

**EFFECT OF MANAGER'S LEADERSHIP SKILLS ON PROJECT PERFORMANCE  
AT JUMBO ORE RESERVE AND MINERAL PROJECT IN TANZANIA**

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<http://doi.org/10.35409/IJBMER.2023.3504>

**ABSTRACT**

The success of any project heavily relies on the leadership skills of its managers. This study aims to investigate the effect of managers' leadership skills on project performance at the Jumbo Ore Reserve and Mineral Project. The research explores how different aspects of leadership, such as communication, motivation, decision-making, and team management, influence project outcomes. The study examined the effect of a manager's leadership skills on the project performance of the Jumbo mining project in Lindi Tanzania. The study used a quantitative approach and a survey with explanatory design was used. Questionnaires were used to collect data from 118 respondents. Descriptive statistics and multiple linear regression analysis were used to analyse data. The study found that a manager's communication skills have a significant positive effect on project performance. Also, Manager's motivational skills were found to be positive and significantly related to project performance and lastly, the manager's decision-making skills were as well found to be positive and significantly related to project performance. The study recommends that managers should practice good leadership skills within project management to attain the best performance. Organizations should prioritize leadership development programs and training for managers. Managers should create a clear and compelling vision for the project and communicate it to the team. Effective managers must make timely and informed decisions.

**Keywords:** Leadership Skills, Project Performance, Jumbo Ore Reserve and Mineral Project, Manager's Communication Skills, Manager's Motivational Skills and Manager's Decision Making Skills.

**1. INTRODUCTION**

Any project's success strongly depends on the managers' ability to lead. To motivate people, lead project teams, and ensure that project objectives are met, effective leadership is essential. Understanding how management style affects project success is crucial in the overall setting of the Jumbo Ore Reserve and Mineral Project.

Numerous studies (Avolio et al., 2009; Qader et al., 2021; Ali et al., 2020) have demonstrated the significant impact of leadership abilities on project success across a range of industries. Project outcomes are directly impacted by a leader's capacity for communicating effectively, motivation, decision-making, management of teams, and adaptation (Patanakul et al., 2016; Zaman et al., 2021).

For managers to effectively communicate project goals, goals, and updates to team members, they must possess strong communication skills (Bastani et al., 2019). The development of a highly devoted and engaged staff is dependent on motivation, which enhances project performance (Henkel & Haley, 2020). Managers can successfully manage risks, allocate resources efficiently,

and make informed decisions thanks to their decision-making abilities (Kerzner, 2017). Working together, effectiveness and overall project performance are all improved by effective team management (Ali et al., 2021). Additionally, managers may handle uncertainties and efficiently manage changes in the constantly changing project environment with the help of adaptation abilities (Liao et al., 2018).

Although other studies have demonstrated the influence of leadership qualities on project performance, further in-depth research is required in the overall context of the Jumbo Ore Reserve and Mineral Project. Understanding how Jumbo Ore Reserve and Mineral Project's leadership abilities affect project performance can offer helpful insights for maximizing project outcomes and guaranteeing the project's successful execution.

Therefore, the purpose of this study is to investigate how project success at the Jumbo Ore Reserve and Mineral Project is influenced by managers' leadership abilities. To improve project performance at the Jumbo Ore Reserve and Mineral Project in particular, this research looks into the dimensions of leadership skills, such as interpersonal interaction, inspirational decision-making, management of teams, and adaptability.

## **2. LITERATURE REVIEW**

### **Leadership Skills**

Leadership skills, as defined by Maduka et al. (2018), are a group of skills and qualities held by a manager or manager of a project that allows them to successfully direct, influence, and inspire people or teams to achieve intended project outcomes. These abilities cover a variety of qualities, actions, and tactics that help projects be completed successfully, such as delegation, dispute resolution, issue-solving, and communication (Ahmed & Anantatmula, 2017).

Since they allow managers to create a positive work atmosphere, efficiently manage resources and timeframes, and inspire and align workers toward shared goals, leadership abilities have an immediate effect on project success (Srivastava & Jain, 2017). Strong leaders can encourage and motivate team members to provide their best work, communicate project goals and deadlines effectively, make wise and prompt decisions, and build an effective and cohesive team environment.

### **Jumbo Ore Reserve and Mineral Project**

A unique mining project or operation devoted to the mining and processing of mineral reserves and minerals is referred to as the Jumbo Ore Reserve and Mineral Project. A defined ore reserve will be the focus of this project, which is concentrated on the discovery, advancement, and extraction of rich mineral resources. An exploration and mining business named LINDI JUMBO LTD is registered in Tanzania (Washbourne, 2021). The project is now moving forward at the Lindi Jumbo Graphite Mine in Tanzania's southern corridor's Lindi Region. A preliminary feasibility evaluation has been completed, and discussions are ongoing to secure an effective development partner to expedite the project's development so that production can begin by the beginning of 2020.

