



Inspiring Excellence

An Assessment of the Efficiency of Capex Budget Management at Robi Axiata Ltd.



Submitted to:

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13th June 2016



Letter of Transmittal

13th June, 2016

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Subject: Submission of internship report

Dear Miss,

With due respect, I am presenting to you my internship report on “An Assessment of the Efficiency of Capex Budget Management at Robi Axiata Ltd.” as a closure to the internship program required by BRAC Business School for the completion of my degree in Bachelor of Business Administration.

This report lends an insight into the internal processes involved in the capital expenditure management and investment planning procedure of Robi Axiata Ltd., the third largest telecommunication company in Bangladesh. As per your suggestions, a thorough analysis of the efficiency of the procedure has been conducted with graphical representations, which provides an understanding of its relationship with the company’s profitability. Thank you for your supportive consideration for formulating this idea which has helped me gain extensive knowledge in this matter; without your inspiration this report might not have reached completion.

Lastly, I have put in my best efforts in this report and I hope they are reflected in my work. I would be thankful once again if you accept this report and provide me with your valuable feedback.

Sincerely,

Fareen Ahmed (ID: 13204102)



Acknowledgement

I would like to take this opportunity to firstly thank my supervisor at Robi Axiata Ltd., Mr. Istiaque Uddin Chowdhury, General Manager at IPF division who has been extremely patient and taken time out of his busy schedule to assign various challenging tasks to me and ensure that I perform my best during the three months of my internship, like an effective leader. I am also indebted to Mr. Muhtad Ahmad, Specialist at IPF division who has been an excellent mentor and guided me throughout; from the completion of the minutest tasks to the severely challenging ones he has answered my every query and has also assisted me greatly to form the structure of my report. The entire IPF team has been very helpful and supportive, and consisted of some of the best people to work with.

I would also like to thank my internship supervisor, Ms. Tanzin Khan, for her constant guidance and clear-cut instructions in the development of this report. She has made working on this report a very intriguing, enjoyable and learning experience for me.

Finally, I would like to express my gratitude towards all my family members and friends who have provided me with continuous encouragement and valuable suggestions, without whose help it would have been incredibly difficult to finish this report in due time.



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Executive Summary

This report encompasses my work at the Integrated Planning Finance (IPF) division of Robi Axiata Ltd. during the three months of my internship period and an elaborate research on the investment planning procedure and capital expenditure management of the company, as well as their capabilities to generate sufficient income for the sustainability of the company. From the start of my internship period on the 7th of January, 2016 to the 6th of April, I have been immersed in tasks that have not only introduced me to the real corporate world, but also widened my perspectives on how telecommunication companies in Bangladesh plan their investments in optimal ways to gain the most out of them in terms of revenues and market share.

The report begins with an introduction to the telecommunication landscape in Bangladesh and a depiction of where Robi stands in comparison to its competitors, followed by how it originated from its parent companies, the different products and services it caters to the public and more details about the organizational structure and goals.

Next, it goes on to describe my job responsibilities as an IPF intern, different aspects of the job performance and observations along with some suggestions that could have made the experience even better.

The third part of the report consists of the main project and starts with the objective, methodology and the limitations surrounding it. This part is divided into several chapters, the first of which talks about SAP ERP software, its uses and some of the modules used for Capex tracking with illustrations of the program interface. The second chapter defines Capex management, its importance in business, the Capex value chain at Robi and a pie chart displaying the approximate amounts of Capex budgets requested by each division. The third chapter is all about investment in Base Transceiver Stations (BTS), the main area of Capex deployment in a telecommunication company. The criteria that influence this decision and the alternative measures that may be taken when a BTS is not the prime solution have all been explained in this section. Chapter 4 discusses the current Capex optimization process (Oikotan) in detail and clearly defines the roles played by marketing operations, finance and technology divisions in this process. Finally, Chapter 5 constitutes a quantitative analysis of the efficiency of the Capex budget management process with respect to several financial ratios that outline the level of capital expenditures incurred and monitor their return and the



company's overall profitability over a period of five years (before and after the initiation of the new process). This section also contains a qualitative analysis by defining some common attributes of Capex management by telecoms around the world and pitting Robi's practices against their best practices to examine how effective Robi's turn out to be. Some recommendations have been stated that may help to increase Robi's Capex efficiency further and lastly a conclusion which looks into Robi's future.



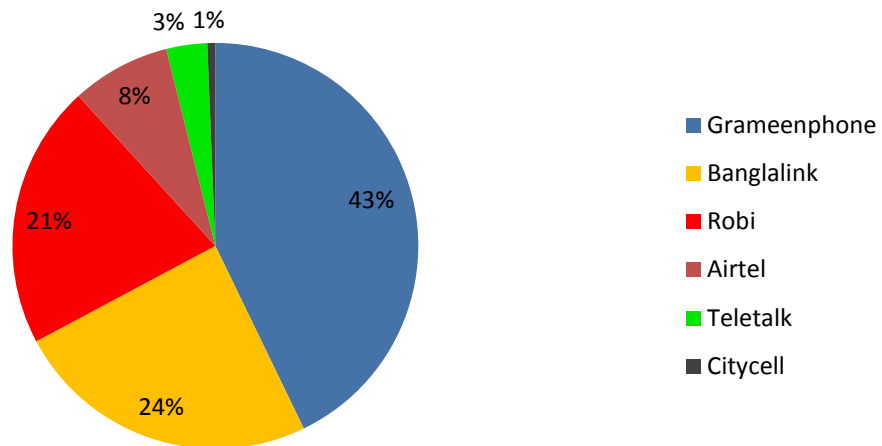
Industry Overview

The Telecommunication industry in Bangladesh has achieved accelerated growth over the past few years with the emergence of countless local and foreign investors. Factors such as the deregulation of the telecom industry, lack of a fixed legal infrastructure, fierce competition between the market leaders, increased potential due to the introduction of Value Added Services (VAS) and 3G offerings and reduced barriers to entry due to collaboration with local and foreign investors, etc. are the main contributors of this growth. According to Bangladesh Telecommunication Regulatory Commission (BTRC) reports, compared to a mere 4 million in 2004, the number of mobile subscribers stands to an astounding figure of 131.1 million as of February 2016. The advancements in this sector have had massive impacts on the economy of Bangladesh in terms of aggregate investment, foreign direct investment, employment opportunities along with improvements in communication, networking and social adherence. At present, there are six dominant players in the telecommunication industry:

- Grameenphone Limited (GP)
- Banglalink Digital Communications Limited (Banglalink)
- Robi Axiata Limited (Robi)
- Airtel Bangladesh Limited (Airtel)
- Teletalk Bangladesh Limited (Teletalk)
- Pacific Bangladesh Telecom Limited (Citycell)



Mobile Subscriber Market Share in Bangladesh, February 2016



Source: BTRC Website

Grameenphone, Banglalink and Robi are the top three leaders of the mobile industry. Grameenphone Ltd. is the number one telecommunication service provider in Bangladesh in terms of revenue, coverage and a subscriber base of over 56.1 million at present (BTRC, 2016). It was founded on 10th October, 1996 as a private limited company and is a joint venture between Telenor Mobile Communications (AS) and Grameen Telecom (GTC). It was the first company to introduce GSM technology in Bangladesh and built the first cellular network to cover 99% of the country (Robi website, 2016). Over the years, GP has reached a strong market position owing to its excellent distribution network, the highest average revenue per unit earned and its advanced EDGE services.

