.10. Intern's Assignment	20
<b>3. Constraints/Challenges</b>	21
3.1. Difficulties Met	23
3.2. Norms of Engineering practice	23-30
3.3. Product Development	
3.4. Competitive Strategy	

3.5. Traffics for Business Growth	
3.6. Personal/Professional Skills	31
<b>4. Acquired Knowledge</b>	32
4.1. Technological observation and learnings	33
4.2. Recognizing the need for professional skills	33
4.3. Participation in Professional societies and meetings	35
<b>5. Concluding Statements</b>	36
5.1. Internship Review	36
5.2. Impact on Career Planning	37-42
5.2.1. Organization	43-45
5.2.2. University-Organizational Affiliation	46
5.2.3. Recommendations for Future Strategic Actions	47
<b>6. References</b>	48
<b>7. Appendices</b>	49-52

## **LIST OF TABLES & FIGURES**

<b>TITLES</b>	<i>Page no.</i>
Robi Axiata profile	11
Contribution to Market	14
Social campaigns	21
Robi Digital Services	24
Competitor Apps Building	25
Competitor Apps Building	26
Facebook Automation Using Selenium Python	28
Tableau Dashboard	34
Tableau Solution Pick	37
Tableau Dashboard [2]	37
Datathon 2.0 Anchoring & Organizing part	38

## 1. INTRODUCTION

### Organization Profile

The following is a full overview of the company with all of the relevant points in the organizational profile:

#### ❖ Vision

Nowadays, the telecommunications industry is more than just its primary concerns; it has expanded with numerous new subsidiaries. As a result, the telecommunications industry will expand rapidly and become an important economic sector. Furthermore, it secures the organization's optimum profit. Robi Axiata Limited is one of Bangladesh's largest telecommunications companies. It began as a modest center and has grown to become a major brand.

#### ❖ Mission

In the market operating sector, Robi Axiata Limited has a very strong sense of teamwork. These teams are always aiming to increase Robi's revenue share by creating a pleasant working environment. This paper focuses on a brief review of Telco's growth expansion and the new business portfolio work process. This internship position at Robi Axiata Limited's corporate strategy department under the analytic center of excellence division provides a great learning opportunity for a CSE student. It includes the internship's learning output and concludes with some conclusions and suggestions for improvement.

### 1.2 Background of the Internship

An introduction to the corporate world for undergraduate students is equivalent to an internship program. During this time, an intern has the opportunity to apply his or her abilities and understanding to the advancement of the organization. This report includes and reflects on all of the job tasks that I completed during my internship.

### 1.3 Objective of the Report

The study's major purpose was to learn how the Corporate Strategy division in the Telecom Company works and to get firsthand knowledge of all associated aspects by working with a group of highly qualified experts.

### ❖ Specific Objective:

- To determine how the CS team contributes to generating profits.
- Determine how the software works.
- Apply theoretical knowledge to real-world professional situations.
- Reflection on my internship experience as well as my work obligations.

### ❖ Source of Primary Data:

This paper analyzes Robi Axiata Limited's corporate strategy utilizing qualitative data. I gathered all of the information for this study from primary and secondary sources. In addition, I gathered information through face-to-face interviews with officials of Robi Axiata Ltd's Corporate Strategy Division. My personal experiences and notes on the procedure are presented. Secondary data sources include the company website, previous reports, online publications, and so on.

### ❖ Dimensions of the Analysis:

This paper contains an in-depth and comprehensive organizational analysis of Robi Axiata Limited and its Analytic center of excellence division. It also provides specific information on the Analytic Market Map unit and how it performs to obtain its targeted projects. It also includes my education and studying during my internship program.

### ❖ Constraints:

The main challenge was gathering information for the report. The Analytic Center of Excellence division has a large amount of personal data, documents, and information, and an intern's access to all firm information was restricted. Since Robi is not a publicly traded company, the revenue data are kept in the strictest confidence by the workforce. Another constraint was the limited amount of time.

## 2. ACTIVITIES

As of October 2016, Robi Axiata Limited is Bangladesh's second-largest telecommunication services operator, with approximately 32.2 million dynamic endorsers. Prior to the merger of Robi and Airtel on November 16, 2016, Robi Axiata Limited was the second largest administrator in terms of revenue and the third largest in terms of dynamic endorsers. This was Bangladesh's first merger in the media transmission sector. The combined company is now known as Robi Axiata Limited after Robi and Airtel combined.

Robi has grown to become Bangladesh's second-largest media transmission administrator after successfully completing the merger procedure. The unified organization has a scope that extends across the country.



Figure 1: Robi Axiata profile

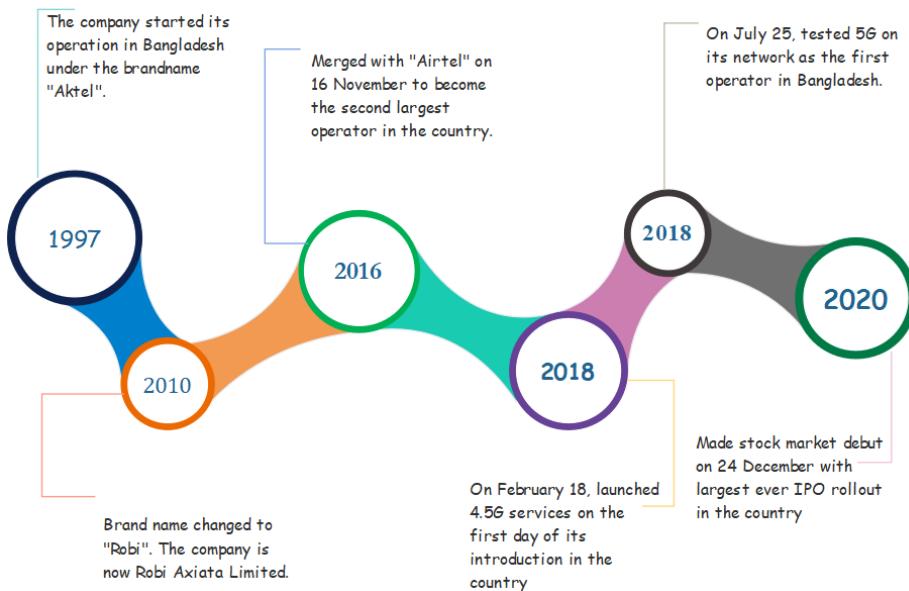
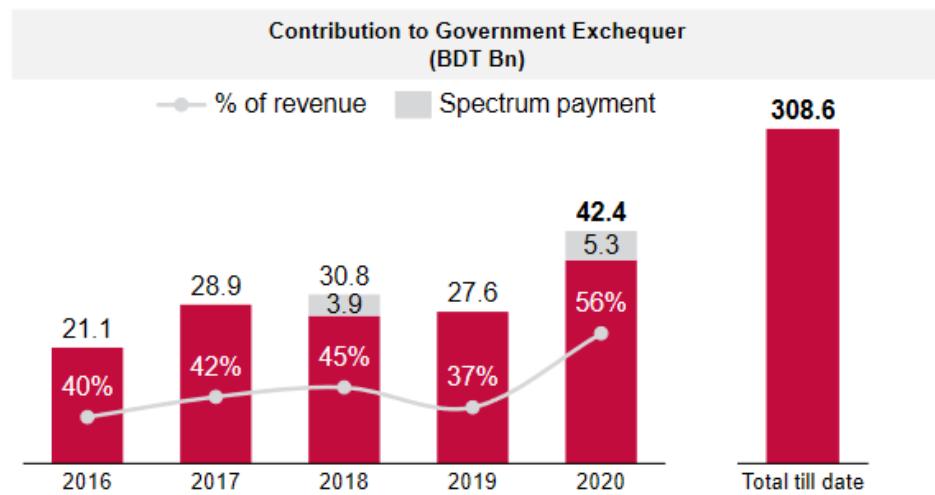
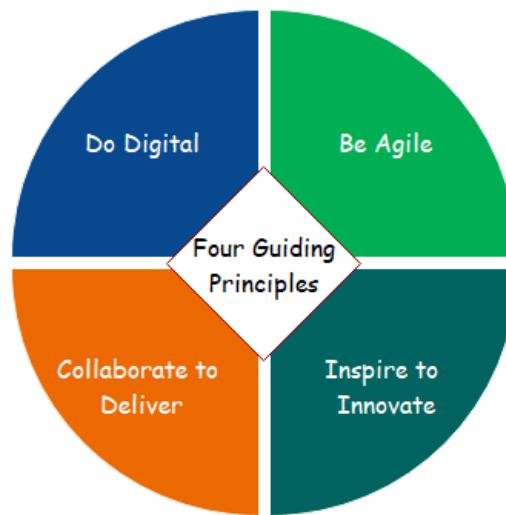


Figure:2 Contribution to Market

### ❖ Norms and Objectives:

Robi Axiata's three key pillars are as follows:



## 2.1 Living up Devotion

Robi aspires to pursue licitly, ethically, and effectively carrying out its operations while ensuring honor and honesty. It intends to listen, plead after acknowledging its stakeholders, or urge them to start talking in order to communicate more effectively. It tends to remain profound in terms of their internal ideals while treating others with pride and respect.

