

The internship program is a requisite for the MBA program at BRAC University. The author did her internship at biTS. This report outlines the company overview, procedures to follow for software quality assurance and customer satisfaction.

INTERNSHIP

REPORT

[Internship at BRAC IT Services](#)



**”Effectiveness of IT Service Based
on Client Satisfaction”**

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Course Code: MGT 699

Course Title: Internship

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Program: Masters in Business Administration

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‘BRAC Business School, BRAC University’

"Letter of Transmittal"

July 15, 2015

Ms. Nusrat Hafiz,
Lecturer,
BRAC Business School,
BRAC University

Subject: Submission for report on internship

Dear Madam,

With great pleasure I am submitting the internship report performed at BRAC IT Services Limited for nearly three months. I have found the study to be quite interesting, beneficial and knowledgeable. It is my immense pleasure in presenting you this report based on my experience during my internship. In this report, I have discussed my internship period at biTS, an overview of the company and its activities, my experiences working for a reputed firm, what I have learned and how it is helped me to develop and grow and how to retain customer satisfaction.

I also want to thank you for your support and patience with me and I would be glad if you accept this report and provide your precious judgment

Sincerely Yours,

Nushrat Islam

ID: 14164009

MBA, BRAC University

"Letter of Authorization"

July 15, 2016

Ms. Nusrat Hafiz,
Lecturer,
BRAC Business School,
BRAC University

Dear Ms. Nusrat,

The final internship report of Nushrat Islam has been submitted to me for clarification. I have gone through the report and all the projects details and her involvement is exact and found nothing that interrupts the company privacy and principles. Furthermore, the information provided is legal.

I wish her all the best and hope she has a successful future ahead.

Md. Wahiduzzaman
Manager, Software Testing, Solutions Development,
BRAC IT Services Ltd. (biTS)

Acknowledgement

First and foremost I would like to express the deepest appreciation to Ms. Nusrat Hafiz, lecturer from BRAC Business School for guiding me on my internship procedure at BRAC IT Services Ltd. I will always be grateful to her for helping me throughout the processes.

I would like to thank my supervisor Md. Wahiduzzaman, Manager for being tolerant and supporting me throughout my internship period. My endless thanks go to Md. Alimun Hasan for providing me with a good environment and facilities for completing my projects throughout my time at BRAC IT SERVICES (biTS).

I am very grateful to my office colleagues and peers for being so helpful. They made my internship more enjoyable and without them it would be impossible to done the tasks effectively. I am thankful to all the stuffs of BRAC IT SERVICES Limited (biTS) to make this journey easy.

Executive Summary

An internship is an opportunity offered by an employer to potential employees, called "interns", to work at a firm for a fixed, limited period of time. Interns are usually undergraduates or students, and most internships last for any length of time between one week and 12 months. Internship has various benefits such as teaching students about the industry and job practices.

In my last semester of Masters in Business Administration at BRAC University, I had to do an internship program of 3 months in a reputed software company. My internship company was BRAC IT Services, or biTS.

biTS is one of the biggest software firms in the country having a variety of products and services with wide range of clients. biTS has a good reputation both locally and abroad.

During my internship period, I have worked on various projects. The biggest project I had worked on was the Home Banking application for the BRAC Bank Ltd. Through the course of my internship, I had to learn how to do quality test of the application to ensure an error free product for the customers all by myself. Besides, I have learned how to behave properly in the office and picked up many soft skills such as responsibility, timeliness, respecting others, taking on new challenges etc.



Throughout the report i have given

- An introduction of the report
- An overview of the IT Industry
- An overview of biTS
- My internship experience at biTS
- An overview of the project i have been involved
- An overview of customer satisfaction and IT effectiveness
- Measures of effectiveness in biTS
- Survey on customer satisfaction
- Findings from survey
- Recommendation and conclusion
- Bibliography

I have thoroughly enjoyed my experiences at biTS and the internship program has been extremely useful for both my academic studies and future career.

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1. INTRODUCTION

1.1. OVERVIEW

Internship is a program that enhances the capability of the graduates and a scope to do practical works in an organization related to the student's major to gain the work experience. According to Oxford Dictionary, A student or trainee who works, sometimes without pay, in order to gain work experience or satisfy requirements for a qualification. As the outside world is very competitive for anyone after graduation, internship gives the student great opportunity to have a head start.

BRAC Business School, an institute under BRAC University offers postgraduate program in "Masters in Business Administration". As a student of the postgraduate program, the program requires that we complete an internship period with a reputable company where I will be trained practically with working environment practices and get familiar with the industry. I worked to a software firm BRAC IT Services Ltd. (biTS) where I am to complete 3 months of internship.

In this report, I have discussed my internship period at biTS, an overview of the company and its activities, my experiences working for a reputed firm, what I have learned and how it is helped me to develop and grow and retaining customer satisfaction through products and services.

1.2. ORIGIN OF THE REPORT

This report reflects upon the three-month long internship period at BRAC IT Services. It focuses on overview of biTS, my contribution to the organization and how it has developed my skills and use technical solutions to assure customer satisfaction.

1.3. OBJECTIVES

The main objective of the report is to do a survey on IT effectiveness through customer satisfaction.

1.4. METHODOLOGY

All information used in the report is collected from both internal and external sources. The primary and secondary sources of data for this report are as follows:

1.4.1 PRIMARY DATA SOURCE

- Through personal experience and observation
- Through conversation with other employees

1.4.2 SECONDARY DATA SOURCE

- Company website
- Related office documents
- Internet

1.5. SCOPE

In this document, I have discussed the company, its products and services, office environment and culture and its policies. The second part of the report covers what technical solutions are used by biTS to assure software quality, after sell services, help guides for customers, definition of IT effectiveness, definition of effectiveness in biTS, customer satisfaction survey and result .

1.6. LIMITATIONS

Firstly, due to the nature of the contract and the confidential agreement I had to sign when joining biTS, I cannot disclose various information that are sensitive to the company. Moreover, various constraints such as time and resources have limited my output. But I have still tried to present all the information that I could in the best way possible.

1.7. CONCLUSION

The internship period helps in developing skills and knowledge, but it also gets us in touch with industry experts and the big names. In this report I have given an overview of my company, my experiences working there, my involvement and contributions and finally I have made a self-assessment on my performance during the internship period.

2. ORGANIZATION OVERVIEW

2.1. INTRODUCTION

BRAC IT Services Limited is an IT company owned by BRAC and BRAC Bank Limited. biTS strives to become the most trustworthy IT company in Bangladesh providing technology solutions and managing IT Services. biTS provides end-to-end solutions for industries like Banks, Non-Banking Financial Institutes, Educational Institutes, Micro-Finance, NGOs, FMCG etc. biTS has a team of highly capable and professional individuals committed to deliver high productivity, efficiency as well as creativity.


Brac IT Services Ltd. is one of the largest software firms in the country. There are around 320 highly qualified, efficient and innovative employees with one big office building and three other floors in different buildings.

They are committed to Quality Management as per ISO/IEC 9000 QMS guideline, which is not implemented but an ongoing process.

biTS provides various IT solutions, has various products of their own and services BRAC bank and provides all necessary IT support. They believe in providing world class solutions and services at the most convenient way to improve the productivity of large, medium and even small enterprises.

2.2 BACKGROUND OF THE INDUSTRY

The IT sector in Bangladesh has its beginning in 1960 but the sector only started to get substantial attention in 1990's. Computer use increased after 1970's. In 1979, department of computer science and engineering was established in Bangladesh University of Engineering and Technology (BUET). In 1995, the use of internet began locally and locally made software started to be exported.



The IT industry is relatively a new sector in our country. Bangladesh Association of Software and Information Services was established in 1997. AS internet usage exceeds government expects to add 7.28 percent to GDP growth by 2021.

According to BASIS survey, there are over 800 registered software and ITES (IT Enabled Service) companies in Bangladesh. There are another few hundred of unregistered small and home-based software and IT ventures doing business for both local and international markets.

The total industry size is estimated to be around Tk. 1,800 crore (US\$ 250 million). Approximately 30,000 professionals, majority IT and other graduates, are employed in the industry. Though, compared to other traditional mainstream industry, the contribution for overall employment creation is not significantly high, but if considered in terms of creating high quality employment (average monthly compensation over Tk. 15,000 per month), software and IT service industry is surely one of the top graduate employment sectors in the country.

BASIS recently carried out a survey on three hundred of its member companies. Analysis has been done on business nature, business volume and size of companies. Over 70% of the companies are found to be involved in development and maintenance of software for their clients. A number of those are simultaneously engaged in providing different IT enabled services for their clients as well. In total, almost half of the surveyed companies are involved in providing range of IT enabled services (data/form processing, graphic/web design, content management etc.)

2.3 BACKGROUND OF THE COMPANY

biTS is a proud member of the Brac family. Initially it was founded as Documenta™ Ltd., which was used to be a digital archiving company, owned by Brac back in 1999. Documenta™ Ltd. started its journey with a couple of overseas software development projects and they achieved great success and customer satisfaction. Later in 2013 Brac Bank Ltd took over 51% of that company and merged it with its IT division and renamed it as Brac IT Services Ltd. With the growing number of employees and prosperity biTS itself has become an IT solution providing organization of Brac Bank. Now it is no longer the IT division of Brac Bank and has a number of clients to provide IT services.