Banglalink is the second market position holder with 32 million subscribers (BTRC, 2016). Formerly known as „Orascom Telecom Bangladesh Limited“, it was launched in February 2005 with the primary goal of “bringing mobile telephony to the masses”. The company is fully owned by Telecom Ventures Ltd. in Malta, which is a wholly owned subsidiary of Global Telecom Holding. In August 2006, Banglalink became the first company in Bangladesh to provide free incoming calls from BTTB for both postpaid and prepaid connections and was the fastest growing operator in the world for that year with a 257% increase in users from the last year. A major part of Banglalink’s success has been achieved by its aggressive price wars with competitors, substantial investment in advertising and marketing campaigns and an extensive focus on public relations and communications.



Chapter 1: The Organization

Robi Axiata Limited is the third largest mobile phone operator in Bangladesh with about 27.6 million subscribers as of January 2016 and is continuously altering its services to suit increasing customer demands, ranging from voice and high-speed internet services to custom-made telecommunication solutions such as Value Added Services (VAS), quality customer care, digital network security and flexible tariffs. Robi has obtained international expertise from both Axiata and NTT DoCoMo Inc. which allows it to impart services such as 2G and 3.5G voice, CAMEL Phase II & III and 3.5G Data/GPRS/EDGE service with high speed internet connectivity. Its GSM service is based on a robust network architecture and cutting edge technology. It was the first operator in the country to introduce GPRS and serves the widest International Roaming coverage in Bangladesh connecting about 600 operators across more than 200 countries.

History

Robi Axiata Limited is a joint venture between Axiata Group Berhad, Malaysia (91.59%) and NTT DoCoMo Inc, Japan (8.41%). It was previously known as Telekom Malaysia International which emerged in Bangladesh in 1997 under the brand name AKTEL. In 2010 the company was rebranded to „Robi“ and the company changed its name to Robi Axiata Limited. Since its inauguration in 1997, Axiata Group and its parent company Telekom Malaysia have invested around Tk. 11000 crore as equity since 2012 and moreover in the same period the company has supplied approximately Tk. 10000 crore to the Bangladesh Exchequer. Robi plans to continue providing the best data, voice quality and experience to its customers through innovative products and services, covering 98.7% of the entire population using today’s advanced edge technology.

Axiata Group Berhad: Axiata Group Berhad is one of the largest telecommunications group in Asia operating in eight countries including Bangladesh, Pakistan, India, Malaysia, Sri Lanka, Cambodia, Singapore and Indonesia with over 250 million customers and 23000 employees to date. Their main business is in investment holding and providing telecommunication and consultancy services on an international scale. The company was founded on 12 June, 1992 and rebranded on 2 April, 2009 with the name Axiata and its current logo with the tagline „Advancing Asia“.



NTT DoCoMo INC.: Established in 1992, NTT DoCoMo INC. is Japan’s largest telecommunications company providing innovative, convenient and secure mobile services to over 68 million customers. It is the world’s leading developer of 5G networks, has presented one of the earliest commercial LTE services in 2010 and proven its expertise in plenty of mobile-related services to obtain one of the largest subscriber bases around the globe.

On January 2016, a potential merger between Robi Axiata and Airtel Bangladesh was disclosed which would be called „Robi“, serve 40 million subscribers combined and replace Banglalink in the market as the occupier of second position. Axiata group will own 68.3% shares, Bharti will own 25% and the remaining shares will be owned by NTT DoCoMo.

Product/Service Offerings

Robi offers an array of services in a diverse manner, ranging from newly launched digital music services like Robi Yonder Music to various value added services such as Robi Radio, Islamic Kotha etc.

A detailed listing of Robi’s product and service offering is mentioned below:



Packages

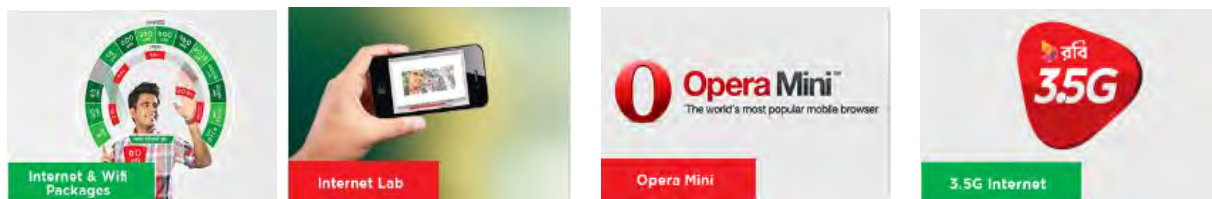
Prepaid



Postpaid



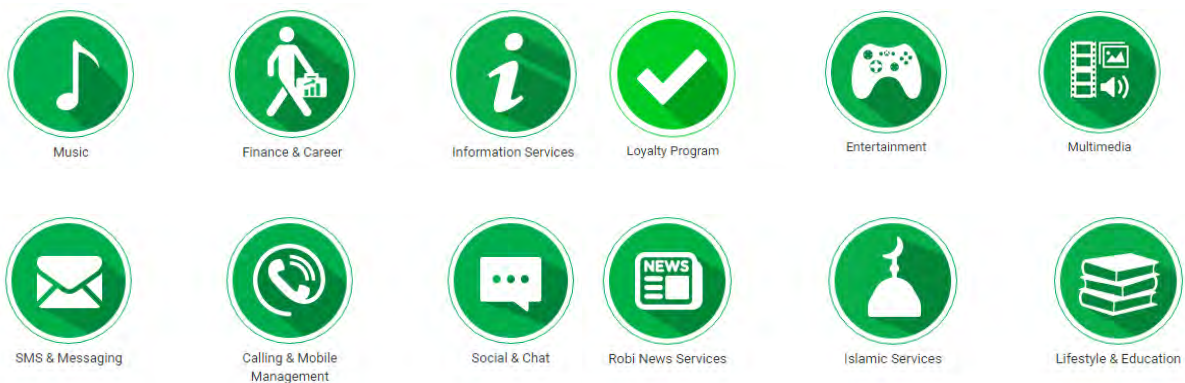
Internet



Digital Service



Value Added Service (VAS)

