

A STUDY ON IMPACT OF TEAMWORK ON PROJECT SUCCESS IN SOFTWARE INDUSTRIES

Submitted in partial fulfillment of the requirements for the award of

Master of Business Administration

by

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SCHOOL OF BUSINESS ADMINISTRATION

SATHYABAMA

**INSTITUTE OF SCIENCE AND TECHNOLOGY
(DEEMED TO BE UNIVERSITY)**

Accredited with "A" grade by NAAC | 12B Status by UGC

| Approved by AICTE

Jeppiaar Nagar, RAJIV GANDHI SALAI, CHENNAI – 600 119

April – 2021



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BONAFIDE CERTIFICATE

This is to certify that this Project Report is the bonafide work of PEKETI NAGA JYOTHI 39410146 who have done the Project work entitled **"A STUDY ON IMPACT OF TEAM WORK ON PROJECT SUCCESS IN SOFTWARE INDUSTRIES"** under my supervision from January 2021 to March 2021.

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External Examiner

DECLARATION

I **PEKETI NAGA JYOTHI 39410146** hereby declare that the Project Report entitled "**A study on Impact of teamwork on project success in software industries**" done by me under the guidance of Dr. NITHYA.S at SATHYABAMA INSTITUTE OF SCIENCE AND TECHNOLOGY, CHENNAI is submitted in partial fulfillment of the requirements for the award of Master of Business Administration degree.

DATE:

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PEKETI NAGA JYOTHI

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PEKETINAGA JYOTHI

ABSTRACT

- The purpose of this study is to highlight importance of teamwork for the project success. The study hypothesized the positive relationship between the project teamwork and project success. The main objective of the study is to find how teamwork impacts on project success in software industries. Employees in software industry are the target population. The sample size of the study was 120. The research was based on convenient sampling technique. The data was collected using structured questionnaire developed by the researcher specifically for this study.

TABLE OF CONTENT

CHAPTER NO.	TITLE	PAGE NO
	ABSTRACT	i
	LIST OF TABLES	iv-v
	LIST OF CHARTS	vi-vii
1	INTRODUCTION	1-6
	1.1 Introduction	1
	1.2 Industry profile	2
	1.3 Need for the study	5
	1.4 scope of the study	5
	1.5 objectives of the study	5
	1.6 Limitation of the study	6
2	REVIEW OF LITERATURE	6-12
3	RESEARCH METHODOLOGY	13-14
	3.1 Research Design	13
	3.2 Sampling technique	13
	3.3 Sources of Data	14
	3.4 Structure of Questionnaire	14
	3.5 Sample size	14
	3.6 Period of Study	14
	3.9 Analytical Tools	14
4	DATA ANALYSIS AND INTERPRETATION	15
	4.1 Percentage analysis	15
	4.2 T-TEST	43
	4.3 Correlation	45
	4.4 ANOVA	46
	4.5 CHI-SQUARE	48
	5.1 Findings	50-51

5	5.2 Suggestions	51
	5.3 Conclusion	51
	REFERENCES	52-54
	APPENDIX-I(Questionnaire)	55-59
	APPENDIX-II (Article)	60-69

LIST OF TABLES

TABLE NO	PARTICULARS	PAGE NO
4.1.1	Gender of the respondents	15
4.1.2	Age of the respondents	16
4.1.3	Qualification of the respondents	17
4.1.4	Income of the respondents	18
4.1.5	Work experience of the respondents	19
4.1.6	Designation in the organization	20
4.1.7	Marital Status of the respondents	21
4.1.8	Respondents ask for there is a relationship between teamwork and project success	22
4.1.9	Respondents ask for Teamwork promotes creativity in software projects	23
4.1.10	Respondents ask for Success rate of project is higher in software industries when team is working on it than an individual	24
4.1.11	Respondents ask for Teamwork leads to complete the project within the given time and given budget in IT industry	25
4.1.12	Respondents ask for Rate the leadership in your team	26
4.1.13	Respondents ask for How far teamwork helping to achieve success	27
4.1.14	Respondents ask for Rate the coordination among team members	28
4.1.15	Respondents ask for Team work is important for project success in software industry	29
4.1.16	Respondents ask for There are social and personal benefits resulting from team work	30
4.1.17	Respondents ask for Team work helps to reach goals	31

	more effectively	
4.1.18	Respondents ask for Team work improves the performance of the team member	32
4.1.19	Respondents ask for Team members are supportive to each other	33
4.1.20	Respondents ask for Team work built trust among the team members	34
4.1.21	Respondents ask for Teamwork makes the dream work	35
4.1.22	Responses ask for Team work improves relations among the team members .	36
4.1.23	Respondents ask for Team members complement each other	37
4.1.24	Respondents ask for Teamwork Encourage risk taking in software industry.	38
4.1.25	Respondents ask for Team work Helps to improve conflict resolution skills.	39
4.1.26	Respondents ask for Team work finds solution to the complex problems	40
4.1.27	Respondents ask for Risk factors are comparatively low while doing team work	41
4.1.28	Respondents ask for Team work reduces performance , scope , quality, or technological risks	42
4.2.1	The table showing the respondents of gender and team work promotes creativity in software projects	43
4.3.1	The table showing the respondents for teamwork improves relation among the team members and teamwork helps to improve conflict resolution skills	45
4.4.1	The table showing respondents for work experience and team members are supportive to each other	46
4.4.2	The table showing the respondents for designation and teamwork is important for project success in software industry	47
4.5.1	The table showing the respondents for age and risk factors are comparatively low while doing teamwork	48

LIST OF CHARTS

TABLE NO	PARTICULARS	PAGE NO
4.1.1	Gender of the respondents	15
4.1.2	Age of the respondents	16
4.1.3	Qualification of the respondents	17
4.1.4	Income of the respondents	18
4.1.5	Work experience of the respondents	19
4.1.6	Designation in the organization	20
4.1.7	Marital Status of the respondents	21
4.1.8	Respondents ask for there is a relationship between teamwork and project success	22
4.1.9	Respondents ask for Teamwork promotes creativity in software projects	23
4.1.10	Respondents ask for Success rate of project is higher in software industries when team is working on it than an individual	24
4.1.11	Respondents ask for Teamwork leads to complete the project within the given time and given budget in IT industry	25
4.1.12	Respondents ask for Rate the leadership in your team	26
4.1.13	Respondents ask for How far teamwork helping to achieve success	27
4.1.14	Respondents ask for Rate the coordination among team members	28
4.1.15	Respondents ask for Team work is important for project success in software industry	29
4.1.16	Respondents ask for There are social and personal	30

	benefits resulting from team work	
4.1.17	Respondents ask for Team work helps to reach goals more effectively	31
4.1.18	Respondents ask for Team work improves the performance of the team member	32
4.1.19	Respondents ask for Team members are supportive to each other	33
4.1.20	Respondents ask for Team work built trust among the team members	34
4.1.21	Respondents ask for Teamwork makes the dream work	35
4.1.22	Responses ask for Team work improves relations among the team members .	36
4.1.23	Respondents ask for Team members complement each other	37
4.1.24	Respondents ask for Teamwork Encourage risk taking in software industry.	38
4.1.25	Respondents ask for Team work Helps to improve conflict resolution skills.	39
4.1.26	Respondents ask for Team work finds solution to the complex problems	40
4.1.27	Respondents ask for Risk factors are comparatively low while doing team work	41
4.1.28	Respondents ask for Team work reduces performance , scope , quality, or technological risks	42

CHAPTER 1

1.INTRODUCTION

1.1 INTRODUCTION OF THE STUDY

Project success is very important for all the organization to survive in the competition. High quality teamwork is considered a crucial success factor in software development projects. Teamwork is an enabler for the smooth running of projects. It speeds up the achievement of targets and helps project professionals overcome obstacles. Teamwork ensures that resources are well-managed and less time is needed to complete a project. Good teamwork can contribute to economizing, more successful project outcomes and ultimately higher profits. It also adds to the quality and individuality of projects. When people work together, you're creating a better environment for creativity. Working as a team encourages risk-taking. When you shoulder the responsibility yourself, you may be inclined to take fewer risks because the personal and professional consequences of failure. In a team, you have support from other members in case things fall apart. Teamwork brings together complementary strengths. You may be good at planning and another team member might be talented in coordinating and creative thinking.

There are complex problems that are encountered in the progress of a project. You can't resolve issues alone – but you can with the wisdom of your team. The goal can be reached quicker and time to market is improved, as many hands make light work, keeping clients happy. The support from the team members also helps in the success of achieving goals. Teamwork can be also described as a strong power given by a group of individuals to make better decisions efficiently. Teamwork can mean the difference between success and failure of a software project. This is the major reason why companies around the world consider teamwork a norm to which employees must attend. It is assumed that universities must educate software engineers not only in the scientific and technical aspects of the discipline, but also in the social capabilities that allow

them to be effective in teamwork. A crucial aspect of any workplace, not only does successful teamwork benefit the group as a whole, but it can also enhance personal development for the individuals involved. Essential attributes of teamwork such as communication, commitment, providing support, and sharing ideas and responsibility are exercised and reinforced when working on teamwork projects. Once the project has been accomplished, members of the team can walk away with their improved skills and apply them elsewhere in their work or even personal life.

1.2 INDUSTRY PROFILE

SOFTWARE INDUSTRY, consists of that part of computer programming activity that is traded between software-producing organizations and corporate or individual software consumers. Traded software represents only a fraction of domestic software activity, whose extent cannot be reliably estimated, since much computer programming takes place within firms and its value is not captured by the industrial census or software industry analysts. According to the industry analyst INPUT, in 2000 the U.S. market for traded software was \$138 billion. The U.S. software industry is a major exporter, and the total revenues of the top 500 U.S. software firms in the year 2000 were \$259 billion, according to the trade publication Software Magazine.