2.4 MISSION AND VISION

The missions of biTS are:

- To create flexible, easy, secured and affordable solutions locally and globally
- To be known for understandings its customers' business
- To remain as the dream destinations for IT professionals

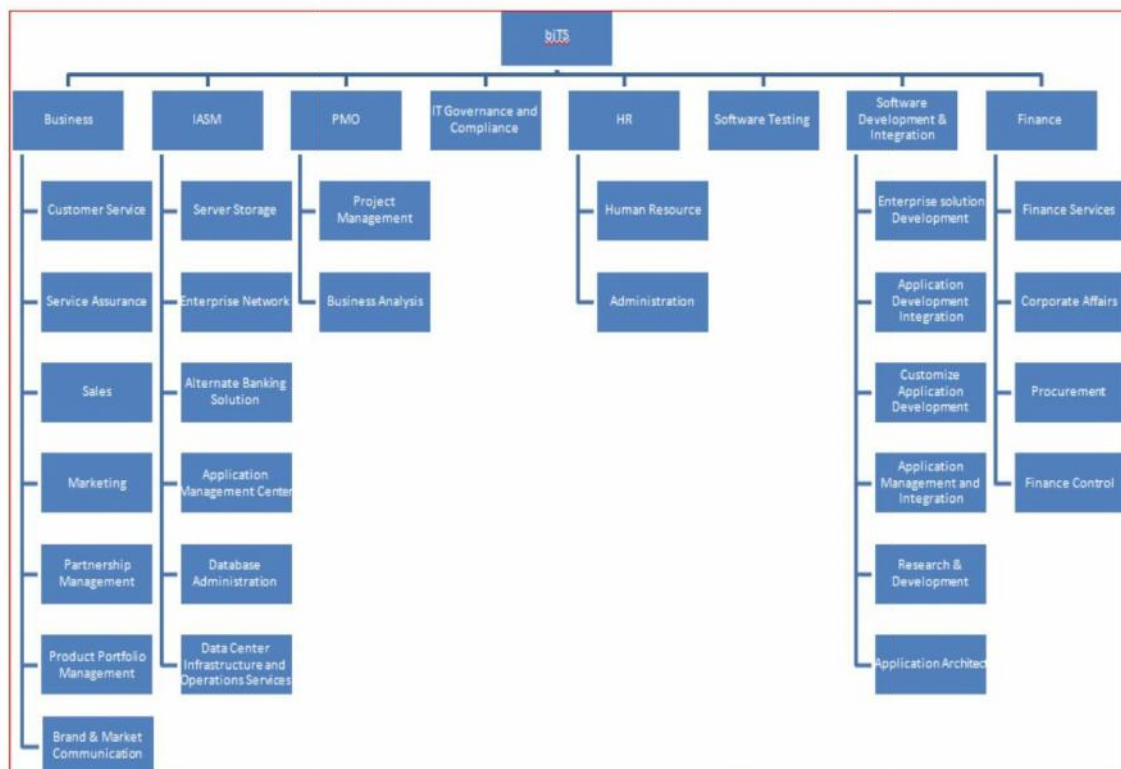
The vision is:

We exist to make our customers perform their business so efficiently and effectively by providing innovative technology based solutions.

2.5 DIVISIONS AND DEPARTMENTS

biTS is one of the largest IT companies in the country. To maintain its various activities, there are 8 divisions in the company. Each of the division has different departments and each of the department has different teams. These divisions are:

- Business
- IASM
- PMO
- IT governance and Compliance
- Human Resource
- Software Testing
- Software Development and Integration
- Finance and accounting



2.6 CLIENTS

biTS provides IT solutions to all the companies under Brac's banner. Some of the major companies biTS services are Brac, Brac Bank, Brac University, Brac EPL Stock Brokerage Limited., Brac Institute of Global Health and bKash.



2.7 PARTNERS

biTS has a number of partners both local and global. Among these the team of IFS works here to provide the support and solution to the enterprise resource planning system which is actually a Sri Lankan software. biTS along with this IFS team bring new clients to spread the usage of ERP.



2.8 PRODUCTS

biTS developed about one hundred and fifty products for their clients and they also provide support for the developed systems and IT services. Those products are mainly categorized into

- Enterprise Management Solution
- Educational Management Solution
- Financial Management Solution

biTS has enterprise management solutions such as

- Rongdhonu

biTS uses Rongdhonu, which is a powerful and efficient enterprise resource solution used to keep the records, attendance and progress of project.

biTS has also developed a number of educational management solution such as

- Porua CMS
- Porua SMS
- Porua VMS

biTS has also developed large number of Financial management solution for BRAC Bank such as

- Account Opening
- Loan Management
- Debit and Credit Card Management
- Transaction Management
- Around 90% applications of BRAC Bank

2.9 TECHNOLOGY

biTS has a large variety of products that target a large number of clients with varying needs. To provide solutions to all these different clients, biTS need to adapt new technologies to develop their products. A majority portion of their projects are in the ASP .NET framework as well as various java frameworks. They developed about 40% of their products in ASP.NET, 40% in java, 10% in PHP and 10% of their products are developed for mobile phones.

The frameworks they use:

- ASP .NET- Model-View-Controller (MVC), WebForm
- Java Web Application- Play, Flex, Hibernate, Groovy on Grails

Languages used:

- Java
- C#
- Javascript
- jQuery
- PHP

Mobile Application platforms:

- Android
- Windows
- iOS

Database:

- Oracle
- Postgre
- SQL Server

2.10 RULES AND REGULATIONS

From time to time, workers may violate the policies that are set for the company. Even if an employee breaks the rules with the best of intentions, the flow of the workplace can be impacted negatively. When the team is working toward the same goal and following the same regulations, it can be easier to fulfill the goals set by the company.

biTS has its own set of rules and regulations that are followed in the workplace. Some of the key principles regarding to the rules and regulations at biTS are:

FLEXIBILITY

biTS follow a semi-rigid structure of rules and regulations. In most cases, violations of rules and regulations in smaller scales do not affect the employees too much. The emphasis on rules and regulations are often flexible which allows for a more carefree and expressive environment.

SEMI-FORMAL ATTITUDE

biTS do not maintain strict formalities in their behavior and approach. Employees are free with each other.

DRESS CODE

In biTS, employees generally take on semi-formal attire. Employees are encouraged to be comfortable but overly casual dresses are not allowed.

OFFICE SCHEDULE

The office time is flexible enough for the employees. Employees should reach office within 9.00 am to 10.00 am and should stay in office at least 8 hours from the arrival time. Additionally there are lunch and prayer breaks.

2.12 CONCLUSION

biTS is one of the largest software firms in the country. It has a large number of products and services. But despite being such a big company, biTS has a friendly and homely working environment where employees are all friendly towards each other and make for a wonderful working experience. It works as a great learning institute as supervisors and seniors are always willing to help. I thoroughly enjoyed my time working at biTS.

3.MY INTERNSHIP AT BRAC IT SERVICES

3.1 OVERVIEW

In our academic curriculum, the course outlines are so designed that they each have a defined purpose that helps shape the student to become as well prepared as possible when he/she graduates. The internship program has its purpose too. The most obvious benefit of the internship program is receiving real-life, on-hand training in the industry that a classroom can never simulate. The other notable benefit is learning how to behave in a professional setting. Learning about the best practices and popular technologies and processes falls under that former category. Responsibility, timeliness, cordiality, respect etc. fall under the latter category.

This chapter outlines the my internship experiences, my involvement with BRAC IT Services in the last 3 months, how I have contributed to the company and what I learned during my internship experiences.

3.2 INTERNSHIP EXPERIENCE

biTS is a moderately large software company in Bangladesh and already has many products and services that are operational. Working at biTS has given me insight into how large software company functions and the practices that are followed.

3.2.1BRAC IT SERVICES

I was delighted to have the opportunity to do my internship at biTS because it gave me a huge opportunity to learn work from some of the most experienced software test engineers in the country at biTS and experience for myself how a company works.

3.2.2 RECRUITMENT

biTS called me for a interview where I was asked casual questions about myself by the head of HR and the project manager. The interview was friendly and I was received fairly well. A few days later I was asked to join start and start working.

3.2.3 FACILITIES GIVEN TO INTERNS

During my time as an intern at biTS, I was given my own desk, a computer, internet connection and other office supplies such as stationeries. Snacks and tea/coffee were also provided from the office. First aid and other medical supplies were available at the office.

3.2.4 EVALUATION PROCESS

A team leader or mentor to keep track of my progress. I had deadlines for each task that we had to meet. Based on my progress, I was provided beneficial feedback, which would prove to be really helpful for my future careers.

3.2.5 PERSONAL EXPECTATIONS

My expectations on what I wanted to get from this internship experiences are listed as follows:

- Learning the software testing lifecycle
- Understanding the process of documentation
- Learning new technologies
- Learning the good practices in software testing and documentation
- Time management and responsibility
- Good relationship building

3.3 CONCLUSION

My expectations were mostly met and I'm pretty satisfied with my internship program. biTS has helped me to learn and develop my skills. The company has always encouraged me to learn the technologies and practices that interested me. Moreover, I was even given the responsibility of an entire application that taught me to manage and maintain a project by myself.

4.PROJECT INVOLVEMENT

4.1 OVERVIEW

I started out in the software testing team. At first, I was asked to study various topics such as what is software testing, types of software testing, critical issues solving, security testing and documentation of the software

My first project was a Home banking application for BRAC Bank. I had to go through knowledge share processes and the with help of a senior colleague I started testing the application. The application comprises that clients does not need to go to a BRAC Bank branch to open an account, rather a staff from BRAC Bank will go to customer's home and open an account form them.

4.2TEAM

I was assigned the tasks under Software Test Engineer, **Md. Alimun Hasan's** mentorship for the project. He gave me instructions so that I could understand the project in short time. Without his helpful mentoring, I could not be involved with the project successfully.

4.3TECHNOLOGIES

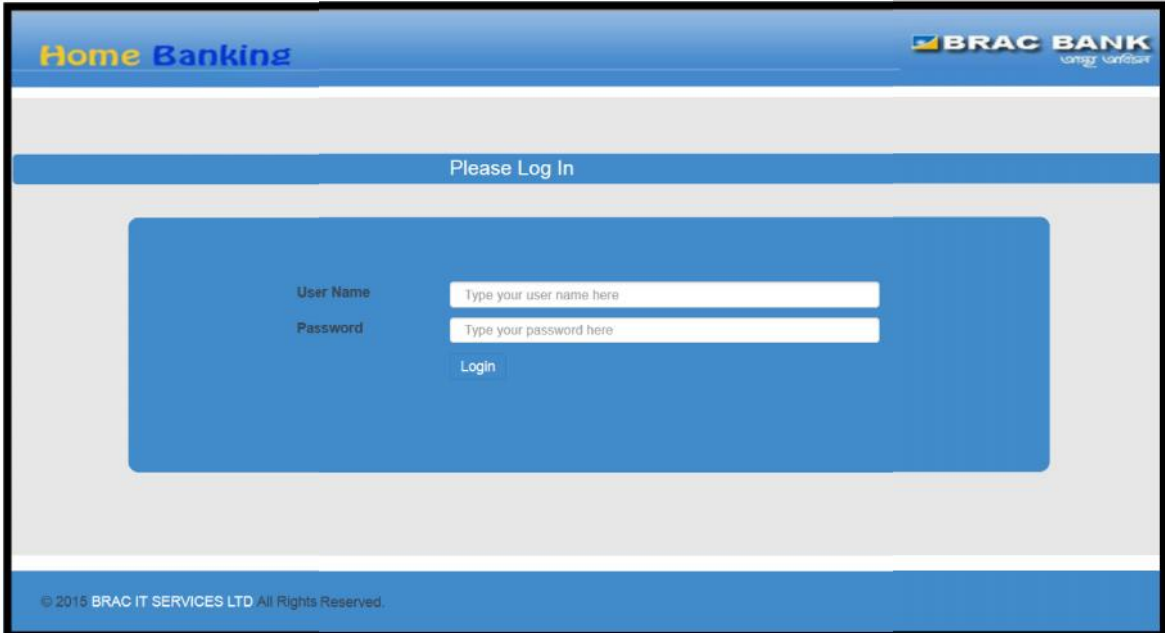
The process biTS follows to test an application is manual testing, because manual testing ensures more bug free application. Yet testing team uses an application to post bugs to developers. The technologies I used in this projects are:

