

## **An Empirical Analysis of the Importance of Teamwork on Project Management: The Case of Nigeria Telecommunication Sector**

Olanrewaju Modupe-Samuel

*Ph.D. in Management, Texila American University, Nigeria*

### **Abstract**

*The purpose of the study was to evaluate the importance of teamwork in project management in the Nigerian telecommunication industry. Data was collected across 310 telecommunication firms and analyzed using descriptive statistics and a t-test. The study found that teamwork is significant in meeting project timelines, project efficiency, reduction in project costs, enhanced project quality and improve customer satisfaction.*

**Keywords:** *Project, Project Management, Teamwork.*

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### **Introduction**

Teamwork is essential for project management success [1]. Successful teams have been proven to demonstrate effective working relationships, which leads to the attainment of excellent performance [2]. Working together as a team and pooling expertise and experience promotes high-quality and timely project completion [3]. Teamwork is recognized as a crucial contributor to project performance because it allows team members to combine a wide range of knowledge essential for a project's successful completion [2]. The most critical method to plan and complete project work is through teamwork [3]. In project management, teamwork is defined as the capacity of project personnel to operate effectively as a group. Teamwork is a set of ideals that promotes listening, constructively reacting to others' points of view, and offering support. Project participants are often selected from several departments as well as various areas of specialty. In addition, project team members often do non-repetitive activities to achieve the desired outcome by utilizing specialized skills, knowledge, and expertise. Therefore, it is important that project team

members are completely integrated and focused on project objectives, which necessitate a high level of collaboration to achieve excellent project performance [4].

The quest to figure out better ways to use teams to achieve project success has increased because of increasing telecommunication project failures [5]. In telecommunication projects, where multiple actors share responsibilities, teamwork is extremely important [6]. The players in telecommunication projects include engineers, suppliers, operators, technicians, administrators, and other stakeholders [6]. If the project is to be successful, all these players must work together as a team [7]. Despite the importance of teamwork in telecommunication projects, the author has noted that studies on teamwork in telecommunication projects in a developing economy context is sparse. A review of the extant literature on teamwork and project success in the telecommunication industry of Nigeria produced limited studies. Most of the studies that have been done in Nigeria focus on the impact of teamwork on employee performance in other sectors. To the best of my knowledge of the author, none has focused on

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**Received: 23.04.2022**

**Accepted: 04.05.2022**

**Published on: 30.08.2022**

**Corresponding Author: [lmodupesamuel@yahoo.com](mailto:lmodupesamuel@yahoo.com)**

teamwork and telecommunication project performance. This study is, therefore, imperative from the issue and context gap perspective. The aim of the study is to evaluate the importance of teamwork on project management in the Nigerian telecommunication industry.

## **Teamwork**

A team is a group of a restricted number of individuals who have complementary strengths, a common aim, performance targets, and collective ways to which they hold each other accountable [8]. A team is a group of people that work together in a wider social structure like an organization, are interdependent, and execute activities that influence other people and groups [9]. A team is a collection of individuals who are interdependent in terms of knowledge, resources, and abilities and who want to work together to accomplish a shared objective [8]. A team is a collection of people who do similar jobs and get together voluntarily to evaluate issues, develop solutions, and submit them to management. Organizations have evolved to rely on team-based structures to increase quality, productivity, and customer service [10]. Teamwork is defined as a series of duties and activities carried out by persons who work together to attain a common goal. Teamwork is collective action in a group that is exceptionally effective and efficient when done well. It brings individuals together to collaborate, allowing them to use their own abilities to guarantee that they work together to complete a task. Individuals who collaborate toward a similar objective engage in a series of interdependent activities known as teamwork [8].

## **Project**

A project is an activity in which capital resources are used to develop an asset that we anticipate producing profit over time [11]. A project is a temporary endeavor (that has a definite beginning and end time) undertaken to

create a unique product, service, or outcome through planning and coordination of human, material, and financial resources through a specific cycle of Initiation, Definition, Planning, Execution, and Close [12]. A project has a specified scope, is bound by finite resources, involves many people with varying levels of expertise, and is often developed in stages throughout the course of its life cycle [11]. A project is defined as a short-term activity undertaken to produce a one-of-a-kind product, service, or outcome [13].