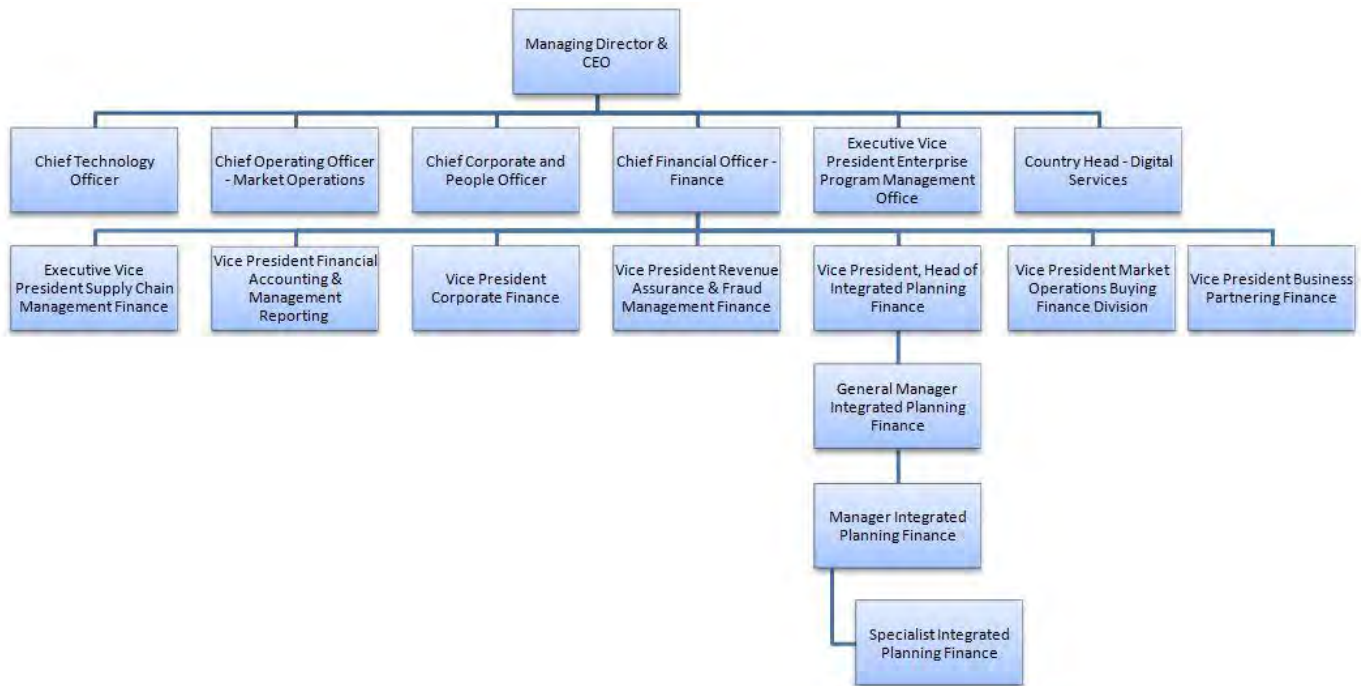


Source: Robi Website

Robi's prepaid and postpaid packages are designed in a way keeping in mind the needs of different target groups across the country. On the other hand, the internet packages offered by Robi are very popular among consumers, owing to Robi 3.5, an advanced version of 3G that offers higher mobile Internet speed of up to 21Mbps. Moreover, the digital services offered by Robi are commendable too, as the newly launched Robi Yonder Music App, has created quite the curiosity among the music listeners among the country. Lastly, Robi has excelled in the Value Added Services (VAS) with subjects ranging from Finance & Career to Lifestyle & Education etc.



Robi's Operational Network Organogram



The entire organization runs with the help of about 1400 employees in total. There is also a contractual workforce of about 400 more. The organization is headed by its Chief Executive designated as the Managing Director entrusted with overall responsibilities of business direction of the organization and leading effectively towards the achievement of its purpose and principles and the Chief Finance Officer, General Managers and Department Heads also provide assistance. Robi has established a strong and fierce sales channel which consists of direct dealers and its own sales force. The organization constitutes an executive committee including the Chairman, Directors, Managing Director, Chief Financial Officer and other General Managers.

Divisions and Departments of Robi Axiata Ltd: Robi is operating with the following divisions and departments constructed at Dhaka, Chittagong and other regions of Bangladesh. It contains nine big divisions each containing several departments. The divisions are:

- Market Operations
- Finance
- Corporate Strategy
- Corporate Regulatory Affairs and Legal
- Human Resources (People & Corporate)



- Technology
- Administration
- Internal Audit
- Enterprise Program Management (EPMO)

Market Operations: This division is responsible for acquiring monthly targeted sales declared by top management. It develops brand and market communication, sales of corporate and business products, maintenance of contract centre and determining pricing strategies.

Finance: Responsible for budgeting. Robi's finance division accounts for financing different proposals, business partnering and new product development. It controls financial accounting, creating salary sheets for employees and so on.

Corporate Strategy: Its main function is to analyze monthly growth revenue, manage business strategy, develop business planning (BP) for projects, attract new business proposals and plan organizational growth.

Corporate Regulatory Affairs and Legal: In charge of all CSR activities approval, event management and sponsorship, maintaining relations with media, handling legal issues, etc.

Human Resources (People & Corporate): Recruits new employees, provides training for existing employees, circulates salary to employee's account, employee motivation and works for organizational development.

Technology: Provides IT support to all other divisions and departments of Robi. Tasks include central network monitoring, technology compliance, supporting employees by providing necessary hardware and software, controlling the Robi website, etc.

Administration: Works to control the business facility layout, safety and maintenance, controlling overall employee management, security staffs and personnel management.

Internal Audit: This division works to ensure worth of operations, reliability of finance reporting, determining and investigating fraudulent activities and safeguarding assets according to laws and regulations.



Enterprise Program Management (EPMO): Works closely with the CXOs to create different management programs and with corporate strategy division to determine business goals, objectives and policies for business.

Vision

“To be the leading telecommunication service and small screen data provider in Bangladesh in the long run.”

Mission

“Robi aims to achieve its vision through being number one not only in terms of market share, but also by being an employer of choice with up-to-date knowledge and products geared to address the ever-changing needs of our budding nation.”

Principles & Purpose

Robi Axiata Ltd. is guided by three main principles which define the company’s purpose and direct its employees in the right direction:

- Uncompromising integrity
- Customer at the center
- Exceptional performance



Chapter 2: Job Overview

Designation: Intern at Integrated Planning Finance Division (IPF)

As an intern at the IPF division of Robi, my job description consisted of Capex structure preparation, Capex budget distribution, Capex tracking and Capex control.

Specific Responsibilities

- **Business Case Files:** On my second day at work, I was handed the responsibility of organizing all the Capex business case slides for the year 2015 in descending order, obtaining the missing files from their respective authors and archiving their hard copies.
- **Data Offer Analysis:** I had to gather information on the different data packages offered by Grameenphone, Robi and Banglalink from their respective websites, arrange them into tables in an Excel spreadsheet and then conduct a comparison analysis, providing a list of observations and recommendations.
- **Retail Data Product PowerPoint:** This involved arranging all the information that I had collected on the retail data packages into a PowerPoint deck.
- **Leaseline Data:** I was asked to match the leaseline data for the year 2015 between the files of IPF and BP and to note down any irregularities or missing information.
- **Sitewise Profitability Report:** This task involved obtaining cellwise revenue RGB from EBIS database for the month of January 2016.
- **Budget Distribution:** I was handed the responsibility of distribution of budgets using SAP software „IM 52“ module.
- **Budget Structure Preparation:** I had to work with the SAP software modules „IM 22“ and „IM 30“ to prepare the Capex budget structures of 2016 and 2015 including the current, distributed and distributable budget amounts for every project.
- **Edotco BCP, Core & WIC PO Reconciliation:** I was asked to obtain PO quantities, project names and their respective attachments from the SAP software database and arrange them into an Excel spreadsheet.
- **Petty Cash Management:** This consisted of organizing the cash memos from the purchases of January and February and recording the totals.
- **Oikotan Tool Update:** I had to update the Capex Budgets of the projects and sub-projects of 2016 in a customized tool named „Oikotan“ from an Excel file.



- **List of Requests for Quotation (RFQs):** This task included recording the RFQs and all other information associated with them for the years 2015 and 2016 in an MS Excel sheet.

Different Aspects of Job Performance:

Since new projects and sub-projects kept appearing in the structure as the year progressed along with changes in their uploaded, distributed and remaining budgets, one of my main responsibilities was to update the Capex budget structure from time-to-time. Due to the sensitivity of the nature of work, while entering and recording hundreds of digits into the spreadsheets, I had to be extra careful to be as accurate as possible while maintaining strict confidentiality and a fast pace. Although the tasks did not have very strict deadlines, I tried my best to complete them in the shortest possible amount of time with utmost sincerity. Also during times of crises, I tried to put my problem-solving skills to use. For example, when a document required urgent scanning and the scanner on my floor stopped working, I travelled to another floor and got it scanned so that not much time was wasted.

