



# **SOFTWARE PROJECT FAILURE IN BANGLADESH**

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A thesis submitted in partial fulfillment of the requirement for the  
degree of Master of Science in Software Engineering

**Department of Software Engineering**  
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Spring – 2019

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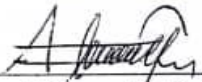
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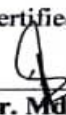
We hereby declare that this project has been done by me under the supervision **Dr. Md. Asraf Ali Associate Professor** Department of Software Engineering Faculty of Science and Information Technology Daffodil International University . I also declare that neither this project nor any part of this project has been submitted elsewhere for award of any degree.

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## ACKNOWLEDGEMENT

Foremost, I am very grateful to Almighty Allah for sparing my life and seeing me through my years of education. I dedicate this work to God Almighty. He has been the wind beneath my wings. His Grace and Mercy has brought me thus far and I am proud and grateful. My deepest appreciation and thanks go to my respected guide and supervisor **Dr. Md. Asraf Ali Associate Professor Department of Software Engineering Faculty of Science and Information Technology Daffodil International University**, great helping during writing this thesis, really, he is the one who gave me the encouragement to become really what I am today. Would not have been made possible without him. It was his persistency and consistency which kept me on track. Thank for your guidance and remarkable efforts. I am highly indebted to **Mr. Md. Khaled Sohel, Assistant Professor** for his guidance, encouragement and utmost support throughout my program to see me successful.

My regards go to **Dr. Touhid Bhuiyan, Associate Professor and Head** of Department of Software Engineering Daffodil International University, for his guidance and encouragement.. My deepest appreciation goes to my beloved families, and in particular to my father Yusuf abdihafid Omar and my mother Hayaad Abdilaahi Warsame and my uncle Shaakir Abdihafid Omar and my uncle Abdiqani Abdihafid Omar, who have given me very supportive, patient, and understanding and material in all aspects of my life and my other things that I cannot mention here And I want thank my Best friend Juweria Ahmed Omar for her big support and help me always supporting me with positive words and encourage me to keep going everyday forward. Lastly, this wish of thanks is dedicated by Mohamed Abdihafid Omar. I also want to thank and appreciate my siblings: Salama Yusuf Abdihafid, Sowda Yusuf Abdihafid, Najma Yusuf Abdihafid, Nadiira Yusuf Abdihfid, Mohamed yususf Abdihafid, Abdirisaaq Yusuf Abdihafid with their support and encouragements.

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## **ABSTRACT**

This study examined the problem of software project failure in Bangladesh it also explored the causes of software project failure and how to reduce the software project failure in Bangladesh. Additionally, we made the correlation in our variables to know the relationships between them. A sample of 80 Questionnaire. The results show that software project failure in Bangladesh is caused by lack of experiences and knowledge of requirement analyst, system analyst, programmer, and software tester. With respect to reducing the software project failure in Bangladesh and how to prevent that problem were described. I selected Bangladesh because it is my second country and for me it is easy to communicate with the participants and can reach them easily.

### **KEY WORDS**

Software project failure in Bangladesh

# CHAPTER 1- INTRODUCTION

## 1.1. Background

Undertaking disappointment is a typical heard issue in the Software Industry lately. It has been seen that practically half of the activities in the Industry flop because of numerous to it. The Standish Group [2003], found in their study that of the considerable number of activities just 1/6 of the undertakings were finished on schedule and inside the predefined spending plan. They additionally discovered that 1/3 of the ventures were dropped and more than 1/2 of them were considered tested. Components adding to extend achievement are to finished it on schedule, ought to be under spending plan and should meet the necessities totally, yet by and large these don't meet the desires which results in undertaking disappointments. The most well-known purposes behind task disappointments are absence of client contribution, improbable time scale, ineffectively characterized necessities, poor testing, miscommunication and distinction of sentiment between colleagues, and so on. Since now the majority of the organizations use programming for different tasks, it is an absolute necessity for each organization to dodge venture disappointments. A colossal measure of cash is spent on making programming, in this manner it is imperative to break down and comprehend the explanations for the different purposes for undertaking disappointments. The chart beneath shows different explanations behind disappointment and the rate to which each factor contributes

The above diagram and the level of disappointments demonstrate that it is typical for a product task to bomb because of different reasons. Yet, the fact of the matter is the thing that we can do

to keep away from it. For that we have to comprehend the different purposes behind disappointment and the means to maintain a strategic distance from the

## **1.2. Research Motivation**

For why we need programming venture Development of PC based data frameworks started during the 1950s. From that point forward, advancement condition and procedure has profoundly changed, basically due to changing authoritative requirements and mechanical improvement. During the 1950s, focal point of advancement was on the procedure the product performed and the objective was to build effectiveness of handling. Since handling intensity of PC was a basic asset, accentuation was given on the mechanization of the current procedure. However at this point the situation has changed. The ideas of business process improvement and reengineering have appeared with increment in handling power and other innovative upgrades. Associations are currently changing their business procedures to profit and utilize better innovation to determine higher effectiveness. Business associations are currently quick to mechanize their frameworks with the goal that they can do their undertakings rapidly and effectively. Be that as it may, even after such extreme changes in business forms, needs, mechanical advancement and forcefulness of the business condition, loads of data framework ventures

This precisely our examination roused us to do this work, so to take care of the issue proposed paper of programming venture inability to decrease the undertaking disappointment in Bangladesh

### 1.3. Problem Statement

Advancement of PC based data frameworks started during the 1950s. From that point forward, improvement condition and procedure has fundamentally changed, primarily on account of changing hierarchical requirements and mechanical advancement. During the 1950s, focal point of advancement was on the procedure the product performed and the objective was to expand effectiveness of preparing. Since preparing intensity of PC was a basic asset, accentuation was given on the robotization of the current procedure. However at this point the situation has changed. The ideas of business process improvement and reengineering have appeared with increment in preparing power and other innovative upgrades. Associations are currently changing their business procedures to benefit and utilize better innovation to determine higher effectiveness. Business associations are presently quick to computerize their frameworks with the goal that they can do their assignments rapidly and effectively. However, even after such extreme changes in business forms, needs, innovative improvement and forcefulness of the business condition, heaps of data framework ventures fall flat or are in a quandary. From an investigation it was discovered that the rate of programming venture disappointment is between half to 80%. This rate incorporates both little and extensive programming ventures. In an audit of 13,522 ventures done by the Standish Group in the year 2003, it was discovered that about

1. 66% of all software projects fail
2. 82% of the projects experience time overruns and
3. 48% of the projects do not have the required features on product release

We focus on our Research the problem that caused the project failure in Bangladesh

## Research Questions

Our research Questions is to reveal perceived causal relationship and inter connections between process areas, and evaluate the importance of analyzing software project failure

**Q1.** What are the causes for software project failure in Bangladesh?

**Q2.** How to reduce the causes of software project failure in Bangladesh?

## Objectives of the Research

In order to satisfy the aim of the research project the follow objectives will need to accomplish:

1. To Investigate Really Lead To Failure Software Project In Bangladesh
2. To Ascertain Bangladesh It Software Project Failure Statistics and Reasons by Means by questionnaire?
3. To Investigate Types Of Software Project Failure?
4. To Discuss How To Prevent The Software Project Failure In Bangladesh?