## **Project Management**

It is the incorporation of contemporary administration and project management aptitudes, capability, tools, and approaches to the total controlling, organizing, and monitoring of all aspects of a project from beginning to end as well as the inspiration of all those involved to achieve the project's goal [12]. This means that project management is a collection of processes that work together to help the project team complete a successful project. The transition from input to output is the nucleus of project management [13].

## **GRIP Model**

The study will be guided by the GRIP model. Richard Beckhard's GRPI model, firstly propounded in 1972, has extensively been deployed in teamwork studies [14]. GRIP Model outline four interrelated components of highly effective teamwork.

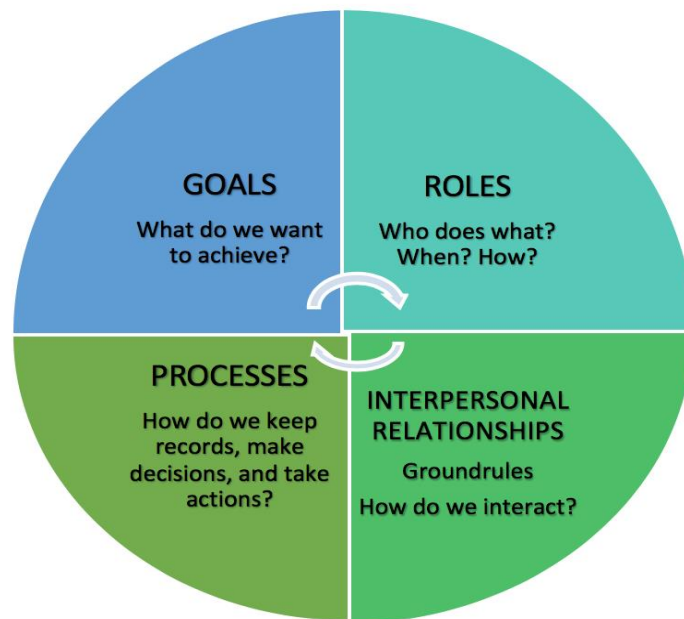
**Goals:** Goals seek clarity of purpose and direction as well as alignment with organizational vision, mission, and strategy. It requires that we comprehend the customer's desires. It also motivates everyone in the team to be on the same page and be committed.

**Roles:** Everyone on the team must understand their individual roles, what is expected of each of them, and how they will be held accountable and responsible. Roles ask for acceptance of the team leader and clarity on the part every member of the team will play.

Interpersonal: To deal with conflict and enhance progress, effective communication and cooperation are imperative. This ensures that trust is built among the team members and helps to reduce conflict.

Processes: A defined system, taking decisions, addressing challenges, and resolving

conflict. Processes and workflow refer to how choices are made, how the team solves challenges, and how conflict is addressed and resolved, as well as the work processes, procedures, and workflow required to do the task successfully.



**Figure 1.** Richard Beckhard's GRPI model

## Empirical Review

[15] investigated the association among project manager's leadership style, teamwork, and project success. The authors found that the adoption of an effective leadership style facilitates team bonding in project teams.

[16] investigated the topic of project management and teamwork. Specifically, the authors examined how the methodical adoption of project management practices affected team performance. The paper provides evidence that the use of project management in project teams limits the free-rider problem.

[17] examined the importance of hard project management and team motivation for construction project performance. The study found that hard project management is conveyed via groups to facilitate performance.

The authors confirm that ignoring the motivation of the team hinders team outcome.

[18] conducted a study on the topic: teamwork quality and the success of innovative projects: A theoretical concept and empirical evidence. The article develops a comprehensive concept of collaboration in teams, called Teamwork Quality (TWQ). The authors found that TWQ significantly affects team outcomes.