Furthermore, Robi wants to be the last liable for all of its activities toward its stakeholders and team members, but specializes in correcting and learning from its mistakes.

## ❖ Department of Robi- Analytic Center of Excellence

Every corporation runs on data. It drives decision-making, strategic initiatives, and other activities. That is why data is critical to the success of any firm. It serves as the organization's fuel. However, overlooking the people and processes behind the data is one of the most common mistakes a company can make on its journey to data competency. According to a McKinsey report, while most organizations understand the relevance of analytics and have implemented common best practices, only about 20% have exploited the potential and accomplished analytics at scale.

Creating an Analytic Center of Excellence (ACoE) can aid in driving the collaboration, communication, and framework required to deliver results. A program or a group of teams in a company that provides knowledge and experience to unite and accelerate the path to becoming a data-driven organization is known as an ACoE. ACoEs are required to drive excellence in analytics.

## Department of Corporate Strategy

Robi Axiata Limited's Corporate Strategy Division engages a large number of people, including the Chief Strategy Officer. The key tasks of this division include new business growth, strategic plan, business planning (BP) including BP projects, regulatory compliance, performance governance, and productivity leadership system. The sector is divided into two halves. These are:

- Corporate Management and Strategy Planning (CMSP) &
- Brand Corporate Development

This department develops long-term strategies as well as short-term plans. They are responsible for the development and implementation of all corporate policies.

## Market Invasion

Market penetration refers to the percentage of a brand's or provider's assumed business that is actually being used by consumers. Market penetration can also be used to develop marketing plans to increase the market share of a specific good or service.

Market penetration rate =  $(\text{target market size} \times \text{number of consumers}) \times 100$

Depending on the nature of your SaaS product, determining market size can be difficult, as a possible customer base could be global and effectively target "everyone." The more specific you can be with your ideal audience demographics, the easier this calculation will be.

## Market Expansion

Market expansion is a strategic measure done by a corporation to develop its present market rather than seek for a new market. In order to enhance sales, the corporation seeks new buyers to market the product to a different section of consumers.

## Market Timing

Market timing is the practice of relocating money managers between different asset classes or entering and exiting the financial markets premised on forecasting techniques. Investors can place trades to profit from market movement if they can predict when the market will rise and fall.

Dynamic portfolio management frequently depends on market timing. Additionally, it is almost always a fundamental trading strategy. To help with market timing decisions, foundational, technical, quantitative, or economic data can all be used.

## KEY Learnings

- Market timing is the way to shift investing resources on the basis of forecasting techniques, and enter or exit a financial market.
- If investors can predict the market's ups and downs, they can make a proper market movement.
- Market timing is the inverse of a purchase approach strategy, in which investors purchase securities and retain them for an extended length of time regardless of market volatility.
- While market timing is possible for traders, portfolio managers, and other financial specialists, it is impossible for the typical individual investor.
- There are strong reasons for the retail investor who prefers to focus on long-term investing over market timing and does not have the sufficient time to follow the market on a daily basis.

## Market Timing's Benefits and Drawbacks

According to active consumers, long-term venture capitalists miss out on gains by riding out volatility rather than locking in returns. However, because predicting the stock market's future direction is very difficult, individuals who try to time their entrance and exit points usually underperforming investors who remain committed.

Campaigners of the technique claim that exiting sites before a slump can maximize earnings and reduce losses. They escape the volatility of market moves by continually finding calmer investing seas when holding risky shares.

## Diversification in the Telecom Sector

That although the substantial cash expenditures operators made over the past ten years to keep up with consecutive tides of new technology, their primary market has stagnated and become more commoditized. Conversely, the majority of the industry's wealth has been taken by edge players—those who manufacture phones, create facilities, offer streaming or other digital services, or create applications. Exhibits 1-3 demonstrate how telecom operators—those who provide connectivity on which other sector participants rely—lost ground as 3G and subsequently 4G technology became available.

The performance difference between the major streaming and digital service providers, such as Netflix, Amazon, Facebook, and Apple, is especially wide, whether measured by sales, earnings, or market capitalization.

## RPA in Telecommunications

The telecom industry is at a point where it can be benefited from emerging technology like Robotic Process Automation (RPA). It assists streamline business procedures. RPA enables telecom businesses to automate various processes across several systems that are often labor-intensive and time-consuming.

The use of telecom services is increasing as a result of the Internet of Things (IoT), 5G, and edge computing. This surge in demand creates a major income potential for communications service providers (CSPs), but it also creates considerable obstacles. With so many users streaming vast volumes of data via their networks, telecom companies have learned that even essential management structures such as customer service and order fulfillment are becoming increasingly difficult.

Telecom service providers are looking towards automation to help them address these challenges. Indeed, these are some of the sectors with the top levels of robotic process automation adoption is telecoms (RPA).

## RPA in Telecom



## Joint Ventures of Robi

Robi Axiata Limited is a collaborative venture between the Axiata Group of Malaysia, Bharti Airtel of India, and NTT Docomo Inc. of Japan. Axiata owns 68.7% of the company, while Bharti owns 25% and Japan's NTT Docomo owns the remaining 6.3 percent.



## Insight into the Future Workforce

When the telecoms industries are better positioned for developing. According to a recent analysis by AI-powered talent intelligence platform Eightfold AI, the industry has the lowest talent preparedness in fields like 5G and Open RAN. It also has the lowest functionality for cloud computing and edge computing, as well as big data.

According to the report, the solution for the telecoms to conquer its natural ability, sector difficulties and capitalize on new products is threefold.

- To close the abilities gap, the current manpower should be retrained and equipped with knowledge, and employing skills adjacency to inform learnability. The method begins with finding alternate rising career routes, such as Network Technician to Cyber Security Engineer, by evaluating skill adjacencies and articulating the abilities required for those future roles.
- Adjust employment for young prospect in order to create professions relying on newly developed abilities in other innovative, quickly expanding institutions. Telecoms, for example, would benefit from aligning positions with rapidly evolving capabilities found in the workforces of Amazon, Meta, IBM, Google, Microsoft, Apple, and Netflix.
- Employ for prospect to access a far broader pool of deserving candidates. Telecoms can increase their workforces three times better in areas such as 5G, cloud computing, and Python by adopting a "hiring for potential" approach. This improves approximately fourfold for future skills such as agile techniques.

## Competitive Strategy & Market Share Analysis

Michael Porter's Four Generic Strategies:

### Four Types of Competitive Strategy

- Cost-effectiveness or low-cost strategy
- Approach to differentiation.
- Effective method
- Concentration or market-niche tactics

How to face competition in the industries in which a company operates is the focus of its strategic plan. A cost and differentiation strategy outlines how it intends to establish and maintain a sizable advantage over competitors. Having a significant benefit over rivals means being more benefited in the long run. The competitive strategy of a firm within a certain business field is analyzed using two criteria: the creation of competitive advantage and the protection of competitive advantage. Competitive advantage is created as a result of competitive strategy that is either preventative.

## A Definition of Revenue Streams

A revenue model, at its most fundamental, is the story of how a company functions. It outlines what way a firm goes head to head, makes use of its assets, forms its connections, interacts with consumers, and develops and intakes value to maintain itself in greater depth. A business scheme's major components include the followings:

- The intangible value for the purchaser - how and for whom will the organization produce value.
- The profit strategy explains how the company will earn revenue.
- The critical assets required to deliver on the customer's expectation.
- The company's core competencies are internal abilities or specific skills that facilitate the corporation to oversee the company in a value-added manner.

## 2.2 Other Relevant Activities

In addition to the preceding functions, Robi Axiata Limited also performs the following.

- Product Placement
- A&P and bran
- Product Creation
- Social Work



Figure 3: Social campaigns

- Commercial Sales
- Additional Services (VAS)
- Product Configuration
- Treasury Administration
- Competitions



- Revenue Guarantee
- Taxation
- Corporate Affairs Development

and so on.