## 1.6 Research Scope

This study reflects the causes and consequences of finding the software project failure in Bangladesh. The research techniques are mainly content analysis and limited number of respondents' view that are responsible for project . Therefore the findings of this study do not

hold enough for the generalization but this provide us the trend and common problem of causes the software project failure and its remedies for better achievement

## 1.7 Thesis Organization

This thesis consists of five chapters which will cover the finding and the developing the project failure in Bangladesh

. Here is an overview of the content of each presented chapter:

**Chapter One:** This Chapter Introduce the Introduction Of Software Project Failure Also The Background of Software Projects. The Causes Of Projects Failure

**Chapter Two:** This Chapter Covers The Literature Review Which Is The Previous Related Works That Been Done Before. Moreover, This Chapter Represents Relevant Information For Understanding The Study More.

**Chapter Three:** This Chapter Explains the Details Of The Selected Methodology That We Are Going To Use In The Thesis

**Chapter Four:** This Chapter Discusses About The Finding And Discussion Of Software Project Failure

**Chapter Five:** This Chapter Introduces The Conclusions And Recommendation Of Thesis

## CHAPTER TWO - LITERATURE REVIEW

### Chapter 2 Overview

This chapter explains the literature review to software project failure and present of Background of software project Failure also we identify the causes of software project failure

#### 2.1 Background of The Software Project Failure

Creating programming frameworks is a costly, and regularly a troublesome procedure as programming improvement ventures are influenced by a progression of issues, for example, poor task the board, cost and timetable invades, low quality programming and under-spurred engineers "disappointment" is either legitimately identified with the result of the advancement procedure or it is multi-dimensional covering specialized, monetary, conduct, mental, political, emotional, challenged/arranged, and fleeting elucidations. Ahmad et al. Guarantee that (2006) it might be practically difficult to discover understanding about whether a task succeeded or fizzled". It has happened that the engineers see the undertaking as a complete achievement and different partners see it as a sensational disappointment. Agarwal and Rathod (2009) express that a triumph and a disappointment are identified with the view of task individuals. They reason that the recognitions about a triumph or a disappointment are frequently identified with satisfying the task objectives. Comparable cases are exhibited by Procaccino et al. (2007). A product venture disappointment implies an unmistakable Failure To Succeed In The Cost, Schedule, Scope, Or

Quality Goals Of The Project. The "unmistakable" alludes to a task disappointment saw as extreme enough to be averted in the forthcoming venture

## **2.2.0 Common causes of software project failures**

In this section, we discuss the common causes of software project

### **2.2.1 Lack of User Input**

The Standish Group (2013) overview inferred that absence of client input was appraised by 12.8% of respondents as the number 1 explanation behind ventures being tested, for example the venture is finished and operational however over spending plan, over the time gauge, and offers less highlights and capacities than initially indicated. A further 12.4% of respondents finished up absence of client contribution was the number 2 explanation behind undertakings being weakened, for example the task is dropped sooner or later amid the advancement cycle. In a report on the best way to maintain a strategic distance from Information Technology venture disappointment, the Gartner Group (2012) states that one reason for task disappointment is absence of unequivocal Involvement of business specialists. A befuddle between the desires for specialty Units and the IT office's answer regularly happens in light of the fact that the specialty units surrender their duties of issue possession to the IT office

### **2.2.2 Incomplete Requirements and Specifications**

Rodgers (2000) takes note of that one of its underlying drivers venture disappointment isn't appropriately characterizing the task at the absolute starting point. All clients will introduce various perspectives about what they need a framework to do or how they would utilize another framework. An old undertaking the board maxim expresses: "a client will disclose to you anything you get some information about and nothing more" and clients ought to in this manner be examined regarding everything. He infers that a venture definition can't contain everything



that each and every client needs and along these lines the clients ought to support a particular and nitty gritty undertaking definition to guarantee the task is all around characterized. In a study led by the Standish Group (1995), deficient necessities were appraised as the number 1 explanation behind tasks being disabled, for example the task is dropped sooner or later amid the advancement cycle. Deficient prerequisites and determinations were evaluated as the number 2 purpose behind activities being tested

### **2.2.3 Changing Requirements & Specifications**

Changing prerequisites and determinations happen when the clients leave from the Requirements and particulars initially indicated toward the beginning of the task. The accessible research was dissected to figure out what are the effect and explanations behind changing prerequisites and details According to Moad (1998), 76% of a gathering of 500 IT supervisors in both UK and the USA referred to changing client necessities as the fundamental driver of venture disappointment. The Standish Group (1995) overview presumed that changing prerequisites were appraised as the number 3 purpose behind activities being tested, and absence of client inclusion as the number 6 explanation behind undertakings being weakened. The Gartner Group (2009), states that scope creep is the fundamental motivation behind why enormous tasks fall flat. Degree creep is the steady expansion of new necessities to the first detail. As the prerequisites list builds, venture multifaceted nature increments much more. In spite of the fact that it is required because of fundamental changes, it is all the more frequently the aftereffect of poor administration and checking.

## **2.2.4 Lack of Executive Support**

At the point when administrators are not seen or are not effectively supporting an undertaking, a resulting absence of official help happens. The accessible research was broke down to figure out what the effect and explanations behind absence of official help are. As indicated by a report distributed by Cable and Wireless (2007), very regularly IT destinations are missed through absence of senior administration support and an inability to make the correct condition to augment its effect. The Standish Group (2001) overview inferred that 7.5% of respondents demonstrated absence of official help as the number 4 purpose behind activities being impeded. Absence of official help was evaluated as the number 5 purpose behind ventures being tested by 9.3% of respondents.

## **2.2.5 New Technology, Technology Incompetence / Illiteracy**

New innovation, innovation ineptitude/lack of education happen when the association does not have the fundamental abilities to manage innovation. The accessible research was investigated to figure out what the effect and explanations behind new innovation, innovation ineptitude/lack of education are. The Standish Group (1995) overview presumed that innovation inadequacy was evaluated by 7.0% of respondents as the number 5 purpose behind activities being tested. A further 4.3% of respondents finished up innovation lack of education as the number 10 explanation behind ventures being debilitated.

## **2.2.6 Lack of Resources**

Undertakings may likewise flop because of an absence of assets. The absence of assets could be interior or outside. The accessible research was examined to figure out what the effect and purposes behind absence of assets are. Duncan (1996), in the PMBOK, characterizes staff

obtaining as including getting the HR required (people or gatherings) doled out to and taking a shot at the task. In many situations, the best assets may not be accessible, and the task supervisory group must take care to guarantee that the assets, which are accessible, will meet undertaking necessities. The Standish Group (1995) review presumed that absence of assets was appraised by 6.4% of respondents as the number 6 purpose behind activities being tested. A further 10.6% of respondents finished up absence of assets as the number 3 purpose behind undertakings being weakened. A Gartner Group (1997) report on frameworks executions evaluates that there are eight Information Technology experts to fill each ten vacant positions. Data and innovation assets are winding up progressively rare, making it hard to supplant staff individuals who let alone for disappointment after an especially (and most likely superfluously) difficult usage

### **2.2.7 Unrealistic Expectations**

Desires that are set too high outcome in the customer not getting the normal item, bringing about the undertaking being ordered a disappointment. The accessible research was dissected to figure out what

Are the effect and purposes behind doubtful desires?