- MANTIS (Bug Tracking Tool)
- SQL
- Oracle

4.4 Application Features

The application contains the procedure of providing initial account opening service to the customer, where the client themselves does not require to be physically present to the bank, rather an assigned Home Banking Officer will visit customers to their residents through an appointment and accomplish request. The application has been divided into four major segments that contains many sub segments:

1. Registering device and HBO
2. Making appointment through customer request
3. Visiting customer and gathering Information
4. Verify information and confirm subscription



Home Banking

BRAC BANK

Please Log In

User Name

Password

Login

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Fig 4.4(A) : Home Banking application's web page

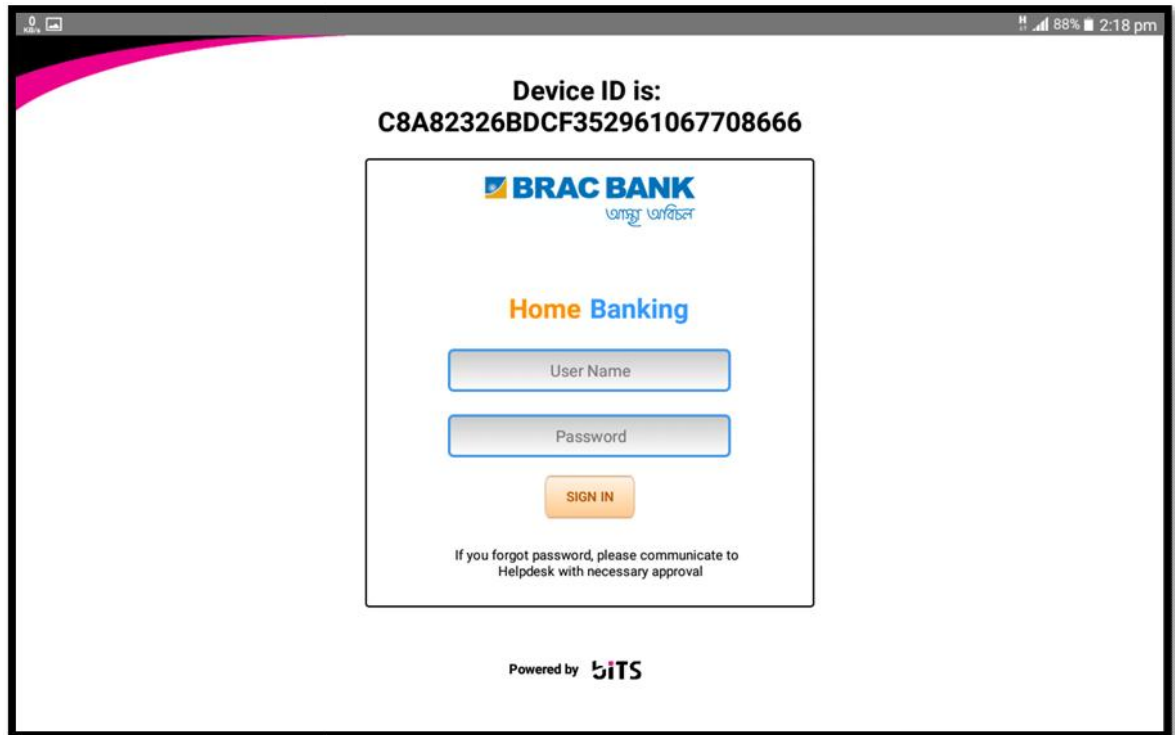


Fig 4.4 (B): Home Banking application's device page

5. CUSTOMER SATISFACTION SURVEY AND IT EFFECTIVENESS

5.1 Effectiveness of an IT Organization

Effectiveness of IT service is a key focus of IT based organization, across both the public and private sectors.

This is being driven by a range of factors, including a need to improve the efficiency of business processes, the demands of compliance regulations and the desire to deliver new services.

'Information Technology' has meant deploying new technology solutions, such as content or document management systems, data warehousing or portal applications.

Effective information technology service is not easy. There are many systems to integrate, a huge range of business needs to meet, and complex organizational issues to address and last but not the list organization must be fully aware of what customers want and how to meet their demand on time. The more an organization is effective to satisfy customers, the more successful the organization is.

5.2 Challenges of IT Organization

Common information technology challenges for an individual organization include:

- Large number of ingrown information technology service providers.
- Range of legacy systems requiring upgrading or replacement constantly.
- Direct competition between service providers.
- No clear strategic direction for the overall technology environment.

- Limited adoption of existing technology by the employees.
- Limited resources for deploying, managing or improving information systems.
- Large number of diverse business needs and issues to be addressed.
- Lack of clarity around broader organizational strategies and directions.
- Difficulties in changing working practices and processes of staff.
- Internal politics impacting on the ability to coordinate activities.

While this can be an overwhelming list, there are practical ways of delivering solutions that work within these limitations and issues.

5.3 Effectiveness Ideology OF biTS

While working on BRAC IT Services I found few ideologies of information technology services that are effective and successful.

1. Recognize complexity and allocate resource accordingly.
2. Focus on adoption of new technique
3. Deliver tangible & visible benefits
4. Prioritize according to business needs
5. Provide strong leadership
6. Mitigate risks
7. Communicate extensively with customers
8. Aim to deliver a seamless user experience

Each of these is discussed in the sections:

5.3.1 Recognize Complexity and Allocate Resource Accordingly

Organizations are very complex environments in which to deliver concrete solutions. As outlined above, there are many challenges that need to be overcome when planning and implementing IT projects.

When confronted with this complexity, IT teams often fall back upon approaches such as:

- Focusing on deploying various applications at a time.
- Delivering a very large suite of application, in the hope that this can be used to solve all information management problems at once.
- Forcing the use of a single technology system in all cases, regardless of whether it is an appropriate solution.
- Delivering a product 'for life', even though business requirements will change over time.
- Fully centralizing information management activities, to ensure that every activity is tightly controlled.

All of these approaches will fail, as they are attempting to convert a complex set of needs and problems into simple solutions. The hope is that the complexity can be limited or avoided when planning and deploying solutions.

In practice, there are issues while deploying a single enhancement to a large application. Developers often fail to go through the entire application so after deploying in large system they face problem in live environment, which hampers regular activity of customers and vendors thus, has to roll out back the enhancement.

In order to work on critical projects, organizations must allocate resources carefully. The more a resource is experienced the more they can handle critical applications and ensures effectiveness off service for customers.

5.3.2 Focus on Adoption of New Technique

Organizations must work and focus on adopting new techniques. Technologies are changing everyday and since BRAC IT Services is working for banking applications they must constantly upgrade themselves to ensure more security for their client's large number of customers.

This presents a considerable change management challenge for IT projects. In practice, it means that projects must be carefully designed from the outset to ensure that sufficient adoption is gained to adopt change in to newer versions.

This may include:

- Identifying the 'what's in it for me' factors for end users of the system.
- Communicating clearly with all staff the purpose and benefits of the change.
- Carefully targeting initial projects to build momentum for updating if there is any dependency.
- Conducting extensive change management and cultural change activities throughout the change process and organize training methods.
- Ensuring that the systems that are deployed are *useful* and *usable* for staff.

These are just a few of the possible approaches, and they demonstrate the wide implications of needing to gain adoption by staff.

For core banking solution, BRAC IT Services has been using Finacle 7 version, but due to customer demand they are now heading to Finacle 10 version for which they arranged a month long training programs for developers in Bangaluru, India where the head quarters of Finacle is situated.

5.3.3 Deliver Tangible & Visible Benefits

IT services must always be designed so that they deliver *tangible* and *visible* benefits.

Delivering tangible benefits involves identifying concrete business needs that must be met. This allows meaningful measurement of the impact of the projects on the operation of the organization.

When solutions are delivered to customers, the after service is obvious, and should widely promote throughout the organization for customer satisfaction.

Not only 'behind the scenes' improvements required, but rather that they should always be partnered with changes that deliver more visible benefits. This also has a major impact on the choice of the future activities conduction with the customer.

5.3.4 Prioritize According to Business Needs

While some organizations attempt to prioritize projects services according to the 'simplicity' of the technology to be deployed, this is not a meaningful approach. Instead of this technology-driven approach, the planning process should be turned around entirely, to drive services based on their ability to address business needs.

In case of BRAC IT Services, banking applications projects are targeted at the most urgent business needs or issues. These in turn are derived from the overall business strategy and direction for the organization as a whole because banking applications needs to be solving immediately other than enterprise applications.

For example, the rate of errors in loan applications might be identified as a strategic issue for the organization. A new enhanced system might therefore be put in place (along with other activities) to better manage the information that supports the processing of these applications and makes work easier in case of making proper calculation of loans.

In BRAC IT Services, when managers allocate multiple tasks to subordinates they make to prioritize work schedules depending on customer urgency and subordinates delivers work accordingly.

5.3.5 Provide Strong Leadership

Successful IT organization can only be achieved through strong leadership.

The starting point is to create a clear vision of the desired outcomes of the IT service strategy. This will describe how the organization will operate.

Effort must then be put into generating a sufficient sense of urgency to drive the deployment and adoption of new systems and processes.

Stakeholders must also be engaged and involved in the project, to ensure that there is support at all levels in the organization.

This focus on leadership then underpins a range of communications activities that ensure that the organization has a clear understanding of the projects and the benefits they will deliver.

When projects are solely driven by the acquisition and deployment of new technology solutions, this leadership is often lacking. Without the engagement and support of key stakeholder outside the IT area, these projects often have little impact.

To ensure support from stakeholders BRAC IT Services engages PMO (Project Management Officers) to make deals with customers who are responsible in acquiring new projects, deciding timeline and other financial activities. PMO's then handovers the projects to developer team and then testing team who work within defined time line and delivers the project on time. Each team's leader's follows up the projects regularly to ensure all effectiveness from their end.