## 2.3 Intern's Assignment

I completed my three-month internship at Robi Axiata. During this time, I accomplished many assignments and duties based on the needs of the office and the continuing project team I was a part of, both conceptually and practically, as well as documentation work on certain elements.

According to the theoretical assignment, I was assigned the following:

- Selenium Using Python, New Telco revenue resources
- Analytic Market Map

**ROBI Services**

ROBI provides an array of mobile services as well as digital services.

- ▶ *bdapps - Bangladesh's national app store*
- ▶ *BDTICKETS - Bangladesh's largest online ticketing platform*
- ▶ *Binge - Live TV & video streaming service. Built by Raskenlund and powered by RedDot Digital*
- ▶ *Duronto Browser - Bangladesh's first bangla web browser*
- ▶ *Islamic Portal - Islamic content service*
- ▶ *My Drive - Cloud storage powered by Funambol*
- ▶ *Noor - Digital Islamic content service*
- ▶ *RedDot Digital - Marketing agency*

**ROBI My Play**  
Treasure Wars - Bangladeshi environment-based real-time battle royal game



**Bus Simulator Bangladesh**

- ▶ Provides you with CNG truck and bus simulator ASIA type of vehicles on the roads
- ▶ Planning to expand and maybe create an indian bus simulator
- ▶ Last Updated on Apr 29, 2022



**Duronto Browser -**  
Bangladesh's first bangla web browser

Link:  
<https://www.robi.com.bd/en/corporate/news-room/press-release/robi-live-technologies-brings-first-bangla-browser-duronto>




Dhaka, 23 February 2021: The leading digital services provider of the country, Robi, in partnership with Live Technologies, has brought the first ever Bangla Browser named 'Duronto' on the occasion of International Mother Language Day.

**RedDot Digital -**  
Marketing Agency

Link:  
<https://www.robi.com.bd/en/corporate/news-room/press-release/reddot-digital-unveils-private-equity-fund-r-ventures>

**red dot digital**  
An IT and Digital Company

Figure 4: Robi Digital Services

- New Telecom Company Revenue Resources, Specific Company who extended their telco business in other areas

# ROBI's Competitor Apps



## ROBI BoiGhor - eBook reader



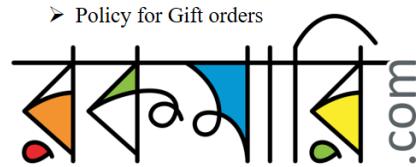
### BANGLALINK BOIGHOR

- Your books can be saved as 'favorites'
- Free books are available if you are a subscribed user
- The app will be regularly updated for a better user experience



### ROKOMARI

- Browse by Exam
- Happy Return & Replacement Policy
- Refund Policy
- Policy for Gift orders



## Binge - Live TV & video streaming service [COMPETITOR APPS]

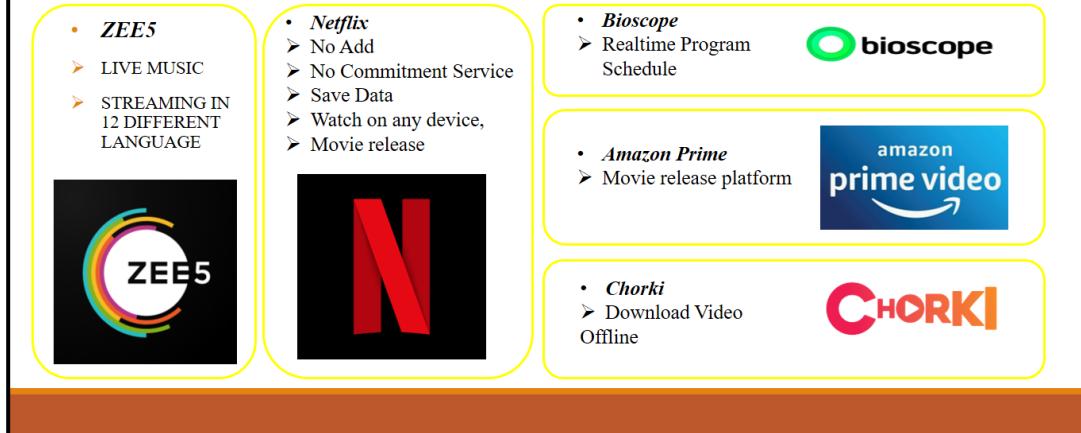


Figure 5: Competitor Apps Building

- Gross Add Compilation: 2G, 3G, 4G AND Region
- Gross Add, Churn Compilation in Ex, Plotting Line graph, Report on distinctive changes on graph

□ Robi Datathon 2.0 Campus Activation Session at AIUB

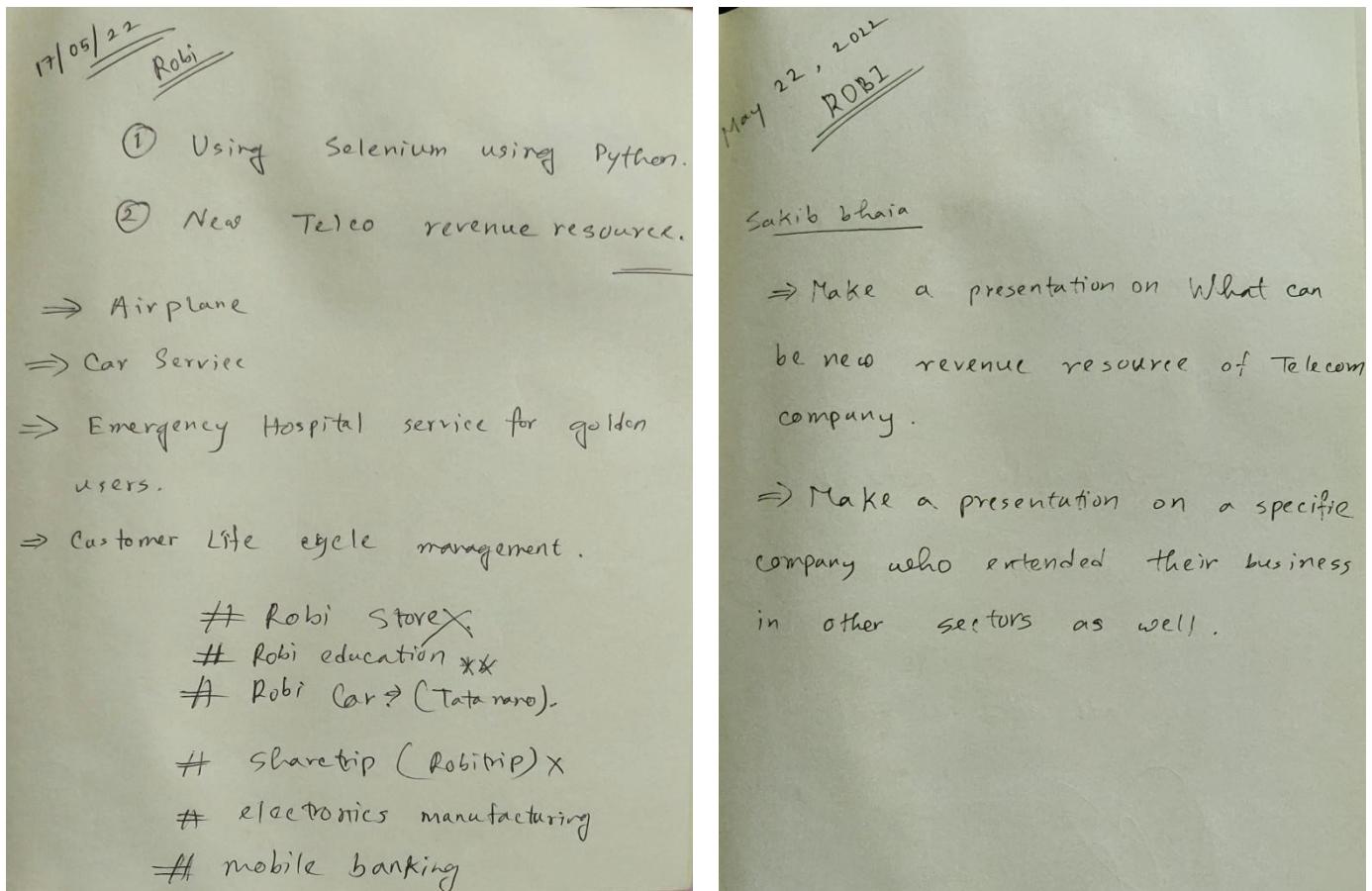


Figure 6: Intern's Assignment

- Network Difference between operators from 2022-2020; 4G
- AT&T other service details
- Robi other service details