### **2.2.8 Does not need IT Anymore**

This identifies with ventures being dropped anytime of the undertaking life cycle on the grounds that the organization administrators choose that the IT anticipate isn't required any longer. The accessible research was examined to figure out what the effect and reasons are for activities not being required any longer. The Standish Group (2009) overview presumed that the clients did not require the arrangement were appraised by 7.5% of respondents as the number 8 purpose

behind ventures being debilitated. Terblanche (1999) states that one of the results recently conveyance that is experienced is that the product could be obsolete, and is never executed

### **2.2.9 Lack of IT Management**

The accessibility of IT the board to guarantee venture achievement is talked about in this area. Without the nearness and backing of IT the board, ventures are bound to disappointment. The accessible research was broke down to figure out what the effect and purposes behind absence of IT the executives are.

The Standish Group (1995) overview inferred that absence of Information Technology the executives was evaluated by 6.2% of respondents as the number 9 explanation behind undertakings being debilitated. Another explanation behind Chief Information Officers not being accessible could be that they are inaccessible. Doorman (2000) references a Business Week article in 1990 that detailed that Chief official officer (CEO) were being terminated at almost double the rate of 1988, and half more oftentimes than other senior administrators. (CEO) become normal substitutes for PC related fiascos notwithstanding when different supervisors might be more to blame.

### **2.2.10 Lack of Planning**

Absence of arranging could result in venture disappointment. An arrangement is a guide that controls the undertaking group to definite task fruition. Without an arrangement the task resembles a rudderless vessel. The accessible research was investigated to figure out what the effect and explanations behind absence of arranging are. The Standish Group (1995) overview inferred that absence of arranging was evaluated by 8.7% of respondents as the number 7 explanation behind undertakings being impeded. The 1997 KPMG think about titled "Overview of

Fruitless Information Technology Projects" uncovered that one of the normal reasons for venture disappointment was poor undertaking arranging, explicitly lacking danger the executives and a feeble task plan (2012). As indicated by the investigation of 500 IT administrators in the US and UK, 76% of the chiefs reviewed detailed having a venture totally come up short. Lack of common sense was recorded as the number 2 explanation behind undertakings falling flat (Moad, 2007)

### **2.2.11 Poor communication**

With poor correspondence ventures are bound for disappointment. The accessible research was dissected to figure out what the effect and purposes behind poor correspondence are. Goldstein (2001) references the exploration of Taylor who had his examination of in excess of a thousand Information Technology ventures distributed by the British Computer Society. The overview found that poor correspondence was one of the reasons for venture disappointment. This is affirmed in an article in Computing SA (1998), where Jim Johnson, the director of the Standish Group, expresses that one of the primary reasons ventures come up short is an absence of correspondence The Gartner Group (1998), in the article titled "Is your IT anticipate damned?",

found that sound undertakings have basic, short chains of correspondence and face-to-face interchanges wherever conceivable. Then again, bound undertakings have long complex correspondence channels, with nitty gritty reminders, messages and reports. Additional time is spent on destined undertakings attempting to impart than taking every necessary step. The seeds of disappointment with most failed Information Technology ventures are typically sown at the task's begin in light of the fact that there isn't sufficient correspondence with clients, and insufficient business-side purchase in at the correct administration levels (Wilder et al, 1998).

### **2.2.12 Poor Risk Management**

Poor hazard the board resembles the Titanic without radar, bringing about the venture sinking. Hazard the executives empowers the task group to recognize risks and foresee and make restorative move in an opportune way. The accessible research was investigated to figure out what the effect and purposes behind poor hazard the executives are. The 1997 KPMG think about titled "Study of Unsuccessful Information Technology Projects" uncovered that one of the basic reasons for task disappointment was poor venture arranging, explicitly lacking danger the executives and a frail undertaking plan (Porter: 2000).

In his book on Rapid Development, McConnell (1996) found that inability to oversee dangers is a standout amongst the most well-known exemplary slip-ups. He expresses that if dangers are not overseen effectively, just a single thing needs to turn out badly to change your undertaking from a quick advancement task to a moderate improvement one. Moad (1998) in an article in PC Week on the web, gives an account of a study of 500

Data Technology administrators in the United States and the United Kingdom. The review found that the danger of Information Technology venture disappointment is expanding, as is hands on worry for IT supervisors. 63% said dangers associated with ventures have expanded since they ended up engaged with tasks, while 43% said they have expanded essentially A Gartner Group article (2001) on overseeing hazard in substantial undertaking ventures found that in the past overseeing hazard was not viewed as an esteemed undertaking action, since it didn't straightforwardly result in the culmination of undertaking expectations. Since hazard the executives was given almost no need on big business asset arranging (ERP) ventures, every now and again nobody was allocated to oversee and screen dangers and start restorative activities when chance variables changed from low-to high-affect. The subsequent asset issues, missed deadlines, cost invades and different injuries could have been maintained a strategic distance from, or possibly limited, in the event that somebody had focused on the pointers (hazard factors) and made changes before minor issues ended up difficult issues

## **3 CHAPTER THREE**

### **RESEARCH DESIGN AND METHODOLOGY**

#### **3.1 Introduction**

This chapter discusses the methodology that was Software project Failure in Bangladesh. The discussion will include the design of the research, Research Subject and Instrumentation, Data Collection Procedure, Statistical Analysis.

#### **3.2 Research Subject and Instrumentation**

Calls attention to that an overview is just on a par with an inquiry it pose, subsequently the poll is a basic stage in the review examine process, the survey must be important and exact in endeavoring to catch the pith of the examination objective. To accomplish these finishes, a scientist will be required to settle on a few choices

- ❖ How should be asked?
- ❖ How should each question be phrased?
- ❖ In what sequence should the questions be arranged?
- ❖ What questionnaire layout will best serve the researcher objectives?
- ❖ How should the questionnaire be pre-tested?
- ❖ Does the questionnaire need to be revised?



### **3.3 Data Collection Procedure**

The data collection instrument is a questionnaire. It contains questions formulated based on the research questions (main and sub-questions), literature review and the theoretical positioning presented in this study. The questions were set in a way that examines and . Collected data were quantified,

### **3.4 Statistical Analysis**

The Statistical Package for Social Scientists (SPSS) was used for data entry and analysis. Pearson's correlation tool was used to establish applicable relationships among the identified variables.

### **3.5 Reliability and validity**

Ensuring these two aspects of a study are very important. While reliability shows the need that a study produces results that will be affirmed consistently by subsequent similar studies, validity or trustworthiness of a study requires that the instrument applied correctly obtains the type of data that it is meant to be gathered. The researcher was committed to work objectively and diligently to ensure the actuality of these two aspects of research by following applicable scientific method. Initially, the tool was pre-tested with up to ten randomly selected Software project failure In Bangladesh. Doing this was viewed as a way of helping the researcher to ascertain the validity of the tool.

### 3.6 Research design

The research design for the study is quantitative. The survey method of data collection was implemented using a structured questionnaire. The criteria provided by Software project failure (2017) on when surveys becomes a suitable choice are instructive in choosing the survey method.

The authors listed the following as the criteria.

(2017) indicated that the approach is best when...

- ❖ Data are best obtained directly from the respondents.
- ❖ Data can be obtained by brief answers to structured questions.
- ❖ Respondents are expected to give reliable information.
- ❖ How to use the answers is known.
- ❖ An adequate response rate is expected.

