



BRAC BUSINESS SCHOOL
BRAC UNIVERSITY
INTERNSHIP REPORT ON



Internship Report on
“ROBI Axiata Limited”-
DIGITAL SERVICES DEPARTMENT



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Letter of Transmittal

10th April, 2016

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Subject: Submission of Internship report for the completion of BBA program.

Respected Sir,

It is a great pleasure for me to present the internship report on “Digital Services Department of Robi Axiata Limited”. It was assigned to me as a requirement for the completion of Bachelors of Business Administration Degree.

It was a great experience for me to work in a multi-national company and gain in-depth knowledge on ongoing telecom business. Throughout this study I tried to accommodate as much information and relevant issues as possible and also to follow the instructions you suggested. I tried to make this report informative.

I am grateful to you for your guidance and kind cooperation at every step of my endeavor on this report. I shall remain deeply grateful if you kindly go through my report and evaluate my performance.

Sincerely,

Armaan Rusheeq Uddin

ID: 11204041



Acknowledgement

Acknowledgement is made to the courtesy of all who have kindly provided information and given permission for making this term paper. Without whom this term paper can't be completed. First of all, I would like to thank the Almighty Allah for the smooth completion of my BBA program. As part of my internship for the course- BUS400, I have been assigned to make this report to reflect my learning and it is my absolute pleasure that I am expressing my gratitude to following institutions and individuals.

Firstly I would thank BRAC University and the BRAC Business School for enlightening me over the period of my Bachelors in Business Administration. Every faculty of the BRAC Business School receives my greatest honor because of all their teachings.

I would thank Mr. Noman Hossain Chowdhury, Senior Lecturer, BRAC Business School, BRAC University for providing me the proper guidance along with complete freedom to complete the whole internship report. My gratitude goes to ROBI Axiata Limited for selecting me as intern into their organization which helped me a lot to learn about corporate culture in a highly competitive environment. I would like to thank Mr. Viranga Sineviratne, Vice President, M-Tech & Solutions, Digital Services Department at ROBI, who was my team lead. I must set aside a vast amount of reverence for my coordinator, Mr. Tamzid Azad, Specialist, M2M. Both my line managers had been extremely cordial, supportive and optimistic with me and my efforts since the day I joined. Along with that I would also like to show my heartfelt gratitude to all the members of the Digital Services Department who have always been very supportive towards me and helped me to work resourcefully.



Executive Summary

ROBI Axiata Limited is one of the largest telecom companies in Bangladesh and day by day they are moving forward by adapting new market trend and changes. They brought a huge change after they are rebranded from AKTEL to Robi. Gradually they are improving everything into their organization. Recently they have opened a new department to diversify their business apart from voice calls which is commonly known as Digital Services Department. In my report, an effort has been made to describe in depth about ROBI Axiata Limited and how they are about to expand their business through other ventures (particularly focusing on VTS and BDApps). Basically in today's telecom industry, it has become quite difficult to rely on voice calls and sms for the entire business and therefore all the telecom operators are diversifying for better scopes and bigger business. All the ins and out that they are following in ROBI Tracker and BDApps- are also discussed here. The SWOT analysis of ROBI is also discussed in the end. Lastly I tried to come up with some own recommendations which I think ROBI can follow to take the higher position in terms of smooth operation and employer satisfaction in telecom sector.



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Introduction

We live in a world where everything is moving towards digitalization. Starting from communication, networking and travelling to all the way to purchasing our daily necessities, everything is done through the use of digital platform. Such examples are Facebook, WhatsApp, Chaldal.com and many more.

Bangladesh over the past few years has also taken the initiation to move towards digitalization through the program created by the Bangladesh government known as “Digital Bangladesh”. It is a platform that is trying to move the country to a state where products purchase and services provided can be done through digital media, and it all started with the introduction of the submarine cable and most importantly the 3G network for all the telecommunication companies. Such capabilities as helped create a platform for people, starting from small businesses to large corporations, to open their creative envelope and provide various digital services and take the country closer towards digitalization.

With that essence in mind, ROBI Axiata Limited, the third largest mobile telecom organization of Bangladesh has taken the task in hand has opened a separate department called “Digital Services”. In this report, an effort has been taken to write an internship report on this “Digital Services” Division particularly focusing on its App store-BDApps and ROBI’s own Vehicle Tracking Solution (ROBI Tracker). An important keynote about the paper is that, the analysis content of the report is totally done from broad theoretical and functional digital ventures; it does not include any financial data or analysis of the topic.

The total report will be having four major segments. In the first part, a brief knowledge regarding the entire “Digital Services Division” will be made. Then, the overall process



and operation of BDApps and ROBI Tracker will be discussed. Later, my endeavors during this internship period followed by some recommendations will be coated.

Organizational Overview:

ROBI Axiata Limited is one of the leading mobile telecom operators in Bangladesh. It is a joint venture company between Axiata Group Berhad of Malaysia (92%) and NTT DoCoMo Inc. of Japan (8%).

ROBI commenced operation in 1997 as joint venture company between Telekom Malaysia and AK Khan and Company. It was formerly known as Telekom Malaysia International (Bangladesh) which commenced operations in Bangladesh in 1997 with the brand name AKTel. In 2008, AK Khan and Company exited the business by selling its 30% stake to Japan's NTT DoCoMo for US\$350 million.

On March 28, 2010, the service name was rebranded as Robe which means Sun in Bengali. It also took the logo of parent company Axiata Group which itself also went through a major rebranding in 2009.

Robe draws from the international expertise of Axiata and NTT DoCoMo Inc. Services support 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. The company has the widest International Roaming coverage in Bangladesh connecting 600 operators across more than 200 countries. Robe is very customer centric solution includes value added services (VAS), quality customer care, digital network security and flexible tariffs.



Since its inception in 1996, Axiata Group and its predecessor Telekom Malaysia has invested around BDT 11,000 crore in the form of equity till 2012. Robi Axiata Limited has been awarded as the 5th Best Employer of the Year at the 22nd World HRD Congress, 2014. With its strong network and seamless connectivity, Robi is empowering about 27.7 million subscribers as of January 2016.