The traded software industry consists of three main sectors: programming services, enterprise software products, and shrink-wrapped software products. These three sectors became established in the mid-1950s, the mid-1960s, and the late 1970s, respectively, in response to the technological opportunities and the business environment of the time. The most successful firms developed specialized

1.2.1 History of software industry:

The first company founded to provide software products and services was Computer Usage__Company in 1955. Before that time, computers were programmed either by customers, or the few commercial computer vendors of the time, such as Sperry Rand and IBM.

The software industry expanded in the early 1960s, almost immediately after computers were first sold in mass-produced quantities. Universities, government, and business customers created a demand for software. Many of these programs were written in-house by full-time staff programmers. Some were distributed freely between users of a particular machine for no charge. Others were done on a commercial basis, and other firms such as Computer Sciences Corporation (founded in 1959) started to grow. Other influential or typical software companies begun in the early 1960s included Advanced Computer Techniques, Automatic Data Processing, Applied Data Research, and Informatics General.^{[2][3]} The computer/hardware makers started bundling operating systems, systems software and programming environments with their machines.

The industry expanded greatly with the rise of the personal computer ("PC") in the mid-1970s, which brought desktop computing to the office worker for the first time. In the following years, it also created a growing market for games, applications, and utilities. DOS, Microsoft's first operating system product, was the dominant operating system at the time.

In the early years of the 21st century, another successful business model has arisen for hosted software, called software-as-a-service, or SaaS; this was at least the third time this model had been attempted. From the point of view of producers of some proprietary software, SaaS reduces the concerns about unauthorized copying, since it can only be accessed through the Web, and by definition no client software is loaded onto the end user's PC.

1.2.2 Programming Services

The first commercial electronic computers—usually known as "mainframes"—were sold in the early 1950s. They were very expensive, typically renting for \$100,000 a year. Most computer-owning corporations undertook their own program development and operations, for which they maintained a staff of up to thirty or forty individuals. This was not a disproportionate expense in relation to the overall costs of running a computer.

By the mid-1950s, however, mainframe prices had fallen significantly, and computer use diffused rapidly—the national computer stock rising from 240 mainframes in 1955 to over four thousand by 1960. Owners of these more moderately priced computers were often unwilling to recruit a permanent programming staff, preferring instead to commission programs from software contractors. Many of the early programming services firms were established by programming entrepreneurs to satisfy this demand. The first such firm, the Computer Usage Corporation (CUC), was incorporated in New York in 1955 by two former IBM programming employees, and the firm initially specialized in developing technical applications for the oil and engineering industries. The capital barriers to software contracting were (and remain) very low, and it was often said that all one needed was "a coding pad and a pencil." The most important capability was the technical knowledge of the principals, usually acquired through working with a computer user or manufacturer. Several dozen firms entered the programming services industry in the second half of the 1950s. In a majority of cases, the firms specialized in particular technical applications, or within a vertical market such as financial services, retail, or manufacturing.

1.3 NEED FOR THE STUDY

Research will provide imminent and a novel direction into the IT world by examining the hidden facets of team dynamics along with competent individuals, it will also be giving concrete evidence that how the achievements of project-based organization can be improved by implementing good communication practices and to conduct a project successfully. The purpose of this study is to research how teamwork impacts positively on project success in software industry.

1.4 SCOPE OF THE STUDY

The purpose of this study is to identify how the team work promotes successful project implementation from start to finish in software industry

- Team work is obviously important in project success
- A survey was administered to 120 respondents. A positive effect of teamwork quality on team performance was found when team members and team leaders rated team performance.
- The effect of teamwork quality on team members' learning and work satisfaction was strongly positive, but was only rated by the team members.

1.5 OBJECTIVES OF STUDY

1.5.1 Primary objectives:

- To analyze the impact of team work on project success in software industry.

1.5.2 Secondary objectives:

- To identify the need of team work to get success in project
- To analyze the way that team work helps to promote creativity in a project team
- To examine the coordination between team members in a project team
- To determine the way team work encourages risk taking

1.6 LIMITATIONS OF THE STUDY

- The study was conducted only for software employees
- The sample collected has been restricted to the 120 respondents only.

The study is limited in chennai only, it may not be generalized

CHAPTER 2

2. REVIEW OF LITERATURE

- **Abdul azizz, Hamazah abdul Rahman, (2010) A birds eye view on classification of factors influencing project success.**

The aim of this review paper is to classify relevant literature on project success in order to obtain a greater breadth on this topic. This paper distinguishes the success of project into project success definition, measurement or dimension of project success, traditional success factors, non-traditional success factors, frameworks and models of project success.

- **A fayaz , Yasir kamal ,Samandar khan(2017)Critical success factors in information technology projects**

The proposed study of this paper has determined 15 factors influencing the most on the success of IT projects through multiple regression analysis. The identified factors cannot only be functional to exact type IT projects but also to all types of IT projects, their success directly affects the achievement of whole organization.

- **Baliant blaskovics (2014) Impact of leadership style on project success the case of a multinational company**

The aim of the paper is to identify a leadership style, of which project managers can maximize the potential for achieving project success. Project success is analyzed from the point of view of success criteria. This approach manages the shortcoming mentioned above, the lack of analyzing interrelationships among critical success factors and success criteria.

- **Dan schilling Nguyen (2016)Success factors that influence Agile software development project success.**

The research questions were focused on the effect of these success factors on agile software development project success, This study has implications for positive social change because organizations that understand the critical factors may be able to improve project management strategies.

- **Dr. sonal Agarwal (2016) Impact of teamwork on organizational productivity in some selected schools in the ACCRA metropolitan assembly.**

The study assessed the impact of teamwork on organizational productivity on the staff members of Kwashieman Anglican Basic School of the Accra Metropolitan Assembly, Omanjor M/A Basic School under the Ga-West Assembly and Ablekuma Anglican Basic School in the Ga-Central Assembly of the Greater-Accra Region.

- **Emily Weimar ,Aske plaat, Joost visser (2017)The influence of team work quality on software team performance .**

This study shows that trust, shared values, and coordination of expertise are important factors for team leaders to consider in order to achieve high quality software team work.

- **Goparaju purna sudhakar (2012) A model of Critical success factors for software projects**

The purpose of this paper is to develop a conceptual model of critical success factors (CSFs) for software development projects, categorize the success factors, finding the factors in each category and highlighting the product, team, project management and communication factors as important categories of success factors for software projects.

- **Hassam baig (2019)Impact of team competence and team communication on information technology project success with a mediating role of team cohesion . Hassam baig (2019)**

The present research is based on identification of the IT projects success because of team competence and team communication along with the mediating role of team cohesion. The Purpose of this study is to highlight the

- **Ijeoma okoronkwo (2017) Team performance and project success .**

This research study will be focused on the quality of interactions within teams which determines the success of their collective output. The impact of team performance on project success – High team performance is considered vital to the success of project development.

- **Junyoung oh, Hwansoo lee, Hangjung zo (2019)The effect of leadership and team work on ISD project success.**

This study aims to analyze how the quality of leadership and teamwork influences project success in information systems development (ISD). The

proposed research model endeavors to substantiate the heterogeneity of project success in the public and private sectors to assist project managers.

- **Jason B Kaminsky (2012) Impact of nontechnical leadership on IT project success.** The article is based on a qualitative study that gathered data from actual IT projects conducted at U.S. companies across several different industry segments. Study results are analyzed to determine the relevance and value of Heifetz's adaptive leadership framework to the area of IT project management.
- **MM. Ghafoor , The Impact of project leadership and teamwork on project success. A Nawaz,.(2016)** This study is empirically examining the influence of Project manager's leadership and teamwork going on the Project success. It examines the relevant literature on project success and project leadership and teamwork from altered procedural elements and amalgamates his finding on the enlargement of innovative structure.
- **Martin Heogl, Hans Georg gemunden (2001)Team work quality and the success of innovative projects** This article develops a comprehensive concept of the collaboration in teams, called Teamwork Quality (TWQ). The six facets of the TWQ construct, i.e., communication, coordination, balance of member contributions, mutual support, effort, and cohesion, are specified.
- **Muhammad mubbashar hassan ,Sajid bashir ,Syed moqaddas Abbas (2017)The impact of project managers personality on project success in NGOs.**

This study examined the extent to which project managers' personality determines project success through the mediating mechanism of transformational leadership.
- **Manazar Hussain awan ,Kashif ahmed , wajid zulqarnain (2015) Impact of project managers soft leadership skills on project success.** The study amply highlights the importance of project mangers' coordination skills and problem finding, analyzing and solving skills. It is hoped that results of this study will provide organizations and individual's related to projects with key

skills especially soft leadership skills to focus and successfully execute the projects.

- **Marly Monterio de carvalh (2015)Project management and its effects on project success.**

This study aims to investigate the effects of project management (PM) on project success under the parameters of scheduling, cost, and margins.

- **Peter Lang (2009) Making software teams effective ; how agile practices lead to project success through team work mechanisms** This study uses an organizational psychology lens to gain a fundamental understanding of how Agile Practices positively influence socio-psychological mechanisms that lead to a successful project.

- **Ralf Muller and Rodney turner, (2007)The influence of project managers on project success criteria and project success by type of project.**

This article studies The importance attached by project managers to project success criteria and the associated rates of project success were assessed for different types of projects, industries and traits of project managers

- **. Ralf muller ,Miia martinsuo (2015)The impact of relational norms on IT projects success and its moderation through project governance.**

The purpose of this paper is to identify the impact of relational norms on project success in different project governance contexts.

- **Rashid maqbool, Ye sudong , nasir manzoor,Yahya rashid (2017)The impact of emotional intelligence ,project managers competencies, and transformational leadership on project success.**

This study aims to examine the relationship and impact of construction project managers' emotional intelligence (EI), managerial competencies, and transformational leadership style on project success.