The questionnaire was determined by the literature reviewed, the aims and the research questions of this study as well as by the theoretical positions. Data were collected based on the structured questionnaire made available to the undergraduate students selected as sample. The data collected were managed using the Statistical Package for Social Science (SPSS). The data from the study were analyzed using Pearson's formula for correlational co-efficient. This analytical formula was selected for this study because Pearson's correlation co-efficient or Pearson's product moment correlation is an analytic measure used to determine the linear dependence (correlation) between sets of data (variables). It is generally used within the pursuit of quantitative approach to research [9].

## 4 CHAPTER FOUR

### EXPERIMENTAL RESULTS AND DISCUSSION

#### 4.1 Introduction

This part will cover the exhibit of information investigation and elucidation of overview results.

The information examination and understanding depended on the exploration destinations.

Introduction and examination of the gathered information was registered utilizing recurrence and rates.

#### 4.2 Experimental Results

So as to demonstrate the conveyance of the respondents on the different inquiry things Tables and diagrams were utilized in the introduction of information. The respondents have same survey given them the example size of the investigation populace was 80 respondents, while the objective populace is 90.

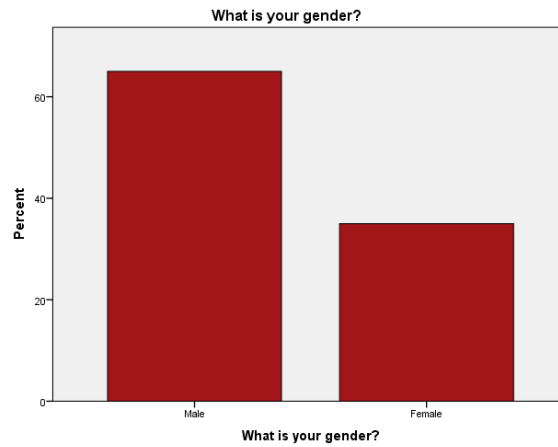
#### 4.3 Descriptive Analysis

##### 4.3.1 Sex Response

**What is your gender?**

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid Male	52	65.0	65.0	65.0
Female	28	35.0	35.0	100.0
Total	80	100.0	100.0	

The above **Table 4.1** indicates that the sex distribution were 52 (65.0%) male and 28(35.0%) female. this indicates the majority of respondents are male.



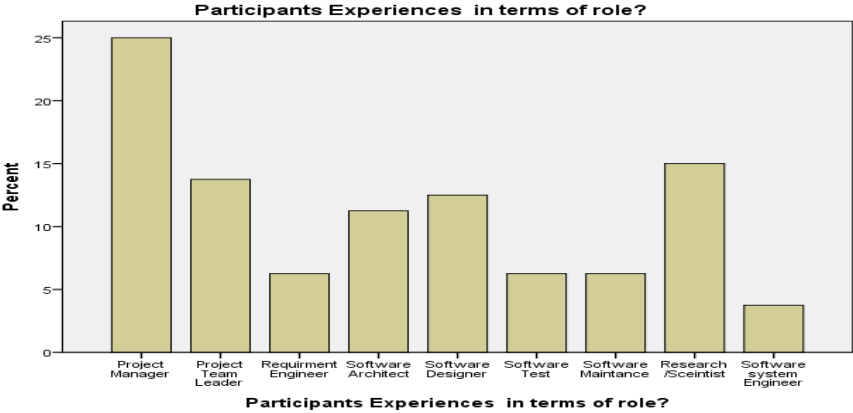
### 4.3.5 Participants Experiences in Terms of Role respondents

Participants Experiences in terms of role?

	Frequency	Percent	Valid Percent	Cumulative Percent
Project Manager	20	25.0	25.0	25.0
Project Team Leader	11	13.8	13.8	38.8
Requirement Engineer	5	6.3	6.3	45.0
Software Architect	9	11.3	11.3	56.3
Software Designer	10	12.5	12.5	68.8
Software Tester	5	6.3	6.3	75.0
Software Maintaince	5	6.3	6.3	81.3
Research /Scientists	12	15.0	15.0	96.3
Software system Engineer	3	3.8	3.8	100.0
Total	80	100.0	100.0	

Table 4. 5 Participants Experiences in Terms of Role respondents

**Table 4.5** shows 20(25.0%) respondents Are Project Manager, 11(13.8%) Project Team Leader and Requirement Engineer 5(6.3%) this indicates the majority of respondents are Project Manager.



**4.3.6 Do you have any failure software project in your company?**

Do you have any failure software project in your company?

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid YES	80	100.0	100.0	100.0

**Table 4.3.6** shows 80(100%) are respondent are response Yes

#### 4.3.7 Title of Software project Failure?

Title of software Project Failure?					
	Frequency	Percent	Valid Percent	Cumulative Percent	
Valid	ACCOUNTING SOFTWARE	3	3.8	3.8	3.8
	BOOKSTORE POS SYSTEM	3	3.8	3.8	7.5
	BUS TICKETING SOFTWARE	3	3.8	3.8	11.3
	CMS	3	3.8	3.8	15.0
	DDM ACCOUNTING SOFTWARE	1	1.3	1.3	16.3
	E-COMMERCE	1	1.3	1.3	17.5
	EDUCATION APP	1	1.3	1.3	18.8
	ERP	2	2.5	2.5	21.3
	FILLING STATION SOFTWARE	3	3.8	3.8	25.0
	FOOD COURT	3	3.8	3.8	28.8
	HOSTEL MANAGEMENT	8	10.0	10.0	38.8
	HOTELS BOOKING	3	3.8	3.8	42.5
	HR SOFTWARE	3	3.8	3.8	46.3
	INVENTORY	8	10.0	10.0	56.3
	JOB TRACKING SYSTEM	3	3.8	3.8	60.0
	LAB MANEGMENT SYSTEM	3	3.8	3.8	63.8
	LIBRARY MANAGEMENT SYSTEM	3	3.8	3.8	67.5
	NEWS WEBSITE	3	3.8	3.8	71.3
	ONLINE EXAM SYSTEM	3	3.8	3.8	75.0
	ONLINE-PAYMENT INTEGRATION	1	1.3	1.3	76.3
	ORDER SYSTEM	1	1.3	1.3	77.5
	PHARMACY SOFWARE	3	3.8	3.8	81.3
	PROCUREMENT				

SOFTWARE	2	2.5	2.5	83.8
SALES DESTRUBATION				
SOFTWARE	2	2.5	2.5	86.3
SCHOOL MANAGEMENT				
SYSTEM	3	3.8	3.8	90.0
SURVEY SYSTEM	3	3.8	3.8	93.8
UNIVERSITY				
MANAGEMENT SYSTEM	3	3.8	3.8	97.5
VEHICLE MANAGEMENT				
SYSTEM	2	2.5	2.5	100.0
Total	80	100.0	100.0	