Digital Services Department

ROBI's Digital Services division primarily has six departments. The Mtech and Solutions department has three products currently. From them, one of the leading ventures is ROBI Tracker. ROBI Tracker is like an umbrella and they are planning to have indifferent product and service offerings under it. Currently they are focusing on Vehicle Tracker. It is better known as vehicle tracking service that allows consumers to track their vehicle in real time from wherever they want. Secondly they have an eco-system called BDApps that allows third party developers to integrate in app purchases for their apps and provides simplistic methods for individuals to create apps by themselves, this falls under their app store category. And thirdly, they have MIFE which allows individual to use their mobile numbers as identity and use them to sign into different platforms, e.g. mobile connect, a platform that allows individuals to sign into bdtickets simply using their mobile numbers. They are also planning to launch GPS watch that will ensure the security of the children anytime soon.

The digital ventures department is responsible for generating new ideas for digital services and maintaining the performance of those services. Currently they have three products which are, bdtickets which is an online ticketing service which falls under their "E-ticketing" category, Mobi Reach, a mobile advertisement platform that can send specific and targeted advertisements based on 14 specific parameters and lastly, Recharge plus, a website that allows for online recharge of mobile, internet (Qubee,



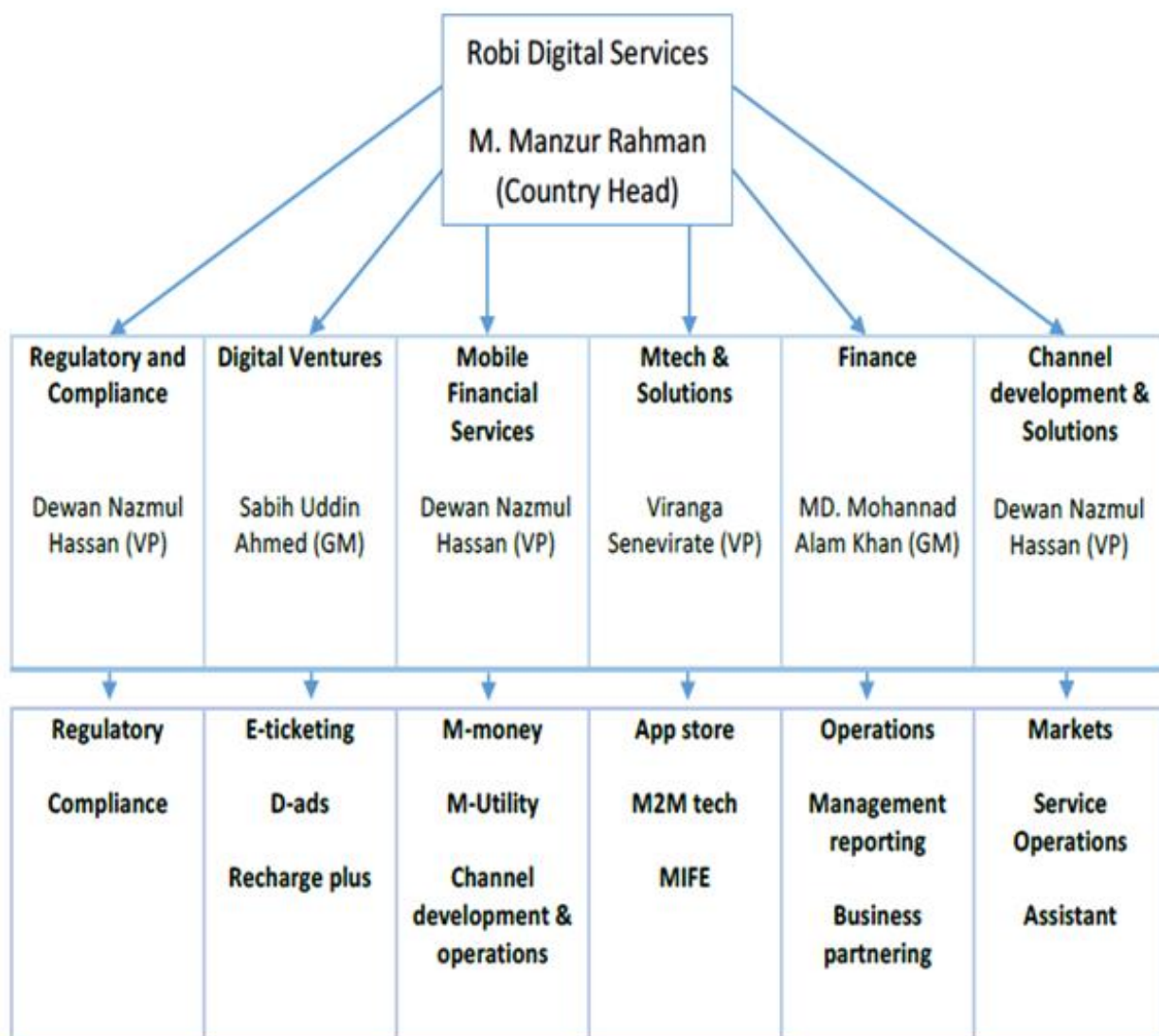
Banglalion) and ROBI's own VTS service. The digital ventures team works around the clock to ensure continuous improvement of their products which includes consumer behavioral observations and appropriate data analysis, maintaining relations with current third party developers and companies and creating new ones and consumer feedback analysis to make necessary changes and improvements of their products. The digital ventures department takes all the necessary steps to ensure that their services are operating smoothly at all times.

The mobile financial services are owned by banks, but the mobile financial department is responsible for providing and managing the channel through which such services are distributed through the GSM network. For example, the utility bills or money transfers made through B-kash is made available by the mobile financial services department through the use of their network distribution of ROBI throughout the country. Also, this department is responsible for adding specific mobile services to services like B-kash, such as USSD services and allowing consumers to recharge their mobile balance through B-kash.

The Finance department is responsible for calculating all the financial requirements of the digital services division of ROBI Axiata. They are responsible in determine the cost of each and every service they provide, which include product development costs, promotional costs, website/service maintenance cost, improvement costs, third party call center service costs and are also responsible in determining and managing the overall operating costs of the department. The finance department is also responsible in the financial negotiations of all the outside partners that are involved and ensures all transactions are made correctly according to their respective contracts and lastly, they are responsible in calculating all revenues that is generated from each and every service that the division provides. They are also responsible in building partnerships with other firms and lastly, they are responsible for all financial analysis and reporting them to the CFO and the regulatory board.