## Methodology

The study adopted a survey as the research design. The survey method was considered the most appropriate design for conducting this study since it describes issues in their current state [19]. According to the Nigerian Communication Commission, as at the end of 2021, there were 7916 telecommunication companies that have been licensed, and thus this figure formed the population of the study.

The sample size for the study was determined using the Yamane sample determination formula. Using an actual population of 7196 a sample size of 379 telecommunication firms has arrived. In selecting the participant organization for the study, a stratified and simple random sampling method was used. Stratified sampling was first used to categorize telecommunication firms. According to the Nigerian Communication Commission, telecommunication firms have been classified under 24 license classifications; hence these classifications formed the organizational strata.

A sampling fraction of 4.16% was selected from each category (strata) of telecommunication organizations. Participant organizations in each classification were selected randomly. In selecting the participant's organizations, simple random sampling was used. A simple random sampling method was used so as to ensure that all the telecommunication organizations get an equal chance of being selected as part of the sample. The distribution of the strata is presented in Table 1.

**Table 1.** Distribution of the Organizational Strata

<b>Category (strata)</b>	<b>Total number organizations selected</b>
Sale and Installation	301
Repairs and maintenance of facilities	10
Cabling services	5
Telecenter	34
Public payphone services	1
Internet services	6
Non-commercial closed up group	1
Unified Access services	1
International data services	1
International gateway	1
Interconnect exchange	1
Metropolitan fiber cable	1
Mobile number portability	1
National carrier	1
National long-distance communication	1
Public mobile communication	1
International submarine cable infrastructure	1
Value added services	5
Infrastructure sharing and collation services	1
Automated vehicular tracking services	1
Open access fibre	1
Infrastructure network	1
Wholesale wireless access services	1
Private network links	1
<b>Total</b>	<b>379</b>

The research instrument used to collect data for this study was a questionnaire. Out of the 379 firms administered with a questionnaire, 310 firms, however returned the questionnaire

representing a response rate of 81.79%. The technique used to analyze the data collected was descriptive statistics and a t-test.

## Data Analysis and Interpretation

### Importance of Teamwork on Project Management in the Telecommunication Sector

Table 2 presents the data on the importance of teamwork in project management in Nigeria's telecommunication sector.

As shown in Table 2, the mean score of 4.20 implies that the participants' organizations agreed that in project teams, team members are made to fully understand the goals of the team,

which ensure that it leads to a commitment by team members. The implication is that when team members are made aware of the team goal, it leads to commitment by the team. Again, the participant firms agreed (mean score of 4.10) that in project teams in the telecommunication sector, employees' goals are synchronized to improve employee loyalty. The individual goals of the employees are aligned to the team goal so that everybody works together to achieve the team goal.

**Table 2.** Descriptive Statistics

	N	Mean	Std. Deviation
In project teams in your organization, team members fully understand and are committed to the goals of the team	310	4.20	.95145
In project teams in your organization employees' goals are aligned in order to establish trust, make progress, and achieve the desired outcome	310	4.10	1.07115
In project teams in your organization, team members know what part they are supposed to perform	310	4.00	1.07606
In project teams in your organization, team members know how they are held accountable and responsible	310	3.90	1.02084
In project teams in your organization, communication, and collaboration foster trust among team members	310	4.10	1.11921
Project teams are able to deal with conflict and make progress.	310	4.35	0.96803
In project teams in your organization there is a defined system for how decisions are taken	310	3.70	1.03110
In project teams in your organization, workflow and procedures are clearly stated and followed	310	4.00	1.07606

Again, the participant firms agreed (mean value of 4.0) that in project teams in the telecommunication sector, team members are told of the part that they are supposed to perform. Team members know what is expected of them and work together for the common good of the project.

The mean score of 3.9 is also indicative that the participant organization agreed that in project teams in the telecommunication sector,

team members know how they are held accountable and responsible. Accountability ensures that the team works together to achieve the project outcome.

Communication is another factor critical to the success of teamwork in the project. The mean value of 4.10 implies that the participant firms agreed that in project teams' communication and collaboration foster trust among team members.

