

Report On
Implication of COVID 19 on IT Industry: Focusing Automation
Solutionz

By

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An internship report submitted to the BRAC Business School (BBS) in partial fulfillment
of the requirements for the degree of
Masters of Business Administration (MBA)

Brac Business School
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Declaration

It is hereby declared that

1. The internship report submitted is my own original work while completing degree at Brac University.
2. The report does not contain material previously published or written by a third party, except where this is appropriately cited through full and accurate referencing.
3. The report does not contain material which has been accepted, or submitted, for any other degree or diploma at a university or other institution.
4. I have acknowledged all main sources of help.

Student's Full Name & Signature:

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Letter of Transmittal

Nusrat Hafiz

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66 Mohakhali, Dhaka-1212

Subject: Submission of internship report on **“Implication of COVID 19 on IT Industry: Focusing Automation Solutionz”**

Dear Madam,

I would like to submit my internship report titled Implication of COVID 19 on IT Industry: Focusing Automation Solutionz. I am currently working at the company as Software Automation Tester. I tried my best to fulfill all the requirements of internship and also followed your instructions during preparing this report.

I have attempted my best to present the report with the important information and recommended suggestions in a noteworthy compact and in comprehensive manner as possible.

I hope that the report will meet the desires.

Sincerely yours,

Rabita Karim

ID: 17264068

Brac Business School

Brac University

Date: October 5, 2020

Non-Disclosure Agreement

This agreement is made and entered into by and between Automation Solutionz and the undersigned student named Rabita Karim for the commitment of preventing the unauthorized disclosure of confidential information of the Automation Solutionz.

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Automation Solutionz

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Rabita Karim

Acknowledgement

First of all, I am grateful to my Internship supervisor Nusrat Hafiz, Lecturer, BRAC Business School, BRAC University. Her intellectual supervision, important recommendations, interactive sessions, constructive condemnation, and massive amount of work for going through our drafts and correcting them, and generating courage from the beginning to the end of the research work has made the completion of the project possible.

Lastly, I am highly thankful to Automation Solutionz to provide me opportunity in such a beautiful environment.

Rabita Karim

October, 2020

Executive Summery

The report is prepared as per prerequisite of the internship phases of MBA program of BRAC University. The study is based on Implication of COVID 19 on IT Industry of Bangladesh focused on Automation Solutionz.

Automation Solutionz is a software company of Bangladesh based in Canada which is focused to provide software testing solution, QA service and software development service as well to its clients. I am working on this organization as a Software Automation Tester since 2018.

Due to covid-19 breakout, Automation Solutionz has to go through hard circumstances and some adaptive procedures like other IT companies of Bangladesh.

I have interviewed related the managing director of Automation Solutionz also the Head of Product and Development of my client company Texada, Canada to know the insights that are facing by Automation Solutionz due to the pandemic. I have also interviewed some other related executives of global and local IT companies to provide more authentic data through my research work. To cover the literature review I have gone through so many articles regarding covid-19 and the global IT companies and IT companies of Bangladesh as well. I have also performed interpretation through coding and comparison of data in the analysis section for the accomplishment of all the research objectives.

At the end, I have concluded my report by clearly mentioned my finding and recommendation that IT companies of Bangladesh are facing both ups and down, though startup are suffering much which can be recovered by focusing on progressing technology which is required to survive during pandemic.

Key words: IT Industry, COVID 19, Technology.

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Chapter 1: Introduction

1.1. Research Background

The unseen enemy named COVID 19 has spread over 188 countries of the world and is affecting the people physically, emotionally as well as economically. Being extremely contagious by air, it has brought an uncertain standstill in daily activities. Besides everyday huge numbers of people are dying which is causing loss of active human resources. IMF says that the global economy will shrink by 3% this year (Amaro, 2020). It described the decline as the worst since the Great Depression of the 1930s. So, all the countries and all the sectors are suffering and finding techniques for survival.