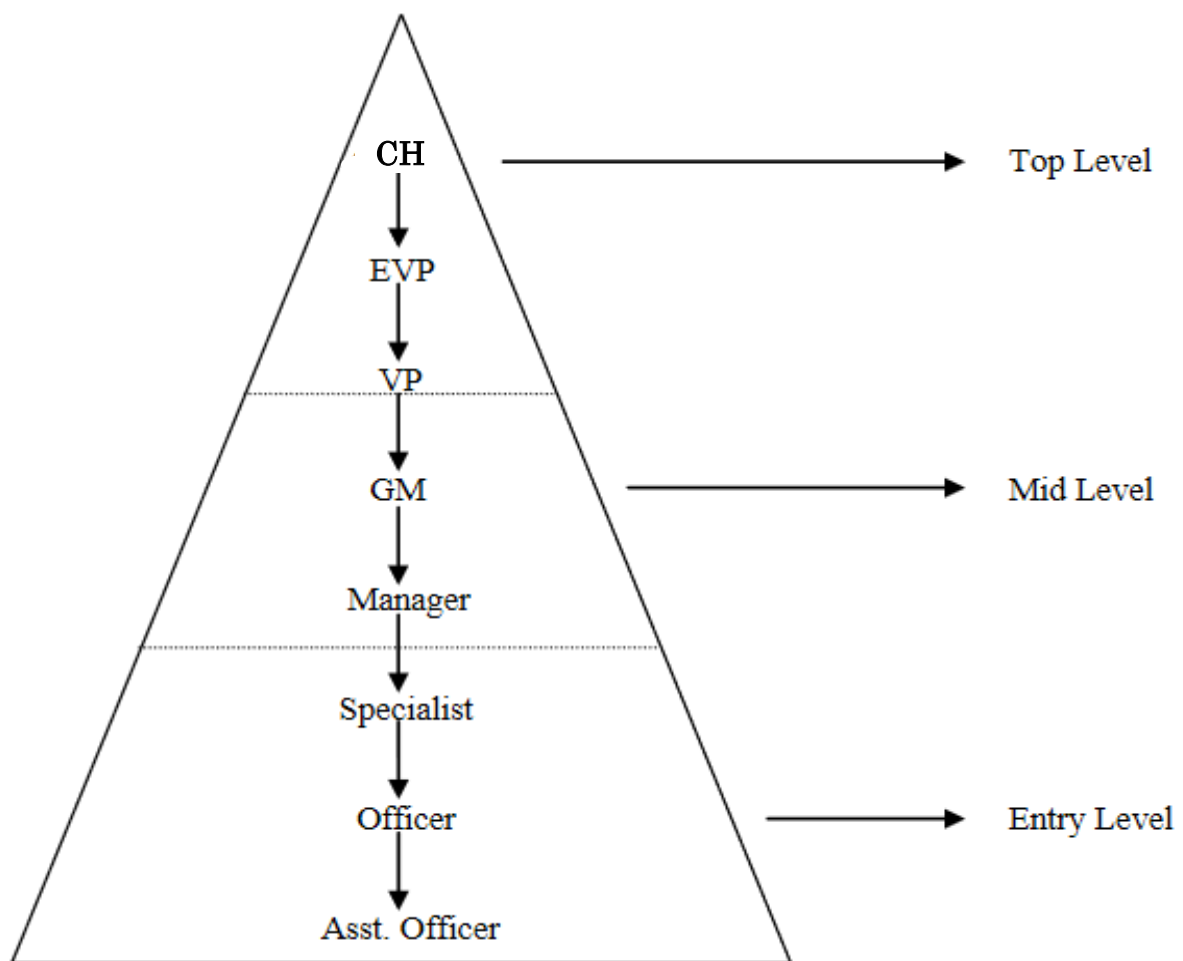
The regulatory and compliance department is responsible with all the legal activities of the digital services division. They ensure that all the contracts made with the partnering companies are in compliance with the Bangladesh regulatory board. They ensure that all the tasks that are done are ethical and falls within the legal boundaries. They keep track of all the documents and make any required amendments to them if required and ensures they are renewed or ended properly.

Divisional Structure



Operational Organogram

In ROBI Axiata Limited, almost all the divisions follow a common hierarchy and chain of command. In Digital Services Division Country Head is at the top most position and acts as divisional head. Along with CH, Executive Vice President (EVP) and Vice president (VP) are in the top level management. Then, General Manager (GM) and Manager are associated in the mid-level management. Finally, in the low level management there are Specialist, Officer and Assistant Officer. Their hierarchical positions, management levels and chain of command is as follows-





Overall organizational decision is taken by the Chief Executive Officer (CEO). But, for any decision or activity Country Head is authorized to take decision. CH passes his decision to his/her immediate subordinate, who is VP/GM of that particular department. Then the total process ends to Assistant Officer.

The decision making process is quite centralized. To take any decision most of the time they need to wait for their immediate supervisor to approve. Considering the hierarchy and chain of command; for entry level employees it takes a long time to have proper instructions.



App Store

An app store (or app marketplace) is a type of digital distribution platform for computer software, often in a mobile context. Apps provide a specific set of functions which, by definition, do not include the running of the computer itself. Apps are designed to run on specific devices, and are written for a specific operating system (such as iOS, Mac OS X, Windows, or Android). Complex software designed for use on a personal computer, for example, may have a related app designed for use on a mobile device.

Such a mobile app may offer similar, if limited, functionality compared to the complete software running on the computer. Apps optimize the appearance of displayed data, taking into consideration the device screen size and resolution. Besides providing continuity of functionality over two different types of devices, such apps may also be capable of a file synchronization between two dissimilar devices, even between two different operating system platforms. App stores typically organize the apps they offer based on these considerations: the function(s) provided by the app (including games, multimedia or productivity), the device for which the app was designed, and the operating system on which the app will run.