Critical observation and recommendation:

During my time span as a Robi intern, I noticed that even the smallest task or request had to go through an extremely lengthy approval procedure. For example, I received my laptop an entire week from the day I joined, whereas some of the other interns who joined on the same day had received theirs right away. After a week's hassle and continuous follow-ups, when I finally received my laptop, it took another day and a half to obtain my username and password. On top of all this, internet connection and Lync, a software by Microsoft used for internal connection between the employees, were restricted on the laptop. This presented further challenges as some of the tasks I had been assigned required internet connection, which I had to connect to through other means.

My suggestion to Robi would be to redesign the whole approval process and bring down some of the layers of accountability in order to make it faster and more efficient. A lot of time is wasted on these follow-ups which could be utilized elsewhere. Another recommendation would be to allow interns internet facilities by blocking certain websites and strictly monitoring their usage so that no misuse or compromise of confidentiality occurs. The usage of Microsoft Lync should also be permitted to interns as communication with other colleagues and exchange of files and documents gets quite difficult in its absence.



Chapter 3: The Project

Project Overview

Objective of the project

Primary Objective: To find out in-depth about the efficiency of the current Capex budget management process in terms of its effect on the overall profitability of Robi Axiata Ltd. and how it compares to international standards through a quantitative and qualitative deduction.

Secondary Objectives:

- To gain knowledge about the internal processes involved in budget management, construction and implementation in a telecommunication company in Bangladesh
- To get a general idea about how different departments in a big organization play different roles in coordinating and assisting each other to achieve completion of tasks
- To relate and incorporate theoretical knowledge of financial principles in real life.

Methodology

1) Primary Data Sources:

- One-on-one interviews and discussions with senior Robi colleagues
- On the job tasks and observations regarding site profitability, archiving business cases, etc.

2) Secondary Data Sources:

- Information collected from different websites
- Previous year's Capex management documents
- Financial reports of Robi Axiata Ltd.

Scope

This report deals with the structure preparation, budget distribution and tracking of capital expenditures at Robi Axiata Ltd. using SAP ERP software. The study provides an overview of the steps involved in the investment planning procedure undertaken by Robi and a quantitative and qualitative analysis that reveals the extent of its efficiency and overall effect on the welfare of the company. My team members at IPF possess extensive knowledge on



this topic and have shared adequate information that has helped me immensely in completing this project.

Limitations

- Due to my short tenure of three months as an IPF intern, I have only been able to work with the year opening projects and figures, whereas Capex management is an elaborate and year-long process and takes months to fully grasp. Therefore completing an entire project based on the information gathered during this period along with observations and recommendations was quite a challenge.
- Delving into this whole process proved to be increasingly difficult as lots of details about procedures were not disclosed to me in order to maintain confidentiality. Most of the information the Integrated Planning Finance division deals with is of a strictly confidential nature and I was prohibited from including any facts or figures that might compromise the confidentiality of the organization.
- The financial reports of Robi were quite hard to come by as very limited information has been available on the internet so far.

Despite the presence of such obstacles, I have tried to be as open as possible and provide information that is accurate to the best of my knowledge.



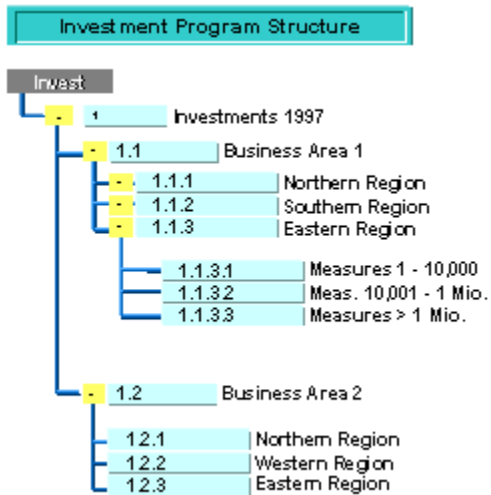
SAP ERP Software

In order to collect, organize and avail the smooth flow of information between the various levels of an organization, distinguished organizations like Robi require Enterprise Resource Planning (ERP) software. ERP software combined with other software systems enable an organization's administrators to oversee and manage supply chain, procurement, inventory, finance, product lifestyle, projects, human resources and other vital components of a business.

The ERP software Robi has been using since the year 2006 for its day-to-day business activities is SAP ERP. SAP stands for Systems, Applications & Products in data processing and the ERP software was developed by the German company SAP SE. The advantages of using SAP ERP software are:

- It integrates business management tasks in modules that form a single system by sharing information
- Maintains consistent practices within and across divisions
- Automates project monitoring as well as multifaceted and flexible reporting
- Facilitates standardization of business processes
- Eases planning, scheduling, tracking and management to free more time for value-added work
- Provides clearly identified job roles with authorizations
- Makes processes more cost-efficient

SAP ERP consists of numerous modules including utilities for marketing and sales, human resources, finance, accounting, etc. and each function or running program has a transaction code assigned to it. A transaction or t-code is a shortcut constituting letters, numbers or both, entered in the command field at the top of the SAP screen to make navigation easier. As a member of the Capex team at Robi Axiata Ltd., the modules I have worked with most frequently are IM 22, IM32 and IM 52, where IM stands for Investment Management.



Description: Change Investment Program Structure

This module is used to display the investment program structure of each year in the form of a horizontal tree diagram. Each project can be uniquely identified based on its investment program name, year of approval and its position ID. As the year progresses, more and more projects are undertaken and added to the structure, then recorded on an MS Excel spreadsheet. For this reason, the Capex budget structures have to be updated very frequently to include new projects, about every two weeks.

IM 32

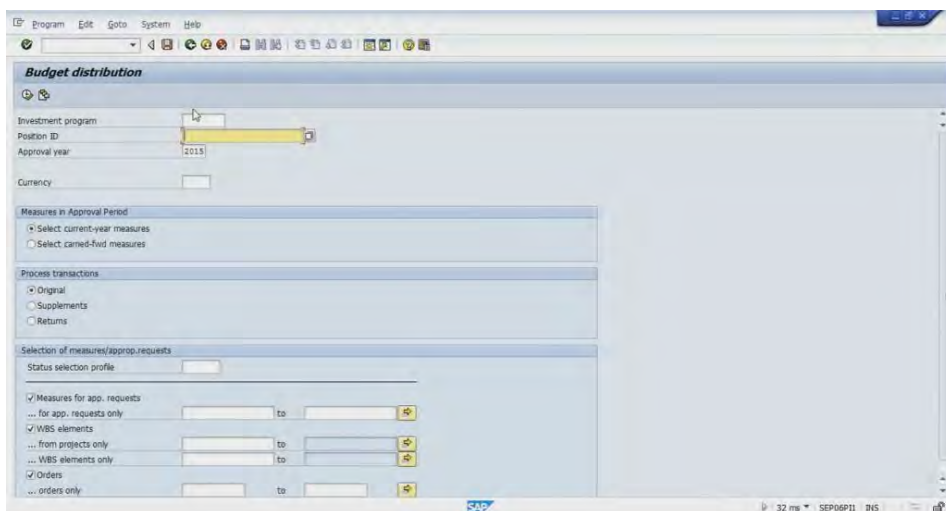


Description: Change Budget of Investment Program Position

This module helps to enter and edit budget values for investment program positions using a top-down approach, meaning that no more budget can be distributed to the lower positions than the amount available in its immediate higher position. In preparing the Capex budget structures, the next step is to use the position IDs obtained from the investment program structure and gather the corresponding current, distributed and remaining budget amounts for each project. All the information is then noted down on the same MS Excel sheet as above to form a table, using both USD and BDT as currency units. In addition to new projects, the budget figures of remaining projects also fluctuate with time, hence keeping the budget structure tables up-to-date becomes imperative.