Further, the participants agreed (mean score of 4.35) that project teams are able to deal with conflict and make progress. Conflict resolution is key to promoting affective workings in the team. Processes of how the team operates are also key to ensuring the effective working of

teams. The participant firms agreed (mean score of 3.7) that in project teams, there is a defined system for how decisions are taken. Connected to processes is that in project team's workflow and procedures are clearly stated and followed. This was indicated via a mean score of 4.0.

**Table 3.** How Teamwork Affects Project Performance

	t	df	Sig. (2-tailed)	Mean Difference	95% Confidence Interval of the Difference	
					Lower	Upper
Meeting project timelines	30.99	309	.000	2.39	2.24	2.54
Improves project efficiency	-46.52	309	.000	3.60	3.44	3.75
Lowers project cost	-45.14	309	.000	3.69	3.52	3.85
Enhance project quality	-40.14	309	.000	3.50	3.33	3.67
Enhance customer satisfaction	43.05	309	.000	3.30	3.15	3.45

Source: Data survey (2022)

From Table 3, teamwork was revealed to influence significantly (p-value=0.000) project timelines. Thus, when there is teamwork, the employees come together to complete the project on time. Additionally, the paper discovered that teamwork significantly (p-value = 0.000) improves project efficiency. Project team members ensure that resources are put to judicious use.

Again, the study found that team significantly work p-value= 0.000) reduces project costs. When there is teamwork, employees own the project and ensure that they cut out all forms of waste in executing the project.

This leads to project cost reduction. Also, the study found that teamwork significantly (p-value =0.000) enhances project quality. With teamwork, members share ideas on how the project performance can be improved, thus adopting measures that lead to improved project quality. Teamwork was also found to significantly enhance (p-value =0.000) customer satisfaction. Teamwork results in achieving the expectation of customers.

## Discussion

The study found that goal setting is key to teamwork in the implementation of

telecommunication projects. This finding affirms Beckhard's GRPI model. Telecommunication firms understand that for teams to work effectively, team members ought to fully comprehend and must be dedicated to the goals of the firm. The individual goals of team members are aligned in order to establish trust, make progress, and achieve the desired outcome.

Another area of teamwork in projects in the telecommunication industry is the definition of roles. Team members understand their role, the expectation that the organization has of them, and their level of accountability. Role definition ensures that there is clarity on the part that every member of the team should play.

Interpersonal relation was also found to be important in teamwork. Effective communication and collaboration enhance employee loyalty in the team, which helps to reduce disputes. Clearly stating processes that have to be followed in the team is also vital to teamwork in the telecommunication sector of Nigeria. The study also found that teamwork impacts project performance in the following ways: meeting project timelines, project efficiency, reduction in project cost, enhancing project quality, and improving customer satisfaction.

The finding is consistent with work by [15]. [15] found that teamwork significantly affects team outcomes. [15] argue that increases in levels of leadership enhance relationships among team members and ultimately impact project performance. [18] also found that teamwork is critical to achieving organizational performance.

## Conclusion

The paper has demonstrated that telecommunication firms in Nigeria view teamwork as critical to achieving project success. In ensuring that the team is successful, telecommunication firms set goals, state clearly defined roles, promote interpersonal relations, and set clear procedures for the team to operate. The establishment of a framework for which the team operates facilitates the attainment of project objectives by way of meeting project timelines, project efficiency, reduction in project costs, project quality, and customer satisfaction.

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## Acknowledgements

My deep appreciation to the almighty God for His guidance, protection, and enablement. To Him alone be all the glory and the honour.

I am extremely thankful to my guide and supervisor, Prof. Olorunfemi Sola. I am very grateful for your guidance and mentorship, Sir. I am also indebted to Dr. Anthony Acquah for his assistance and support.

## Conflict of Interest

The author did not receive any financial support or funding for the research. The study was financed wholly by the author; thus, I do not pose a conflict with the research objective.

The author works in the telecommunication sector of Nigeria, which facilitated getting data from industry players. However, my association with the telecommunication sector of Nigeria did not in any way influence the objectivity of the study. I conducted the study to the best of my professional abilities.

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