Though the people of the software industry can continue their work from home but they are also getting affected as their clients are discontinuing. India's IT industry would be minimally impacted by \$185 billion because of COVID19 (Ramasamy & Reddy, 2020). With this figure, we can forecast how COVID-19 can also affect the Bangladesh IT industry. The aim of my research is to provide information on the effects in the IT industry of Bangladesh and effective solutions to cope up with this pandemic situation.

1.2. Problem Statement

Bangladesh has a great future in the world software industry due to the vision of Digital Bangladesh, skilled population and cheap offshore outsourcing facilities. According to the registered members of Bangladesh Association of Software and Information Services (BASIS) there are 1457 IT companies in Bangladesh. Average 57.21 percent export growth has been maintained by the Information and Communications Technology (ICT) sector of the country over the last 9 years since 2009 (Latifee & Hossain, 2020). Bangladesh ICT sector recorded export incomes value US\$0.8 billion from the international marketplace and US\$1.54 billion from the national market in the economic year 2016-17 and also contributed one percent to the gross domestic product (GDP) (Latifee & Hossain, 2020). Three hundred thousand job openings have been created by ICT sector (Latifee & Hossain, 2020). Covid-19 is also affecting this sector drastically.

35% export revenue is generated from Bangladeshi IT and IT-enabled services firms from the US, 15% from the UK, followed by Australia, Canada and several EU countries such as Denmark and the Netherlands (Kibria, 2020). An export target of \$5 billion had set by Bangladesh government by 2021 for technology products (Kibria, 2020) .

As the world economy is decreasing, the clients are also discontinuing the offshore projects. Some software services are based on physical activities which got temporarily off during lockdown or their demand has decreased. For example, rideshare services were completely off during the 1st one month of lockdown in Bangladesh. At that time, Pathao had to go through progressive pay cut for survival (Future Startup, 2020). As a result, lots of software companies are getting shut down, few are facing cost or headcount cutting. Not only the pressure from the client side, but also it is getting difficult for the management of large-scale software companies to monitor and control employee activities for productive output. As a result, startup companies

like Automation Solutions focusing on cost cutting and planning for redesigning its structure so that they can survive in upcoming years after covid-19.

1.3. Research Question and Research Objective

I have set some research questions to fulfill the objectives of the study of Implication of COVID19 on Software Industry.

Research Questions	Research Objectives
What impact does covid-19 have on the IT industry of Bangladesh?	To identify the phenomena for IT industry of Bangladesh during covid-19 breakout
What measures can be taken by managers to cope up the situation?	To focus on the adaptive measures which is beneficial for both the company and employees.
How to enhance sustainable productivity to insure growth in future?	To generate ideas and suggestions for the managers of the IT industry to ensure the growth.

1.4. Managerial Implication of the Study

This study will be helpful for the management and individuals as well as all the stakeholders of software industries to cope up during the current pandemic due to COVID19 and take necessary steps for the future survival. The management of software companies needs to do a proper

forecast to survive and generate revenue. This study will help them to consider important aspects of COVID situation from the given data and information of the expert interview. It will support the management to redesign future cost cutting plans, proper work from home employee management skills, communication management with the employees and the clients and attractive proposals for clients. This study will also help the current and future employees of the software industries to evaluate their career path. Besides the stakeholders such as the clients, investors will get an idea about how software companies are adopting techniques for better output and service.

Chapter 2: Literature Review

2.1. Global scenario of IT industry

After the COVID 19 breakout, every industry is looking for the online solution as social distance is the key precaution of coronavirus. As a result, new opportunities are growing as well as e-commerce businesses are on the upsurge stage all over the world. On the other hand, software industries who follow agile methodologies are moving completely work from home, facing client attrition, productivity issue and other challenges. U.S. GDP fell at a 32.9% annualized rate, the deepest decline since histories began back in 1947 which is frightening for the world economy (Mutikani, 2020). Most of the biggest technology brands in the world are dependent on Chinese manufacturing units. After the sudden outbreak of the pandemic, many factories and the technical units are running the limited operations. All the conferences of giant IT companies

have been postponed. Work from culture has been started. According to a survey conducted by Blind, around 53.8 percent of employees are concerned about their jobs (Nagar, 2020) .