30/5/22

# AT&T Product Details  
with picture, website & pricing.

5 GB [Budget Conscious]  
50 \$ Unlimited

# Robi Product Details with  
picture, website & pricing.

⇒ New resources of ROBI

⇒ Shop Deals  
⇒ Internet [Broadband]  
⇒ Product service Solution for  
small medium business  
⇒ Special service for dr, defense  
etc.  
⇒

(1) bd apps ⇒ national app store X no

(2) BD tickets ⇒ Cleartrip [flight, hotel]  
Shohor [Train, Bus]  
⇒ Update, ⇒ Class of travel  
⇒ Airline preference

Indigo ⇒ boarding  
boarding pass  
QR scan,  
updates about flight

(3) Binge ⇒ Zee5 [Live music]  
Amazon [Max language]  
[movie release]  
Robi screen  
Robi TV  
Netflix [No Add, No commitment,  
Save data, Watch on any device  
movie release]

Bioscope [Cip] [real-time  
program schedule]  
Chorki [download video  
offline]

(4) Duronto browser ⇒ Bangla browser  
[Weather update,  
using multiple tabs,  
private browsing]

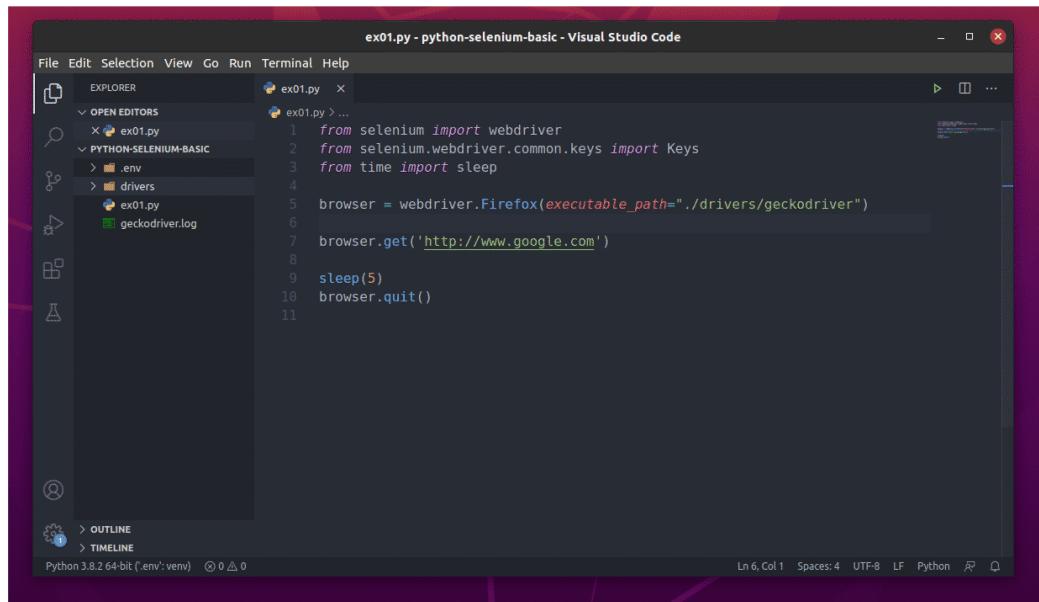
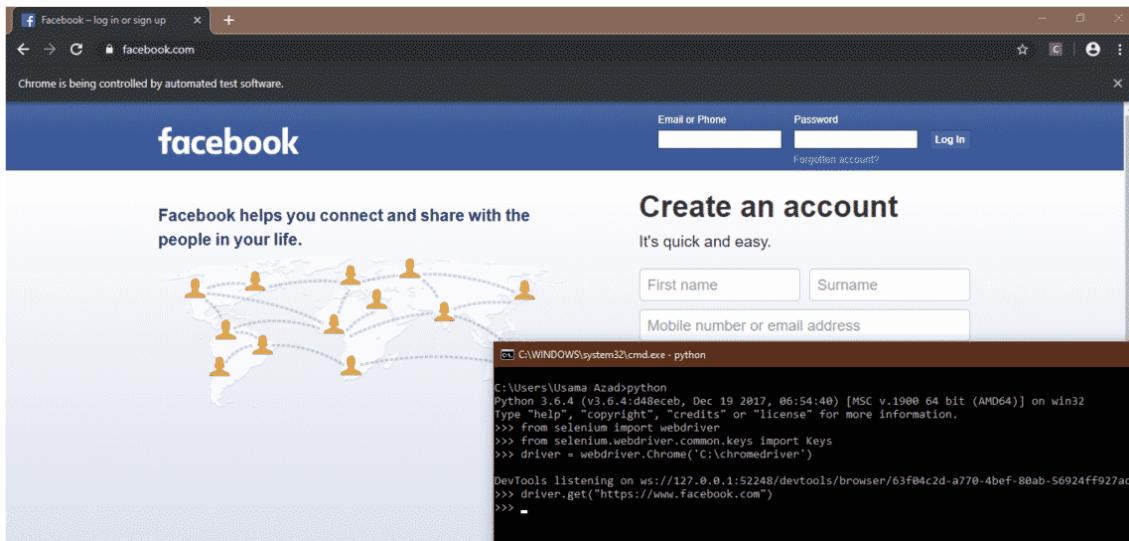


Figure 7: Facebook Automation Using Selenium Python

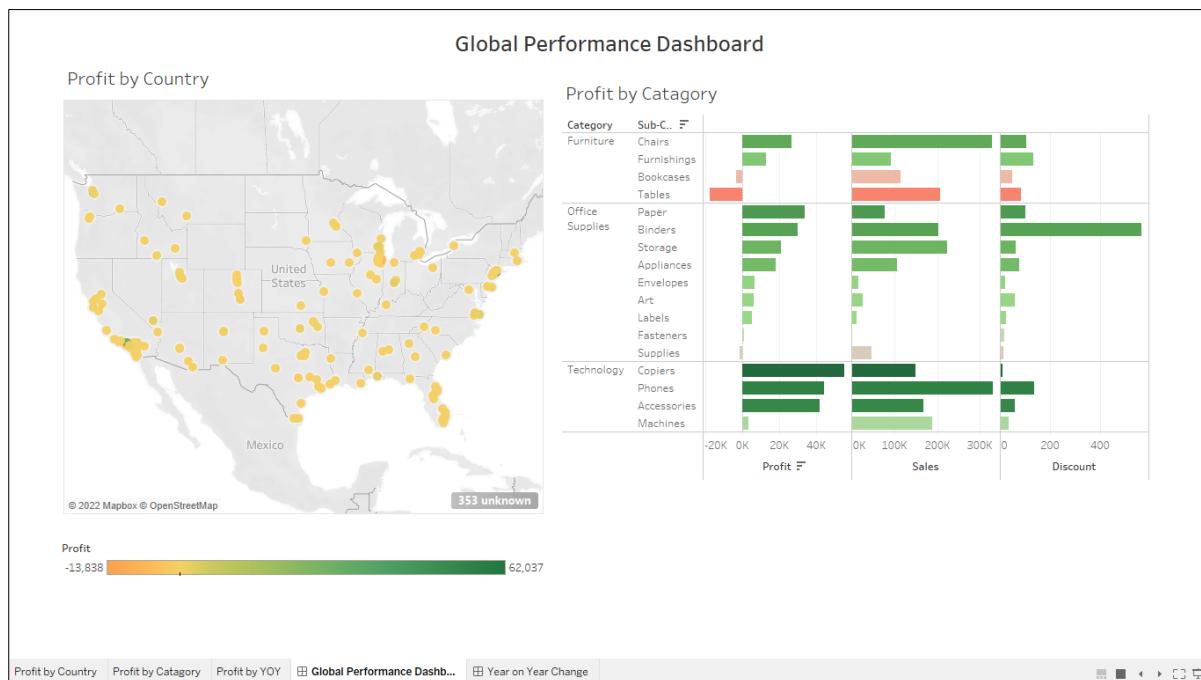
- Combine Network difference files in one single file
- Robi Service Competitor: Local & International
- Facebook Login Using Selenium, Python, Jupyter Notebook
- Click on buttons and options Using Selenium, Python, Jupyter Notebook
- Download csv files from different operators using Selenium, Python, Jupyter Notebook
- Combine downloaded csv files into one file using selenium

```

from selenium import webdriver
from selenium.webdriver.common.keys import Keys
from webdriver_manager.chrome import ChromeDriverManager
import time
from selenium.webdriver.common.by import By
from selenium.webdriver.support.ui import WebDriverWait
from selenium.webdriver.support import expected_conditions as EC
from selenium.webdriver.common.action_chains import ActionChains