Both IM 22 and IM 32 are used in conjunction for Capex tracking, whereby IPF traces the budgetary amounts assigned to and used up for each project. For example, when 80% of the budget has been used up, a red flag is raised to warn the user about the depletion and when the entirety of it has been spent, the user is prevented from spending any further unless additional budget has been issued.

IM 52



Description: Process Budget Distribution

In context of capital investment projects, budget distribution is the transfer of budget from a program position to the individual measures assigned to it (Kristen, 2011). Using this module in SAP, one can carry out a number of functions such as increase or reduce the available budget in an account, call back a previously distributed amount, allocate supplementary budget in case of insufficiency, etc.



Capex Management

Capital expenditure or Capex refers to the money invested by a company to acquire or upgrade fixed, physical assets such as property, buildings or equipment. In general, an expense is said to be a capital expenditure when it is spent on a newly purchased capital asset or the investment adds value to an existing asset with a useful life. Simply put, Capex is money spent with the intent of generating future cash flows and a substantial return on investment (ROI). For Robi Axiata Ltd., anything from building a new transmission tower in a rural area to purchasing a new laptop for official purposes is a part of capital expenditure. A contrasting term, Opex or operational/revenue expenditure addresses the expenses incurred in day-to-day business such as wages, maintenance, etc. Unlike capital expenditures which require a huge amount of investment at a time and whose costs may only be recovered through a lengthy period of depreciation, operating expenses are fully tax-deductible in the accounting period they have been incurred and this reduces overall income tax. For this reason, companies like Robi Axiata Ltd. traditionally prefer leasing from vendors or third party network providers rather than building a new tower or purchasing equipments when they need to extend their network reach. Another reason why Opex is more preferable to Capex is that once an asset is purchased, the company is stuck with it no matter how rapidly technology may change whereas leasing a site offers short term commitments.

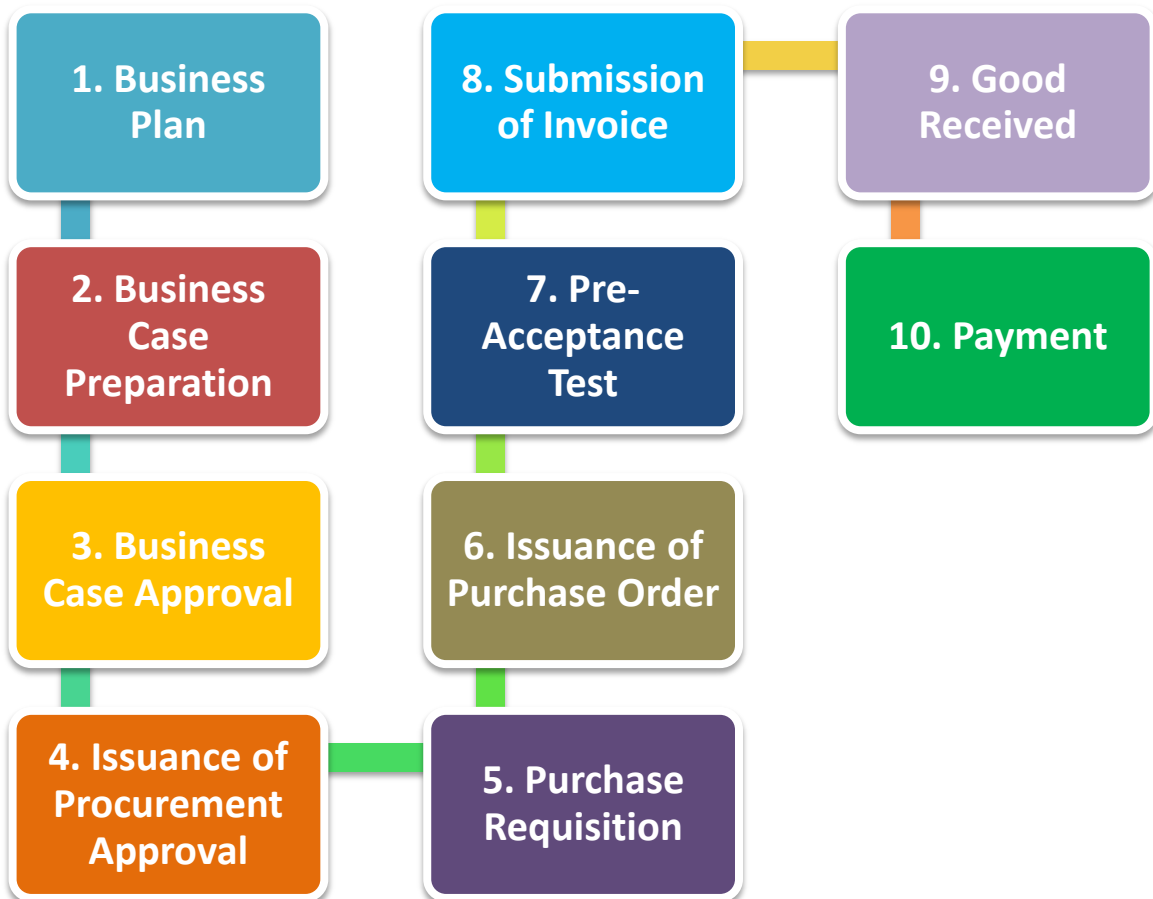
Capex management surrounds the set of actions, processes and tools used to define, forecast, analyze, determine and control capital expenditure. Apart from acquiring new assets to exploit strategic opportunities and achieve market growth, Capex management is also essential for planned spending on marketing or research & development based projects. (ctcon website, 2016). Listed below are some of the reasons effective Capex management is crucial to businesses:

- It ensures that strategic, policy and control objectives encompassing fixed assets are reached which provides in-depth business insight, transactional efficiency and greater compliance.
- Enables the optimum allocation of funds to strategically relevant investment choices as well as the assessment of alternative investments through quantitative and qualitative analyses. As a result, a broader investment portfolio can be maintained.



- Helps to trace investment projects from the planning through the implementation and post-implementation stages which eases decision-making and coordination among resources and goals.
- Arranges for the appropriate distribution of limited financial reserves to allow the undertaking of profit-generating investments and to reduce the adverse effects caused by an uncertain business environment.

Capex Value Chain of Robi Axiata Ltd.

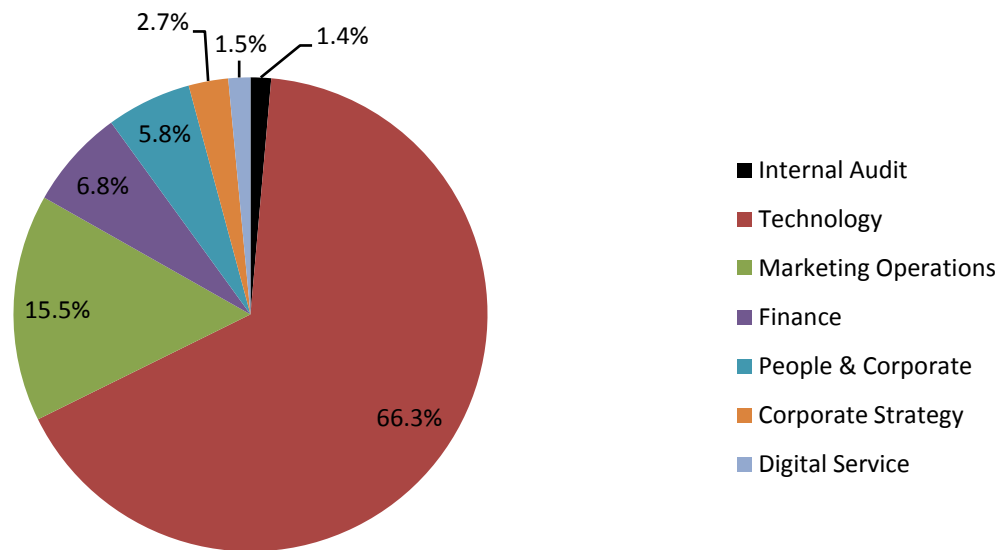


The Capex value chain starts with a business plan that outlines what should be included in the Capex process for the next year. Meetings are held where, through discussions, the IPF team accepts budgetary requests from users, eliminates duplicate requests which might come up from different parties for the same purpose, increases or decreases budgets for existing projects, terminates potentially unprofitable projects, etc. When a consensus has been reached, the budget amount for each project is locked down by the user and a business case is prepared, which is documentation justifying what is to be bought and why, its alternatives,