Indian IT industry body NASSCOM says that, India IT industry which served 16% of the global market is already forecasting a inferior growth rate than the formerly projected 7.5% for this year 2020 (Kibria, 2020) .

Due to customers withdrawing or hitting off flexible spending on technology, Tata Consultancy Services (TCS) is anticipated 6% drop in revenue, HCL Technologies 8%, 5% by Infosys, Tech Mahindra by 9% and Wipro by 7.5%, brokerage firms said in their reports (Pramanik, 2020). Software is required for every sectors of the society. So, the growth and revenue of any software company is directly related to its clients or which sectors for whom they are developing software or website. During covid-19 some sectors are directly affected on the other hand some are remaining steady or facing boom. So, the IT sector will have both positive and negative impact accordingly.

Travel and transportation, oil & gas and retail have been the most affected due to the lockdown and will not recover after June quarter also. Several companies declaring bankruptcies due to the loss of their business (Pramanik, 2020) . On the hand banking and Financial services, energy, utilities are relatively less impacted. Communications, hi-tech, life sciences, healthcare have seen slightly better opportunities said by the CEO of Infosys Salil Parekh (Pramanik, 2020) .

Dr Kannamani Ramasamy and Dr L. Sudershan Reddy have mentioned about some challenges faced by the Indian IT industry employees while working from home. Some of the challenges are, not all the employees are comfortable at WFH which is a new concept for Indian and

ultimately it is affecting their efficiency and deliverables. Clients are not willing to sign the new deals which may have a long-term effect in the future revenue (Ramasamy & Reddy, 2020) .

A journal paper surveyed several respondents of Germany based startup where almost 50% employees are from software startups. It has focused that startups are facing more difficulties in terms of financially and future sustainability during covid. As a result, policy makes should come forward to assist the startup by providing loans and other facilities (Kuckertz, Br€andle, Gaudig, & Hinderer, Stuttgart).

2.2. Current scenario of Bangladesh IT industry

Currently Bangladesh IT industry is only at its growth stage, as a result it is going to face a unique challenge because of Covid-19. The overall revenue for the 2020 year to fall by 20-25% due to the pandemic is expected by IT industry insiders (Kibria, 2020).

As the major portion of Bangladesh software industry is project-based outsourcing mostly from North America and Europe, there is a general fall. IT companies are also facing challenges from local clients in terms of payments and installment. Companies like Therap, Augmedix who deal with the BPO of medical and legislative data for North American companies are somewhat stable in their business now (Kibria, 2020).

However, the co-founder and chief executive officer of Brain Station 23, Raisul Kabir is hopeful about potential growth in video streaming, machine learning and online learning areas as they are demanding and there is a scope of strong business now (Kibria, 2020). Due to the sudden increase in online classrooms, there has been a strong upsurge in demand for Moodle, an open-source learning platform from educational sector clients. Government contracts – where foreign

governments are seeking software solutions about the pandemic – are also a potential growth area according to him (Kibria, 2020).

According to the article of Rageeb Kibria the smaller companies are going through pay cut and layoff policies for the survival. Some companies are facing slow deliverables during covid under agile methodologies. The number of online purchases in e-commerce platforms such as Chaldal.com, daraz.com, Pathao, and experienced an unusual spike. Chaldal's average 5,000 orders per day jumping to 10,000 to 15,000 on an average (Kibria, 2020). On the other hand, due to close down of 40-50% restaurants, the food delivery services faced 75-80% fall said by Sohoz (Kibria, 2020).

According to Sajid Amit, Associate Professor of ULAB, small businesses and startups are usually the hit worst at times of economic turmoil. Ridesharing by Uber and Pathao was also banned during the lockdown as per BRTA direction. Pathao Tong, Pathao Pharma, Pathao parcel are trying to generate revenue during pandemic by providing essential services (AMIT, 2020). Tonic, owned by Digital Healthcare Solutions, formerly by Telenor Health, is experiencing a 30% uptick in telephone consultations and are expected to launch video consultations, shortly. They have also launched a symptom checker in Bangla (AMIT, 2020).