```

- Create a dashboard using Tablaue superstore data
- Create a dashboard using Tablaue HR analytics dataset
- Dowload Market Share of Gross adds and Churn by Thana 2020 Network- 4G
  
- Market Share of Gross add by Thana 2020\_4G
- Market Share of Churn by Thana 2020\_4G



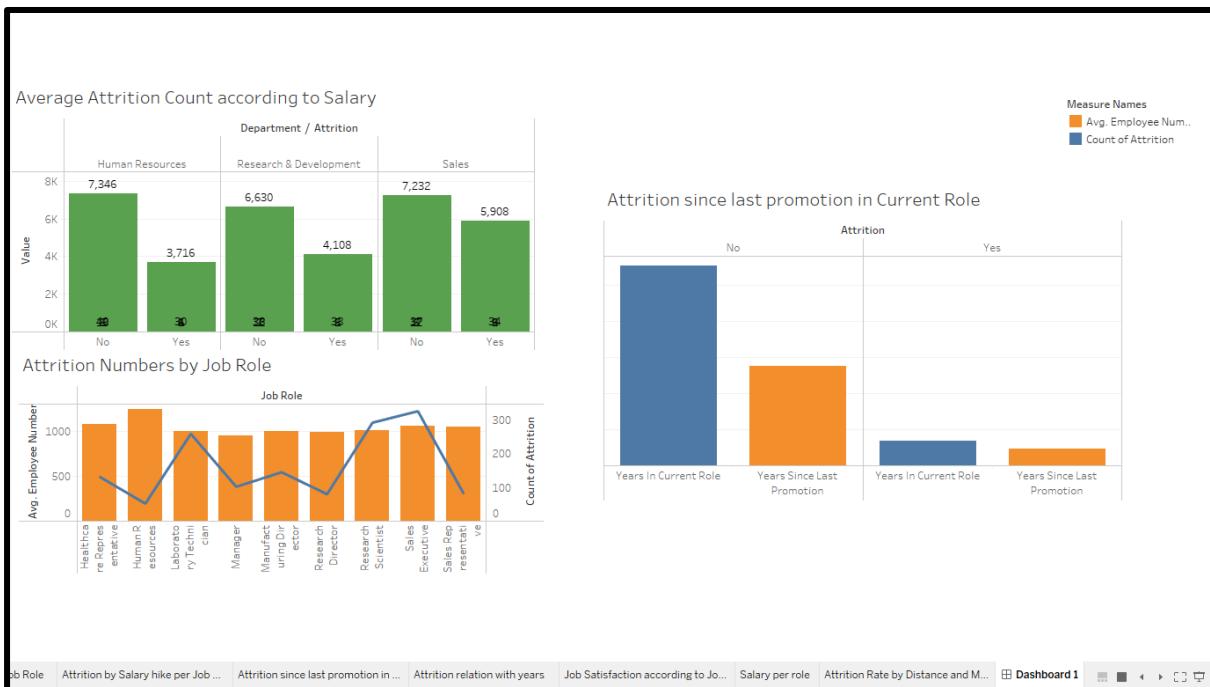
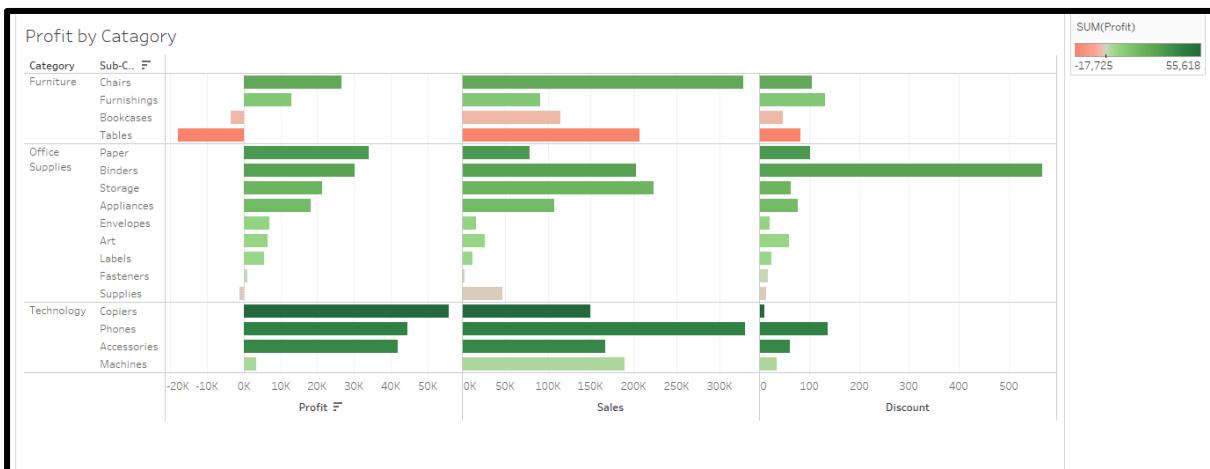


Figure 8: Tableau Dashboard [1]

- HR Analytics Dataset\_Tableau dashboard
- Thana Speed (Internal) Through vs. Video
  
- Tableau dashboard\_analizing attrition difference using filters



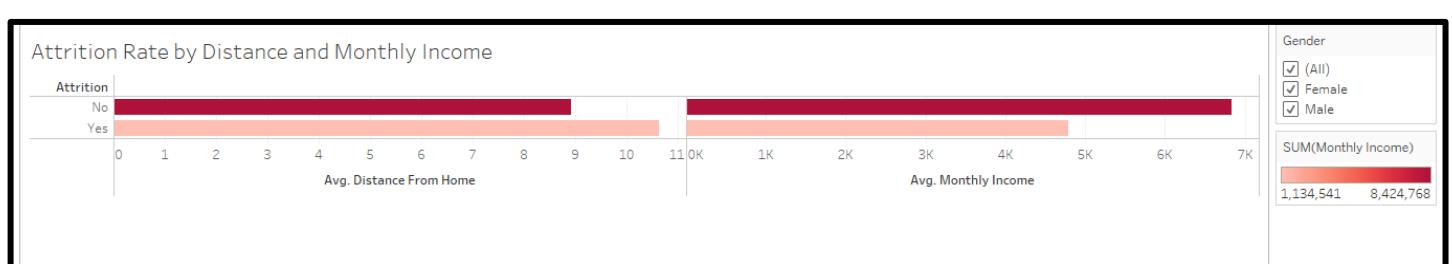
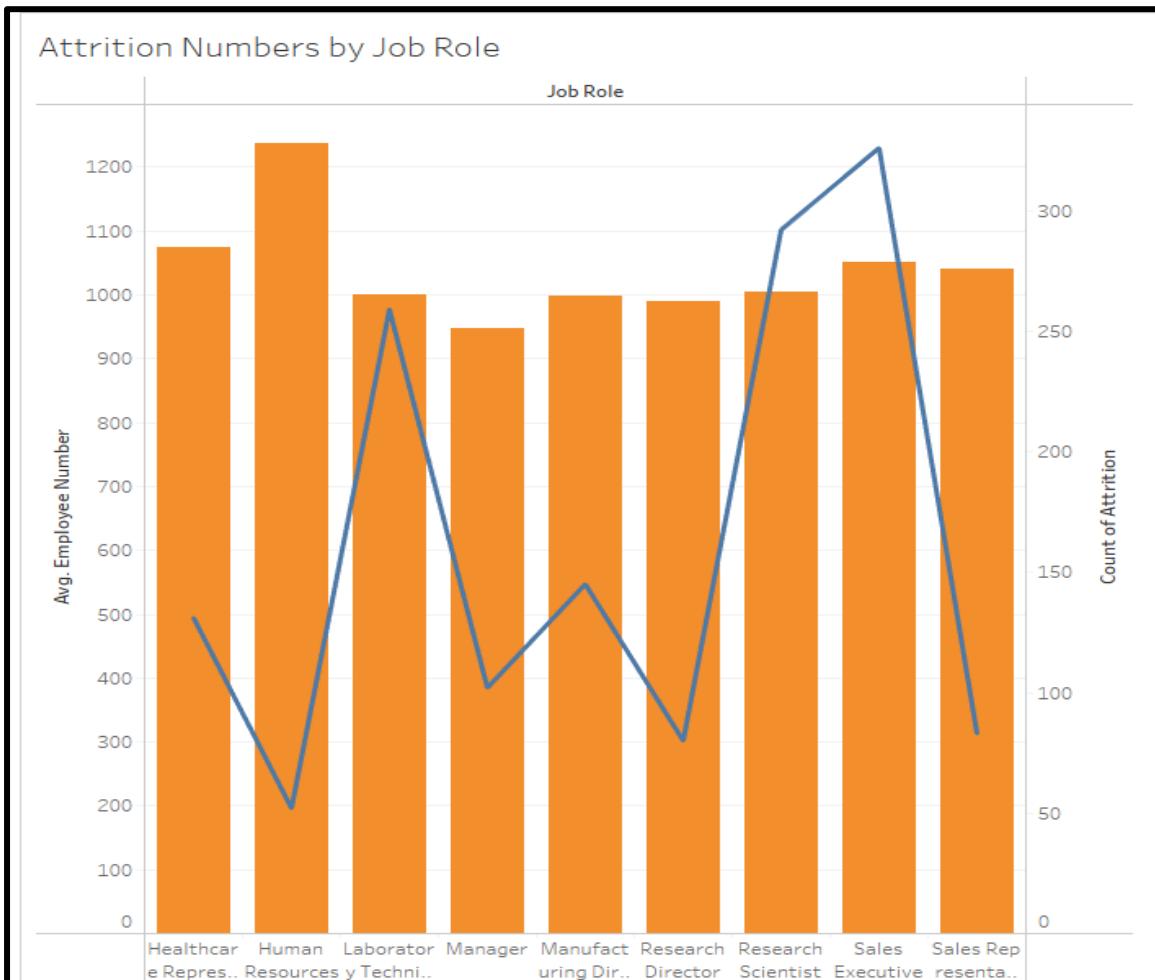