App stores typically take the form of an online store, where users can browse through these different app categories, view information about each app (such as reviews or ratings), and acquire the app (including app purchase, if necessary - many apps are offered at no cost). The selected app is offered as an automatic download, after which the app installs. Some app stores may also include a system to automatically remove an installed program from devices under certain conditions, with the goal of protecting the user against malicious software.



History of mobile apps

The Motorola DynaTAC 8000X in 1983 was the cell phone that started it all. It paved the way for all other mobile phones, including the smartphones and apps users can't live without today. While the giant brick of a phone could do little more than make calls, Nokia and other manufacturers decided to add more functionality by adding simple games such as Snake, Pong and Tic-Tac-Toe. These apps were simple enough, but they played upon the popularity of games that were already on the market for game consoles. They also drastically changed how users thought about phones and opened the doors to app development. Naturally, simple led to customers wanting more, but it would still be decades before app developers began delivering the variety of apps customers truly wanted.

At first, mobile users only had access to simple, though sometimes difficult to use, apps such as calculators, ringtone creators, basic arcade games and calendars. The sheer competition in the mobile market in the 80s and 90s meant mobile manufacturers carefully guarded their secrets and didn't leave their platforms open for development. As a result, app development was in-house only. Still, mobile companies tried to offer customers more apps via the Internet by using the Wireless Application Protocol (WAP). It was designed to address the problems 90s phones had such as limited processing power, monochrome screens and little storage. While it seemed great to begin with, customers quickly saw the drawbacks, including apps limited to a single manufacturer's apps, high usage charges and complex methods of actually receiving apps.

As more mobile devices hit the market, development costs dropped and some devices were using well known platforms for app development, such as Linux and Windows. This opened the doors to a new generation of app development. By 1993, IBM attempted something new – a mobile device with a touchscreen. Simon, as it was named, included access to preinstalled apps for the tasks users wanted most, such as a



calendar, clock, notepad, email, contacts, games and even fax. The easier to use device along with access to better looking apps made it extremely popular. RIM built upon this success with the first Blackberry that was dedicated to email – still a widely used type of app.

Customers still wouldn't truly get a taste of what they really wanted until 2007 and 2008 when Apple released the first iPhone followed by the App Store. Suddenly, users had access to an entire marketplace of apps that were easy to access and install. While options were still limited, the future was suddenly clear for app development companies – give customers the variety and ease of use they've been asking for since the 80s. The Android market followed quickly just several months later. HTC released the first commercially available Android phone the same month giving Apple competition just months after their own releases. Both markets quickly reached one billion app downloads with Apple hitting the mark in 2009 and Android just a year later. During this time, Apple also changed the game by releasing the iPad, giving users yet another way to use apps.

By 2011, there were over one million apps available and app usage finally surpassed mobile web usage. In the years that followed, Apple and Google saw their marketplaces popularity soar with over 15 billion downloads a piece. Popular apps such as Draw Something and Instagram reach over 50 million downloads and the viral game Angry Birds has over one billion downloads. The open platforms make it easier for an app development company to create and market their apps to numerous devices. However, the variety of devices and operating systems make it difficult to ensure apps are always compatible. For instance, app development companies targeting Android currently face a fragmented reality with nine different Android OS versions in use. Since the humble beginnings of a few crude arcade games, apps have evolved and become a must-have to get things done quickly, and even waste a little time with fun games. Flurry's CEO,



Simon Khalaf, sees users spending 87% of their time on apps while a mere 13% of the time is spent on mobile web.

App development companies are in constant competition, but every company has the same available mobile audience to market to. By looking at the history of app development, app developers can learn what types of apps users want most. With every suddenly popular app, developers have yet another chance to create a better version. With every device released, developers have a new way to display apps.

In 2015, businesses are constantly being told to work on their mobile strategy – so much so that they are adopting a ‘mobile first’ approach. Not only are responsive websites essential for businesses, but apps are increasingly seen as a way for businesses to find new and exciting ways to change the lives of their customers. Customers who work from home, travel frequently and are always connected are looking for ways to access the things they need faster and easier, and mobile apps offer just that.

Worldwide growth & Demand for mobile apps

In Today's World, Smartphones and Applications have gained a lot of popularity. The World has witnessed smartphone industry grows by leaps and bounds. The Popularity of this industry has skyrocketed and the reasons are many. The process of Communicating with each other has achieved remarkable upgrades and it is all remarkable concept of Developing an Application based on Technology. The mobile application development technology is growing day by day and so the number of various applications developed for other devices.



Mobile Application Developers combine different elements to software apps and solutions. Various Organizations have started showing interests in business Applications and across the Globe. Mobile Application Development is a Billion Dollar industry; the demand for developers has increased. Mobile Applications has taken the Mobile World on a huge mountain, and covered all aspects of Human life.

The Growing Demand for Apps Developers - Today, Mobile Application Development is not limited to General Users but also reached Business and Institutional users. Healthcare, Real estate, Social Media, Marketing and many more vital areas of Human existence are being covered with mobile apps.

Upcoming App Development areas – If someone really want to grow career in mobile apps Development. There are a lot of job opportunities in Mobile Technology because of the increased demand of the Smartphone Applications by Android, iOS, Windows and Blackberry.

Augmented Reality is the new upcoming area in app development. It is a new concept and it will be reality. Leading Mobile Players in the Market have realized this area and are quickly looking, the way people see and feel things, Cloud Computing is another field where scope of App development and gives freedom to establish themselves in the app world. Mobile application Development covers vast range of booming sectors and many more to add on. Wearable technology is also another area where apps will play major role in near future.

In the coming Future the Rising demand for mobile application development process will be a contributor in the growth of an organization as well as individual.



Mobile apps scenario in Bangladesh

To be practical and honest, three years back, Bangladesh did not think developing “Mobile Apps” could be a potential business line. At present, we have more than five (05) local App stores. A great news is that, a lot of Bangladeshi developers have now successfully positioned their Apps on global App stores, like- Google Play Store, App Store (IOS). According to “The Portio Reseach Limited (2016)”, The fastest mobile subscriber growth with a CAGR (compound annual growth rate) of 9.4% is in Africa followed by Asia Pacific, with a CAGR of 9%, Bangladesh's mobile market will grow fastest with a CAGR of 12%.