All the It companies are mostly shifted to remotely work. As a result, employees are also facing several challenges during work from home which is a new concept in context of Bangladesh. According to the survey under a journal work, 51% respondents of IT industries of Bangladesh said that they are feeling calm and relaxed during WFH. The salary of 78.9% of the respondents is not affected during covid and WFH (Ganguly, Tahsin, & Fuad, 2020) .

2.3. The IT company Automation Solutionz during Covid-19

Automation Solutionz build at 2013 providing software development and software testing service and providing license facility of its in-house software testing tool zeuz. This is a North American client-based startup.

One of its most valuable clients is Texada Software which is a Rental, construction and asset management software provide. Due to covid, they also got affected both positively and negatively as during lock down the construction order got delayed and postponed. As a result, to expand their business texada has introduced some rental products which is helpful during covid, such as portable sanitization, air quality and filtration, floor cleanser, temporary power and temporary lighting (Texada Software, 2020).

As the aim of texada software is to make the rental and construction services more paperless and remotely accessible, some clients are attracted to their service. Milton Caterpillar of heavy equipment and power service provide recently signed contract with Texada software (Texada Software, 2020).

2.4. Study gaps and research contribution

Most of the articles, reports are journals have discussed about the RMG sectors of Bangladesh as it has a great effect in the economy of Bangladesh due to covid-19. As the software industry is developing one, there has been few researches about the sectors. But IT industry is the future and during covid, the whole world looking for IT solutions. So, it is very important to think about this sector of Bangladesh.

The author Ganguly, Tahsin, Mridha has been focused on understanding employee productivity during Work from Home in Bangladesh. They may focus on also how to mitigate work from home issues so that manager and employees of IT industry could have gather some suggestion to ensure future productivity. They also can talk about the developed countries context to know how they are coping with productivity while working from home.

So, in my research, I will focus on the point how managers are keeping their employees motivated to ensure the productivity during this pandemic in terms of both Bangladesh and developed country aspects to explore more suggestion for future reader whether managers or employees.

Chapter 3: Methodology

3.1. Research method and its justification

In my research I have followed the qualitative method. Qualitative method is most commonly used to research new concepts or theories of social concepts to explore social interaction, system or process. As Covid-19 is a new experience and the world is going through a pandemic which is affecting both socio economic sectors of the world, a qualitative method would be the suitable approach. Secondly qualitative research is an open-ended approach that focuses on words rather than numbers. By the exploratory methods of qualitative approach, researchers seek to unearth the opinions, thoughts and feelings of respondents. Due to pandemic the IT industry is facing

challenges in day to day activities as well as long run sustainability, which can be elaborately discussed by the qualitative research approach.

3.2. Research strategy

Qualitative methods have various research strategies, such as - Ethnography, Narrative, Phenomenological, Grounded theory, Case study. Strategies are chosen depending on the subject of the study. As I want to focus on the challenges, experiences of both the employees and management of Bangladesh IT industry, the one to one interview and focus group discussion will be helpful which is under phenomenological strategy to gather my primary data. Phenomenological strategy means interviewing the individuals who have experienced a phenomenon.

To establish the reliability and test the validity of the research I will use the data triangulation method. Triangulation is a authoritative procedure for the validation of data through cross confirmation from two or more sources. First, I will review the online data of the current economic scenario and challenges of the international IT industries as well as local. Then I will gather information and practical experience by conducting one to one interview and focus group discussion to generate more subjective information besides those data. At the end, I will articulate these two types of data and information by SWOT and PESTLE analysis to capture the different dimensions of the implication of COVID 19 in the IT industry as well as to provide some suggestions for Bangladesh startup IT companies.

3.3. Data collection method

The world IT industry has shifted in work from the home category. So, it is safer and easier to communicate with anybody online. It also doesn't matter whenever a person is living in the same country or not. So, I have designed my interview plan in different sectors where some for interviewees are from foreign countries to understand the global condition and create some effective suggestions for Bangladesh that can be adopted in future.