Figure 10: Tableau Dashboard [2]

**Key problems:**

- > Less job promotions result in higher job attrition; satisfaction levels do not really connect with attrition rates.
- > Distance is a significant factor.
- > Differences in pay increases are a major problem.
- > The first two years of a job's environment determine its longevity.





**Possible solutions:**

- > Depending on the performance of the employee, job promotions may arise often.
- > Employees who request transportation services should receive them.
- > To guarantee a safe working environment, the first two years of employment should be carefully monitored.
- > Frequent salary increases (every six months) are vital for higher performance.

Figure 11: Tableau Solution Pick

- Analytics Newsletter 9th Issue [Robi Datathon 2.0]
- Dhaka Metro\_4G (Market Share, Gross Add, Churn) by Age Group
- FB Market Share, Churn and Gross for 4G Network & Dhaka Region
  
  
  
  
  
  
- Scroll down using python selenium\_FB Automation
- Normalizing Market Share



- Calculating Streaming Experience
- HRAtrition
- 4G Network Data (Internal)

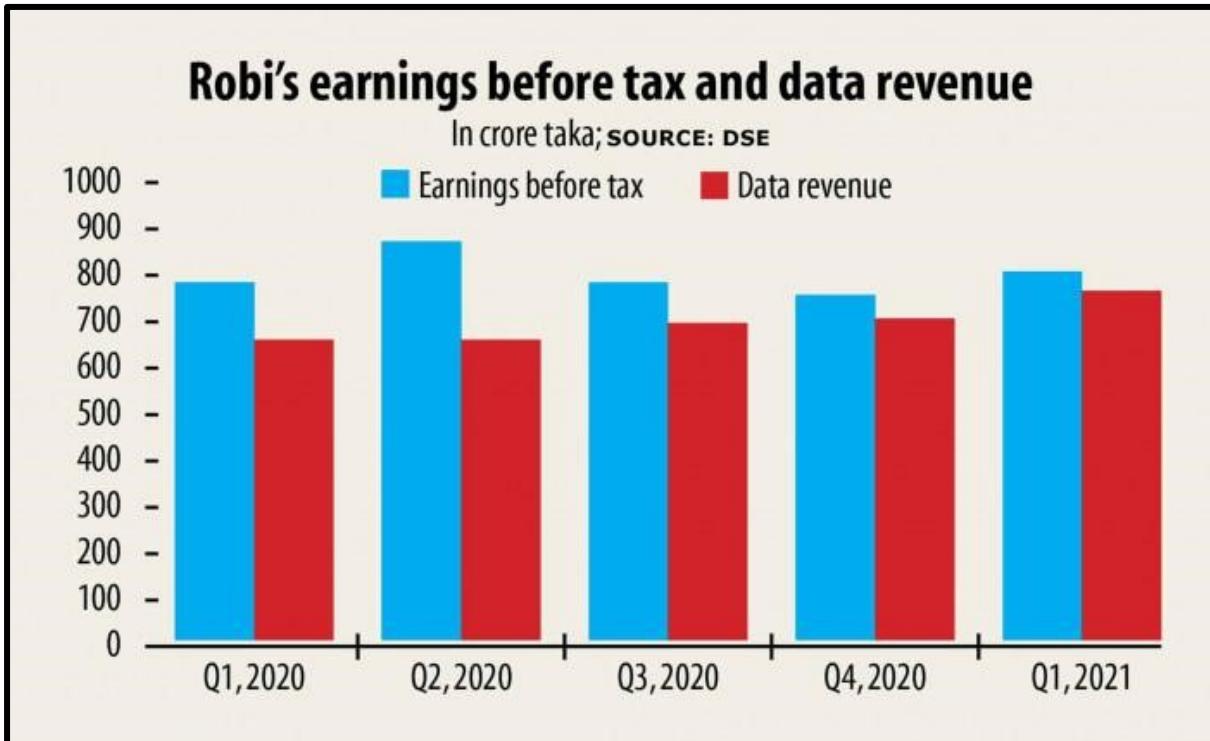


Figure 12: Data Revenue

In addition, I attended paperwork as well as campus activation sessions of Datathon 2.0 with Robi organizations.



*I enthusiastically anchored the Datathon 2.0 campus Activation session from beginning to conclusion and was involved in other responsibilities as well.*

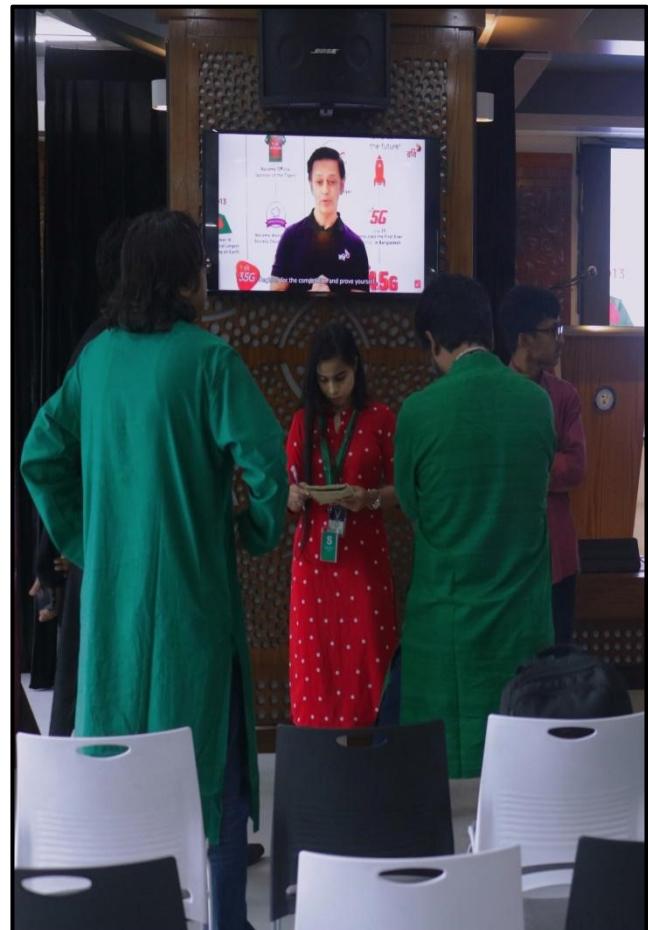


Figure 13: Datathon 2.0 Anchoring & Organizing at  
American International University-Bangladesh  
(AIUB)



In addition, I have been part of regular office activities and meetings, workshops, formal meetups, and other activities that have helped me expand my corporate experience.