Basically the entire industry is working on Mobile Apps in three core categories. They are- for Consumers, for Enterprises and for Gamers. They are also utilizing indifferent platforms for building those, for example- Android, iPhone, Windows, Blackberry and Symbian.

We are basically in the journey of making Bangladesh as a brand for “Mobile Application” epicenter of the world considering different prospects. For that reason, we have taken many initiatives to attract people towards App development. They are-

- National Mobile App Development Awareness Program by MOICT (Ministry of Information and Communications Technology);
- Mobile Monday Bangladesh Chapter, BASIS (Bangladesh Association of Software and Information Services);
- Mobile App Idea contest by Bangla-link & EATL (Ethics Advanced Technology Limited);
- Academia- Industry Bridge Program by MobioApp;
- App contest by Alo-Ashbei;
- Mollion App Developer by Cloud Camp Bangladesh;



- Hackathon by World Bank, GDG (Google Developers Group) & A2i (Access to Information).

Unfortunately the entire process is lagging behind because of some unwanted challenges. First is Awareness creation. Awareness Creation encompasses readiness for Technology Transition, Segmentation of Enterprise Verticals and Setting the priority of the business segments. Besides, BDIX is not being promoted and therefore the cost of service delivery is very high.

ROBI's Appstore-BdApps

“BdApps”- one of the gigantic finest platforms presented by the world’s most socially devoted brand, leading telecommunication multinational- ROBI Axiata PLC to developers and content providers to use the Robe network based features via shared APIs (Application Program Interface) as a form of showing gratitude to their efforts and inventions. Before going to an in depth discussion regarding the venture and its eco-social impact, let us recall first what an App store is, its core functionalities and the significance behind launching an own App-store by the company itself!

Simply, a mobile app is a computer coded program designed to run on mobile devices, such as- smartphones and tablet computers to accelerate and facilitate our day to day activity in a more convenient manner. Today almost all smart devices have some basic pre-installed software by default, such as- a web browser, email client, calendar, mapping program, some social networking apps, cloud storage services and so on. Although these apps are already there, still depending on the device user and the limitations of these pre-installed apps, the necessity of having some other additional upgraded services has been aroused. According to “The Economic Times (2011), “The latest figures from IDC (International Data Corporation) shows that smartphone sales recorded a 34.2% quarter-on quarter growth and a 294.9% year on-year growth. The Informate October 2010 track by Informate Mobile Intelligence says the number of users



visiting an App store has jumped 108% in October 2010 versus the year ago period.” Moreover, a study by ComScore (2012) reported that, “During the first week of the second quarter of the year, more mobile subscribers used apps than browsed the web on their devices: 51.1% vs. 49.8% respectively!” So from these statistics, it is quite understandable that, in today’s world of Technological Revolution, the necessity-usability and the demand of such facilities have no confined boundaries, i.e.; it has become quite difficult to express the level of reliance of people in such facilities and thereby the demand, in some numerical figure! Therefore, keeping all these issues in mind, ROBI Axiata Limited has taken the privilege of launching its very own App store- BdApps.com. In BdApps, everyone is highly appreciated to come forward and share their own thoughts on the process of value addition. They kept the door open for all the enthusiastic individuals to make their own apps and become a partner, receiving a revenue share of 50% to 90% after necessary monthly reconciliations. The scope of making the apps is based on two core categories - one is “BdApps Pro” which is software based and the other is “BdApps Lite” which is text based application program. So, it is a great platform for all the creative mega-minds to earn a substantial amount of pocket money for anyone with little investment. All you need to invest is your mind, time, data pack and a little patience!

For better control and convenience, BdApps has categorized its app listings under a few divisions, for example- Business, Education, Entertainment, Health, News, Social, Sports, Utilities etc. for which, it becomes very easier for a new user/visitor to understand the site procedure and locate the needed facilities at a go! Apart from that, it also has individual tabs on the front page of the website that allows to see the Free, Top Rated, Newly Added and Most Used apps to catalyze the searching process. Accordingly to our own store analysis, currently people are most interested in using apps for self-refreshment and personal convenience. As in our store, Apps like Sports update, Cooking recipe, Jobs/ Career Tip and alert, Gossiping, beauty tips- are simultaneously leading the venture since its inception. Within this one and half year of establishment, BdApps has already more than thousand apps in its archive and still enriching continuously. We do not believe in charging for every step you make in our



store and therefore there are also a bunch of apps (such as-general knowledge app, religious apps, poems, jokes, newspaper and so on) which are totally free of cost to facilitate our valued customers.

Now, keeping all these things aside, let us focus on the economic and social implications of BdApps in our day to day life. Firstly, these apps fosters ones productivity. Let us pick the ongoing Bangladesh-Zimbabwe cricket series as an example. Most of the people of our country are cricket lovers, more or less! On an average, during office hours an average fan spends at least 5 to 8 minutes every hour to browse internet and get updated about the score. If s/he allows an app to get him/her updated automatically in every particular interval, it would allow him/her to save the time of browsing internet and work that extra time instead! Additionally, it helps to learn little inevitable-important things, which are needed to know for our career/professional purpose but somehow got missed on the process of our traditional education procedure. For example- An engineering student maybe working in a bank, does not have precise knowledge in Accounting or a student doing graduation in Bangla, has some difficulties in English, may try indifferent apps from BdApps and overcome the deficiency! Apart from that, apps also help to minimize the overhead costs, like- there are some apps by which one can easily buy tickets of bus, train etc. by just tapping over smart devices, sitting in home/ office without any hassle of facing terrifying-traffic to going to the ticket counter. So the opportunity cost of that 2 to 3 hours on road to go to the counters as well as the transportation cost-both can be saved through these apps. Besides, there are space of enhancing new opportunities, such as- tips for goal achievement, scopes for making apps to accelerate the ongoing business process by adding additional value to the existing process via app that will help to improve the individual business performance. Some app helps to reach out the potential clients 24/7 by just tapping over and exploiting the opportunity, some helps to send bulk sms for companies' special offerings, discounts and occasional greetings, some works as a media to know the valuable customers opinion-response-feedback and the list goes on and on. Now last but not the least, BdApps also provides a great platform to manage the personal dealings as well as the social life for its users. Starting from the university admission notifying app to making friends, cooking recipe to getting real-time breaking news,



buying property to listening to the songs-all sorts of facilities are here in one spot- Bdapps.com.