benefits, the downsides of not buying it, a valuation of the least cost providing the best service, etc. The IPF team provides a recommendation to the authority to proceed with the purchase and the business case is approved by management, operating committee and budget committee. After that the issuance of procurement approval including contract negotiations takes place and the user raises a purchase requisition to notify the purchasing department of the items to be ordered, their quantity and the ordering timeframe. After orders are placed to the vendor through a purchase order, a pre-acceptance test (PAT) of the product/service is conducted to check whether the requirements of the contract have been met. Next, the vendor submits an invoice for payment and when the good is finally received, the payment is made.

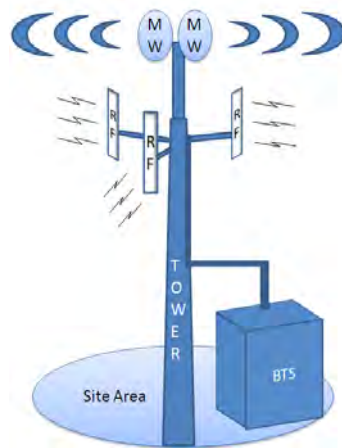
Division-wise Capex Budget Deployment at Robi Axiata Ltd.



From the above pie chart, it is evident that maximum capital expenditures at Robi are driven by its technology division, which is quite typical for a company operating in the telecom industry as much of its services are technology and networking based, followed by marketing operations division; the second highest user of the Capex budget to achieve commercial business objectives. Some of the largest and most crucial Capex investments the technology division engages in are the establishment of Base Transceiver Stations or BTS sites, which shall be discussed elaborately in the following pages.

A Major Capital Expenditure- BTS Investment

A Base Transceiver Station (BTS) is a telecom infrastructure that enables wireless communication between subscriber devices such as cell phones and the telecom operators' network. The difference between a BTS and a tower is that towers, batteries, generators, rectifiers may be shared with other operators but the BTS itself cannot be shared and remains unique to each operator. As the number of base stations increases in an area, the quality of network provided is also enhanced, making the BTS investment decision one of utmost priority for a telecom company looking to expand operations and infiltrate unused territories faster than competitors. The case is no different for Robi, which tries to reach the maximum number of customers and extract the highest revenues through proper investment decision-making, all the while ensuring superior quality of the existing network.



Every year during the preparation of the annual budget, the budget for next year's BTS investment is determined. The budget amount is usually steady each year; however it may increase if Robi plans to actively expand its network area coverage or capacity. The increased need to establish network coverage is acknowledged by the market operations division (MO) through conducting various surveys on customer satisfaction, reports from regional offices, etc. Once the customer complaints exceed a certain level, the technology division is warned and appropriate actions are taken. As for the decision to upgrade existing network, it is made by the technology division itself. When the request for a new BTS site is raised, the planning department of technology division carries out a cost and revenue analysis, presents a business proposal and seeks for approval from the Finance Transformation Office (FTO).



Several factors are taken into consideration before making an investment decision including:

- **The population size of the target customers:** The larger the size of the population of target customers in the proposed area, the more likely it is that setting up a BTS site will be a successful venture.
- **The population demography of the proposed area:** Determinants like age, income, etc. of customers are critical to investment decision. For example, since Robi's target customers are between the age group of 15-65 years, base stations must be implanted in regions with a concentration of such people. They must also be able to afford cellular phones and pay Robi's call rates in order for Robi to generate sufficient revenues from these sites.
- **The concentration of social establishments:** A location with a large number of schools, colleges, universities, shopping malls, offices, mosques, etc, will need a robust communication network and sites must be set up there in order to reap benefits.
- **The number of competitor sites:** If the number of competitors' sites is considerably low in an area, a BTS site should be constructed there in order to seize potential market shares. On the other hand, if a greater number of competitor sites exist, a BTS site may still lead to profit if the network provided is good enough to make competitors' customers switch to Robi.
- **Level of market penetration:** Sites may be built in areas with low mobile market penetration to gain first mover advantage.
- **Existing network quality:** If the existing network quality is not up to the mark, further investment might be required to increase the BTS capacity.

After studying the determinants above, the direct costs, indirect costs, revenues, taxes, etc. associated with the project are calculated to measure the net present value (NPV) and internal rate of return (IRR), ultimately revealing the profitability of the project. If the results are desirable, that is, if the NPV is greater than zero or the IRR is greater than the required rate of return, the project gets a green signal. Contrarily, the project gets aborted and alternative measures are taken. Investment in a BTS project requires a hefty sum of money and is quite infeasible if it does not generate adequate return for the company but at the same time a faulty network cannot be ignored for the sake of retaining customers. Under such circumstances, rather than expending capital on a lost cause, Robi may take one of the steps listed below:



- **Inside Building Solution (IBS):** It may be used to intensify network capacity indoors and even outdoors under certain circumstances at a cheaper rate than a BTS, even though the power generated is lower in comparison.
- **Repeater:** Repeaters are commonly used to combat network problems that are contained within a single floor inside a building as their range of coverage is lower than both a BTS and an IBS. They work by channeling signals from one BTS to another situated nearby.
- **Site Sharing:** Finally, when investing in the production of a BTS is not worthwhile, an economical solution would be to lease a site from a vendor and share it with another operator for the benefit of both the parties involved in the transaction.

Layout of the Capex Optimization Process (Oikotan) at Present at Robi Axiata Ltd.

The modern day Capex optimization process at Robi called „Oikotan“ constitutes marketing, finance and technology units whose collective efforts in gathering, computing and interpreting data contribute to a more structured approach in the evaluation of projects that ultimately result in greater earnings. This process of capital distribution was established in 2012 to create equilibrium and enable greater participation and coordination in decision-making by smoothing out the impediments caused in the former process which did not account for profitability in the business propositions. Under this new approach, the purposes of the three units involved are described as follows:

Market Operations:

- Acquires a series of primary and secondary data through an all-inclusive market research involving discussions with subscribers, written questionnaires, customer responses from call centers, etc. regarding all the regions where Robi operates.
- Conducts a demand and revenue forecast to distinguish areas with high potential for profit. The revenue, demand, minutes per call and network coverage of the adjacent areas which are considered to have a correlation are also analyzed so that the forecasts of the specific areas conducted earlier are not over-estimated.
- The marketing fraction of Oikotan then works out the break-even point (BEP) of each project and compares it to the standard national BEP predetermined by Robi for assessing all areas of Bangladesh alike, not just the populated main cities.



- The areas obtained from the business cases filtered out in the last step are then weighed out in terms of their stages of development, network availability, market concentration, etc. and the most promising ones are isolated and classified and then sent to the finance division for further assessment.