- **Syed Muhammad javed Iqbal, Muhammad shahid Nawaz,(2017) Impact of project team work on project success in Pakistan.**

This study is based upon Higher Education Commission (HEC)'s projects in Pakistan and data has been collected from project leaders regarding performance and contribution of project teamwork toward project success. The

study hypothesized the positive and direct relationship between the project teamwork and project success

- **. Somchai Mongcolpitakkul (2016)IT investment and organizational support influence on the IT project success and Go live through IT infrastructure capabilities and teamwork quality.**

The study showed that the firm shall process on Go Live for the real use within the completely submitted and installed IT Project in which would result on the worth of investment.

- **The impact of personality on information technology team projects. Alan R peslak (2006)**

This report explores some of the relationships between personality and information technology (IT) team issues and outcomes. A pilot study of university students reviews the role of personality in two major areas - team processes and overall success of the team project.

- **Tanya L Morgan (2012) An examination of project managers leadershipcontribution to project success using critical success factors.**

The paper offers practitioners and researchers a more comprehensive understanding of success in managing large scale projects and useful recommendations for future research.

- **U. frankeE. Ericsson (2011)IT project success factors : an experience report**

The contribution of this paper is the experience from 28 IT projects. The influence of IT project success factors, derived from previous research, were assessed by the project managers and compared with the projects outcome in terms of time, budget and quality.

- **Yngvelindsjorn (2016) Team work quality and project success in software development : a survey of agile development teams.**

This article investigates the effect of teamwork quality on team performance, learning and work satisfaction in agile software teams, and whether this effect differs from that of traditional software teams.

CHAPTER 3

3. RESEARCH METHODOLOGY

Research methodology is a way to systematically solve the research problems. It may be understood as a science of studying how research is done scientifically. It includes the overall research design, the sampling procedure, data collection method and analysis procedure.

3.1 RESEARCH DESIGN

The research design stands for advance planning of the method to be adopted for collection the relevant data and the techniques to be used in adopted for collecting the relevant data and the techniques to be used in analysis, keeping the view the objectives of the research and availability time.

In general, research design is the conceptual structure within which research is conducted: it constitutes the blue print for the collection, measurement and analysis of data.

The Research Design undertaken for the study is **Descriptive Research Design**. A study, which wants to portray the characteristics of a group or individuals or situation, is known as **Descriptive study**. It is mostly qualitative in nature.

3.2 SAMPLING TECHNIQUE

3.2.1 *Convenience sampling method*

A convenience sample is one of the main types of non-probability sampling methods. A convenience sample is made up of people who are easy to reach.

3.3 SOURCE OF DATA

3.3.1 PRIMARY DATA

Data which is collected for the first time is called **Primary Data**. Well Structured Questionnaires has been prepared for collection of primary data. Most of the questions are consist of multiple choices. The structured Questionnaire method was undertaken.

3.3.2 Secondary Data

Secondary data refers to data that was collected by someone other than the user. Common sources of secondary data are Internets, various books and websites.

3.4 STRUCTURE OF QUESTIONNAIRE

There are two broad types of questions open ended or open questions, and closed ended or closed questions. Open questions enable respondents to answer as they wish. Closed questions provide respondents with a list of options from which they choose. In this research only closed ended questions are used.

3.5 SAMPLE SIZE

Sample size means the number of sampling units selected from the population for investigation. It helps to achieve the objective of research. The sample size taken for the study is 120.

3.6 PERIOD OF STUDY

The study period is from January 2021 to March 2021.

3.7 ANALYTICAL TOOLS

The analytical tools used are spss for testing the hypothesis, Chi Square test in spss tool, Correlation in spss tool and ANOVA in spss tool

CHAPTER 4

4. DATA ANALYSIS AND INTERPRETATION

4.1 PERCENTAGE ANALYSIS

Table 4.1.1 Gender of the respondent

S NO	Particulars	No. of Respondents	Percentage
1	Male	73	60.8
2	Female	47	39.2
TOTAL		120	100.00

Source: primary data

INTERPRETATION:

From the table it is interpreted that the number of male respondents is 60.8% And Female respondent is 39.2%.

Gender
120 responses

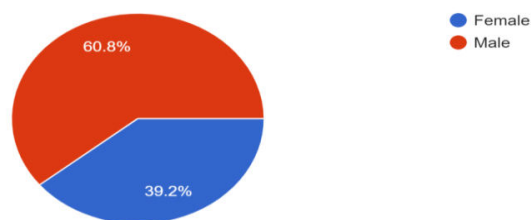


CHART 4.1.1 Gender of the Respondents

Table 4.1.2 Age of the respondents

S NO	Particulars	No. of Respondents	Percentage
1.	20 - 30	92	76.7
2.	30 - 40	16	13.3
3.	40 and above	12	10
Total		120	100

Source: primary data

INTERPRETATION:

From the above table it is interpreted that the number of respondents between 20 – 30 is 76.7%, 30 – 40 is 13.3% and 40 and above is 10%.

Age
120 responses

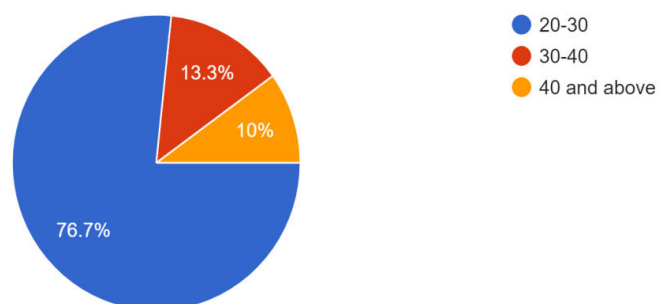


Chart 4.1.2 Age of the respondents

Table 4.1.3: Qualification of the respondents

S. NO	Particulars	No. of Respondents	Percentage
1.	Diploma	10	8.3
2.	Bachelor's degree	62	51.7
3.	Master's	41	34.2
4.	Doctorate	7	5.8
Total		120	100

Source: primary data

INTERPRETATION

From the above table it is interpreted that the number of respondents of Diploma is 8.3%, Bachelor's degree is 51.7%, Master's is 34.2%, Doctorate is 5.8%.

Education qualification
120 responses

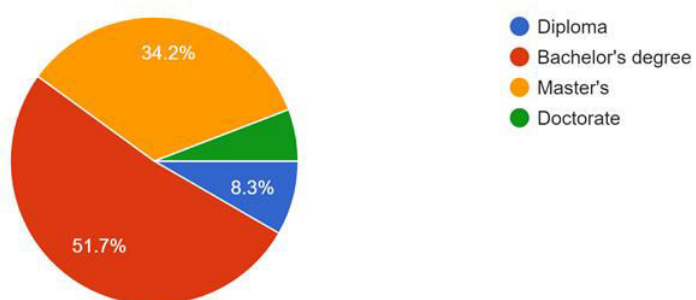


Chart 4.1.3 Qualification of the respondents

Table 4.1.4 Income of the Respondent

S NO	Particulars	No. of Respondents	Percentage
1.	under 15000	18	15
2.	15000-25000	27	22.5
3.	25000-35000	37	30.08
4.	35000-45000	19	15.8
5.	45000 and more	19	15.8
Total		120	100

Source: primary data

INTERPRETATION

From the above table it is interpreted that the number of respondents between

Under 15000 is 15%, 15000-25000 is 22.5%, 25000-35000 is 30.08%, 35000-45000 is 15.8%, 45000 and more is 15.8%.

income per month
120 responses

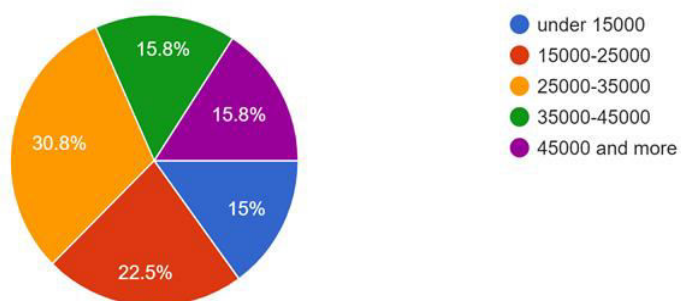


Chart 4.1.4 Income of the Respondent

Table 4.1.5 work experience of the respondents

S NO	Particulars	No. of Respondents	Percentage
1.	less than 1 year	19	15.8
2.	1-5	65	54.2
3.	5-10	15	12.5
4.	10-15	10	8.3
5.	15-20	9	7.5
6.	20 years and more	2	1.7
Total		120	100

Source: primary data

INTERPRETATION

From the above table it is interpreted that the number of respondents of less than 1 year is 15.8%, 1-5 years is 54.2%, 5-10 years is 12.5%, 10-15 years is 8.3%, 15-20 years is 7.5%, 20 years and more is 2%

work experience
120 responses

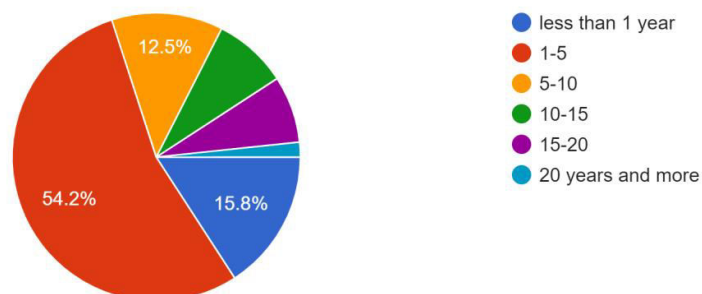


Chart 4.1.5 work experience of the respondents

Table 4.1.6: Designation in the organization

S NO	Particulars	No of respondents	percentage
1	project manager	21	17.5
2	computer systems analyst	24	20
3	Business analyst	18	15
4	computer engineer	16	13.3
5	IT coordinator	17	14.2
6	software developer	24	20
Total		120	100

Source: primary data

INTERPRETATION

From the above it is interpreted that the number of respondents of project manager is 17.5%, computer system analyst is 20% , business analyst is 15%, computer engineer is 13.3%, IT coordinator is 14.2 % and software developer is 20%