### 3. CONSTRAINTS/CHALLENGES

#### 3.1 Difficulties Met (Skills to be gained)

Several problems arose throughout the internship period after finishing undergrad education in order to attain a fully professional phase.

The following challenges, along with commentary, are provided:

- To separate the Gross Adds and Churn from the actual structure from the outside.
- Furthermore, the breakdowns can be difficult to detect at times, and sufficient knowledge and abilities are required to accurately recognize all of these.
- Tableau is extremely important for all graphs and analyses in projects where a greater level of skill is required to build competency in this field.
- To complete all office operations smoothly, a greater level of proficiency in Microsoft Excel is essential.
- To grasp the technological elements fully, a detailed and exact understanding of many components of network data, both internal and external, is essential.
- Needs to improve knowledge of the graph calculations required to check the various testing documents.

#### 3.2 Norms of Engineering Practice

##### Real-World Engineering Challenge

During my internship at Robi Axiata Ltd., I was allocated to the Corporate strategy team and the data team, where data analysis, network security specifications, and revenue graphs were designed, evaluated, submitted to the primary group, and updated again based on the authorities' views.

Several challenges and complications were encountered and resolved in this technique using engineering expertise, calculations, and the cooperation of qualified individuals.

## Individual Teamwork Responsibilities

- Several individual roles were fulfilled by me in the corporate strategy team to build the endeavor, as follows in teamwork:
- Preparing the layout comments sheet, analysis layouts, and so on against the data provided.
- Creating the Tableau dashboard from papers and layouts and submitting it to the supervisor
- Preparing the Project Invoice components for various websites based on variances from past years
- Assisting in the calculation of test reports for data analysis, relays, and so on.

## Etiquettes & Ethics While Working as an Intern

- The etiquette and code of ethics were also followed during the internship term in order to preserve professionalism.
- Throughout the entire time, everyone in the office, including the other interns and coworkers, was treated with respect and good manners.
- Socializing and conversing with seniors and colleagues on a regular basis resulted in great networking and connectivity.
- The office's formal and decent dress code was maintained, as was the concern for punctuality.
- To preserve the norms of ethics for the professional engineering industry, I was assigned numerous times to present various paperwork, dashboards, and project designs.

The confidentiality of all documents, ideas, and other required attachments for the Internship Report was strictly preserved. Furthermore, certain confidential company and project matters were satisfactorily maintained.

## 4. ACQUIRED KNOWLEDGE

### 4.1 Technological Observations and Learnings

During the internship, the following observations were made:

- Analyzing the data and making corrections based on the comments
- Microsoft Excel abilities are necessary for all types of office work.
- Working with the specialists to complete the task on schedule.
- Interaction with other officers, site engineers, and higher-ranking officials
- The need to gain additional practical knowledge throughout undergraduate courses, if possible, by visiting factories, industries, and so on
- Examining graphs of various components, panels, and so forth.
- Following commercial agreements, while working on any engineering project

### High-Growth Company Viewpoints

Hight growth businesses include a significant source of their competitiveness, offering a non-priced value proposition. Although each company's growth plan is ultimately different, many characteristics are shared. These include recurrent revenue strategy, various revenue streams, collaboration, and close client relevance.

The tied-product model is one of the most popular unique types of business model, comprising the sale percentage of the basic product at a cheap cost, replacements, or usage. This design is frequently associated with razor blades, photocopying, etc. Opto-s, which is listed on the Major Market of the Stock Exchange, operates on the basis of a revolutionary variation of this strategy.

The industry develops, industrial products, and sells computer-aided diagnosis devices used in the detection and diagnosis of eye disorders. The Opto-map standardized test results can help with the early detection of common eye diseases. It employs cutting-edge technology.

The pay-per-patient ('PPP') concept is used by the company and is described as a "integral part of its strategy." Instead of selling these bots (that charge £150,000), physicians tend to enter into a specific schedule (typically for 36 months) in which they pay a predetermined total payment that allows them to perform a monthly basis number of opto-map tests plus a commission for each test performed that surpasses the contract terms minimal level. Facility, preservation, clinical services, and both software and hardware upgrades are all available.

provided. The consumer does not acquire ownership of the equipment under this business model. Specialists have no capital outlay as a result.

In talks of business competitiveness and growth, the business model receives minimal consideration. These situations demonstrate the importance of the business scheme to the underlying competitiveness of higher-growth companies, enabling differentiating their goods and commodities so they can contend for variables.

## **Telco Company Comparison for Better Market Analysis**

Market research is so vital that it might be the difference between a company's success and failure.

Today's market is more unpredictable than ever, especially with the added challenges of COVID-19. What may have been a "tried and true" strategy that worked five years ago is unlikely to be as successful now.

In addition to studying historical and present patterns, market researchers must uncover ways to improve, foresee how the market will evolve, and assess what a business can do to stay one step ahead of the changes.

A range of market research approaches is used by businesses. Surveys, customer observations, focus groups, and interviews are the most frequent methods of market research, but this is not an exhaustive list.

Market research can also include evaluating website traffic, social media interactions, studies published in a certain industry, field trials, and other methods of analyzing data.

Here are some suggestions for improving market research:

### **Discover New Opportunities and Needs**

One thing is clear about the market: it is constantly evolving. Because markets are always changing, market researchers must utilize their analytical skills to investigate:

- Current developments
- Demographics
- Size of the market
- Market capitalization
- Forecasts of trends
- Suppliers to the industry
- The geographical distribution

- Important rivals
- Market gaps,
- needs, and
- expectations

Gathering this data and identifying potential areas for improvement is an important first step in analyzing the current market and identifying prospects for business strategies, promotion, and goods.

## **Data Collection and Analysis**

Data collection is a vital component of the process, but even more important is the capacity to evaluate that data and identify trends and changes that are currently or will soon affect your business.

Data collection and analysis should be ongoing processes that happen throughout every stage. Although if you did extensive research before launching your newest product, you still need to follow up and keep gathering market and customer data afterward.

## **Use Project-Specific Problem-Solving Techniques**

Each project should be addressed separately. When it is to solving any problem for various aspects of the market, there is no one-size-fits-all solution.

Take the time to examine your goal each time you send out surveys as the primary technique of gathering data for your market research. Don't make a single survey and email it to everyone.

Instead, customize your queries and send them to specific persons. Customers that take your brand awareness survey should not receive a carbon copy of your customer satisfaction survey, nor should both groups receive a single survey that covers both themes.

Taking a project-by-project approach to problem-solving will improve the accuracy of your market.

## 4.2 Professional Capabilities

### How to Keep the Hierarchy

Maintaining the hierarchy is critical in any professional organization. I had a prior understanding of maintaining this chain of command because I am also connected with the IEEE AIUB Student Branch as the Publications Coordinator and Treasurer of the IEEE AIUB WIE Affinity Group. As a result, it provided me with an advantage. I had contacted my immediate senior colleague over there about the updates and work, and then with my Organizational supervisor, Sir about the more serious situations or other matters concerning academic or university required concerns.

### Interaction with the Supervisor and Coworkers

As it is critical to establish strong communication and bonding with others in any professional setting, I attempted to engage with and be introduced to the majority of the officers, seniors, and colleagues from various departments. But, in order to maintain a deeper relationship with my organizational supervisor, I had always approached her for various learning objectives, as well as to request various facilities such as visits, company visits, and so on, and she had always supported me purposefully. Communication and approaches were always professional, pleasant, and respectful.

### Time Administration

The most important aspect of keeping professionalism is time management while performing any work. This section is highly concentrated and important in the corporate strategy division. I have always arrived at the office on time, and if any problems arose, I informed my supervisor M'am and worked in accordance with his concerns. I completed the tasks on time, prepared the documents on time, and even managed the office and all the tasks while working on the lab, thesis project, and other initiatives.

## 4. Recognizing the Importance of Professional Skills

### 4.3.1 Professional Development Motivation

To adapt to any organization or company, it is essential to keep professionalism at all times, in addition to knowledge and abilities. Initially, I was introduced to the actual commercial capital of the company in my subject of interest through this internship program. This was extremely beneficial to our future careers, as I had witnessed at this time that individuals who were unable to retain this professionalism found it difficult to advance. Otherwise, those with a higher level of professionalism are loved by everyone, are easier to work with, and so have more prospects.