As a part of initial promotional activity as well as to clarify the quires of interested individuals regarding the process of working with ROBI via making apps, Our BdApps team has initiated, participated and collaborated in some universities and also undertook a few workshops! We are really glad to see the enthusiasm among students concerning the fact and therefore still thinking of doing some more campus engagements like these. Universities like- NSU, AIUB, East-West, Daffodil, AUST, UIU, Southeast and Presidency- have amazed us by their responses and capabilities. A lot of students from these universities are now our enlisted app makers and surprisingly some of their apps are ruling the charts in some categories. A very appreciating fact on this issue is the level of response! We have got 118 registrations from AUST, 156 from Prime Asia, 102 from AIUB and 128 from Southeast University. On the bit of that, we have received 126 app submissions out of 77 workshop participants at Daffodil University. Moreover, the campaign reach of 1800 people in National Hackathon, 2300 in Google for Education Summit (Daffodil University, Dhaka), 4000 in Smart-phone & Tab Expo and 1000 in National Developer Award Session was an added cherry on the top of it. Thus we are really looking forward to keep continuing these Campus Engaging Carnivals and embrace all the fresh-new ideas!

So, having all these things in a nutshell, BdApps offers some great offerings, best dealings and striving endeavors. Life in person, corporate or profession- an app can make everything easier, inter-linked, communicative, productive and cost-effective. All we need to do is signing up and start exploring!



Vehicle Tracking Solution

A vehicle tracking system combines the use of automatic vehicle location in individual vehicles with software that collects these fleet data for a comprehensive picture of vehicle locations. Modern vehicle tracking systems commonly use GPS or GLONASS technology for locating the vehicle, but other types of automatic vehicle location technology can also be used. Vehicle information can be viewed on electronic maps via the Internet or specialized software. Urban public transit authorities are an increasingly common user of vehicle tracking systems, particularly in large cities.

There are several types of vehicle tracking devices in the market. Typically they are classified as "passive" and "active". "Passive" devices store GPS location, speed, heading and sometimes a trigger event such as key on/off, door open/closed. Once the vehicle returns to a predetermined point, the device is removed and the data downloaded to a computer for evaluation. Passive systems include auto download type that transfer data via wireless download. "Active" devices also collect the same information but usually transmit the data in near-real-time via cellular or satellite networks to a computer or data center for evaluation.

Many modern vehicle tracking devices combine both active and passive tracking abilities: when a cellular network is available and a tracking device is connected it transmits data to a server; when a network is not available the device stores data in internal memory and will transmit stored data to the server later when the network becomes available again.

Historically, vehicle tracking has been accomplished by installing a box into the vehicle, either self-powered with a battery or wired into the vehicle's power system. For detailed



vehicle locating and tracking this is still the predominant method; however, many companies are increasingly interested in the emerging cell phone technologies that provide tracking of multiple entities, such as both a salesperson and their vehicle. These systems also offer tracking of calls, texts, web use and generally provide a wider range of options.

ROBI Tracker (VTS)

Robi Tracker – ROBI's own vehicle tracking and monitoring solution. ROBI Tracker uses GPS technology to get a detailed reading of the vehicle location, which is then plotted and pinpointed on Google Maps. Using the SIM based GPRS technology, this information is seamlessly broadcasted to your personal computer or mobile screens. The vehicle can then be tracked through the ROBI Tracker Web Portal, Mobile App or via SMS. ROBI Tracker is not only meant for corporate fleets, but can also be used to manage and monitor your own individual vehicle.

If a business is a part of an industry that uses or offers transport and conveyance, ROBI Tracker is for that to them. It is a definitive Fleet Management Solution for your business which will enable you to manage and monitor your fleets, transport vehicles and personal vehicles in a smart and simple process. It works to protect your vehicles and ensures safer driving on the roads. ROBI Tracker users can access the location and movement of their vehicle(s) anytime without the use of any additional software. ROBI fleet management solution can also help you reduce fuel costs by up to 15 – 20% by analyze driving patterns, finding the most optimal routes, and avoiding excessive speeding or idling. Our daily reports will include everything from top speeds to stoppages to route violations and give you complete clarity of your vehicle's usage.

Features of ROBI Tracker (VTS)

The basic features of ROBI Tracker are as follows-

Fleet Dashboard	Robi Tracker home screen where users will be able to get a summary of all their vehicles - Vehicle Registration Number, Current Location, Engine Status, Geo-Fence Status, Current Speed, Service Expiry Date, and VTS MSISDN.
Real-Time Tracking	A user-friendly web-interface and smartphone app to monitor your vehicle. Simply login from your computer or phone & start tracking. User can either see the current location of a single vehicle or the entire fleet.
Vehicle Route	For a selected vehicle and date, user will be able to see the exact route followed by the vehicle during that 24 hour period.
Locate your Vehicle	Use UI or SMS notification to pinpoint the vehicle's current location.
Speed Violation	Get notifications on your phone whenever your vehicle exceeds the pre-set speed limit.
Secure Mode/ Remote Engine Off/On	In case of emergency, ability to turn off the vehicle's engine remotely through the web portal/App/SMS.
Do-Not-Disturb Mode	Use Secure Mode feature to create a virtual watchman, which will disengage ignition & initiate SMS notification for any unusual activity.