I will communicate over zoom and google meet for conducting interviews and focus group discussion. I will record the session for data analysis.

3.4. Sample respondents' profile:

At first, I will conduct an one to one interviews with the managing director of Automation Solutionz to know what kind of difficulties are facing being a startup software company and what measures are being taken for future sustainability. Parallely I would like to interview Adam Kropf who is the Head of Product and Development of a well-established Canadian Software Company to know the scenarios from his perspective.

Name	Designation	Organization
Mohammad Monirul Islam	Managing Director	Automation Solutionz Inc, Bangladesh
Adam Kropf	Head of Product and Development	Texada Software, Canada

To know more about the work challenges, strategy, and facilities faced by employees of the other Bangladeshi software company, I will conduct a focused group discussion of consisting of two members who are employees of two renowned software companies of Bangladesh.

Name	Designation	Organization
Samaha Binte Seraj	Software Quality Assurance Engineer	Dynamic Solution Innovators Ltd., Bangladesh
Nadia Zaman	Software Quality Assurance Engineer	Brain Station 23 Limited, Bangladesh

To generate suggestions and an effective work plan that can be adopted by Bangladesh, I will interview another person who is working in and International Software company.

Name	Designation	Organization
Riazul Karim	Senior Android Developer	Accenture, Thailand

3.5. Data analysis

As I am doing qualitative research by conducting interview, it is very important to go through proper data analysis steps. Proper data analysis helps to come with constructive solution from subjective data.

To perform data analysis, at first, I will transcribe the formal version of interview by content analysis. Secondly, I will assign code to my data for further analysis.

Then by sorting the codes, I will try to figure out similarities and patterns. Finally, these patterns and themes will help me to reach a constructive decision from the primary data of my research.

Chapter 4: Findings and Analysis

4.1. Findings

4.1.1. Summary of Findings:

Interviewee 01- Mohammad Monirul Islam, Managing Director, Automation Solutionz	
Question	Answer
How Covid 29 affected the clients and projects of the company	The business of the current clients or projects have been affected a lot. As a result, we are facing a lot of problems including delay in payments . We lost a few clients because of their bad financial condition. Some of the clients reduced the number of resources. Future clients are delaying and being extra cautious

	<p>in signing contracts. One of the future clients of the travel and tourism sector couldn't finalize the contract as their business was badly hit during covid-19. Overall, we have lost 50% revenue because of covid-19.</p>
<p>What measures have you taken to survive the situation?</p>	<p>We made some hard decisions. We had to cut down the overhead, we had to close down the office that allowed the employees to work from home safely, which was not all that bad. We had to minimize the cost. We could not pay the festive bonus this year.</p>
<p>How you are managing employees remotely to ensure productivity and keeping them motivated</p>	<p>We treat our employees like family members always. In daily scrum meetings where we not only talk about work updates but also talk about how they and their family is doing in this pandemic. It's more of a general discussion rather than a business meeting I believe that makes them comfortable. We are also not being rigid in 9 to 5 working hours, as long as the</p>

	<p>assigned work is done, we are happy and employees are facilitated flexible working hours.</p>
<p>How are you planning to sustain the company growth in future considering the uncertain pandemic situation?</p>	<p>We are currently keeping the overhead as low as possible. The future is really unpredictable and It is hard to make a full proof plan. But with the hard work and dedication of management and the team members, we hope to survive through the situation. The key is to keep the cost low. Though we are approaching more clients it is harder than before to get the contracts.</p>