5.3.6 Mitigate Risks

Due to the inherent complexity of the environment within organizations, there are many risks in implementing technical solutions. These risks include:

- selecting an inappropriate technology solution
- time and budget overruns
- changing business requirements
- technical issues, particularly relating to integrating systems
- failure to gain adoption by staff

At the outset of planning an information management strategy, the risks should be clearly identified. An approach must then be identified for each risk, either avoiding or mitigating the risk.

Risk management approaches should then be used to plan all aspects of the services, including the activities conducted and the budget spent.

For example, a simple but effective way of mitigating risks is to use efficient resources depending on criticality of the service. Major applications require much attention and concern other than simple enhancement or change request.

5.3.7 Communicate Extensively with Customers

Extensive communication from the organization with the customers ensures successful Information technology service management.

This communication ensures that employees have a clear understanding of the project, and the benefits it will deliver. This is a pre-requisite for achieving the required level of adoption.

With many projects happening simultaneously, coordination becomes paramount. All project teams should devote time to work closely with each other, to ensure that activities and outcomes are aligned.

In a complex environment, it is not possible to enforce a strict command-and-control approach to management. Instead, a clear end point must be created for the service and communicate widely. This allows each team both from vendor end and customer end to align them to the eventual goal, and to make informed decisions about the best approaches.

For all these reasons, the first step in providing service should be to develop a clear communications 'message'. This should then be supported by a communications plan that describes target audiences, and methods of communication.

Project teams should also consider establishing a 'project team' on the intranet as the outset, to provide a location for planning documents, news releases, and other updates.

5.3.8 Aim to Deliver a Seamless User Experience

In practice, this means:

- Delivering a manual or guide that gives idea about all information and tools.
- Ensuring a consistent look-and-feel across all applications, including standard navigation and page layouts.
- Providing easy features that are understandable to all applications.

Ultimately, it also means breaking down the distinctions between applications, and delivering tools and information along task and subject lines.

For example, BRAC IT Service stores HR procedures on the intranet, but require employees to log a separate 'HR self-service' application that provides a completely different menu structure and appearance.

Care should also be taken for providing a seamless user experience. Despite the promises, portal applications do not automatically deliver this.

Instead, a better approach may be to leverage the inherent benefits of the web platform. As long as the applications all look the same, the user will be unaware that they are accessing multiple systems and servers behind the scenes.

Of course, achieving a truly seamless user experience is not a short-term goal. Plan to incrementally move towards this goal, delivering one improvement at a time.

5.4 Measures for IT Effectiveness

BRAC IT services focuses on 2 major processes to provide effective IT solutions to their clients. This are:

1. Testing software for quality assurance (Before delivery of service)
2. After sales service

5.4.1 Software Testing

5.4.1.1 Requirement Understanding

The purpose of the Requirement Understanding is to identify the features of testing in order to deliver an effective IT solutions to the customers. This is the very first technical step of providing a effective IT solution where Testing Team is involved to figure out the feasibility of project requirements.

5.4.1.2 Test Case Development

Test case has to be written to check if features of application are working as expected. Test case is derived for each requirement as a way of proving that the system or changes being implemented is ready for day to day business use without error and/or adverse impact on the existing functionality.

5.4.1.3 Test Planning

Test Planning is most important phase of *Software Testing Life Cycle* where all testing strategy is defined. The test plan describes the scope of the overall test effort and provides a record of the test planning process by scheduling and estimating the system testing process.

5.4.1.4 Test Environment Setup & Maintenance

Behind each successful test environment there is normally a build team responsible for putting the environment together. Test environment is prepared by understanding the required system architecture, software & hardware requirements, etc. It consists of many activities to create the test environment and get the 'application to be tested' correctly installed and configured to enable the testers to start test execution.

5.4.1.5 Test Execution

Test execution is the actual phase of testing which verifies and validates the application requirements based on executing Test Cases developed for the system and reporting test results.

5.4.1.6 Defect/Bug Tracking

Tracking defects/bugs is an important phase to ensure detected bugs/defects have been acknowledged and resolved by developers.

5.4.1.7 Test Result Analysis (Re-Testing & Regression)

After getting acknowledgement about resolving bugs, Developer provides new publish copy of application in SourceSafe. Test Engineer then performs hosting with given publish copy to analyse whether the posted bugs have been actually resolved or not.

5.4.1.8 Session for UAT

The UAT acts as a final verification of the required business functionality and proper functioning of the system. The objective is to provide confidence that the delivered system meets the business requirements of both sponsors and users. The acceptance phase may also act as the final quality gateway, where any quality defects not previously detected may be uncovered.

5.4.1.9 Vetting & Approval Process

The communication process starts once UAT Sign-off is received from clients. Vetting and approvals from both client & biTS side includes following criteria –

BITS side Approval

- Head of SD/PMO approval (HoD)
- System Integration Vetting (SI)
- Database Administrator Vetting (DBA)

Client side Approval

- Head of IT approval (HoT)
- Downtime Approval (As per requirement)
- IS approval

Vetting and approval process is the final agreement that the software is ready to deliver to customer and the application can work on live environment.

5.4.1.10 Client Feedback Acknowledgement

After successful completion of live deployment, respective tester communicates with PMO team to acquire client feedback& acknowledgement.

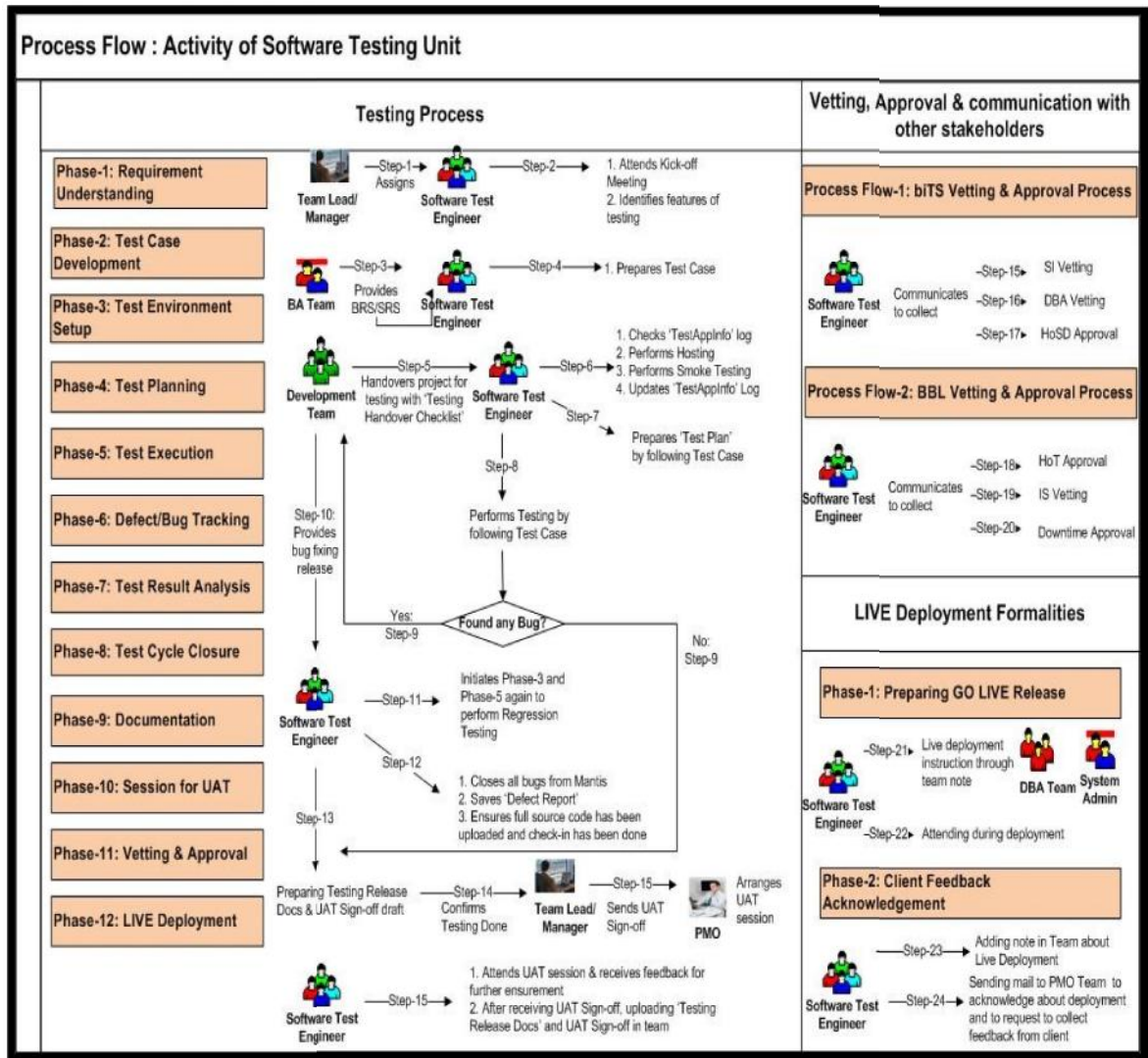


Fig 5.4.1: Software Testing Cycle

5.4.2 After Sales Service

There are mainly two types of services provided by biTS.

- 360° Managed IT Services (Manage Engine)
- Consultancy Services

Under 360° Managed IT Services, the following services are included:

- e-Mail Services allow for proactive communication between organizations
- With MS Windows, File & Printing Services they set up file sharing, printing and storage systems with their client's system
- Managed Network Monitoring Services provide 24/7 monitoring with rapid and remote troubleshooting, notification & escalation
- With Managed Database Administration Services they provide advanced monitoring and management of data centers enabling clients with greater control over their data.
- Infrastructure Leasing Services provides high quality, readymade infrastructure hardware and software on lease for companies.
- Application Maintenance Services maintain all the developed for the clients
- IT Helpdesk Management Services provide remote desktop support and on-site supports to clients. This helpdesk services includes
- IT Asset Management Services
- Exclusive Online Support
- Managed Server & Storage Services provide data virtualization, consolidation, throughput, data migration, performance monitoring and maintenance support.



Fig 5.4.2: Manage Engine

Under Consultancy Services the included services are:

- ISO 9001 Quality Management can help organizations to save money, win more business. biTS, has a team of ISO 9001 to help organizations ensure certification
- ISO 27001 Information Security Management that assures their customers, employees, partners, and stakeholders that their management information and systems are secure.
- ISO 20000 IT Service Management certification biTS can either manage internal IT services or provide IT services as an outsourced service provider
- ISO 14000 Environmental Management helps to manage their environmental performance. biTS ensures that with its dedicated, internal & external experts their clients.