**This table above** shows title of software project failure that respondent response during collected our questionnaire

#### 4.3.8 Starting and Dead line month and year of failure software project for the Development?

**Starting And Dead line Month and Year of Failure software project for the Development?**

Year	Frequency	Percent	Valid Percent	Cumulative Percent
01/04/2010	3	3.8	3.8	3.8
02/04/2011	4	5.0	5.0	8.8
01/07/2015	8	10.0	10.0	18.8
01/02/2016	8	10.0	10.0	28.8
01/17/2016	7	8.8	8.8	37.5
12/10/2016	8	10.0	10.0	47.5
01/04/2017	10	12.5	12.5	60.0
01/17/2017	8	10.0	10.0	70.0
04/02/2017	4	5.0	5.0	75.0
01/02/2018	4	5.0	5.0	80.0
01/10/2018	4	5.0	5.0	85.0
01/17/2018	8	10.0	10.0	95.0
04/02/2018	4	5.0	5.0	100.0
Total	80	100.0	100.0	

**Table 4.3.8 above shows the starting date for software project failure and date between 2010 and 2018 this indicate the**

The following figure 4.3.8 shows the graph of table 4.3.8

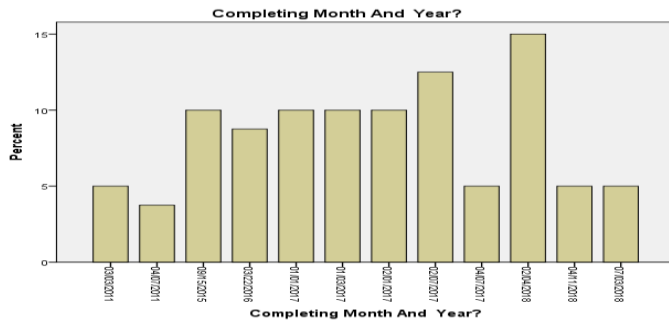
**4.3.9 Completing Month and Year?**

Completing Month And Year?				
Year	Frequency	Percent	Valid Percent	Cumulative Percent
03/03/2011	4	5.0	5.0	5.0
04/07/2011	3	3.8	3.8	8.8
09/15/2015	8	10.0	10.0	18.8
03/22/2016	7	8.8	8.8	27.5
01/01/2017	8	10.0	10.0	37.5
01/03/2017	8	10.0	10.0	47.5
Valid 02/01/2017	8	10.0	10.0	57.5
02/07/2017	10	12.5	12.5	70.0
04/07/2017	4	5.0	5.0	75.0
02/04/2018	12	15.0	15.0	90.0
04/11/2018	4	5.0	5.0	95.0
07/03/2018	4	5.0	5.0	100.0
Total	80	100.0	100.0	

**This Table above shows completing year and month and the date between 2011 and 2018**

The following figure 4.3.9 shows the graph of table 4.3..9





### 4.3.10 did the failure software project was delivered to any client and Month Year?

Did the failure software project was delivered to any client and Month Year?

Year	Frequency	Percent	Valid Percent	Cumulative Percent
02/04/2011	4	5.0	5.0	5.0
09/07/2011	3	3.8	3.8	8.8
04/01/2016	8	10.0	10.0	18.8
11/13/2016	7	8.8	8.8	27.5
02/07/2017	8	10.0	10.0	37.5
07/14/2017	8	10.0	10.0	47.5
11/11/2017	10	12.5	12.5	60.0
01/02/2018	4	5.0	5.0	65.0
02/03/2018	8	10.0	10.0	75.0
04/24/2018	4	5.0	5.0	80.0
05/05/2018	4	5.0	5.0	85.0
07/07/2018	8	10.0	10.0	95.0
07/09/2018	4	5.0	5.0	100.0
Total	80	100.0	100.0	

This Table above shows is there any software project was delivered to any clients

### 4.3.11 is the failure software project stop from clients?

Is the failure software project stop from clients?

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid YES	72	90.0	90.0	90.0
Valid NO	8	10.0	10.0	100.0
Total	80	100.0	100.0	

This Table above shows the respondents **72(90%)** are response **YES** and **8(10%)** response No

The following figure 4.3.11 shows the graph of table 4.3.11

### 4.3.12 Reason for stopping the failure software project with stopping date month and year?

Reason for stopping the failure software project with stopping date Month and Year?

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid 02/03/2010	4	5.0	5.0	5.0
Valid 01/08/2012	3	3.8	3.8	8.8
Valid 01/17/2017	7	8.8	8.8	17.5
Valid 09/11/2017	8	10.0	10.0	27.5
Valid 09/15/2017	8	10.0	10.0	37.5
02/05/2018	4	5.0	5.0	42.5
03/01/2018	8	10.0	10.0	52.5
03/17/2018	8	10.0	10.0	62.5
09/11/2018	8	10.0	10.0	72.5
10/01/2018	10	12.5	12.5	85.0
11/07/2018	4	5.0	5.0	90.0
12/11/2018	4	5.0	5.0	95.0
05/02/2019	4	5.0	5.0	100.0
Total	80	100.0	100.0	

This table above shows reason for stopping software project with date and the date between 2010 and 2019

### 4.3.13 did the failure software projects was analyzed by any system analyst?

Did the failure software project was analyzed by any system analyst?

	Frequency	Percent	Valid Percent	Cumulative Percent
YES	47	58.8	58.8	58.8
NO	33	41.3	41.3	100.0
Valid Total	80	100.0	100.0	

This Table Above shows 47(58.8%) respondent are Said the YES and 33(41.3%) respondents said No

The following figure 4.3.13 shows the graph of table 4.3.13

### 4.3.14 How many year experiences had system analyst?

How many year experiences had system analyst?

	Frequency	Percent	Valid Percent	Cumulative Percent
0 Years	12	15.0	15.0	15.0
1 Years	49	61.3	61.3	76.3
3 Years	12	15.0	15.0	91.3
Valid 4Years	4	5.0	5.0	96.3
None	3	3.8	3.8	100.0
Total	80	100.0	100.0	

This Table above shows The experiences of system analyst 1 years experiences shows 49(61.3%) and 0 years is 12(15.0%) and the last one is 3 years 12(15.0%) this table also shows system analyst had no experiences 3(3.8%)

The following figure 4.3.14 shows the graph of table 4.3.14

### 4.3.14 Educational and qualification of the system analyst?

Educational Qualification of the system Analyst?

	Frequency	Percent	Valid Percent	Cumulative Percent
Undergraduate	14	17.5	18.2	18.2
Bachelor Degree	46	57.5	59.7	77.9
Master Degree	8	10.0	10.4	88.3
PHD	3	3.8	3.9	92.2
None	6	7.5	7.8	100.0
Total	77	96.3	100.0	
System				
Missing	3	3.8		
Total	80	100.0		

The above table shows 46 (57.5%) respondents have bachelor degree (BSC) 14(17.5%) respondents are the Undergraduate, and 8(10.0%) are Master Degree 3(3.8%) have PHD The majorities are the bachelor Degree

The following figure 4.3.14 shows the graph of table 4.3.14

### 4.3.15 Educational and qualification of the system analyst?

Major of Education Qualification?

	Frequency	Percent	Valid Percent	Cumulative Percent
Computer Science And Engineering	18	22.5		23.4
Software Engineering	8	10.0	23.4	33.8
Information Technology	45	56.3	58.4	92.2
Other	6	7.5	7.8	100.0

Total		77	96.3	100.0
Missing	System	3	3.8	
Total		80	100.0	

The above table shows 45 (56.3%) respondents are major education is Information Technology 18(22.5%) the respondents are Computer Sciences 8(10.0%) the respondents are software engineering 6(7.5%) the respondents are Other

The following figure 4.4.15 shows the graph of table 4.4.15

### 4.3.16 did the failure software project was gathered the requirements by any Requirement analysts?

Did the failure software project was gathered the requirements by any requirement analysts?