Interviewee 02- Adam Kropf
Head of Product and Development; Texda, Canda

Questions	Answers
<p>How Covid-19 affected the clients and projects of the company?</p>	<p>Our company is b2b based and we provide ERP solutions. Our customers are in the rental industry and service providers to construction projects. Due to covid-19 construction projects got delayed or cancelled all together. As a result, some customers reduced and went to survival mode and some customers expanded with our solution. Overall revenue of the company is down right now.</p>
<p>What measures have you taken to survive the situation?</p>	<p>We are not going to the office. We have Jira, g-suite, google meet, google chat for communication and employee management. Reduced a lot of vendors, elemental a lot of projects under the cost cutting policy.</p>
<p>How are you keeping your employees motivated remotely during this situation?</p>	<p>We are doing one-on-one sessions on a regular basis. Weekly meeting on road map call at Tuesday where we discuss what we are seeing both personally and professionally and talk about covid-19 lot.</p>
<p>What is next plan for the sustainable growth</p>	<p>We release some features specific to our</p>

<p>in future considering the situation</p>	<p>customers did role signature which was in our roadmap and in the block. We worked on that on priority which will help our customer in being more paperless.</p>
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<p>Interviewee 03- Riazul Karim Senior Android Developer Consultant; Accenture, Thailand</p>	
<p>Questions</p>	<p>Answers</p>
<p>How Covid 19 affected the clients and projects of the company</p>	<p>My projects did not get affected but some projects of our company got affected. Such as petroleum industry clients which are directly affected by covid-19. A news article which was based on a survey of global Accenture published the probability of cutting down employees which is not confirmed yet.</p>
<p>What measures have your company taken to survive the situation?</p>	<p>After covid-19 attack in Thailand, initially Accenture provided some masks which were</p>

	<p>appreciable. When covid-19 broke out, we started working fully from home. We got provided all the technical resources and access to perform our work smoothly, though we didn't receive any extra allowance. After minimizing the 1st phase of risk, to provide customer support when physical service was needed, they ensured proper social distance with special permission.</p>
<p>What kind of difficulties are facing and how company is motivating you?</p>	<p>Company is always ready to provide every kind of support. They have discussed the pros and cons of work from home in every meeting and planned training speech, provided motivation speech. Documentation and video training were also provided. To mitigate communication gap, all kinds of meetings have online participation options.</p> <p>Due to covid, as we are not able to participate in recreational parties, our company has built partnerships with some food delivery services and provided us with free coupons so that we feel motivated and don't miss office</p>

	parties and don't feel deprived.
How is the company planning or directing you to achieve sustainable growth of the company in future?	<p>Accenture is a consultancy company where we always provide effective consultation to our clients considering the situation. Thailand Accenture has arranged some charity programs and projects to make clients and the country Thailand benefited all together as well as being highlighted in the company role. Accenture is always focused on innovation. So, all the wings are working on how to cope up this pandemic to make all the projects more effective and online based. Over all we should work on projects that can create more demand in future such as - education, banking sectors of Bangladesh.</p>

Focused Group Discussion

	<p>Nadia Zaman (Interviewee-04)</p> <p>Software Quality Assurance Engineer, Brain Station 23 Limited, Bangladesh</p>	<p>Samiha Binte Seraj (Interviewee-05)</p> <p>Software Quality Assurance Engineer, Dynamic Solution Innovators Limited, Bangladesh</p>
Questions	Answers	Answers
How Covid 19 affected the clients and projects of the company?	<p>Brain station company has both foreign and local projects. Initially the foreign projects got affected, as my 3 headcounts fell from my team My project is related to bus service. As during the lockdown all the travels were restricted, my client couldn't generate any revenue. The good thing is, cut out team members got engaged in other projects of the company related to online business which are increasing due to covid. So, the overall situation of the company got</p>	<p>The work flow went slow initially but no headcount was deducted rather two employees got recruited in the project. We also didn't face any cost cutting tendency. All the salary and bonus were received on time.</p>