5.5 Customer Satisfaction by biTS

5.5.1 Customer Satisfaction

Customer satisfaction is a way of finding the gratification of customers aligned with a product or service in order to increase organizational effectiveness comparing with the competitors belonging to same industry. Customer satisfaction is an organization's ability to attract and retain customers and to improve customer relationship over time. It is often seen as the satisfaction with an organization's products or services. Furthermore, it is considered to be the key to success and long-term competitiveness. The knowledge of customer satisfaction is the source for the fulfillment of customer expectations. An organization can decide on the actions required to meet customer needs if it understands perceptions. Furthermore, it can identify its own strengths and weaknesses and chart out the strategy of future progress and improvement of the work practices and processes used within the organization.

5.5.2 Purpose of Customer Satisfaction Survey in BRAC IT Services

BRAC IT Services has their very own purpose of doing survey in order to serve their customer needs more effectively. By understanding where they are exceeding customer's expectations, or need to improve, they can allocate their resources in managing project, providing better products/services and knowledgeable staff. Their goal is to be proactive in monitoring customer's satisfaction.

I have collected customer satisfaction data from the organization who conducts the survey half yearly to get along with customers' expectations and meet their demand in order to provide better and quality service and improve their management skills and effectiveness at the same time.

5.5.3 Survey Method

In order to finding customer satisfaction, survey is a great methodology to get accurate information. There are various ways of conducting survey among them questioner, face to face interview and online surveys are very helpful. For this report I have selected questioner survey method because questioner survey is trouble-free to carry out, a lot of people can participate at the same time, result is easy to achieve within a short period of time.

5.5.4 Questioner Sample

The questioner sample used by my organization has been adjoined below:

Customer Satisfaction Survey Questioner:

1. Which of our products/services do you use?
 - Banking Applications
 - Enterprise Solutions

2. How long have you used our products/service?
 - Less than 6 months
 - More than 6 months
 - Less than 1 year to less than 2 years
 - More than 2 years to less than 3 years
 - 3 years or more

3. How many applications you are using from our company?
 - 1-2
 - 2-3
 - 3-4
 - 4-5
 - More than 5

4. How effectively does our application solve your problems?

- Very well
- Somewhat well
- Neutral
- Somewhat bad
- Very bad

5. How would you rate the overall quality of our product/service?

- Very satisfied
- Somewhat satisfied
- Neutral
- Somewhat dissatisfied
- Very dissatisfied

6. How effective are we at reacting and solving your issues?

- Very satisfied
- Somewhat satisfied
- Neutral
- Somewhat dissatisfied
- Very dissatisfied

7. How satisfied are you with the way problems were resolved?

- Very satisfied
- Somewhat satisfied
- Neutral
- Somewhat dissatisfied
- Very dissatisfied

8. What level of courtesy do you receive from our Customer Service team?

- Very well
- Somewhat well
- Neutral
- Somewhat bad
- Very bad

9. Please rate our customer service representative on the following attributes:

- Very good
- Good
- Fair
- Poor
- Very Poor

10. Compared to your other vendors, how would you rank our ability to serve you?

- Very satisfied
- Somewhat satisfied
- Neutral
- Somewhat dissatisfied
- Very dissatisfied

11. How likely are you to continue doing business with us?

- Very likely
- Somewhat likely
- Neutral
- Somewhat unlikely
- Very unlikely

12. Do you have any suggestions for improving our products/services?
Please mention below:

5.5.5 Sample

Respondents in our research were selected from among employees from BRAC Bank, BRAC NGO and BRAC International. Customers assessed the organizational effectiveness and customer satisfaction at the same time. Customers were randomly selected with all having the same chance to be selected and questionnaire was administered by the employees of BRAC IT Services. Questionnaires were distributed personally by the researcher. Respondents were very delighted to participate in the study.

5.5.6 Survey Dimensions

The purpose of the survey is to find various dimensions of customer satisfactions. The dimensions are:

A performance dimension:

Quality of service, customer expectation fulfillment, readiness of the employees to understand and assist in solving problems and to process information to the customers, long-term oriented system approach toward customers.

An innovation dimension:

Generating new products and services and inclusion of the customer in service creation.

An adaptability dimension:

Comfort of the buildings, deliverance service capability, continuous service improvement, professional behavior of the staff.

A mission dimension:

Management and staff responsiveness, business opportunity exploration, clearness of goals and organization strategy, development of employees.

5.5.7 Findings from Survey

IT service performance is the most important positive similarity in the complete sample. Evaluating competition from a customer's perspective encourages a broader view of competition because customers are not bound by the typical single-industry definition of competition. Market-oriented firms attempting to satisfy customers' needs and wants should have an interest in understanding how their customers select products in the face of wide-ranging competition. Developing an organizational effectiveness which fosters satisfaction can provide a competitive advantage to the service organization. It is thus critical for organizational agents to have a clear view of the existing effectiveness but also to shape it in such a way that emphasizes customer needs and priorities.

As I noted before, the findings of our research show that IT service performance is a core competence of the organization in our sample. Employees that are qualified, trusted and flexible are an IT service organization asset. Quality relations between employees and customers are the best way to develop a customer oriented organization. Our research findings confirm that organizational effectiveness is important in building a service oriented organization.

The survey came out with remarkable findings which I have illustrated with graphs and charts below:

1.0 Product/Service Usage Rate

Through the survey I found out the rate of usage of Banking Applications and Enterprise Solutions. Banking Applications are used by BRAC Bank only, where on the other hand Enterprise Solutions are used by BRAC University and BRAC NGO. The rate of usage of Banking Application is 66%, while rate of Enterprise Solution usage is 34%.

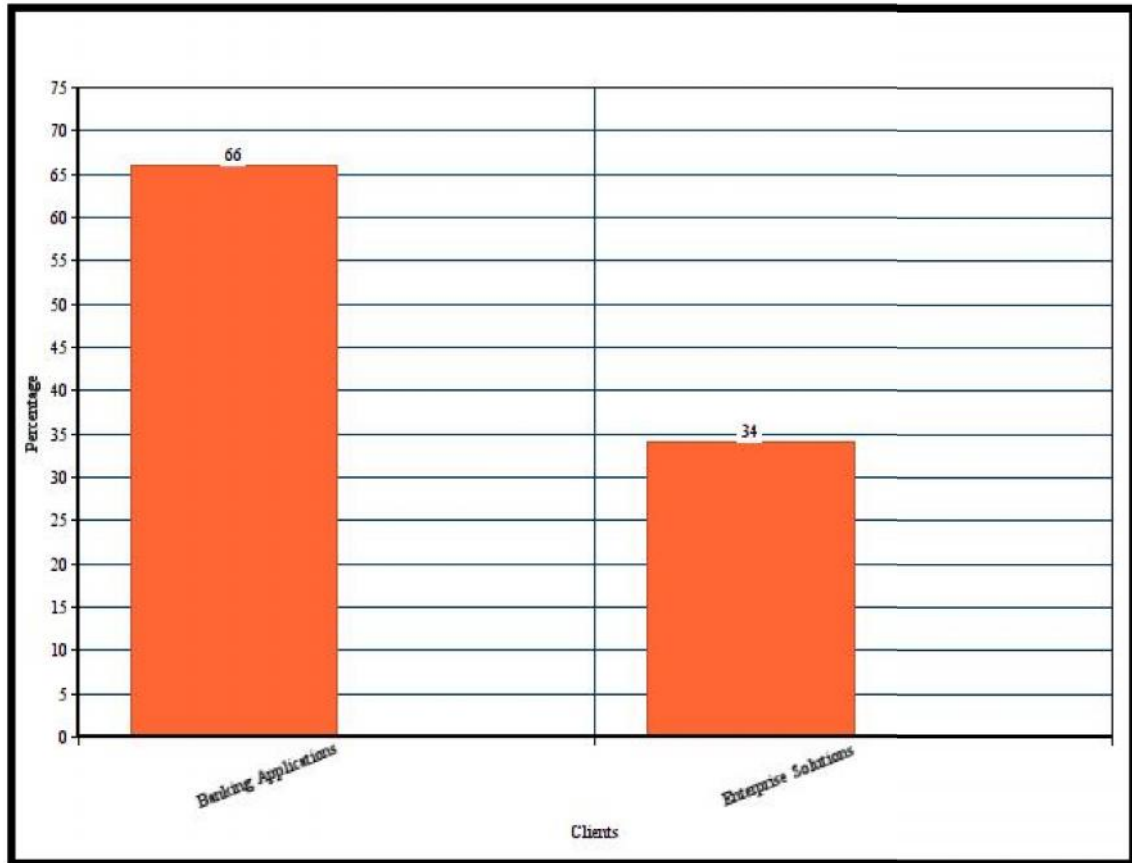


Fig 5.5.7.1: Product and service usage rate

2.0 Duration of Product/Service Usage

The duration of product usage is very different depending on organizations. For this question not only selected organizations but also internal data has been added to get a clear picture. The result shows only 6% organizations are using products less than 6 months, 9% are using more than 6 months, 14% are using less than 1 year to less than 2 years, 17% are using more than 2 years to less than 3 years. All this data mainly belongs to BRAC NGO and other enterprise solutions. The biggest number that is 54% are using more than 3 years, this data belongs to BRAC University and mainly BRAC Bank.