Power Disconnection Alert	Get SMS alerts if power is disconnected from device.
Customizable Admin Access	A single admin user may not be responsible for 100+ vehicles in the fleet. The customizable admin access lets the master admin to assign selected vehicles under a sub-admin. All alerts and monitoring functions for this sub-fleet will then go to the sub-admin. This is extremely useful if there are area-wise divisions and regional sales managers who are expected to monitor their vehicles in their own region only.
Maintenance Alert	Never forget your tax, fitness, or insurance renewal dates. Get alerts 14/7 days before expiry of these important documents.
Geo-fencing	Set a pre-defined boundary & get notifications whenever your vehicle moves out of this virtual geo-fence.
24/7 Support	Call Center support is available 24/7 to handle your queries & coordinate any issue with our technical team.
Training Manual	An interactive training manual is provided within the user interface for easy access and look-up.
Mobile Application	Mobile Web & Android

Reports:

Various Customizable Reports	Multiple downloadable reports on your vehicle's speed, location, routes, distance-covered, for up to 6 previous months, ensuring complete monitoring and control. Reports can be developed and/or customized as per requirement.
Hourly Report	For a selected date, this report generates total distance covered every hour with maximum speed reached within that hour.
Location Report	This report will show the location of the selected vehicles (Single, Multiple, or All) at a given interval length (10/15/20/30/60 minutes).
Engine Report	For a selected vehicle and given date, this report will show a breakdown of time durations the vehicle's engine was OFF, ON, or IDLE, during that 24 hour period.
Distance Report	This report generates the day-wise distance covered by the selected vehicles (single, Multiple, or All) in a selected month. The report can also show a summary of the total distance covered by each vehicle in a selected month.
Speed Alerts	For a selected date, this report shows a list of Speeding Violations triggered by the selected vehicle (Single or All).
Expense Management	Use the same user-interface to create the vehicles expense ledger. Use the Expense Viewer to generate a day-wise report on a selected vehicle's daily expenses for a given month. Same report can be used to generate a monthly expense summary for all vehicles in the fleet. The report will show expense heads such as Fuel/Oil Gas/CNG, Servicing, Repair/Maintenance, Tyre/Battery/Parts, Tax/VAT/Insurance, Petty/Out of Dhaka/Over Time, Driver Salary, VTS Subscription Fee, Legal Issues, Others, etc.

Technical Specifications:

GPS Accuracy	5 meters
Standby	48 hours
Auto-reporting Interval	15 seconds
Distance Accuracy	95%+. Multiple random tests have been carried out in various locations (e.g. areas with uneven or variable altitude, winding roads, or less than strong network coverage), For every 100KM driven, Robi Tracker reading has consistently come in the range of 95 to 100KM.



How the VTS work

For any company that runs a fleet of business vehicles, a tracking system will really take out the hassle associated with managing them, as well as improve efficiency and save you money. And tracking devices are cheaper and easier to install than one might think. Car tracking devices mainly work via GPS satellite navigation, although in some cases a radio frequency or cellular network can be used if GPS coverage is poor. The actual setup is really very simple; each vehicle transmits a signal to orbiting satellites which relay this information back to a specified computer. The vehicle information is then displayed on maps, allowing you to monitor speed and exact whereabouts.

Tracking devices for vehicles can be either active or passive (although often a combination of both methods will be used):

- A passive vehicle tracking device starts relaying journey information once the vehicle is turned on or the door is opened. GPS data, speed and heading are then recorded. Once the vehicle is returned to a set base, this information is downloaded;
- With an active car tracking device the same information is transmitted in real time without the need for docking. So vehicles can be constantly traced, even when tracking devices are turned off. If a connection is poor and data can't be transmitted, many car tracking devices will revert to a passive system, to complete data transfer when the connection is better.

A typical tracking system for business vehicles will be made up of the following components:

- GPS tracking device located in the vehicle (the transmitter). This is discreetly fitted in each car or van on the system and transmits information. You can choose to receive a wealth of data reports, such as speed, fuel consumption, tyre



pressure, engine status, route information, engine idling and headlight use to name just a few. GPS is a global system, so data can be relayed from anywhere in the world;

- Tracking server or software. This receives the information transmitted via satellite from the vehicle to those who are authorized to view it on their computer. The whole process happens almost instantly;
- The user interface is the means by which the information can be interacted with. Usually this will take the form of maps displayed on a computer screen.

The procedure of availing VTS from ROBI Tracker

- First of all, a lead has to be generated. But currently, ROBI is offering this service to only B2B market. Therefore, only PLCs are allowed to apply and avail the service;
- Then a KAM or Key Account Manager needs to be appointed to look after the client. Generally KAM are being deployed based on the locations;
- After that, the team talks to the vendor regarding the new connection and peruse the work orders. In additional, the team also provides physical SIM for vehicle, vehicle information along with WO to the authorized people of vendor. Before handing over all these, the team also ensures the appropriate data pack has been assigned and activated for the vehicle;
- Once these are done, then the vendor takes care of the further initiatives by taking immediate appointment from the vendor;
- After the installation is done, a pragmatic training session is given to the client so that they understand the process and usage of VTS (App and webpage-both) by ROBI TRACKER;



- The current Commercial Offer is-

Service Activation Charge	: BDT 10,500.00 * (per device; exclusive of all taxes)
<i>* Further negotiable based on minimum order quantity.</i>	
Monthly Subscription Fee	: BDT 515.00 ** (inclusive of all taxes)
<i>** BDT 450.00 for orders of 100+ vehicles.</i>	
Installation / Reinstallation Fee	: waived, for all locations
Installment / Part Payment	: allowed
Device Replacement Warranty	: 1 year full replacement ***
<i>*** FOC replacement will not be applicable in case of intentional physical damage</i>	
Service Warranty	: 5 years



Contribution to the Organization

As an Intern, I was basically appointed to assist two teams- ROBI Tracker and BDApps. Fortunately I did a lot different things during my tenure of three months which was really appreciating and exciting. The core contributions include-

- Writing Approval Notes;
- Making Feedback forms (for client and KAM);
- Writing articles for an English newspaper as a part of promotional initiative;
- Declaring data packs against particular MSISDN;
- Entering data of the newly submitted App developers in BDApps;
- Following up day to day file transfer;
- Making and sending work orders to the vendors;
- Making report on the current business position;
- Converting English text messages into Bangla;
- Making credit exposure (Bill) against VTS MSISDN;
- Attending meetings and taking notes for future clarifications;
- Making Client acceptance form and channel partner development information form;
- Made a complete business plan on a new business idea for ROBI.

So these are the few responsibilities that I took over my shoulder for past three months.

SWOT Analysis

In comparison with the top two telecom companies in Bangladesh, an attempt has been made to come up with a SWOT analysis of ROBI Axiata Ltd. The SWOT Analysis is as follows-

Strenght	Weakness	Opportunity	Threat
• Strong HR; • Diversified Workforce; • Full of Young Talents; • Strong recruitment process; • Attracting benefits.	• Less facility for the Interns; • Slow career growth	• Achieve the First position in the market; • Continuous learning opportunity.	• High rivalry within the industry.