	<p>balanced and the employees didn't get affected. Also, the recruitment process was started after 2 months of the covid which eventually normalized the situation.</p> <p>The higher authority handled the situation and nicely and we didn't go through any cost cutting process.</p>	
<p>What measures have your company taken to survive the situation?</p>	<p>First instruction was to "Stay safe at home". We started home office from March 17th. All our machines and resources have been packed by the office to carry for home. Our management always emphasize on to focus on the positive sides of the home office such as enjoying time with family. I personally enjoyed the home office as I got some extra personal time that I used to take for preparation and traveling office. But on the other hand, I miss my</p>	<p>We also started home office from March. I personally feel less productive while working from home. I am facing time management difficulties and an office environment to work more efficiently.</p>

	colleagues and office environment as well.	
How is the company planning or directing you to achieve sustainable growth for the company in future?	In our office, we have a group leader who always leads us to learning something new . Right now, we are getting extra time for the learning and knowledge sharing process. So that, any kind of new project can be performed at any time by any of us.	All the project related features and training are going on . But nothing related to covid-19 has been implemented or directed to employed to work on.

4.1.2. Interpretation of Findings

Coding:

	Interviewee-01	Interviewee-02	Interviewee-03	Interviewee-04	Interviewee-05
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<p>How covid-19 affected your company and clients/projects</p>	<p>Delay in payment, Lost few clients, lost 50% revenue, Future clients are delaying and extra cautious</p>	<p>Project got delayed or cancelled, Survival mode customers, Expanded customers, Down revenue</p>	<p>Some projects affected- petroleum industry clients, Probability of cutting down employees</p>	<p>3 headcounts fell from – bus travel agency client, Balanced by new online business-related clients, No cost or bonus cutting</p>	<p>Slow work flow initially, No head count deduction on banking software project, 3 new recruitment, Timely bonus and salary</p>
<p>What measures have taken by you/ by the company to survive the situation</p>	<p>Cut down overhead by closing down the office, Couldn't pay two festive bonuses</p>	<p>Reduced vendors, elemental a lot of projects</p>	<p>Provided mask, All technical resources and access</p>	<p>Home office, emphasize on positivity, extra personal time, Missing office environment</p>	<p>Home office, Time management difficulties, prefer office environment</p>

<p>How employees are being managed remotely and how they are being motivated</p>	<p>Daily scrum, Discuss about personal aspects besides work</p>	<p>Home office- Jira, google meet, google chat, g-suite. One-on-session, weekly meeting to talk about personal and professional views</p>	<p>Support, Documentation and video training, Free food coupon by partners hipping food delivery companies</p>	<p>Group of learning and knowledge sharing</p>	<p>Regular features and training are going on</p>
<p>How companies are planning or directing employees for sustainable future growth</p>	<p>Keeping cost low, Approaching more clients as it is harder to get contracts</p>	<p>Specific features- role signatures, paperless</p>	<p>Charity programs and projects for clients, Innovation, Education and banking sectors</p>	<p>Learning new thing to be able to perform in future projects</p>	<p>No direction specially related to covid-19</p>

4.2. Analyses

4.2.1. Analysis of Data

4.2.1.1. Primary Data

Effects of Covid-19 on the IT industry- Both managerial respondents have confirmed about the current downturn revenue. Managerial and employee respondents talked that travel and petroleum industries got affected badly during lockdown. Banking sector clients remained unchanged rather recruited 3 new headcounts. Some also talked about confirmation of new clients.

Measure taken to survive the situation: Managerial respondents talked about some cost cutting measures. They followed – office shut down, vendor removal, elemental projects

On the other hand, the employees were facilitated by all resources and access for performing smooth work from home. One respondent is enjoying home office but other is facing time management. But both of them are missing office environment. Another respondent has neutral view.

Salary and other benefits: Considering the respondents from Bangladesh IT industries, the startup could not provide festival bonus to its employee. On the other hand, comparatively established software company provided on time salary and bonuses.

Employee management: All the respondents have talked about daily or weekly meeting and one specially mentioned about cloud-based Jira, google meet, google chat for employee management remotely. The respondent from Thailand Accenture has mentioned about necessary documentation and video training while working remotely.

Motivate employees: To motivate employees both the managerial respondents talked about scrum/ one-on-session/ weekly meeting where they talk to their employees about more personally than professionally to give them mental comfort during pandemic.

Along with that the respondent of Thailand Accenture talked about the free food coupon they received from their company while working from home so that they do not miss office feast, which is an innovative step. The respondent from Brain Station 23 limited has talked about the positivity they are being motivated to focus on.