Designation in the organization
120 responses

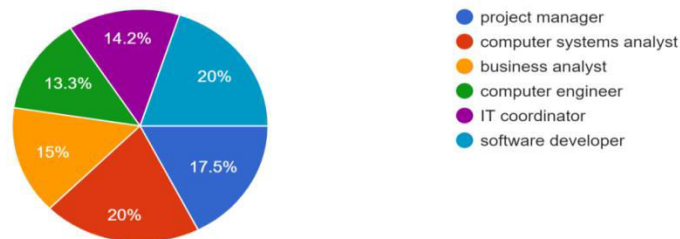


Chart4.1.6: designation in the organization

Table 4.1.7: Marital status of respondents

S NO	Particulars	No of respondents	Percentage
1	single	83	69.2
2	married	35	29.2
3	Prefer not to say	2	1.7
Total		120	100

INTERPRETATION

From the above table it is interpreted that the number of single respondents is 69%,

Married respondents is 29.2% and prefer not to say respondents is 1.7%

Marital status
120 responses



Chart 4.1.7: Marital status of respondents

Table 4.1.8: Respondents ask for there is a relationship between teamwork and project success

S NO	Particulars		Percentage
1	Strongly Agree	72	60
2	Agree	45	37.5
3	Neither agree nor disagree	1	0.8
4	Disagree	2	1.7
5	Strongly disagree	0	0
Total		120	100

Source: primary data

INTERPRETATION

From the above table it is interpreted that the 60% of respondents says strongly agreed, 3.5% says agree, 0.8 says neither agree nor disagree, 1.7% says disagree.

There is a relationship between teamwork and project success
120 responses

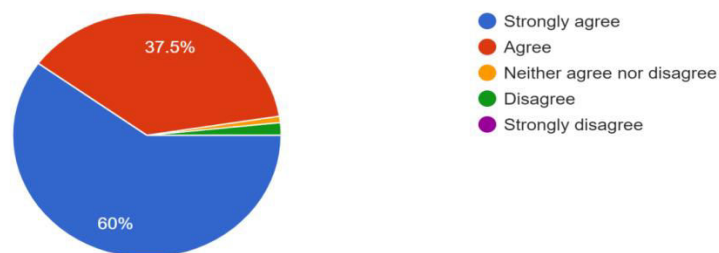


Chart 4.1.8: Respondents ask for there is a relationship between teamwork and project success

Table 4.1.9: Respondents ask for Teamwork promotes creativity in software projects

NO	Particulars	No of Respondents	Percentage
1	Strongly Agree	78	65
2	Agree	42	35
3	Neither agree nor disagree	0	0
4	Disagree	0	0
5	Strongly disagree	0	0
Total		120	100

Source: primary data

INTERPRETATION

From the above table it is interpreted that the 65% of respondents says strongly agreed, 35% says agree

Teamwork promotes creativity in software projects
120 responses



Chart 4.1.9: Respondents ask for Teamwork promotes creativity in software projects

Table 4.1.10: Respondents ask for Success rate of project is higher in software industries when team is working on it than an individual

S NO	Particulars	No of Respondents	Percentage
1	Strongly Agree	77	64.2
2	Agree	43	35.8
3	Neither agree nor disagree	0	0
4	Disagree	0	0
5	Strongly disagree	0	0
Total		120	100

Source: Primary data

INTERPRETATION

From the above table it is interpreted that the 64.2% of respondents says strongly agreed, 35.8% says agree

Success rate of project is higher in software industries when team is working on it than an individual
120 responses

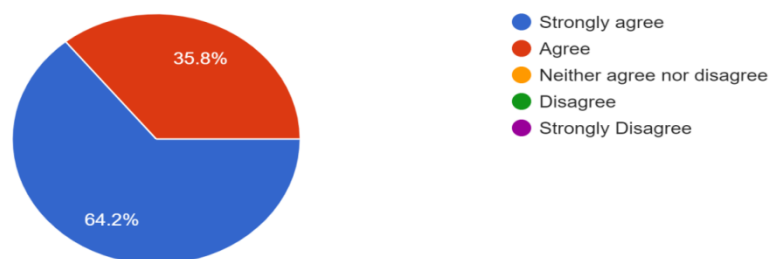


Chart 4.1.10: Respondents ask for Success rate of project is higher in software industries when team is working on it than an individual

Table 4.1. 11: Respondents ask for Teamwork leads to complete the project within the given time and given budget in IT industry

S NO	Particulars	No of Respondents	Percentage
1	Strongly Agree	67	55.8%
2	Agree	51	42.5%
3	Neither agree nor disagree	2	1.7
4	Disagree	0	0
5	Strongly disagree	0	0
Total		120	100

Source: primary data

INTERPRETATION

From the above table it is interpreted that the 55.8% of respondents says strongly agree, 42.5% says agree and 1.7 says neither agree nor disagree.

Teamwork leads to complete the project within the given time and given budget in IT industry
120 responses

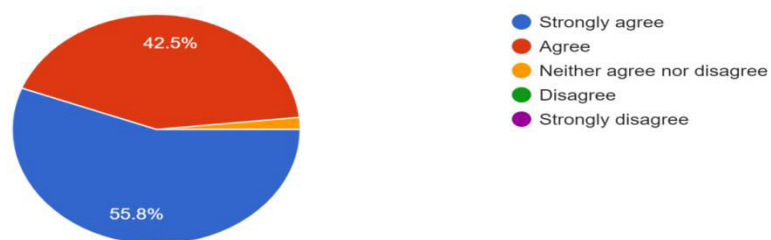


Chart 4.1.11: Respondents ask for Teamwork leads to complete the project within the given time and given budget in IT industry

Table 4.1. 12: Rate the leadership in your team

S NO	Particulars	No of Respondents	Percentage
1	1	0	0
2	2	1	0.8
3	3	4	3.3
4	4	67	55.8
5	5	48	40
Total		120	100

Source: primary data

INTERPRETATION

From the above table it is interpreted that the 55.8% of respondents gave 4 rating , 40% of respondents gave 5 rating , 3.3 % gave 3 rating and 0.8% gave 2 rating

Rate the leadership in your team

120 responses

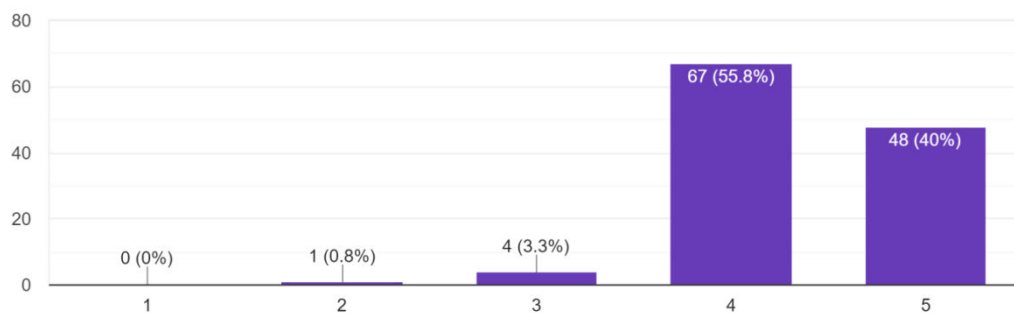


Chart 4.1.12: Rate the leadership in your team

Table 4.1.13: How far teamwork helping to achieve success

S NO	Particulars	No of Respondents	Percentage
1	1	0	0
2	2	0	0
3	3	12	10
4	4	72	60
5	5	36	30
Total		120	100

Source: primary data

INTERPRETATION

From the above table it is interpreted that the 60% of respondents gave 4 rating , 30% of respondents gave 5 rating and 10% gave 3 rating

How far teamwork helping to achieve success
120 responses

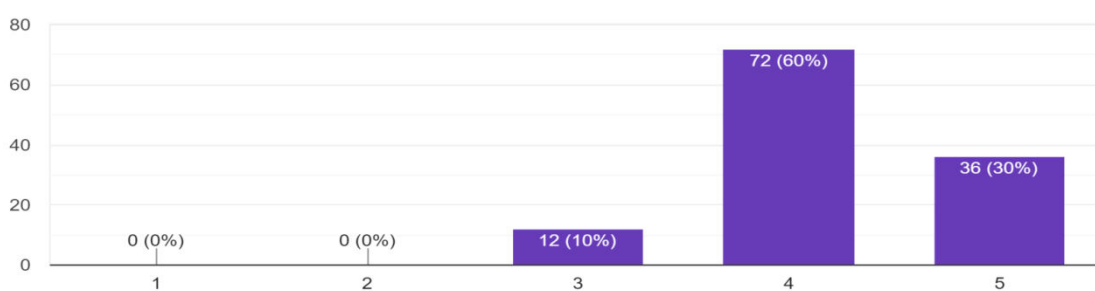


Chart 4.1.13: How far teamwork helping to achieve success

Table 4.1.14: Rate the Coordination among team members

S NO	Particulars	No of Respondents	Percentage
1	1	0	0
2	2	1	0.8
3	3	3	2.5
4	4	65	54.2
5	5	51	42.5
Total		120	100

Source: primary data

INTERPRETATION

From the above table it is interpreted that the 54.2% of respondents gave 4 rating , 42.5% of respondents gave 5 rating and 2.5% gave 3 rating and 0.8 % gave 2 ratings