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid YES	42	52.5	52.5	52.5
Valid NO	38	47.5	47.5	100.0
Total	80	100.0	100.0	

This Table above shows the respondents of 42(52.5%) respondents respond YES and the 38(47.5%) respondents response NO

The following figure 4.3.16 shows the graph of table 4.3.16

### 4.3.17 How many year experiences had requirement analyst?

How many year experiences had requirement analyst?

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid 0 Years	32	40.0	40.0	40.0
Valid 1 Years	4	5.0	5.0	45.0
Valid 3 Years	29	36.3	36.3	81.3

4Years	4	5.0	5.0	86.3
More than 5 Years	11	13.8	13.8	100.0
Total	80	100.0	100.0	

This table above shows 32(40.0%) had 0 year and 29(36.3%) had 1 year experiences 11(13.8%) had more than 5 years

#### 4.3.18 Educational Qualification of the requirement analyst?

**Educational Qualification of the Requirement analyst?**

	Frequency	Percent	Valid Percent	Cumulative Percent
High school Diploma	8	10.0	10.0	10.0
Undergraduate	8	10.0	10.0	20.0
Bachelor Degree	53	66.3	66.3	86.3
Valid Master Degree	8	10.0	10.0	96.3
None	3	3.8	3.8	100.0
Total	80	100.0	100.0	

The above table shows 53 (66.3%) respondents have bachelor degree (BSC) 8(10.0%) respondents are the Undergraduate, and 8(10.0%) are Master Degree the majorities are the bachelor Degree

#### 4.3.19 Major of Education Qualification of Requirement Analyst?

**Major of Education Qualification?**

	Frequency	Percent	Valid Percent	Cumulative Percent
Computer Science And Engineering	18	22.5	23.4	23.4
Software Engineering	8	10.0	10.4	33.8
Valid Missing Information Technology	45	56.3	58.4	92.2

Total	Other	6	7.5	7.8	
	Total	77	96.3	100.0	100.0
	System	3	3.8		
		80	100.0		

This Table above shows Describe the Respondents of major education 45(56.3%) respondent have

Information Technology (IT) the respondent of 18(22.5%) has the Computer science And Engineering 8(10.0%) the respondents has software engineering the majorities has information technology

**The following figure 4.3.19 shows the graph of table 4.3.19**

#### 4.3.20 did the failure software project was developed by programmer?

**Did the failure software project was developed by programmer?**

	Frequency	Percent	Valid Percent	Cumulative Percent
YES	78	97.5	97.5	97.5
NO	2	2.5	2.5	100.0
Valid Total	80	100.0	100.0	

This Table above shows the 78(79.5%) respondents response YES and 2(2.5%) respondents responded No the majorities are respondent Yes

**The following figure 4.3.20 shows the graph of table 4.3.20**

#### 4.3.21 How many year experiences had programmer?

**How many year experiences had Programmer?**

	Frequency	Percent	Valid Percent	Cumulative Percent
0 Years	6	7.5	7.5	7.5
Valid Total				

1 Years	35	43.8	43.8	51.3
3 Years	19	23.8	23.8	75.0
4Years	8	10.0	10.0	85.0
More than 5 Years	12	15.0	15.0	100.0
Total	80	100.0	100.0	

This table above shows 35(43.8%) had 1 year and 19(23.8%) had 3 year experiences 12(15.0%) had more than 5 years

#### 4.3.21 Educational Qualification of programmer?

Educational Qualification of the programmer?

	Frequency	Percent	Valid Percent	Cumulative Percent
High school Diploma	2	2.5	2.5	2.5
Undergraduate	22	27.5	27.5	30.0
Bachelor Degree	50	62.5	62.5	92.5
Master Degree	6	7.5	7.5	100.0
Valid Total	80	100.0	100.0	

The above table shows 50 (62.5%) respondents have bachelor degree (BSC) 22(27.5%) respondents are the Undergraduate, and 6(7.5%) are Master Degree 2(2.5%) respondent have High school diploma the majorities are the bachelor Degree

The following figure 4.3.20 shows the graph of table 4.3.20

#### 4.3.21 Major of education Qualification programmer?

Major of Education Qualification Programmer?

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid Computer Science And Engineering	36	45.0	45.0	45.0



Software Engineering	25	31.3	31.3	76.3
Information Technology	19	23.8	23.8	100.0
Total	80	100.0	100.0	

**This Table above** shows Majorities of education of programmer 36(45.0%) respondents have computer science and engineering 25(31.3%) respondents have software engineering 19(23.8%) respondents have information technology the majorities had computer science and engineering

#### 4.3.21 did the failure software project was tasted by any taster?

**Did the failure software project was tested by any tester?**

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid YES	32	40.0	40.0	40.0
Valid NO	48	60.0	60.0	100.0
Total	80	100.0	100.0	

This Table above shows the respondents 48(60.0%) response NO it means software project failure was not tasted any taster 32(40.0%) respondent response that software project failure tasted any tester response Yes

The following figure 4.3.22 shows the graph of table 4.3.22

#### 4.3.23 How many year experiences had Taster?

**How many year experiences had Tester?**

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid 0 Years	36	45.0	45.0	45.0
Valid 1 Years	27	33.8	33.8	78.8
Valid 3 Years	17	21.3	21.3	100.0
Total	80	100.0	100.0	

This table above shows experience of taster the respondents 36(45.0%) respondent has less than one year experiences and 27(33.8%) the respondent has 1 year experiences 17(21.3%) the respondent has 3 years experiences

The following figure 4.3.23 shows the graph of table 4.3.23

#### 4.3.25 Educational Qualification of the Tester?

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	High school Diploma	6	7.5	7.6	7.6
	Undergraduate	20	25.0	25.3	32.9
	Bachelor Degree	44	55.0	55.7	88.6
	Other	9	11.3	11.4	100.0
	Total	79	98.8	100.0	
Missing	System	1	1.3		
Total		80	100.0		

The Table above shows the respondents 44(55.0%) has Bachelor degree 20(25.0%) the respondent has Undergraduate 6(7.5%) the respondent has high school diploma 9(11.3%) the respondent has other majorities has Bachelor degree

The following figure 4.3.25 shows the graph of table 4.3.25

#### 4.3.26 Major of Education Qualification Tester?

	Frequency	Percent	Valid Percent	Cumulative Percent

Valid	Computer Science And Engineering	37	46.3	46.3	46.3
	Software Engineering	19	23.8	23.8	70.0
	Information Technology	24	30.0	30.0	100.0
	Total	80	100.0	100.0	

This table above shows respondents 37(46.3%) respondent has computer science engineering 19(23.8%) the respondent has software engineering 24(30.0%) the respondent has information technology