### 4.3.2 Acknowledging the Necessity of Professional Talents

It is critical to develop professional skills in accordance with job requirements and other specifications. The basic requirement of having a strong competence in MS office- Word, PowerPoint, and especially Excel are the most vital, along with good communication abilities by mail, physically, and digitally. Furthermore, in order to have a better understanding, revise, and examine the graphs used to manage all projects, it is essential to learn tableau. Learning the tools, visiting the market on a regular basis, and professionally interacting with people are the primary factors acknowledged as crucial in sustaining a better career in this industry.

### Membership in Professional Societies

Even before starting the internship, I was an active member of the following professional societies:

- IEEE Student Member (2019,2020, 2021)
- Volunteer – IEEE AIUB Student Branch (2020-2021)
- Publications Coordinator – IEEE AIUB Student Branch (2021-2022 Present)
- Treasurer - IEEE AIUB Student Branch Women In Engineering (WIE) Affinity Group (2021-2022 Present)

## 5. CONCLUDING STATEMENTS

### 5.1. Internship Evaluation

The internship at Robi Axiata Ltd. lasted three months and took place in the Robi Corporate Office in the analytic center of excellence division. The fundamental concepts and analyzing procedures of networking, invoice scheduling, documentation required for any official proceeding of the project, theoretical & practical knowledge on live projects, and so on were significantly established. My involvement in the project and studying in such a short period greatly increased my knowledge and grasp of theoretical ideas. Furthermore, the professionalism gained from this experience is one of the most important stepping stones for my future job.

### 5.2. Impact on Career Development

The internship program aided in learning the technical components of the electricity sector at substations by presenting actual scenarios. It provided a scenario of working under huge strain in the project, which would enable me to operate more readily in the professional field.

### 5.3. University-Organizational Alliance

There is always a link between the intern's performance and his or her institution. I had always tried to uphold the dignity of AIUB at my workplace by my dedication, duties toward the assigned tasks, and attempting approaches to grow more knowledge based on the opinions of the respective worries, and organizational supervisor. In addition, as Publications Coordinator of IEEE AIUB SB and Treasurer of IEEE AIUB SB WIE Affinity Group, I organized a webinar titled "**Personal Branding & Industrial Influence,**" which was a success with over 100+ attendees from various universities. It strengthened senior management's trust in my organizational skills and the reputation of AIUB, where all efforts are undertaken on a regular basis in addition to curriculum-based teaching.

In addition, as Publications Coordinator, I was in charge of publishing the yearly magazine "**ABOZZO**" and successfully released two versions of it.

#### 5.4. Future Strategic Action Recommendations

If I had to redo the internship, I would try to learn about the functional process of brand management, which I was unable to accomplish because I was focused on studying the strategic plan first. In addition, I would try to stay at any project site for approximately a month so that I could understand more practically the proceedings of every minor and huge issue, testing, installing procedures according to the designs, and so on.

## REFERENCES

- [1] 2022. *Robi*. [online] Available at: <<https://www.wsj.com/market-data/quotes/BD/XDHA/ROBI/historical-prices>> [Accessed 9 August 2022].
- [2] 2022. *Robi*. [online] Available at: <<https://www.wsj.com/market-data/quotes/BD/XDHA/ROBI/historical-prices>> [Accessed 9 August 2022].
- [3] A NEW LIFE EXPERIENCE, R., 2022. *Robi | A New Experience in Life*. [online] Robi.com.bd. Available at: <<https://www.robi.com.bd/en>> [Accessed 9 August 2022].

## APPENDICES

### Internship Acceptance Letter from company

**রবি আজিয়াটা লিমিটেড**  
রবি কর্পোরেট অফিস  
৫৩ গুলশান সাউথ এভিনিউ, গুলশান - ১, ঢাকা - ১২১২, বাংলাদেশ  
ফোন: +৮৮ ০২ ৯৮৭৩২৫০২/৫০৩/৫০৪; ফ্যাক্স: +৮৮ ০২ ৯৮৮৮৫৮৬৩  
[www.robi.com.bd](http://www.robi.com.bd)

**রবি**  
Life-এ নতুন এক্সপ্রেস

**PERSONAL AND CONFIDENTIAL**

May 17, 2022

Mr. Sazzad Hossain  
Assistant Professor, Dept of Computer Science  
American International University Bangladesh

Subject: **Internship**

Dear Mr. Sazzad Hossain,

I am pleased to offer your student Ms. **Fahmida Akter Nova** an internship for the projects of "**Network Insight analysis**" for a period of 3 months (may be extended for another month if required) under **Corporate Strategy division**, commencing on May 17, 2022. She will report to **Suriya Khan, Lead Business Analyst, Corporate Strategy** at Robi Corporate Office, Nafi Tower, 53, Gulshan South Avenue, Gulshan-1, Dhaka 1212. As an intern, she is required to submit a report based on the assigned project.

The student will be entitled to receive a salary of Tk. 5000 per month, payable by cheque or bank transfer. We will advise her on other policy and procedures upon joining as an Intern with Robi Axiata. The student should abide by the policy of Robi Axiata during her internship period.

To formally process the internship, the student is required to do the following:

- Indicate acceptance of the internship terms by submitting one signed copy of this letter to the below named person, on the internship commencement date.
- Submit one copy of CV and latest academic transcript on the internship start date
- Confirm acceptance of internship with the Career and placement center.

The student is requested to report to **Nahid Islam Bithi (01833182421), Human Resources Division, Robi Axiata Limited** on the commencement date.

I render my heartiest congratulations to Ms. Fahmida Akter Nova.

Thanks and regards,

*Sabin Rahman*

-----  
Sabin Rahman  
Vice President, Organizational Change & Employee Experience  
Human Resources Division

an **axiata** company

### Organizational (Professional) Supervisor's Visiting Card



# Nova, Fahmida Akter

122 / Ayesha Lodge, 2/A-B, North Badda, Dhaka, Bangladesh

+ 8801688913969

[novafahmida@gmail.com](mailto:novafahmida@gmail.com)

fahmida.amin17

nova-fahmida

[github.com/nova1217](https://github.com/nova1217)



Being self-motivated and hard-working, I believe in a high standard, I constantly try to reach the best possible quality at all times and in all situations. Capable of arranging, keeping track of time, and maintaining a calm demeanor under pressure.

## Educational Background

BSc in CSE (Computer Science & Engineering) (2018-2022)  
American International University- Bangladesh (AIUB)  
- CGPA: 3.50

HSC (2015-2016)  
Siddheswary Girl's College, Dhaka  
- GPA: 4.69

SSC (2013-2014)  
BEPZA Public School & College, Chittagong  
- GPA: 4.57

## Volunteer Work & Certification

Publication Coordinator  
(June 2021- Present)  
IEEE AIUB Student Branch IEEE Region 10

Treasurer  
(June 2021- Present)  
IEEE AIUB Student Branch WIE Affinity Group  
IEEE Region 10

Publications Volunteer  
(January 2020 – May 2021)  
IEEE AIUB Student Branch  
IEEE Region 10

## Language

English



Bengali



## Work Experience

Intern- Corporate Strategy || Analytic Center of Excellence  
(May 2022- August 2022)

**Robi Axiata Limited**  
Employment Type- Internship

- Exploring network variations and solutions, new business prospects, and insights into the future of the workforce.
- Working on Telco Expansion. Analyzing product development.
- Generating visual analytics in tableau to resolve disputes.

Web Content Writer  
(January 2021- August 2021)

**BrinjalLab, Dhaka, Bangladesh**  
Employment Type- Part-Time

- Worked on Industry-related research subjects (combining digital resources, interviews, and scholarly articles).
- Promoting products/services, by writing clear marketing versions.
- Using content management tools to prepare well-structured technical drafts.

## Skills & Proficiencies

Python, Selenium, Tableau, Jupyter Notebook, CSS, PHP

Software Requirement Engineering, Software Quality Assurance And Testing

Tableau, Microsoft Excel, Microsoft Word, Microsoft PowerPoint

SEO

### Research Interests

- Engineering Market Research –  
B2B International
- Human Computer Interaction (HCI)
- Machine Learning (ML)

### Certifications

- Composite Material Modeling (Digimat-HC)
- Microsoft PowerPoint
- Search Engine Optimization (SEO)
- Participation in the 'IEEE Student Professional Awareness Venture 4.0 (SPAVe 4.0),  
a professional and career based workshop

### Reference

- Prof. Dr. Khandaker Tabin Hasan  
Professor & Head (Graduate Program)  
Faculty of Science and Technology  
Email: [tabin@aiub.edu](mailto:tabin@aiub.edu)