Rate the Coordination among team members
120 responses

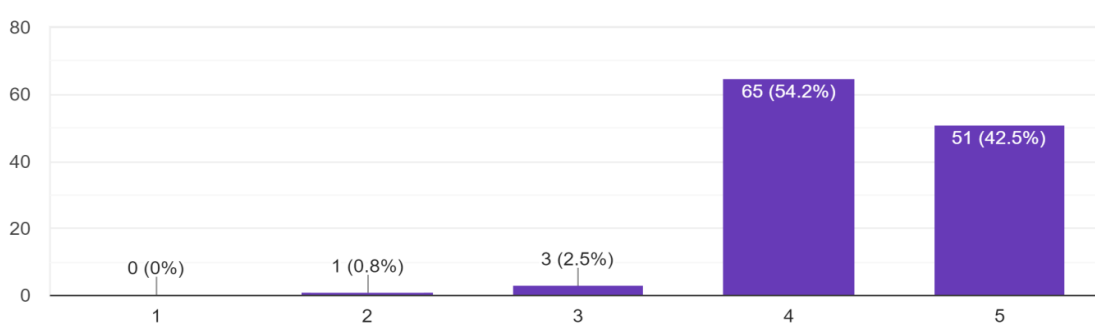


Chart 4.1.14: Rate the Coordination among team members

Table 4.1.15: Teamwork is important for project success in software industry

S NO	Particulars	No of Respondents	Percentage
1	Strongly Agree	52	43.3%
2	Agree	66	55%
3	Neither agree nor disagree	2	1.7
4	Disagree	0	0
5	Strongly disagree	0	0
Total		120	100

Source: primary data

INTERPRETATION

From the above table it is interpreted that the 43.3% of respondents says strongly agree, 55% says agree and 1.7 says neither agree nor disagree

Teamwork is important for project success in software industry

120 responses

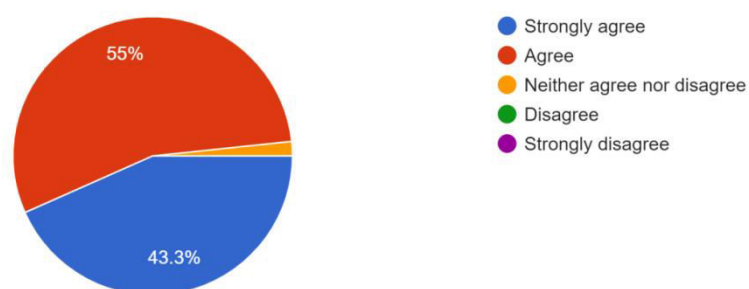


Chart 4.1.15: Teamwork is important for project success in software industry

Table 4.1.16: There are social and personal benefits resulting from team work

S NO	Particulars	No of Respondents	Percentage
1	Strongly Agree	56	46.7
2	Agree	59	49.2
3	Neither agree nor disagree	5	4.2
4	Disagree	0	0
5	Strongly disagree	0	0
Total		120	100

Source: primary data

INTERPRETATION

From the above table it is interpreted that the 46.7% of respondents says strongly agree, 49.2% says agree and 4.2 % says neither agree nor disagree.

There are social and personal benefits resulting from team work
120 responses

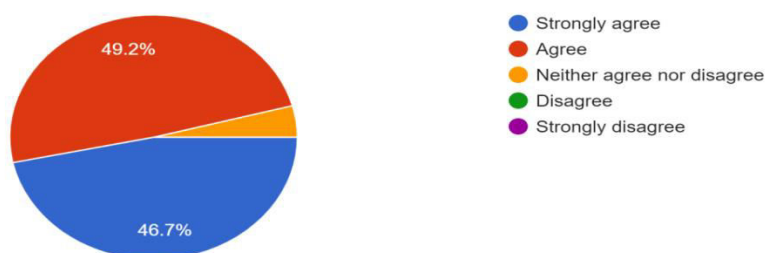


Chart 4.1.16: There are social and personal benefits resulting from team work

Table 4.1.17: Teamwork helps to reach goals more effectively

S NO	Particulars	No of Respondents	Percentage
1	Strongly Agree	64	53.3
2	Agree	49	40.8
3	Neither agree nor disagree	7	5.8
4	Disagree	0	0
5	Strongly disagree	0	0
Total		120	100

Source: primary data

INTERPRETATION

From the above table it is interpreted that the 53.3% of respondents says strongly agree, 40.8% says agree and 5.8 % says neither agree nor disagree.

Teamwork helps to reach goals more effectively
120 responses

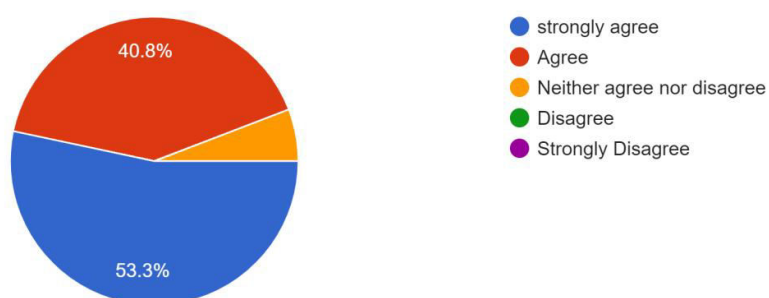


Chart 4.1.17: Teamwork helps to reach goals more effectively

Table 4.1.18: Team work improves the performance of the team member

S NO	Particulars	No of Respondents	Percentage
1	Strongly Agree	64	41.7
2	Agree	49	50.8
3	Neither agree nor disagree	7	7.5
4	Disagree	0	0
5	Strongly disagree	0	0
Total		120	100

Source: primary data

INTERPRETATION

From the above table it is interpreted that the 41.7% of respondents says strongly agree, 50.8% says agree and 7.5 % says neither agree nor disagree.

Team work improves the performance of the team member
120 responses

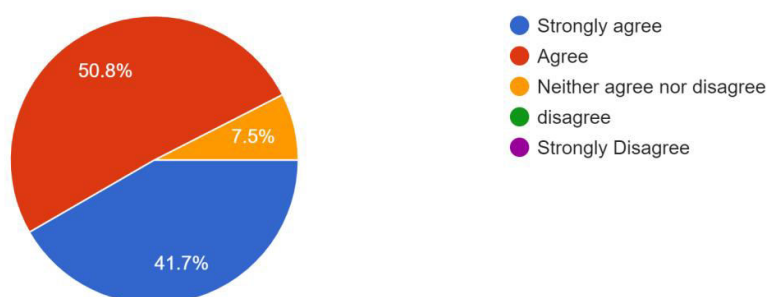


Chart 4.1.18: Team work improves the performance of the team member

Table 4.1.19: Team members are supportive to each other

S NO	Particulars	No of Respondents	Percentage
1	Strongly Agree	36	30
2	Agree	65	54.2
3	Neither agree nor disagree	19	15.8
4	Disagree	0	0
5	Strongly disagree	0	0
Total		120	100

Source: primary data

INTERPRETATION

From the above table it is interpreted that the 30% of respondents says strongly agree, 54.2% says agree and 15.8 % says neither agree nor disagree.

Team members are supportive to each other
120 responses

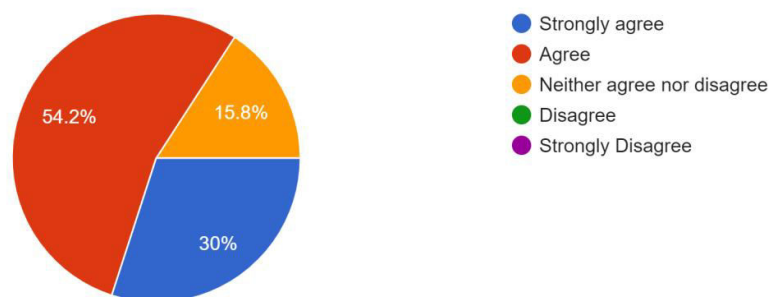


Chart 4.1.19: Team members are supportive to each other

Table 4.1.20: Teamwork built trust among the team members

S NO	Particulars	No of Respondents	Percentage
1	Strongly Agree	45	37.5
2	Agree	63	52.5
3	Neither agree nor disagree	12	10
4	Disagree	0	0
5	Strongly disagree	0	0
Total		120	100

Source: primary data

INTERPRETATION

From the above table it is interpreted that the 37.5% of respondents says strongly agree, 52.5% says agree and 10 % says neither agree nor disagree.

Teamwork built trust among the team members
120 responses



Chart 4.1.20: Teamwork built trust among the team members

Table 4.1.21: Teamwork makes the dream work

S NO	Particulars	No of Respondents	Percentage
1	Strongly Agree	36	30
2	Agree	60	50
3	Neither agree nor disagree	23	19.2
4	Disagree	1	0.8
5	Strongly disagree	0	0
Total		120	100

Source: primary data

INTERPRETATION

From the above table it is interpreted that the 30% of respondents says strongly agree, 50% says agree and 19.2 % says neither agree nor disagree and 0.8% says disagree.

Teamwork makes the dream work
120 responses

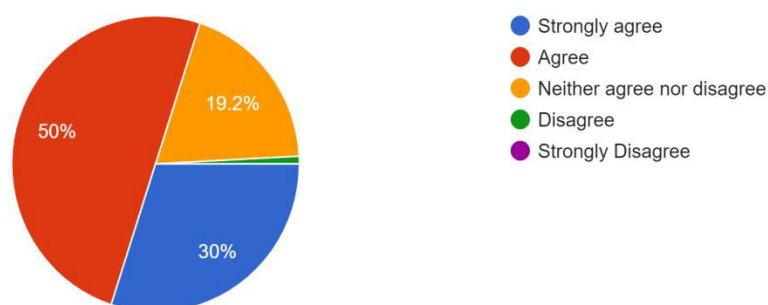


Chart 4.1.21: Teamwork makes the dream work

Table 4.1.22: Team work improves relations among the team members

S NO	Particulars	No of Respondents	Percentage
1	Strongly Agree	43	35.8
2	Agree	67	55.8
3	Neither agree nor disagree	10	8.3
4	Disagree	0	0
5	Strongly disagree	0	0
Total		120	100

Source: primary data

INTERPRETATION

From the above table it is interpreted that the 35.8% of respondents says strongly agree, 55.8 says agree and 8.3 % says neither agree nor disagree.