The strength of ROBI is described below:

➤ Strong HR:

Robi has a very strong Human Resource division. There are various departments in HR. Employees those who are working in HR are expert into their specific field. They are perfectly running the organization. They provide appropriate guideline to manage the human resources of the organization. They motivate employees to exert high energy levels through different ways. They raise employee's commitment and loyalty to the organization.



➤ Diversified workforce:

I have already mentioned all the divisions in my report. Under these divisions there are many departments. It created an expand workforce at ROBI. Many talents are working under those departments into various projects.

➤ Full of young talents:

In entry and mid-level positions most of the employees are fresher or young. They also prefer young talents more on those positions. According to them they are enthusiastic, potential and their interest to learn grow the mentality to work hard.

➤ Strong recruitment process:

ROBI follows a very strong recruitment process before recruiting an employee for any position. They follow different recruitment tools. They take written test, case study discussion, panel interview, presentation session. Sometimes they take multiple interviews when there is a long candidate pool. These various recruitment tools help them to select the best employees.

➤ Attractive benefits:

ROBI provides its employees attractive benefits and facilities. For this reason those who are currently working into the organization they don't think of leaving ROBI.

The weaknesses of ROBI are:

➤ Less facility for the interns:

In ROBI interns are treated as a permanent employee. They are taught the whole corporate culture but they are not given any facilities rather than a small amount of salary. While working at ROBI, I personally faced the problem. On the other hand Grameenphone is not paying the interns but they are giving them transportation and food as a facility. Banglalink is giving salary and food to the interns. That is why students prefer Grameenphone and Banglalink for internship than ROBI.



➤ Slow career growth:

In ROBI the career growth of employees are very slow. During my internship period one employee said that he is working in that entry level position for last 4 years. The reason is, the person who is working in top level as an Executive Vice President he or she is highly paid. Unless he or she is not going to get a get that position won't be vacant. So there is no vacancy in the top level. That's why the career growth is very slow. Sometimes employees leave the organization for this reason.

The opportunities are as below:

➤ Achieve the first position through employer brand:

In telecom sector ROBI currently holds the third position. After the rebrand of ROBI from AKTEL they have developed a lot. They are positive that slowly and gradually the employer Branding methods are going to make them the number one Employer of choice. ROBI should not plan only to acquire and use talent, but to develop them as well, not only on a local basis but at a global level.

➤ Continuous learning opportunity:

As ROBI has a very strong HR into their organization, so they have the opportunity to set new strategies about creating learning opportunities for the employees. It is to make them competent in front of the competitors.

The threats are:

➤ Strong rivalry among the same industry:

Grameenphone and Banglalink are the strong competitors for ROBI in terms of revenue and employer brand. Also many talents are working on those organizations. For those today these two companies are in top positions. It will be a tough job to compete them. To face these two strong competitors ROBI should always make alternative plan so that they can easily face them.



Recommendation

After the successful completion of my Internship, there are some issues that crossed over my mind and I would like to jot down as a form of recommendation for the company. I think ROBI can look after the issues in order to make their organization a better place for the employees. They are:

- ROBI should offer more entry level positions into the organization for job vacancies so that fresh graduates get opportunities to work with ROBI. It becomes quite difficult in several cases to look after the overall venture by only one Specialist under the supervision of Manager/General Manager;
- They should provide interns more facilities besides salary, like- transportation, food. And moreover, the salaries should be given on time;
- They should offer interns for a permanent job from internship based on their performance. Because at the end of the day, everyone seeks for a job and not having such opportunity demotivates the interns to do the works responsibly;
- Unfortunately some Supervisors of ROBI are so complex and ruthless that it becomes quite difficult to carry out their words as they seem to be unnecessary/ vague/ not related to the work process;
- Being a new division, everything in Digital Services Department are not systematically organized, I hope it gets structured within no time;
- Enterprise Business Team tends to be a bit slow in getting the works done, this needs to be settled down;
- People in Digital Services are unfortunately friendly in groups, not as a whole! So if these little groups get friendly as a whole, things would be more dynamic.
- Interns do some real work in ROBI, but unfortunately the Laptops that are given to them, are defected, broken and totally depreciated. It was quite difficult to work with those devices as it used to get puzzled quite often and used to take 5-10 minutes every time to get started!
- I was assigned to make some reports, but was not given the access to the Internet! Thus connecting the laptop to the mobile hot-spot and getting the works



done was really painful as the telephone network was sometimes unavailable in some places and also that is not the way that I am supposed to do the work;

- There are some flaws in their internal portals (like- WCAM) for which it takes more time than necessary to make the works done and therefore the question of efficiency arises;
- Some people tends to have minimal idea about productivity and efficiency and therefore some workshops can be arranged to make them understand about these issues so that they look after the works, not the amount of time being utilized.



Conclusion

Life consists of a number of transactions and the transaction from the education life to that of a professional career is quite a significant one. Speaking for myself, I have always wanted to work in the telecommunication industry and having the opportunity to work for ROBI Axiata, the third largest telecom company of Bangladesh was a joyous experience that I have no words to express.

Also, this internship program has given me a full insight about the corporate world in terms of what it demands and especially what sort of mindset is required if a person wishes to work in one. It is a place like no other where constant pressure is put on a person and that person is expected to be creative, effective and efficient in handling all tasks and I now truly believe that it certainly is a place of which I can be a part of and succeed.

Also, this internship program has certainly brought clarity regarding what direction I want to take my career and where my interests and passion truly lies. Also it has greatly helped be in understand and implementing the communication skills required in the corporate world in order to work in a smooth fashion with the coworkers. I believe that my confidence in communicating with others has been greatly boosted.

It has also helped me in polishing up and implementing my technical and analytical skills required at work and relate them to decision making. I believe that now I am perfectly capable of handling any tasks and understand them fully and do them under pressure.

Lastly and most importantly, the greatest learning that I have got by working for ROBI Axiata as an intern is that it has truly helped me in getting a solid practical understanding of the corporate world and where I stand in it and more so, it has provided me with the foundation that I needed, in order to take my first step and make the transition into the professional world with delight.



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