Future Planning or Direction: The main key of managerial respondent of Automation solutionz is to keep the cost low. The managerial respondent of Texada software talked about a feature-digital signature which was in backlog but they worked on it as it is helpful to make the work more paperless.

One employee talked about learning new thing and knowledge sharing what they are directed from their company so that, they can work on any new future project smoothly.

The other employee of Thailand also talked about innovation on education and banking sector for Bangladesh.

4.2.2. Strategic Analyses

4.2.2.1. SWOT Analysis

Strength	Weakness	Opportunity	Threat
<ul style="list-style-type: none"> • Work from home by maintaining social distance • E-commerce, e-health sector is thriving • Manual industries are getting attracted to software solution 	<ul style="list-style-type: none"> • Monitoring employees remotely • Ensuring the productivity of employees 	<ul style="list-style-type: none"> • Future demand in video streaming, machine learning and education sector • Innovative technology for future and learning scope 	<ul style="list-style-type: none"> • Startups are facing difficulties in future funding and client hunting

4.2.2.2. PESTLE Analysis

Political	<ul style="list-style-type: none"> • Stimulus package for SME at 4% beneficiary and 5% by the government subsidy
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Economic	<ul style="list-style-type: none"> • Delay in payments • Declining revenue due to client attrition
Social	<ul style="list-style-type: none"> • WFH helping employees to main social distance • WFH affecting the productivity
Technological	<ul style="list-style-type: none"> • Demand in new technologically and e-commerce
Environmental	<ul style="list-style-type: none"> • As IT industry is completely working from home, no need of traveling has a positive impact on environment
Legal	<ul style="list-style-type: none"> • Lack of policies while monitoring remote employees

4.2.3. Comparison of Analysis

Comparing all the primary, secondary data and strategic analysis, it can be said that currently IT industries of Bangladesh are in economic downturn in. But there are also good opportunities in some sectors for future revenue. Due to covid-19, initially the deliverables were slow in agile software companies. To cope up the situation, some companies are going through cost cutting activities specially the startup one. All the companies are providing all kind of facilities while they are working from home. Though some employees are facing time management issues and lees productivity but companies are trying provide comfort by discussing. For, future sustainability, companies are focusing on demanding technology, area and innovation and cost keeping policy.

Chapter 5: Conclusion and Recommendation

5.1. Research Objectives

My first research objective was to identify the phenomena for IT industry of Bangladesh during covid-19 breakout. After analyzing all the sources data, it is clear that both ups and downs are facing by the IT companies of Bangladesh. Large scales companies are balancing this issue by client from different sectors. But startups are facing downturn revenue and future uncertainty.

The second research objective was to focus on the adaptive measures which is beneficial for both the company and employees. Primary and secondary data sources are on the same direction of effective work from culture, maintaining personal communication to the employees to motivate and come up with ideas to keep them motivate, so that long time work from home, doesn't make them demotivated and less productive.

My third research objective is to generate ideas and suggestions for the managers of the IT industry to ensure the growth. After the interactive data analysis, I will suggest that the startups can leave the office space to cut the cost, approach the client who are generating revenue during covid-19, covid-19 friendly features in software, learning new technology to serve the future need. They should focus on education, e-commerce, e-health, video steaming, machine learning technology-based innovation.

So, all the research objectives of my paper have been successfully accomplished by extensive analysis.

5.2. Limitation of the study

However, there are some limitations on this research work. The first to mention is time constraints. Secondly there is limitation from respondents end in terms of knowledge, when an employee is working on a certain project of a company, sometimes he or she might have less knowledge about the condition of other projects. I also felt difficulties finding out a mutual time of all the respondents in FGD as while working from home, everyone has their own routine of work.

5.3. Direction for future research

This paper has discussed about IT industries of Bangladesh and found that startup IT companies are facing difficulties in generating revenue more than other ones. So, future researches can be executed on specifically startup companies as most of the IT companies of Bangladesh are still now in startup stages.

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