Team work improves relations among the team members
120 responses

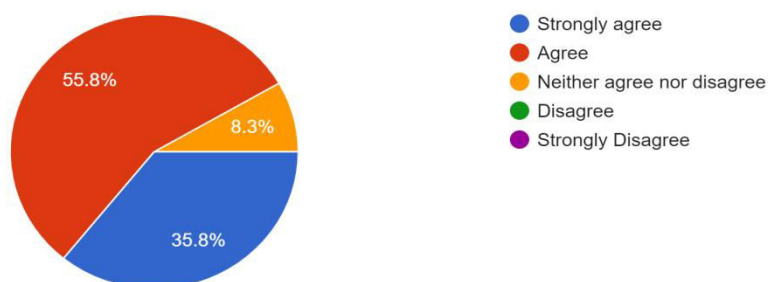


Chart 4.1.22: Team work improves relations among the team members

Table 4.1.23: Team members compliment each other

S NO	Particulars	No of Respondents	Percentage
1	Strongly Agree	43	35.8
2	Agree	54	55.8
3	Neither agree nor disagree	23	8.3
4	Disagree	0	0
5	Strongly disagree	0	0
Total		120	100

Source: primary data

INTERPRETATION

From the above table it is interpreted that the 35.8% of respondents says strongly agree, 45% of respondents says agree and 19.2 % says neither agree nor disagree.

Team members compliment each other
120 responses

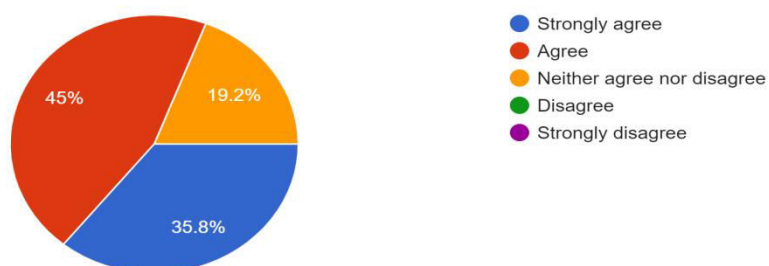


Chart 4.1.23: Team members compliment each other

Table 4.1.24: Teamwork Encourages risk taking in software industry

S NO	Particulars	No of Respondents	Percentage
1	Strongly Agree	48	40
2	Agree	55	45.8
3	Neither agree nor disagree	15	12.5
4	Disagree	2	1.7
5	Strongly disagree	0	0
Total		120	100

Source: primary data

INTERPRETATION

From the above table it is interpreted that the 40% of respondents says strongly agree, 45.8% of respondents says agree and 12.5% says neither agree nor disagree and 1.7 % says disagree.

Teamwork Encourages risk taking in software industry
120 responses

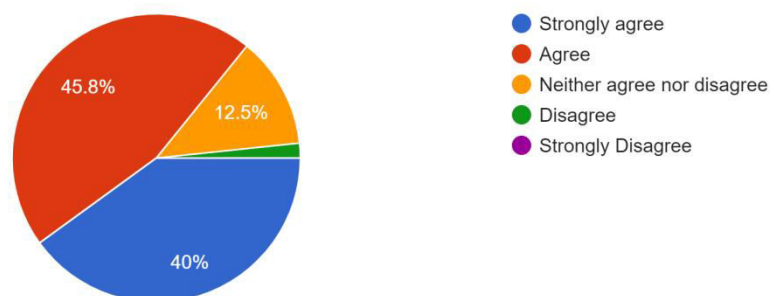


Chart 4.1.24: Teamwork Encourages risk taking in software industry

Table 4.1.25: Team work Helps to improve conflict resolution skills

S NO	Particulars	No of Respondents	Percentage
1	Strongly Agree	43	35.8
2	Agree	51	42.5
3	Neither agree nor disagree	26	21.7
4	Disagree	0	0
5	Strongly disagree	0	0
Total		120	100

Source: primary data

INTERPRETATION

From the above table it is interpreted that the 35.8% of respondents says strongly agree, 42.5% of respondents says agree and 21.7% says neither agree nor disagree.

Team work Helps to improve conflict resolution skills
120 responses

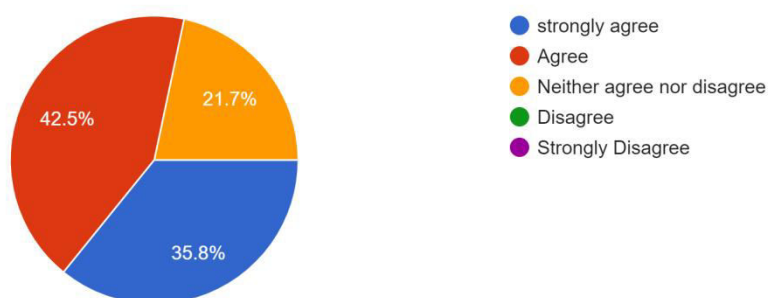


Chart 4.1.25: Team work Help's to improve conflict resolution skills

Table 4.1.26: Team work finds solution to the complex problems

S NO	Particulars	No of Respondents	Percentage
1	Strongly Agree	45	37.5
2	Agree	57	47.5
3	Neither agree nor disagree	18	15
4	Disagree	0	0
5	Strongly disagree	0	0
Total		120	100

Source: primary data

INTERPRETATION

From the above table it is interpreted that the 37.5% of respondents says strongly agree, 47.5% of respondents says agree and 15% says neither agree nor disagree.

Team work finds solution to the complex problems
120 responses

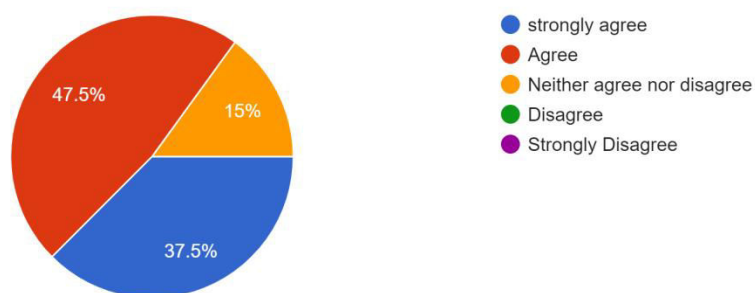


Chart 4.1.26: Team work finds solution to the complex problems

Table 4.1.27: Risk factors are comparatively low while doing team work

S NO	Particulars	No of Respondents	Percentage
1	Strongly Agree	42	37.5
2	Agree	59	47.5
3	Neither agree nor disagree	18	15
4	Disagree	1	0.8
5	Strongly disagree	0	0
Total		120	100

Source: primary data

INTERPRETATION

From the above table it is interpreted that the 35% of respondents says strongly agree, 49.2% of respondents says agree, 15% says neither agree nor disagree, 0.8% says disagree.

Risk factors are comparatively low while doing team work
120 responses

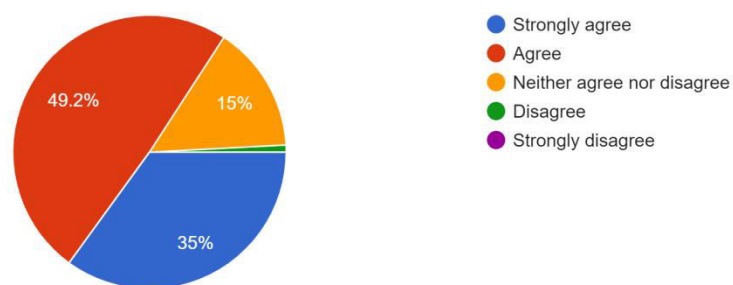


Chart 4.1.27: Risk factors are comparatively low while doing team work

Table 4.1.28: Team work reduces performance, scope, quality, or technological risks

S NO	Particulars	No of Respondents	Percentage
1	Strongly Agree	40	33.3
2	Agree	74	61.7
3	Neither agree nor disagree	3	2.5
4	Disagree	2	1.7
5	Strongly disagree	1	0.8
Total		120	100

Source: primary data

INTERPRETATION

From the above table it is interpreted that the 33.3% of respondents says strongly agree, 61.7% of respondents says agree, 2.5 says neither agree nor disagree 1.7% says disagree and 0.8% says strongly disagree.

Team work reduces performance , scope , quality, or technological risks
120 responses

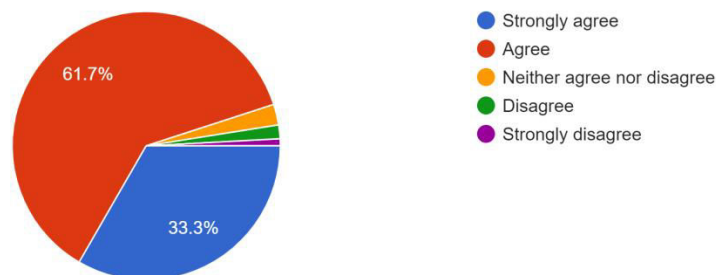


Chart 4.1.28: Team work reduces Performance, scope, quality, or technological risks

4.2 T-TEST

t-Test has been carried out to statistically analyze whether or not there is any relationship between the gender of a respondent and Team work promotes creativity in software projects.

HYPOTHESIS

H0: There is no significant difference between the gender of a respondent in regard to Team work promotes creativity in software projects.

H1: There is a significant difference between the gender of a respondent in regard to Team work promotes creativity in software projects.

Table 4.2.1

Table showing the respondents of Gender and Team work promotes creativity in software projects

t- Test Results

Group Statistics					
	Genders	N	Mean	Std. Deviation	Std. Error Mean
Teamwork promotes creativity in software projects	Male	74	1.34	.476	.055
	Female	46	1.37	.488	.072

Independent Samples Test										
		Levene's Test for Equality of Variances		t-test for Equality of Means						
		F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	95% Confidence Interval of the Difference	
									Lower	Upper
Teamwork promotes creativity in software projects	Equal variances assumed	.467	.496	-.351	118	.726	-.032	.090	-.210	.147
	Equal variances not assumed			-.349	93.781	.728	-.032	.091	-.212	.149

INTERPRETATION

From the above chart it is observed that significant level is -0.351 which is lesser than 0.05 (table value). Hence H₀ is rejected and H₁ is accepted. Thus there is significant difference between gender of respondent in regard to Team work promotes creativity in software projects.