### **Definition of Correlation, its Assumptions and the Correlation Coefficient**

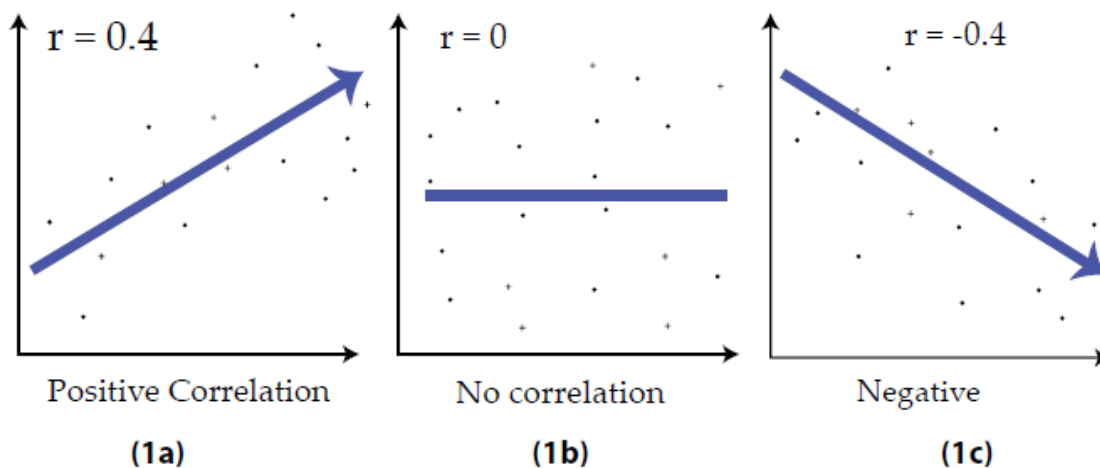
Correlation, also called as correlation analysis, is a term used to denote the association or relationship between two (or more) quantitative variables. This analysis is fundamentally based on the assumption of a straight –line

[Linear] relationship between the quantitative variables. Similar to the measures of association for Binary variables, it measures the “strength” or the “extent” of an association between the variables And also its direction. The end result of a correlation analysis is a *Correlation coefficient* whose values range from -1 to +1. A correlation coefficient of +1 indicates that the two variables are perfectly related in a positive [linear ] manner, a correlation coefficient of -1 indicates that two variables are perfectly related in a negative [linear ] manner, while a correlation coefficient of zero indicates that there is no linear relationship between the two variables being studied. These are depicted in Figures 1 and 2.

## Eyeballing and Analyzing the Data for Correlation - Construction of the Scatter Plot/Scatter Diagram

A correlation analysis begins with the construction of a *scatter plot* or *scatter diagram* [a graphical

Representation of the data] with one variable on the X-axis and the other on the Y-axis. Let us understand this with an example. We had carried out a study<sup>3</sup> earlier that evaluated whether two Modalities of the informed consent process – the written informed consent process, and the audio Visual [AV] recording of this (in the same clinical trial) were different from each other in terms of the extent of understanding of the study by the participant using a pre-validated questionnaire. This questionnaire gave a “total score” [a quantitative measure] at the end of administration. One of the study objectives was to see if there was a relationship between the times (in minutes) taken to administer the consent in the two groups [again a quantitative measure] and the total score. Table 1 gives data on individual participants in both groups for time taken to consent [Measured in minutes] and the total



**Fig. 1: Scatter Plot showing Correlation between two variables. Note: Fig. 1a Shows a weak positive correlation, Fig. 1b shows no correlation and Fig. 1c shows a weak negative correlation**

Score obtained by the participant [presented as a number]. The *scatter plot* or *scatter diagram*

Of the total score on the Y axis with the time taken to administer consent on the X axis, enables us to get a feel of the relationship (if any) between the two. Each point on the

Scatter plot represents the values of X and Y as a *single coordinate*. The closer the points are to a straight line, the stronger is the linear relationship between two variables. Two scatter plots, one for each group can be easily constructed using Microsoft Excel and those for our example are shown below. Both scatter plots from our study show a weak, positive, linear relationship between the total scores and the time taken to administer the consent. The advantage of the scatter plot is that it is simple to construct, is non-mathematical in nature and is unaffected by any extreme values that may be present in the data set. It also tells us immediately if there are outliers or if the relationship is actually non-linear or not entirely linear. A line is usually called the *regression line* or the *least squares line*, because it is determined such that the sum of the squared distances of all the data points from the line is the lowest possible. This will be discussed in greater detail in the next article on regression analysis. The disadvantage of a scatter plot is that it does not give us one single value that will help us to understand whether or not there is a correlation between the variables

Drawn through the points on a scatter plot to identify linearity in the relationship. This line is

## Correlation Coefficient Shows Strength & Direction of Correlation

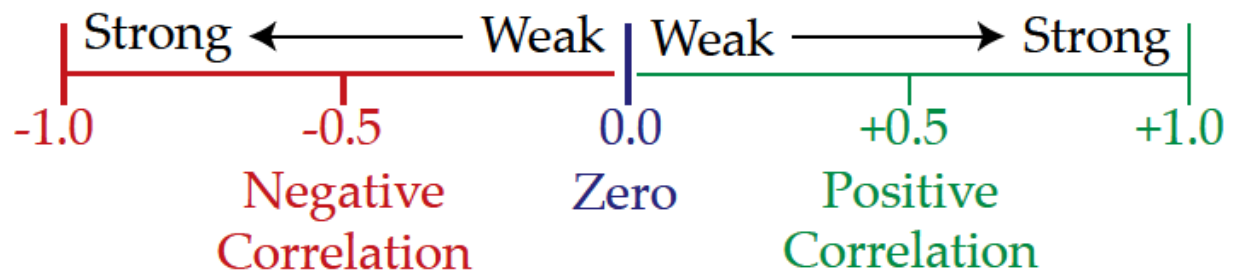
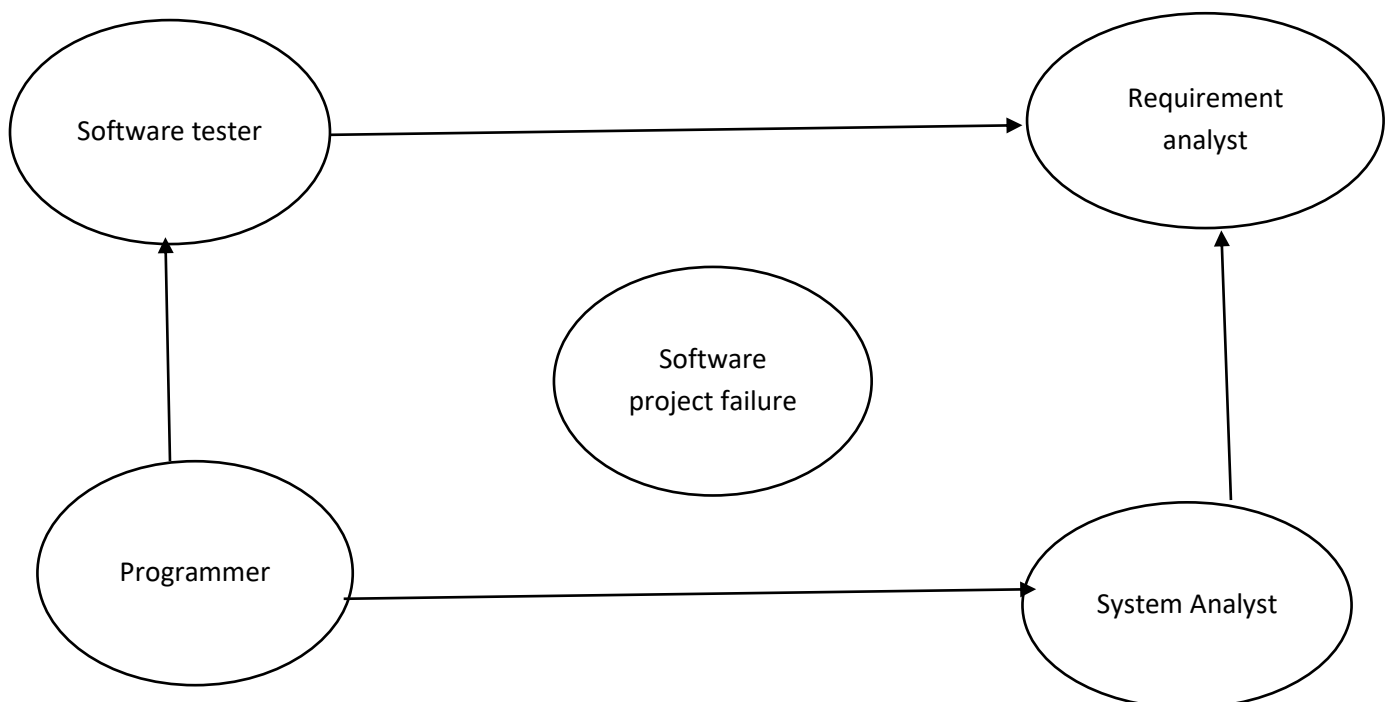