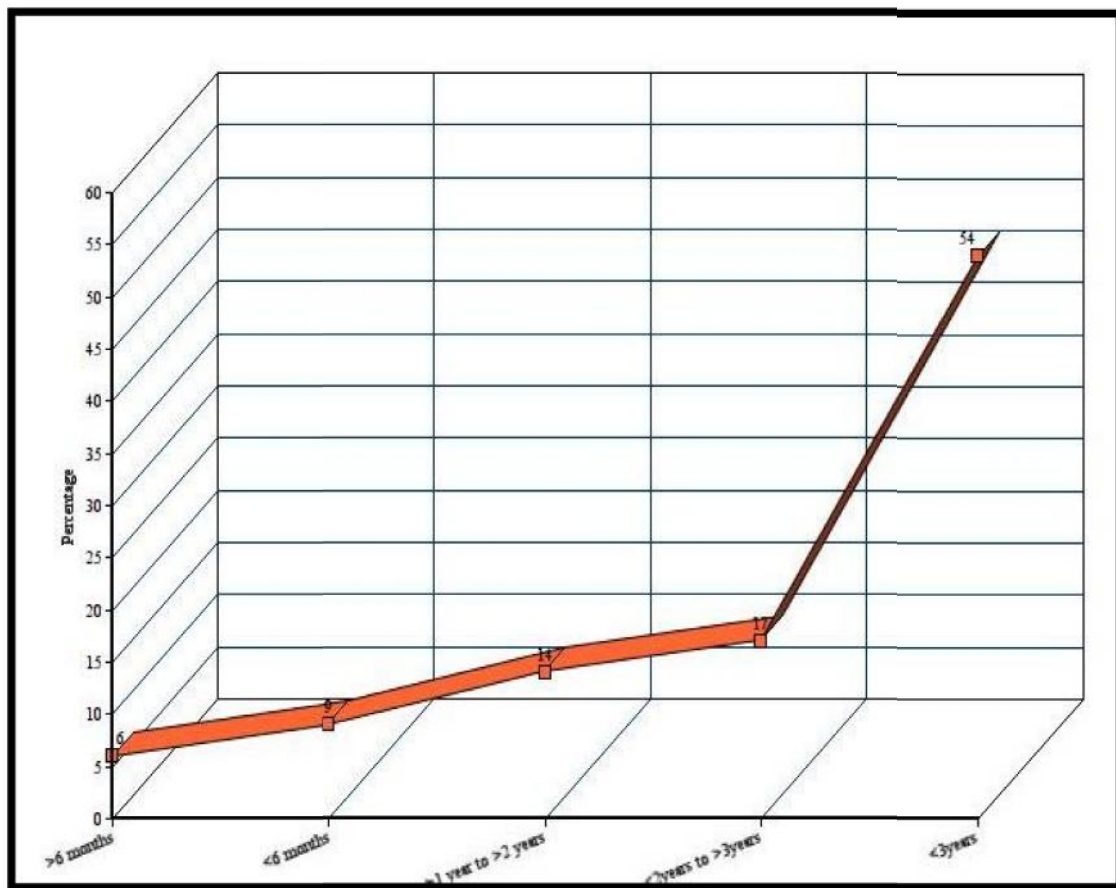


Fig 5.5.7.2: Duration of Product usage

3.0 Number of Application usage by different clients

This graph shows the number of applications used by different users. This data also represents not only selected organizations but also internal data. Around 5 organizations use 1-2 applications, 2-3 applications are used by 3 organizations, 2 organizations use 3-4 applications and 2 organizations use 4-5 applications. This are BRAC University and BRAC NGO. BRAC Bank alone uses more than 5 applications and the number would be more than 60.

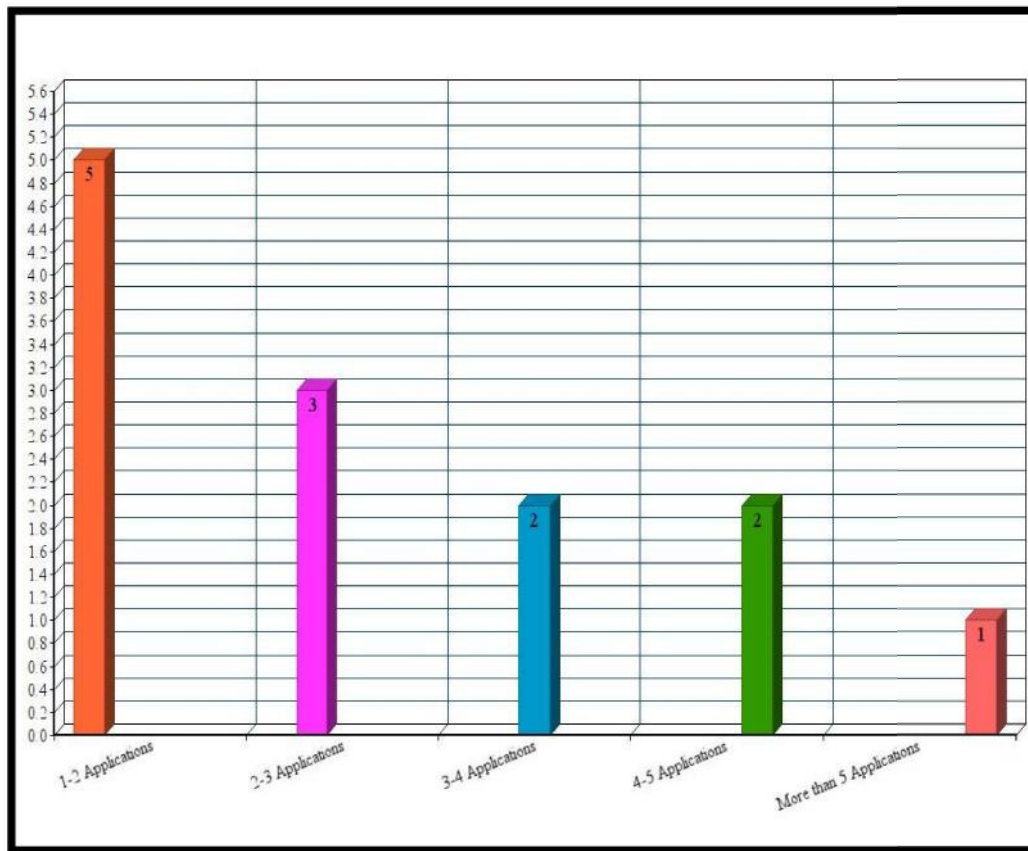


Fig 5.5.7.3: Number of application usage

4.0 Software Effectiveness in Problem Solving

We asked our users how effective our softwares in solving their problem. The result looks like, 63% agreed the software is very effective, 22% said somewhat well, 12% we found were neutral and 3% said somewhat bad.

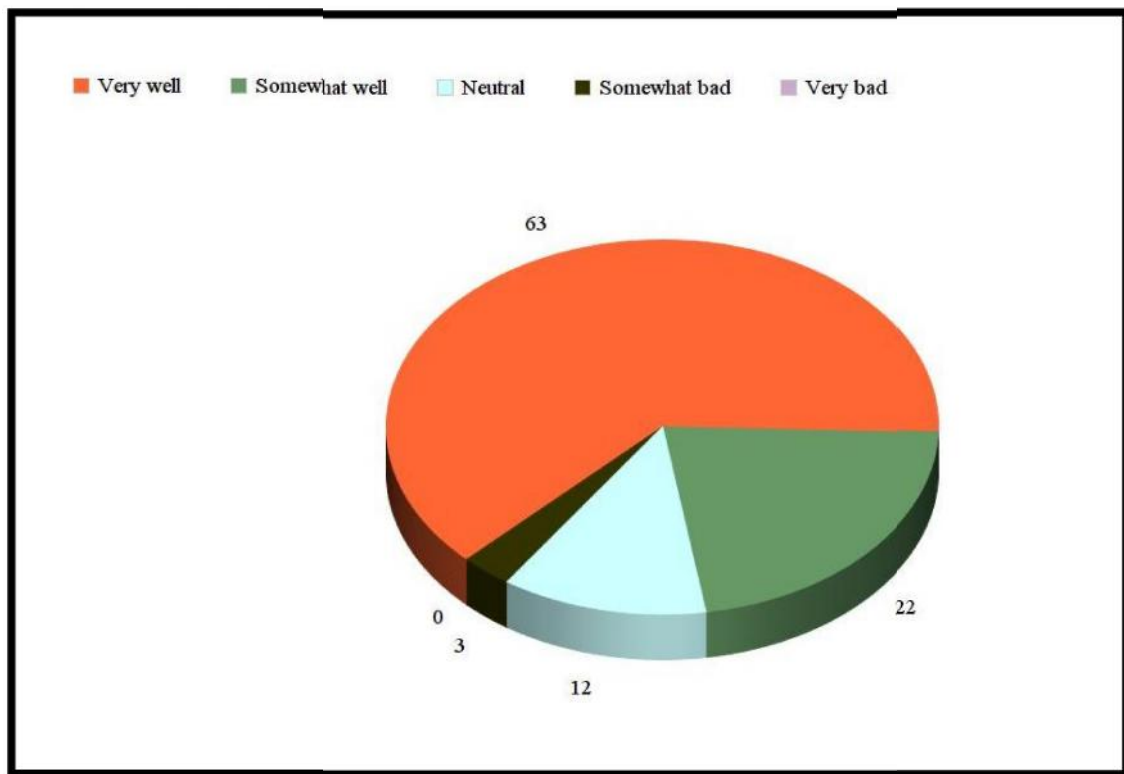


Fig 5.5.7.4: Effectiveness of software

5.0 Quality of Product/Service

We found a good review on asking about the quality of our software. Around 66% client said they are very satisfied, 23% are somewhat satisfied, 9% remained neutral and 2% said to be somewhat dissatisfied. The number of very dissatisfied came out to be 0.

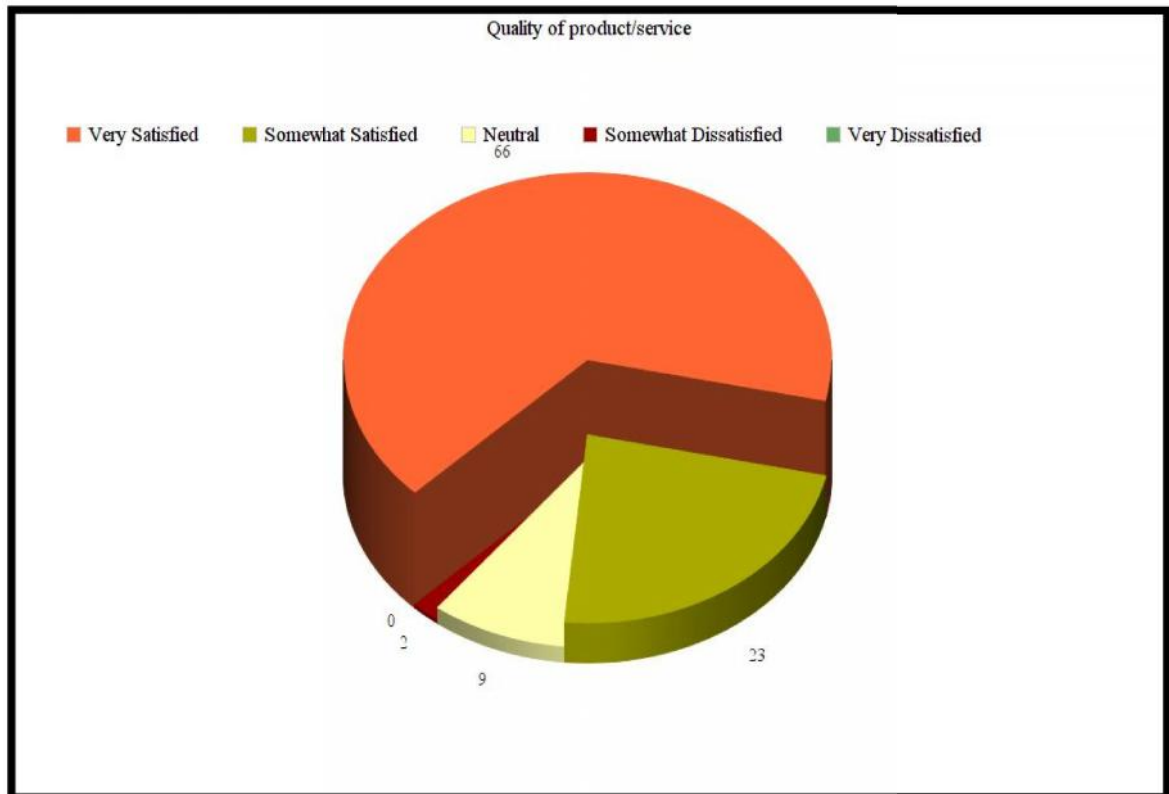


Fig 5.5.7.5: Quality of software

6.0 Effectivity at Problem Solving

We asked our clients about if they are happy with the effectiveness of our software in thier problem solving. 67% said they are very satisfied, 27% said to be somewhat satisfied, 4% remained neutral and 2% said to be somewgat dissatisfied.