4.3 CORRELATION

HYPOTHESIS:

H0 – There is no significant relationship between teamwork improves Relation among the team members and teamwork helps to improve Conflict resolution skills.

H1 - There is significant relationship between teamwork improves Relation among the team members and team work helps to improve Conflict resolution skills.

Table 4.3.1

Table showing respondents for teamwork improves Relation among the team members and teamwork helps to improve conflict resolution skills

Correlations			
		Team work improves relations among the team members	Team work Helps to improve conflict resolution skills
Team work improves relations among the team members	Pearson Correlation	1	.465**
	Sig. (2-tailed)		.000
	N	120	119
Team work Helps to improve conflict resolution skills	Pearson Correlation	.465**	1
	Sig. (2-tailed)	.000	
	N	119	119

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

INTERPRETATION:

From the above table it is observed that the p-value 0.465 is higher than 0.05. Hence H0 is accepted and H1 is rejected. It is shown that there no is a significant relationship between teamwork improves Relation among the team members and teamwork helps to improve Conflict resolution skills.

4.4 ANOVA

HYPOTHESIS:

H0 – There is no significant difference between work experience in regard to team members supportive to each other.

H1 - There is significant difference between work experience in regards to team members supportive to each other.

TABLE 4.4.1

Table showing the respondents for work experience and team members supportive to each other

ANOVA					
work experience					
	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	7.294	2	3.647	.900	.409
Within Groups	474.031	117	4.052		
Total	481.325	119			

INTERPRETATION:

From the above chart it is observed that the significant level is 0.409 which is greater than 0.05 (table value). Hence H0 is accepted and H1 is rejected. So, there is no significant difference between the work experience in regards to team members supportive to each other

HYPOTHESIS:

H0 – There is no significant difference among Designation in regard to teamwork is important for project success in software industry.

H1- There is significant difference between Designation in regard to teamwork is important for project success in software industry.

TABLE 4.4.2

Table showing the respondents for Designation and teamwork is important for project success in software industry

ANOVA					
Designation in the organization					
	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	7.818	2	3.909	1.223	.298
Within Groups	374.049	117	3.197		
Total	381.867	119			

Source: Primary data.

INTERPRETATION:

From the above chart it is observed that the Significance level is 0.298, which is greater than 0.05 (table value). Hence H₀ is accepted and H₁ is rejected. So, there is no significant difference between Designation in regards to teamwork is important in software industry.

4.5 CHI – SQUARE

HYPOTHESIS:

H0 – There is no significant association between age in regard to the risk factors are comparatively low while doing team work.

H1 – There is a significant association between age in regard to the risk factors are comparatively low while doing team work.

TABLE 4.5.1

The table showing the respondents for age and Risk factors are comparatively low while doing team work

Age * Risk factors are comparatively low while doing team work Crosstabulation

			Risk factors are comparatively low while doing team work				Total
			strongly agree	agree	neither agree nor disagree	disagree	
Age	20-30 years	Count	33	43	15	1	92
		Expected Count	31.4	46.0	13.8	.8	92.0
	30-40 years	Count	3	10	2	0	15
		Expected Count	5.1	7.5	2.3	.1	15.0
	40 and above	Count	5	7	1	0	13
		Expected Count	4.4	6.5	2.0	.1	13.0
Total		Count	41	60	18	1	120
		Expected Count	41.0	60.0	18.0	1.0	120.0

Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	2.996 ^a	6	.809
Likelihood Ratio	3.398	6	.757
N of Valid Cases	120		

a. 6 cells (50.0%) have expected count less than 5. The minimum expected count is .11.

INTERPRETATION:

From above table it is observed that Significance level is 0809, which is greater than 0.05, Hence H0 is accepted and H1 is rejected. Thus there is no significant association between age in regard to the risk factors are comparatively low while doing team work.

CHAPTER 5

5. FINDINGS,SUGGESTIONS,AND CONCLUSION

5.1 FINDINGS

- Majority (60.8%) of the respondents are male
- Majority (76.7%) of the respondents are fall in the age category of 20-30 years
- Majority (51.7%) of the respondents are Bachelor's degree
- Majority (30.08%)of the respondents have income of 25000-35000
- Majority (54.2%) of the respondents having work experience of 1-5 years
- Majority (20%) of the respondents are computer system analyst and software developer
- Majority (69.2%)of the respondents are unmarried
- Majority (60%) of the respondents says strongly agree for there is a relationship between team work and project success
- Majority (65%) of respondents says strongly agree for team work promotes creativity in software projects
- Majority (64.2%) of respondents says strongly agree for Success rate of project is higher in software industries when team is working on it than an individual
- Majority (55.8%) of respondents says strongly agree for Teamwork leads to complete the project within the given time and given budget in IT industry
- Majority (55.8%) of respondents gave 4 rating for the leadership
- Majority (60%) of respondents gave 4 rating for How far teamwork helping to achieve success
- Majority (54.2%) of respondents gave 4 rating for the coordination among team members
- Majority (55%) of respondents says agree for Teamwork is important for project success in software industry
- Majority (49.2%) of respondents says agree to There are social and personal benefits resulting from team work
- Majority (53.3%) of respondents says strongly agree to Teamwork helps to reach goals more effectively
- Majority (50.8%) of respondents says s agree to Teamwork improves the performance of team member
- Majority (54.2%) of respondents says s agree to Team members supportive to each other

- Majority (52.5%) of respondents says agree to Team work built trust among the team members
- Majority (50%) of respondents says agree to Team work makes dream work
- Majority (55.8%) of respondents says agree to Team work improves relations among team members
- Majority 45% of respondents says agree to Team members compliment each other
- Majority 45.8% of respondents says agree to Teamwork encourages risk taking in software industry
- Majority 42.5% of respondents says agree to Teamwork helps to improve conflict resolution skills
- Majority (47.5%) of respondents says agree to Teamwork finds solution to the complex problems
- Majority (49.2%) of respondents says agree to Risk factors are comparatively low while doing team work
- Majority (61.7%) of respondents says agree to teamwork reduces performance , scope , quality, or technological risks

5.2 SUGGESTIONS

- For the success of the project, the team should handle all its conflicts constructively and respectfully
- Team members should treat and support each other honestly, sincerely and with respect.
- It is recommended that having well defined and realistic goals, roles and responsibilities and appropriate leadership are necessary for successful project
- Communication is a very important aspect for effective teamwork that leads to project success.

5.3 CONCLUSION

This study has undertaken an empirical assessment of the linkages between team work and project success in software industry. The study clearly shows that Teamwork is important for project success in software industry. From the results of

the questionnaires, it was broadly perceived among the sample that potential impacts of teamwork were significantly greater on the success of the project.

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CHAPTER 6

APPENDIX-1

(Questionnaire)

DEMOGRAPHICAL

1. Name

2. Gender

(a) male

(b) Female

3. Age

(a) 20-30

(b) 30-40

(c) 40 and above

4. Educational qualification

(a) Diploma

(b) Bachelor's degree

(c) Master's

(d) Doctorate

5. Income per month

- (a) under 15000
- (b) 15000-25000
- (c) 25000-35000
- (d) 35000 -45000
- (e) 45000 and more

6. Work experience

- (a) Less than 1 year
- (b) 1-5 years
- (c) 5-10 years
- (d) 10-15 years
- (e) 15-20 years
- (f) 20 years and more

7. Designation in the organization

- (a) Project manager
- (b) Computer system analyst
- (c) Business analyst
- (d) Computer engineer
- (e) IT coordinator
- (f) Software developer

8. Marital status

- (a) Single
- (b) Married

(c) Prefer not to say

[5-strongly agree, 4-agree, 3-neither agree nor disagree, 2-disagree, 1-strongly disagree]

(5) (4) (3) (2) (1)

9. There is a relationship between team work and project success					
10. Team work promotes creativity in software projects					
11. Success rate of project is higher in software industry when team working on it than an individual					
12. Team work leads to complete the project with in the given time and given budget in IT industry					

13. Rate the leadership in your team

1 2 3 4 5
☐ ☐ ☐ ☐ ☐

14. How far team work helping to achieve success

1 2 3 4 5
☐ ☐ ☐ ☐ ☐

15. Rate the coordination among team members

1 2 3 4 5
☐ ☐ ☐ ☐ ☐

Need and Benefits

[5-strongly agree, 4-agree, 3-neither agree nor disagree, 2-disagree, 1- strongly disagree]

(5) (4) (3) (2) (1)

16. Team work is important for project success in software industry					
17. There are social and personal benefits resulting from team work					
18. Team work helps to reach goals more effectively					
19. Team work improves the performance of the team member					

COORDINATION

[5-strongly agree, 4-agree, 3-neither agree nor disagree, 2-disagree, 1-strongly disagree]

(5) (4) (3) (2) (1)

20. Team members are Supportive to each other					
21. Team work built trust among the team members					
22. Teamwork makes the dream work					
23. Team work improves relations among the team members					
24. Team members Compliment each other					

RISKS SOLVING

[5-strongly agree, 4-agree, 3-neither agree nor disagree, 2-disagree,
1- strongly disagree]

(5) (4) (3) (2) (1)

25. Teamwork Encourage risk taking in software industry					
26. Team work Helps to improve conflict resolution skills					
27. Team work finds solution to the complex problems					
28. Risk factors are comparatively low while doing team work					
29. Team work reduces performance , scope , quality, or technological risks					

APPENDIX-II

ARTICLE – FULL PAPER

A STUDY ON IMPACT OF TEAMWORK ON PROJECT SUCCESS IN SOFTWARE INDUSTRIES

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ABSTRACT

The purpose of this study is to highlight importance of teamwork for the project success. The study hypothesized the positive relationship between the project teamwork and project success. The main objective of the study is to find how teamwork impacts on project success in software industries. Employees in software industry are the target population. The sample size of the study was 120. The research was based on convenient sampling technique. The data was collected using structured questionnaire developed by the researcher specifically for this study.