Fig. 2: The spectrum of the correlation coefficient (-1 to +1)



**This diagram explain the way we find the correlation between Requirement analyst system analyst software tester and programmer**

**Descriptive Statistics**

	Mean	Std. Deviation	N
Did the failure software project was analyzed by any system analysis?	1.41	.495	80
did the failure software project was gathered the requirements by any requirement analyst?	1.4750	.50253	80
Did the failure software project was developed by programmer?	1.0250	.15711	80
Did the failure software project was tested by any tester?	1.6234	.68899	77

This table above shows the descriptive Statistics of System analyst Requirement Analyst Software Taster and Programmer

## Correlations

		Did the failure software project was analyzed by any system analysis?	Did the failure software project was gathered the requirements by any requirement analyst?	Did the failure software project was developed by programmer?	Did the failure software project was tested by any tester?
Did the failure software project was analyzed by any system analysis?	Pearson Correlation Sig. (2-tailed) N	1 80	-.187 .097 80	-.134 .235 80	-.261* .022 77
did the failure software project was gathered the requirements by any requirement analyst?	Pearson Correlation Sig. (2-tailed) N	-.187 .097 80	1 .097 80	.168 .136 80	-.002 .983 77
Did the failure software project was developed by programmer?	Pearson Correlation Sig. (2-tailed) N	-.134 .235 80	.168 .136 80	1 .004 80	.328** .004 77
Did the failure software project was tested by any tester?	Pearson Correlation Sig. (2-tailed) N	-.261* .022 77	-.002 .983 77	.328** .004 77	1 .004 77

\*. Correlation is significant at the 0.05 level (2-tailed).

\*\*. Correlation is significant at the 0.01 level (2-tailed).

The Above Table shows Correlations between Among Them the Table Contains Three column First Column Is Significant Difference between our variables and second column is Correlations between Our Variables

System analyst has Strength Correlations between Requirement analysts and also has significant difference between them but we don't have any evidence correlation between system analyst and Requirement analyst

On the other side you can say that Programmer and Taster has Strength Correlations also have the significant difference between taster and Programmer



## **5 CHAPTER FIVE**

### **SUMMARY OF THE STUDY, CONCLUSION AND RECOMMENDATIONS**

#### **5.1 Introduction**

In this chapter will discuss the findings of the results, conclusion and recommendation of this study, first it will be discussed the major findings of each study as confirmed in the research objectives, second the conclusion from the findings of the study, lastly the researchers will suggests recommendation of this study and areas future research.

#### **5.2 Summary of the Study**

After findings the researcher focused on to discuss the questions asked the respondents.

##### **5.2.1 Participants Experiences in Terms of Role respondents?**

About 25.0% respondents has the role of Project Of manager and the other group 13.8% had the project team leader, and the other group 12.5% respondents had the software Design last group 15% respondents had the Research and Scientist

##### **5.2.2 did the failure software projects was analyzed by any system analyst?**

About 58.8% respondent say the software companies has system analyst but , and the other group 41.3% respondent say the software companies does not have any system analyst.

##### **5.2.3 Did the failure software project was gathered the requirements by any requirement analysts?**

About 52.5% respondents said the software companies has requirement but the other side 47.5% response said the software companies does not have any requirement analyst

#### **5.2.4 Did the failure software project was developed by programmer?**

About 97.5% respondents think software project failure was developed the programmer group 2.5% response said that software project failure does not have any programmer

#### **5.1.5 Did the failure software project was tasted by any taster?**

About 60.0% the respondent does not have any Software Taster we said the cause of software project failure is does not have any software Taster group 40 .0% respondent said have software taster in software companies

### **5.3 Conclusion**

The result from the findings of this study showed that, though

### **5.4 Recommendations**

#### **5.5: To prevent software project failure In Bangladesh ?**

We need to develop the Experience and education of the Requirement analyst also we need to develop the capacity of the system analyst to prevent the software project failure in Bangladesh

The survey we made the total of 80 questionnaire respondent said that the experiences of the requirement analyst **61%** percent is 1 Year experience and we focus on to increase the

experience of requirement analyst another point we see the our data is the education of requirement of analyst is Bachelor Degree and the percent of that is **57.5%**

System analyst is very import when we want to develop the software we have the data questionnaire

The survey we made the total of 80 questionnaire respondent said that the experiences of the system Analyst **40%** percent is 0 Year experience it mean have less than 1 year and we focus on to increase the experience of requirement analyst another point we see the our data is the education of requirement of analyst is Bachelor Degree and the percent of that is **66.3%**

### **5.5: To reduce software project failure?**

To reduce the software project failure in Bangladesh we need to focus on the role of programmer and Taster after complete the requirement gathering in the client we want to inure every is step of the software development need is done or not first we want to check after the programmer is develop the software is there any errors of the software before we delivery the client the role that is software taster as we know the data we have most of the software Companies does not have any software taster and that is caused to failed the software

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## Appendix

### Appendix A: Survey Questionnaires

What is your Name? *	
What is your Gender? *	
What is your Company Name? *	
Participants' Experiences in Terms of Roles *	
Location *	
Do you have any failure software project in your company? *	

Title	Title of the software Project Failure? *						
Basic 1	Starting and dead line Month and Year of failure software project for the development. *						
Basic2	Completing Month and Year? *						
Basic 3	Did the failure software project was delivered to any client and Month, Year? *						
Basic 3	Is the failure software project stop from client? *						
Basic 5	Reason for stopping the failure software project with stopping Date month and year *						
System 1	Did the failure software project was analyzed by any system analyst						
System 2	How many year experiences had system analyst? *						
System 3	Educational qualification of the system analyst.						
System 4	Major Of Education qualification *						
Requirement 1	Did the failure software project was gathered the requirements by any requirement analyst *						
Requirement 2	How many year experiences had requirement analyst? *						
Requirement 3	Educational qualification of the requirement analyst? *						
Requirement 4	Major Of Education qualification *						