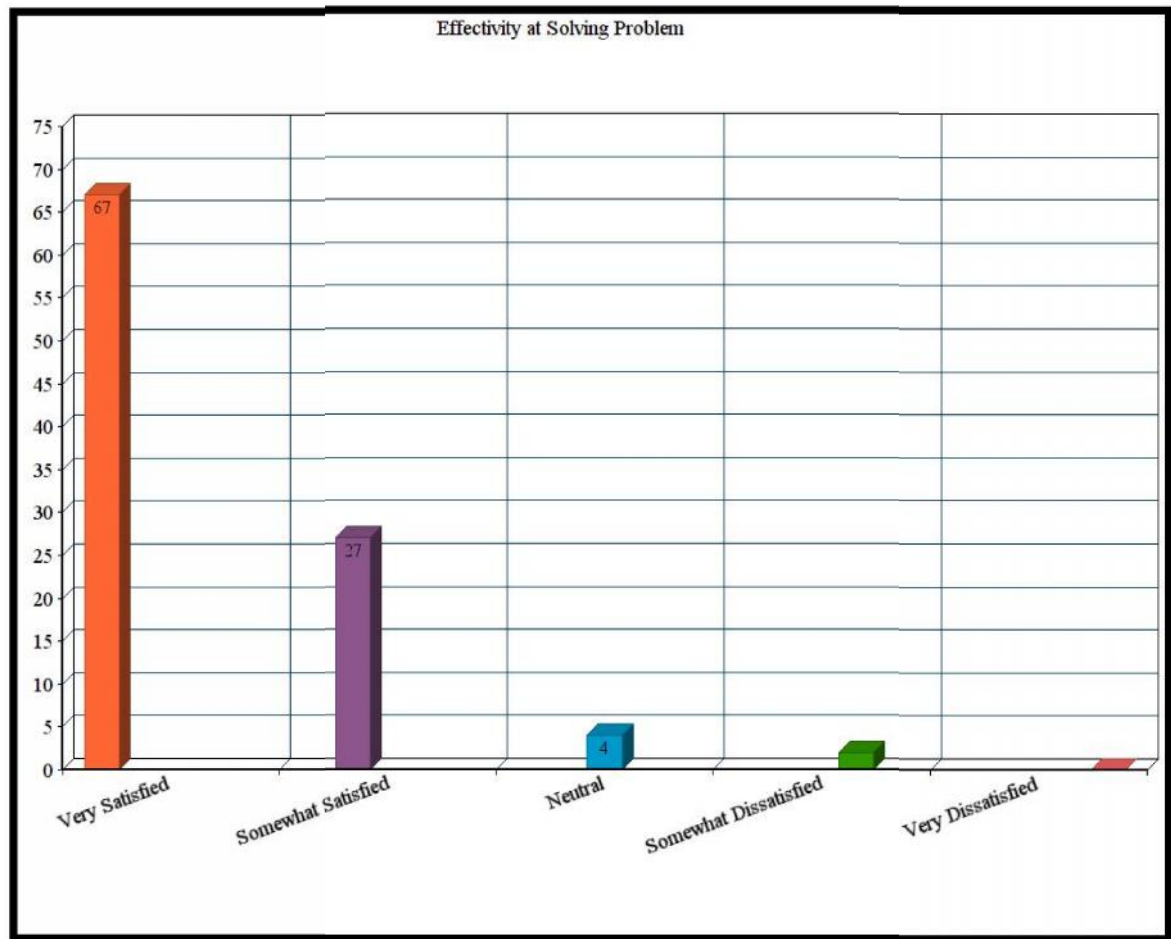


Fig 5.5.7.6: Effectivity in problem solving

7.0 Customer Satisfaction in Problem Solving

We asked our customers how satisfied they are in our way of solving problem through customer service. The result came out to be, 62% said they are very satisfied, 28% said to be somewhat dissatisfied, 8% remained neutral and 2% said to be somewhat dissatisfied.

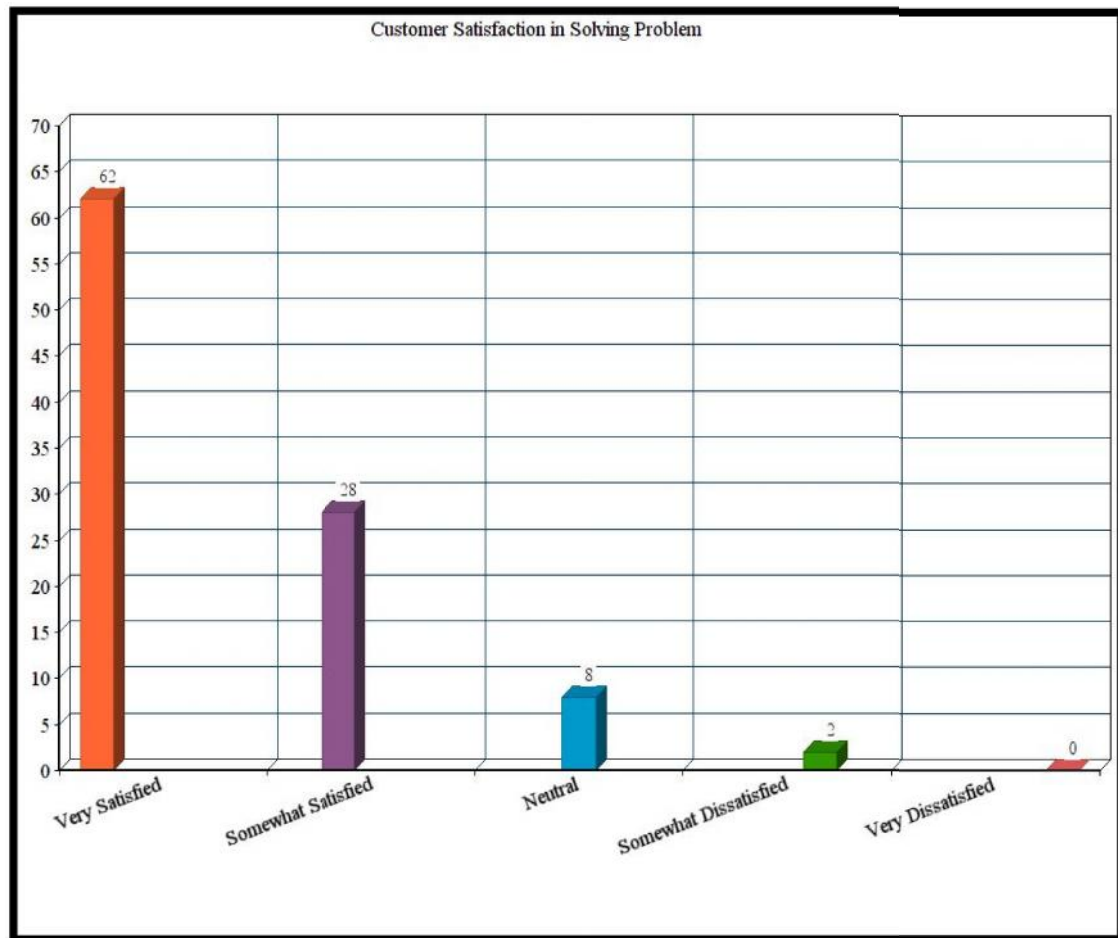


Fig 5.5.7.7: Customer satisfaction in solving problem

8.0 Level of Courtesy by Customer Service team

We also asked our clients if they are satisfied with the level of courtesy shown by our customer service representatives. 64% said they are very well behaved, 33% said somewhat well behaved while 3% remained neutral. 0% came on both somewhat bad and Very bad.

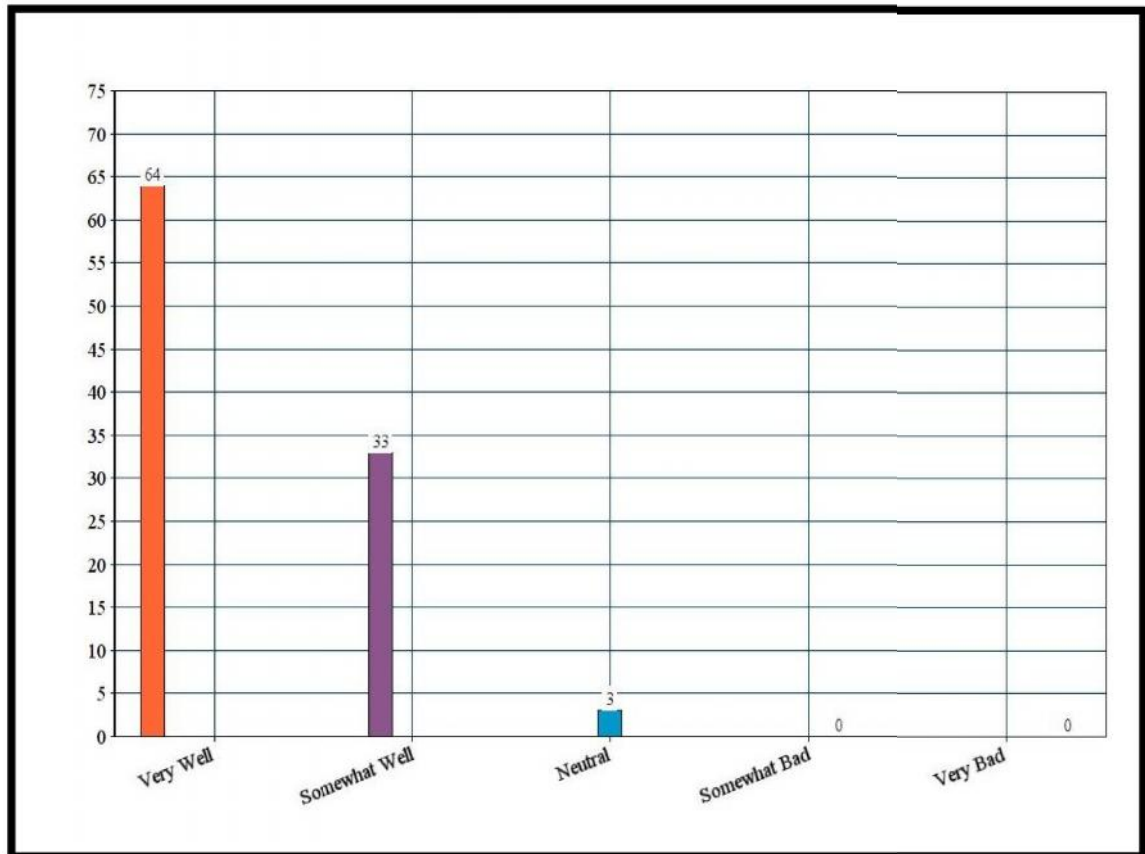


Fig 5.5.7.8: Customer satisfaction in courtesy level

9.0 Customer Service Representative Rating

We asked to rate our customer service representatives in an overall manner. The result is quite noticeable. 55% said they are very good, 33% said to be on only good while 10% rated as quite fare and 2% rating came on poor category.