Key words – Teamwork, Project success, software industry,

I. INTRODUCTION

Project success is extremely vital for all the organization to survive within the competition. prime quality cooperation is taken into account a vital success consider software system development comes. cooperation is associate enabler for the sleek running of comes. It accelerates the action of targets and helps project professionals overcome obstacles. cooperation ensures that resources ar well-managed and fewer time is required to finish a project. sensible cooperation will contribute to economizing, additional productive project outcomes and ultimately higher profits. It additionally adds to the standard and individuality of comes. once individuals work along, you're making an improved surroundings for power. operating as a team encourages risk-taking. once you shoulder the responsibility yourself, you will be inclined to require fewer risks as a result

of the private and skilled consequences of failure. In a team, you have got support from alternative members just in case things fall aside. cooperation brings along complementary strengths. you will be sensible at designing and another team member may be gifted in coordinative and inventive thinking.

There are complicated issues that are encountered within the progress of a project. You can't resolve problems alone – however you'll be able to with the knowledge of your team. The goal may be reached faster and time to promote is improved, as several hands build lightweight work, keeping purchasers happy. The support from the team members additionally helps within the success of achieving goals. cooperation may be additionally delineate as a powerful power given by a bunch of people to form higher selections expeditiously. cooperation will mean the distinction between success and failure of a software system project. this is often the main reason why firms round the world contemplate cooperation a norm to that staff should attend. it's assumed that universities should educate software system engineers not solely within the scientific and technical aspects of the discipline, however additionally within the social capabilities that permit them to be effective in cooperation. a vital facet of any geographical point, not solely will productive cooperation profit the cluster as a full, however it may enhance personal development for the people concerned. Essential attributes of cooperation like communication, commitment, providing support, and sharing ideas and responsibility are exercised and bolstered once engaged on cooperation comes. Once the project has been accomplished, members of the team will go forth with their improved skills and apply them elsewhere in their work or perhaps personal life.

II. OBJECTIVES OF STUDY

- To analyze the impact of team work on project success in software industry.
- To identify the need of team work to get success in project
- To analyze the way that team work helps to promote creativity in a project team
- To examine the coordination between team members in a project team
- To determine the way team work encourages risk taking

III. REVIEW OF PAST STUDIES:

- Abdul azizz, Hamazah Abdul Rahman, (2010) A birds eye view on classification of factors influencing project success.

The aim of this review paper is to classify relevant literature on project success in order to obtain a greater breadth on this topic. This paper distinguishes the success of project into project success definition, measurement or dimension of project success, traditional success factors, non-traditional success factors, frameworks and models of project success.[1]

- A fayaz, Yasir kamal, Samandar khan (2017) Critical success factors in information technology projects

The proposed study of this paper has determined 15 factors influencing the most on the success of IT projects through multiple regression analysis. The identified factors cannot only be functional to exact type IT projects but also to all types of IT projects, their success directly affects the achievement of whole organization. [2]

- Baliant blaskovics (2014) Impact of leadership style on project success the case of a multinational company

The aim of the paper is to identify a leadership style, of which project managers can maximize the potential for achieving project success. Project success is analyzed from the point of view of success criteria. This approach manages the shortcoming mentioned above, the lack of analyzing interrelationships among critical success factors and success criteria.[3]

- Dan schilling Nguyen (2016) Success factors that influence Agile software development project success.

The research questions were focused on the effect of these success factors on agile software development project success, This study has implications for positive social change because organizations that understand the critical factors may be able to improve project management strategies. [4]

- Dr. sonal Agarwal (2016) Impact of teamwork on organizational productivity in some selected schools in the ACCRA metropolitan assembly.

The study assessed the impact of teamwork on organizational productivity on the staff members of Kwashieman Anglican Basic School of the Accra Metropolitan Assembly, Omanjor M/A Basic School under the Ga-West Assembly and Ablekuma Anglican Basic School in the Ga-Central Assembly of the Greater-Accra Region.[5]

- Emily Weimar ,Aske plaat, Joost visser (2017)The influence of team work quality on software team performance .

This study shows that trust, shared values, and coordination of expertise are important factors for team leaders to consider in order to achieve high quality software team work.[6]

- Goparaju purna sudhakar (2012) A model of Critical success factors for software projects

The purpose of this paper is to develop a conceptual model of critical success factors (CSFs) for software development projects, categorize the success factors, finding the factors in each category and highlighting the product, team, project management and communication factors as important categories of success factors for software projects. [7]

IV. METHODOLOGY

Research methodology could be thanks to consistently solve the analysis issues. it's going to be understood as a science of learning however analysis is finished scientifically. It includes the general analysis style, the sampling procedure, information assortment technique and analysis procedure.

The population of the study involves persons employed in software industry. Each employee in the study becomes a sampling unit.

The study uses the convenience sampling Technique. It is a type of non-probability sampling method that generally used for ease of researcher. A sample of 120 respondents is taken according to convenience.

The primary data for this study has been collected through first person survey research method. A questionnaire was circulated and the data has been obtained first hand , directly from the respondents related to the survey. The secondary data has been collected from journal papers, articles and websites .

The Questionnaire was structure with two broad types of questions open ended or open questions, and closed ended or closed questions. Open questions enable respondents to answer as they wish. Closed questions provide respondents with a list of options from which they choose. In this research only closed ended questions are used.

This study on the impact of teamwork on project success in software industry was undertaken for a period of about three months. It was carried out from the month of January , 2021, to the month of march,2021.

V. DISCUSSIONS

On completing the project “A STUDY ON IMPACT OF TEAMWORK ON PROJECT SUCCESS IN SOFTWARE INDUSTRY”, The t-test was done to find significant difference between gender and team work promotes creativity in software projects. The ANOVA test was done to find out significant difference between work experience and team members are supportive to each other. The chi-sqaure test was done to find our significance association between age and risk factors are comparatively low while doing teamwork.

1. T-TEST

HYPOTHESIS :

H0: There is no significant difference between the gender of a respondent in regard to Team work promotes creativity in software projects.

H1: There is a significant difference between the gender of a respondent in regard to Team work promotes creativity in software projects.

TABLE 1:

Table showing the respondents of Gender and Team work promotes creativity in software projects

Group Statistics					
	Genders	N	Mean	Std. Deviation	Std. Error Mean
Teamwork promotes creativity in software projects	Male	74	1.34	.476	.055
	Female	46	1.37	.488	.072

Independent Samples Test

		Levene's Test for Equality of Variances		t-test for Equality of Means						
		F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	95% Confidence Interval of the Difference	
									Lower	Upper
Teamwork promotes creativity in software projects	Equal variances assumed	.467	.496	-.351	118	.726	-.032	.090	-.210	.147
	Equal variances not assumed			-.349	93.781	.728	-.032	.091	-.212	.149

INTERPRETATION

From the above chart it is observed that significant level is -0.351 which is lesser than 0.05 (table value). Hence H₀ is rejected and H₁ is accepted. Thus there is significant difference between gender of respondent in regard to Team work promotes creativity in software projects.

2. ANOVA-TEST

HYPOTHESIS :

H0 – There is no significant difference between work experience in regard to team members supportive to each other.

H1 - There is significant difference between work experience in regard to team members supportive to each other.

TABLE 2

Table showing the respondents for work experience and team members supportive to each other

ANOVA

work experience

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	7.294	2	3.647	.900	.409
Within Groups	474.031	117	4.052		
Total	481.325	119			

INTERPRETATION

From the above chart it is observed that the significant level is 0.409 which is greater than 0.05 (table value). Hence H0 is accepted and H1 is rejected. So, there is no significant difference between work experience in regards to team members supportive to each other.

3.CHI-SQUARE TEST

HYPOTHESIS:

H0 – There is no significant association between age in regard to the risk factors are comparatively low while doing team work.

H1 – There is a significant association between age in regard to the risk factors are comparatively low while doing team work.

TABLE 3

The table showing the respondents for age and Risk factors are comparatively low while doing team work

Age * Risk factors are comparatively low while doing team work Crosstabulation

			Risk factors are comparatively low while doing team work				Total
			strongly agree	agree	neither agree nor disagree	disagree	
Age	20-30 years	Count	33	43	15	1	92
		Expected Count	31.4	46.0	13.8	.8	92.0
	30-40 years	Count	3	10	2	0	15
		Expected Count	5.1	7.5	2.3	.1	15.0
	40 and above	Count	5	7	1	0	13
		Expected Count	4.4	6.5	2.0	.1	13.0
Total		Count	41	60	18	1	120
		Expected Count	41.0	60.0	18.0	1.0	120.0

Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	2.996 ^a	6	.809
Likelihood Ratio	3.398	6	.757
N of Valid Cases	120		

a. 6 cells (50.0%) have expected count less than 5. The minimum expected count is .11.

From above table it is observed that Significance level is .809, which is greater than 0.05, Hence H₀ is accepted and H₁ is rejected. Thus there is no significant association between age in regard to the risk factors are comparatively low while doing team work.

VI. CONCLUSION

This study has undertaken an empirical assessment of the linkages between team work and project success in software industry. The study clearly shows that Teamwork is important for project success in software industry. From the results of the questionnaires, it was broadly perceived among the sample that potential impacts of teamwork were significantly greater on the success of the project.

From the three statistical tests carried out for the framed hypothesis using the analytical tools, T-test, ANOVA and Chi-square. The following inferences were made. There is significant difference between gender of respondent in regard to Team work promotes creativity in software projects. There is no significant difference between work experience in regard to team members supportive to each other. There is no significant association between age in regard to the risk factors are comparatively low while doing team work.

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