Finance:

- Categorizes cases under the labels of „Immediate Budget“ and „Non-immediate Budget“ based on the criteria of instant benefits provided by and the opportunity costs of each. The cases to be forwarded urgently are usually the ones with the most strategic significance and gainful in terms of Robi’s market share.
- The immediate budget cases are then run through an array of different valuation methods, the basic one being the payback period method in which the length of time required to recover the initial outlay of the project is measured. Next, the NPV for 10 years of the projects are found, a more reliable valuation as it does not disregard the time value of money and the ones with high NPV are considered the most favorable. Finally, the IRR of the projects are determined and if those out to be greater than their cost of capital, they are scheduled to be implemented first.
- The non-immediate budget cases go through further examination as they might not provide a quick remuneration in terms of money, but in the long run may reveal intangible benefits for the organization.

Technology:

- Fundamental objective is to find out the elements necessary to boost Robi’s network capacity across the nation
- Certifies the data sent in by marketing operations and finance and acts in unison with the Radio Networking department for a complete assessment of the Capex projects drafted for the next year with reference to the capital cost of equipment such as depreciation, maintenance cost, utilities, etc. and transfers this information back to the finance division for authorization.
- The Radio networking department itself may present business proposals along with comprehensive reports justifying their execution, specifying their costs, perks, the type of BTS (Roof-top tower, Roof-top pole, Greenfield tower or In-building solution), whether the goal is to expand network area or capacity, etc. The technology



fraction sums up the disbursements including the electricity costs, cost of maintenance of the power supply, rent, and lease expenses if the site is split with another operator. These reports are submitted to the finance department which again checks the NPV and IRR of the projects as before, ranks them according to urgency and finally forwards them to the Supply Chain Management (SCM) board where they await confirmation.

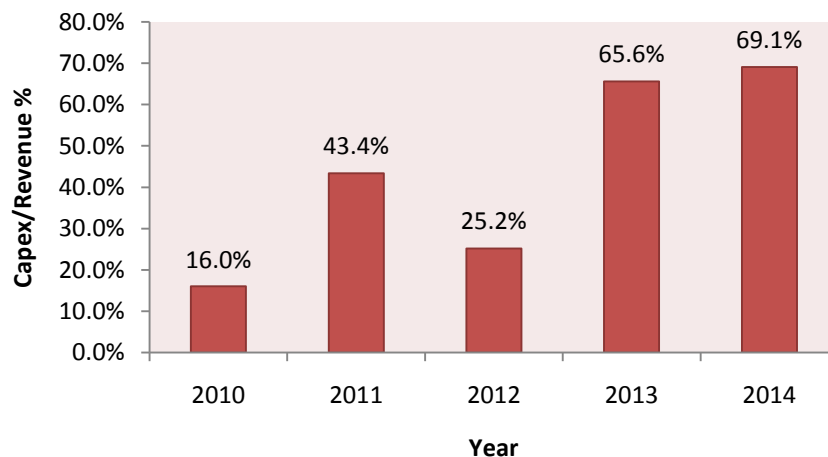


Analysis on Robi's Capex Management Efficiency

Before the introduction of the Oikotan system in 2012, the entire process of Capex deployment was entrusted solely to market operations and technology who worked autonomously rather than jointly to achieve targets. The demand forecasts were directly transferred to the technology division without any authentication, mishandling of information took place, the finance division had no command over the acceptance or rejection of business proposals and throughout the whole procedure, no attention was given towards the valuation of the projects in terms of future returns. As a result, capital resources were incorrectly allocated to unrewarding projects and Robi had to bear losses. However, the modern Capex management process has evened out the irregularities of its predecessor and provided Robi with numerous benefits. In this chapter, an analysis of the efficiency of this process has been conducted as follows:

Quantitative Analysis:

1) Capex/Revenue Ratio:

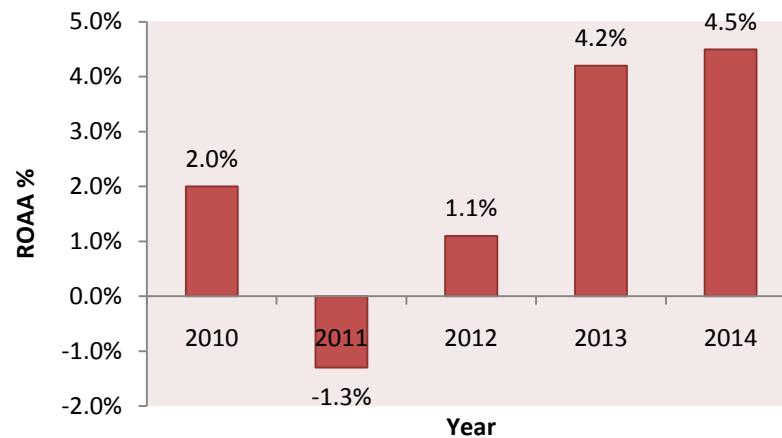


Source: CRAB Ratings on Corporate Credit Digest 2015

This ratio indicates how aggressively Robi is re-investing its revenue back into assets to generate more income in the future. For a company in a capital-intensive industry like Robi, continual re-investment is necessary to achieve desirable market growth. After the development of the new Capex optimization system in 2012, the number of Capex investments has increased notably in the following years as shown by the graph, however, the effectiveness of the process to generate new income will determine whether a high ratio is a positive or a negative signal.



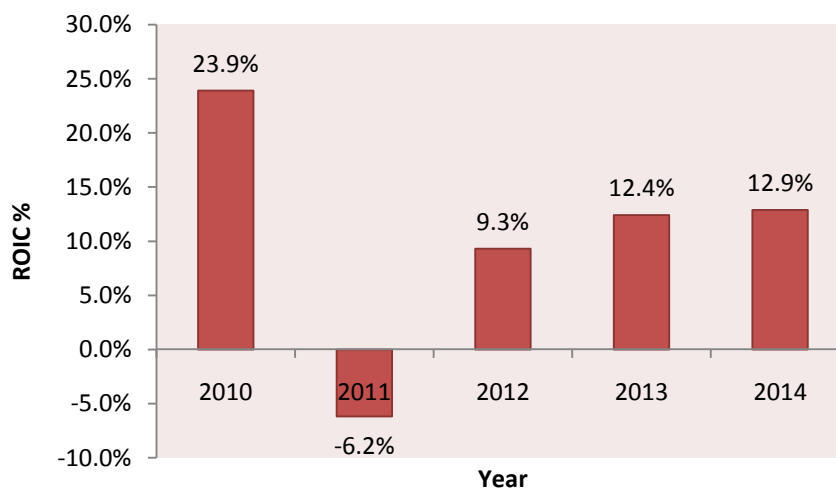
2) Return on Average Assets (ROAA):



Source: CRAB Ratings on Corporate Credit Digest 2015

The ROAA ratio is used to express the profitability of a firm's assets and is an effective way to test how well management is utilizing a company's total assets to make a profit. Before the inception of the new process, the ROAA obtained in 2011 was negative, meaning that Robi was investing a high amount of capital while earning a financial loss on them. However, the later years show a marked improvement on the ratio, evidently proving that the new Capex process has been successful in managing Robi's assets more efficiently. According to Investopedia, investment professionals ideally prefer an ROA of 5%, and Robi seems to be gradually reaching that point.