Fig 5.5.7.9: Customer service representatives rating

10.0 Comparison with Other Vendors

We asked them to mention their satisfaction level comparing to other vendors in the same industry. 58% said they are very satisfied, 36% said they are somewhat satisfied while 6% remained neutral.

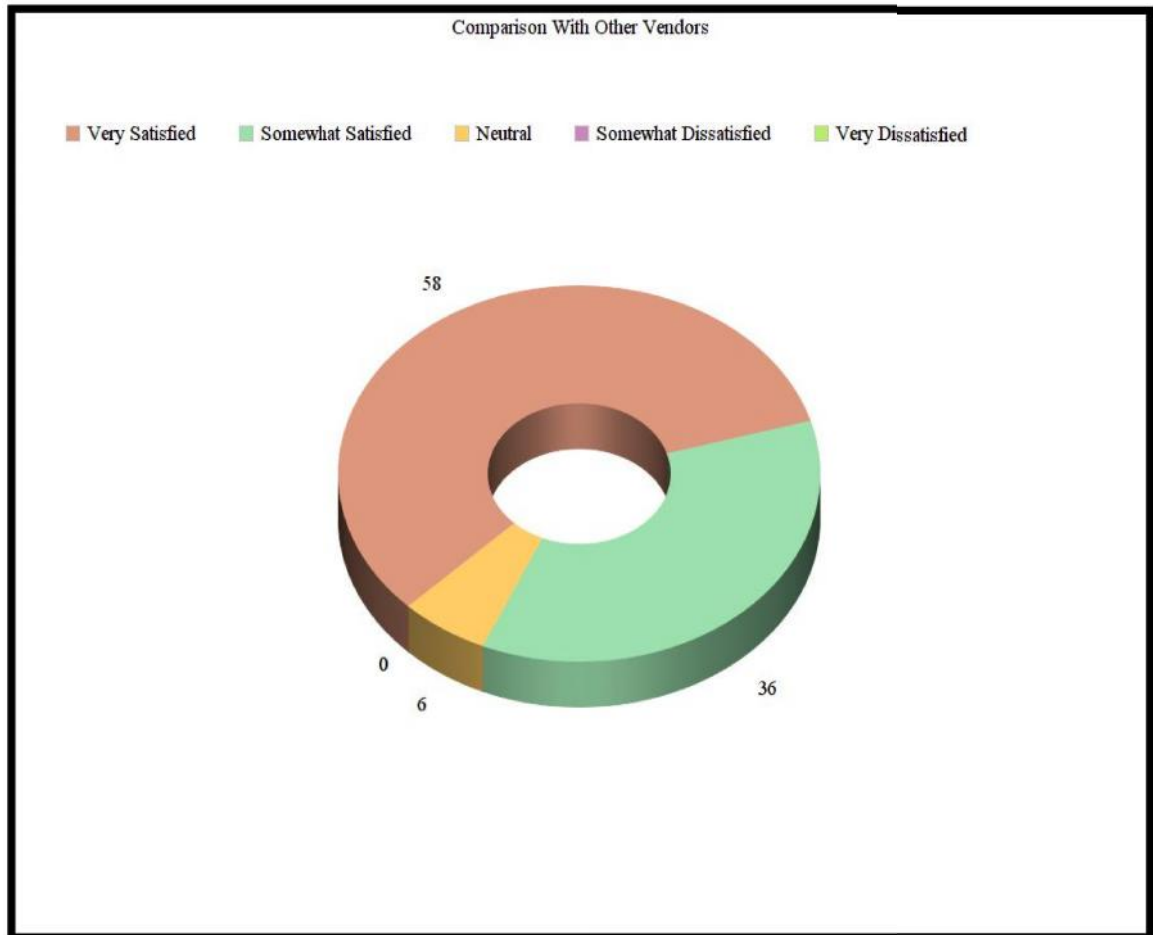


Fig 5.5.7.10: Industry comparison

11.0 Business Continuation with biTS

We asked clients if they are likely to do business with us in future. 64% said very likely and 36% said somewhat likely which is a good sign to the organization's progress in future.

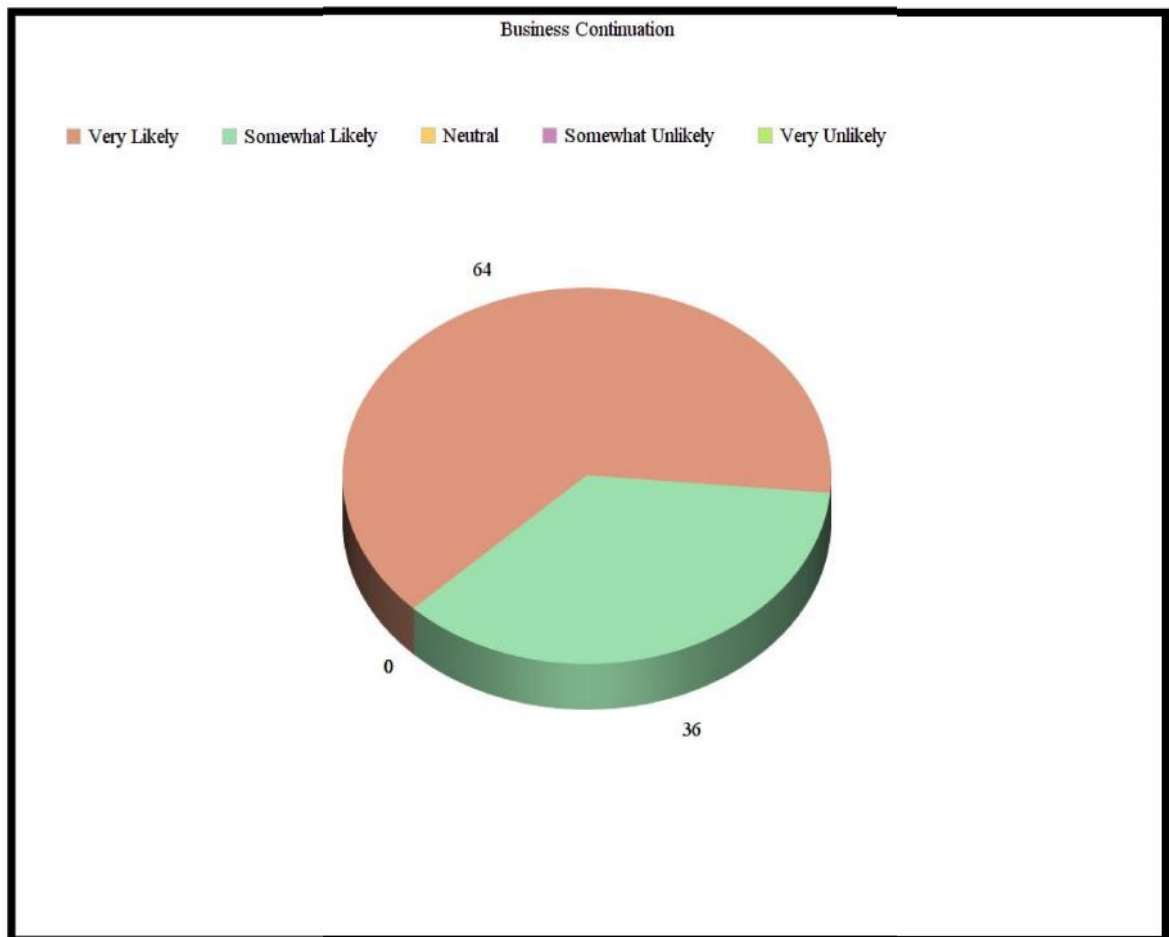


Fig 5.5.7.11: Future growth potential

12.0 Review

We asked our clients to make review on the organizations. Both good and good observations were received which I have mentioned below:

1. Software screen's should be more appealing
2. Easy words needs to be incorporated in feature name for user usefulness
3. Customer service representatives needs to be more efficient and pro active.
4. Customer service representatives needs to be more courtious.
5. Less time should be taken in sloving any issue.
6. 24 hour customer service is required.
7. Call centre service should be incorporated.

5.5.8 Survey Observation and Recommendation

From the observation we found that BRAC IT Services got very positive response withing a very short period of time of operation. The results are quite similar in satisfaction issues yet they need to take care of many issues such as, increasing the quality of software, training their customer service representatives, efficiency in solving issues, providing 24 service and so on. The survey helped them to understand the fields that they are still lacking and also the scopes to do better in future. So overall, The survey results prove that the IT service they are providing is effective.

6.CONCLUSION

The internship program is a great opportunity of us because it enables us to learn about the industry and various practices. It also teaches us about the various skills needed to work in an office with other employers. It offers something we can never learn inside a classroom setting.

I had enjoyed my time at biTS and learned a lot of things that will help me build my career and also enhance my academic learning. I managed to put a lot of theories I learned in class in a practical applications. Moreover, I have made valuable contacts in the industry and enriched my network greatly.

I learned a variety of new technologies and skills along with many soft skills that are essential in building character and provide competitive edge.

I am grateful to my institute, BRAC University for providing me quality education and knowledge throughout this years.

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