



# 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 things influencing project success.  
The aim of this review paper is to classify relevant literature on project success so on get a greater breadth on this subject .[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 foremost 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 or any sorts of IT projects, their success directly affects the achievement of whole organization. [2]

- Balian blaskovics (2014) Impact of leadership style on project success the case of a multinational company  
The aim of the paper is to spot a leadership style, of which project managers can maximize the potential for achieving project success. Project success is analyzed from the purpose of view of success criteria. This approach manages the shortcoming mentioned above, the shortage 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 shows the impact of teamwork on organizational productivity on the staff members of Kwashieman Anglican Basic School of the Accra Metropolitan Assembly.[5]
- Emily Weimar ,Aske plaat, Joost visser (2017) The influence of team work quality on software team performance .  
This study shows that trust 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 Critical success factors for software projects The purpose of this paper is to develop a conceptual model of critical success factors for software development projects, finding the factors in each category and highlighting, 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. (2tailed)	Mean Difference	Std. Error Difference	95% Confidence Interval of the Difference	
								Lower	Upper
Teamwork promotes creativity in software projects	.467	.496	-.351	118	.726	-.032	.090	-.210	.147
Teamwork promotes creativity in software projects not assumed equal variances			-.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 H<sub>0</sub> is rejected and H<sub>1</sub> 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. (2sided)
Pearson Chi-Square	2.996 <sup>a</sup>	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 0809, which is greater than 0.05, Hence H<sub>0</sub> is accepted and H<sub>1</sub> 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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