3) Return on Invested Capital (ROIC):

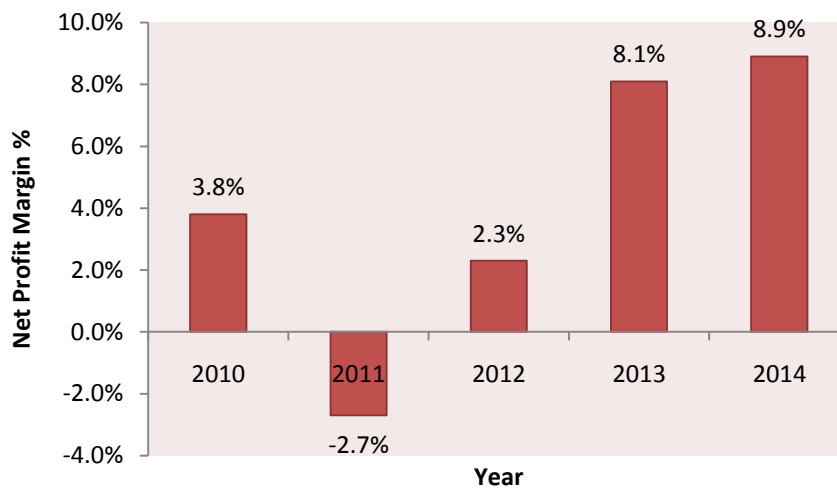


Source: CRAB Ratings on Corporate Credit Digest 2015



This ratio is used to evaluate a firm's efficiency at allocating its capital to undertake profitable investments. Robi's ROIC fell drastically in 2011 to a negative amount demonstrating the management's inefficiency in choosing investment opportunities and the ratio was also quite inconsistent in the previous years, unlike the years after the new process took action. In 2013, Robi set one of its standard key performance indicators (KPI) on the basis of ROIC to 10.3%, so the ROIC obtained in that year and the following are well above the benchmark.

4) Net Profit Margin:



Source: CRAB Ratings on Corporate Credit Digest 2015

Net profit margin is a key financial ratio to examine the profitability of a company; how efficient a company is and how well it manages its costs. This graph essentially shows how much of each taka earned by Robi is being translated into profits. The net profit margin for 2011 was negative, implying that Robi's costs were too high for that period but the recent years show a market improvement in terms of profitability. Keeping all the other factors constant, it can be assumed that Robi's updated capital expenditure management has also played a part in bolstering the overall profitability figures of 2013 and 2014.



Qualitative Analysis:

According to a Capex survey conducted in 2012 of 78 telecom operators around the world by PricewaterhouseCoopers (PwC), the largest professional services firm in the world, regarding the way each company manages its capital expenditures, some of the attributes listed below “form the building blocks of a well designed capital management program”. Listed below is a description of each attribute and the worst and best practices surrounding each, along with an explanation of how Robi Axiata Ltd. fares against each:

	Approach (1) Underperformance	Approach (2) Emerging Best Practice
Plan	Capex levels are set with reference to last year’s spend or Capex/sales benchmarks	Baseline Capex is set with reference to post-capital profitability of services, segments, tariffs & territories
Organize	Capex budgets are justified merely if they are within a department’s budget caption	Capex projects are all justified & aggregated under approved programs
Build	Capex proposals come with a single recommendation, leaving key assumptions unstated	Proposals come with a clear explanation of the options & evidence to support underlying assumptions
Operate	Procurement decisions are made on the basis of the lowest unit cost	Procurement decisions are based on maximizing the intended business outcomes
Respond	The success of a project is defined solely in terms of whether it’s completed on time & within budget	The business has a formalized post-investment appraisal process to share best practice

Source: PwC Capex Survey 2012

- Plan:** Robi follows Approach (1) in this segment as capital expenditures on BTS investments for the upcoming year are usually predetermined the year before and an almost constant budget amount is fixed for every year unless there are any exceptions. Hence, Robi should consider switching to Approach (2) for a greater efficiency in Capex management.



- **Organize:** Robi follows Approach (2) as has already been stated in the previous chapters of this paper. The current system of Capex management uses a process-oriented approach which is synchronized with market demand and involves the business units working together to accumulate and justify relevant information.
- **Build:** The business cases circulated at Robi during budget distribution all contain sufficient evidence to back up claims and scrutinize the projects from all dimensions to maintain a strict level of transparency, just like Approach (2).
- **Operate:** Approach (2) is followed in this segment since procurement decisions are aimed towards achieving maximum market growth and increasing business value.
- **Respond:** Finally, Robi follows approach (2) here as well since a post-completion audit is issued for every investment decision including the results, benefits and outcomes of the decision.

Results & Findings:

From the quantitative analysis, we can see that the increase in Robi's Capex/Revenue ratio, or in other words, an increase in Capex investments from 2012 onwards after the initiation of the new Capex optimization process has had a positive effect on Robi's ROAA and ROIC, contributing to an increase in the overall profitability of the company and demonstrating that the new Capex process is indeed higher in efficiency than the previous one. The qualitative analysis indicates that Robi's Capex management practices are almost in accordance with the criteria set by PwC after evaluating 78 telecom operators nationwide. However, the key issues obtained from the analysis of the entire Capex budget management process efficiency are:

- 1) The process of Capex tracking by manually entering sensitive data into MS Excel spreadsheets is quite arduous, primitive and leaves more room for human error.
- 2) The Capex budgets allocated to BTS investments are predetermined the year before and the amounts are usually consistent every year.
- 3) The chain of approval for decision-making is quite lengthy.
- 4) Growth in terms of revenue, number of subscribers, EBITDA (earnings before interest, taxes, depreciation & amortization), etc. are used as performance measures.



Recommendations:

- 1) Instead of constantly recording and modifying Capex budget structures on MS Excel spreadsheets, IPF division might come up with some intranet web-based service to create a shared network where the budget amounts should be updated automatically as soon as any changes are made to them.
- 2) The capital expenditure levels on BTS investment should be settled keeping in mind the post-capital profitability instead of assigning a fixed or a similar budget for it every year.
- 3) Although it might seem like a lengthy, challenging approval process brings about discipline, continuous follow-ups waste a lot of time and genuine maintenance requests might suffer. Therefore a certain level of authority should be delegated to the departments for petty decisions and basic evaluation templates should be maintained for regular requests in order to save time and efforts.
- 4) Rather than focusing too much on growth in terms of subscribers, revenue, EBITDA (earnings before interest, taxes, depreciation & amortization) or cash as the end results, the decision making should be influenced by post-capital gains like increase return on investment (ROI) and economic value added (EVA).



Conclusion:

Based on the information disclosed in this report, it can be seen that the current Capex management process at Robi is at par with international standards and has helped to secure a steady return on capital investments in order to attain greater profitability for the company, even though there may still be some room for improvement in an aspect or two. Even though Robi Axiata Ltd. places second after Grameenphone in terms of revenue, it occupies the third largest market telecom share in Bangladesh. However, after the merger with Airtel which has been deemed „credit positive“ by Moody’s Investors Service, the unified Robi-Airtel has been expected to replace Banglalink in the second position, with 39 million subscribers and 28% market share. Along with intensified network quality and coverage, the merger will allow both parties to reap larger economies of scale. The future of Robi seems promising as, according to Supun Weerasinghe, CEO of Robi Axiata Ltd., a greater unified investment capacity would favor the optimization of strategies, deliver strengthened value to consumers and lead to the betterment of the highly competitive Bangladesh telecommunications sector (Ghosh, 2016).



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Appendix:

List of financial ratios:

- **Capex/Revenue:** $\text{Capex} \div \text{Revenue}$

- **Return on Average Assets (ROAA):** $\text{Net Income} \div \text{Average Total Assets}$

- **Return on Invested Capital (ROIC):** $\text{Net Operating Profit After Taxes (NOPAT)} \div \text{Invested Capital}$

- **Net Profit Margin:** $\text{Net Income} \div \text{Net Sales (Revenue)}$