To locate and evaluate the mineral deposits, the project begins with geological mapping and exploratory drilling. Additionally, it could cover tasks like conducting feasibility studies, evaluating the environmental impact, and acquiring the required permissions and licenses for mining operations (Kaphle, 2020).

The Jumbo Ore Reserve and Mineral Project's ultimate objective is to maximize mineral extraction and processing, assuring economic viability and reducing environmental effects. To maximize operational efficiency, maintain safety standards, and hit the intended production targets, successfully managing projects, including effective leadership, is essential (Fewings & Henjewe, 2019).

### **Project Performance**

The assessment and measurement of a project's overall effectiveness, success, and attainment of its objectives within the time, cost, scope, and standard constraints are referred to as project performance (Ika & Pinto, 2022). It evaluates how well a project satisfies stakeholder expectations, achieves the anticipated results, and accomplishes its main objectives. The cost of the project, the time required to complete it on time or late, the scope, which assesses whether all components and schedules were completed, the quality, which determines whether the project satisfied the customer's needs, stakeholder satisfaction, and risk management are important factors to take into account when reviewing project performance (Aragonés-Beltrán, Garca-Melón, & Montesinos-Valera, 2017).

### **Communication**

Interaction in the context of a project's completion, as described by Abbas et al. (2019), refers to the exchange of information, recommendations, and criticism among members of the team, the stakeholders of the project, and other key parties. It covers both the means and effectiveness of sharing and receiving information to provide complete understanding, collaboration, and quick decision-making throughout the project lifecycle. Effective communication is essential to project success because it influences several facets of the execution of the project, including sharing knowledge, collaboration and partnership, participation of stakeholders, issue resolution, making decisions and documentation, and project reporting (Jiang, Klein, & Fernandez, 2018).

### **Motivation**

In the context of a project's performance, motivation refers to both internal and external factors that propel individuals or members of project teams to become involved, put out effort, and give their best effort to accomplish project goals and objectives (Das, et al., 2021). It includes the emotional, psychological, and behavioural mechanisms that affect people's readiness, zeal, and commitment to supporting a project's success. Malek, Sarin, and Haon (2020) assert that a project manager must possess the capacity to intrinsically motivate subordinates, which is defined as the internal drive as well as private satisfaction that results from the nature of the work itself, including the sense of accomplishment, professional development, and enjoyment of the responsibilities involved in the project. Individuals' dedication and commitment to producing top-notch work and pursuing perfection are fueled by intrinsic motivation.

Additionally, the project manager needs to be able to externally inspire staff members, which involves using outside incentives and rewards like money, praise, promotions, or other concrete benefits to encourage and reward workers for their efforts. By offering prizes or recognizing their contributions, extrinsic motivation can affect people's participation and dedication to the project (Jitpaiboon, Smith, & Gu, 2019). Along with rewards and recognition, team dynamics, feedback, and opportunities for advancement, motivation in project management also involves objective

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alignment, leadership support, and team dynamics (Aga, Noorderhaven, & Vallejo, 2016).

### **Decision Making**

To address project-related difficulties, move forward, and accomplish project goals, Secundo et al. (2022) define decision-making as the process of choosing the most suitable path of action or choice among available choices. It entails weighing the pros and disadvantages of several possibilities, examining available data, taking into account potential risks, and making a well-informed decision that is in line with the project's goals. According to Yang and Shen (2015), performance decision-making in project management entails steps including recognizing issues, information gathering, and analysis, evaluation, and stakeholder consideration. This is decision-making approaches, timeliness, documentation, and communications from the project manager.

From the literature, this study was guided by three hypotheses

H<sub>1</sub>: There is a positive relationship between a manager's communication skills on project performance

H<sub>2</sub>: There is a positive relationship between a manager's motivation skills on project performance

H<sub>3</sub>: There is a positive relationship between a manager's decision-making skills on project performance

### **Theoretical Review**

Since they directly affect a project's performance and success, leadership abilities are crucial to project management. For project team members to be guided and influenced, for a healthy work atmosphere to be fostered, and for project goals to be efficiently achieved, effective leadership is crucial. This theoretical review explores the numerous facets of leadership that contribute to project success and analyzes the body of research on the impact of leadership abilities on project performance.

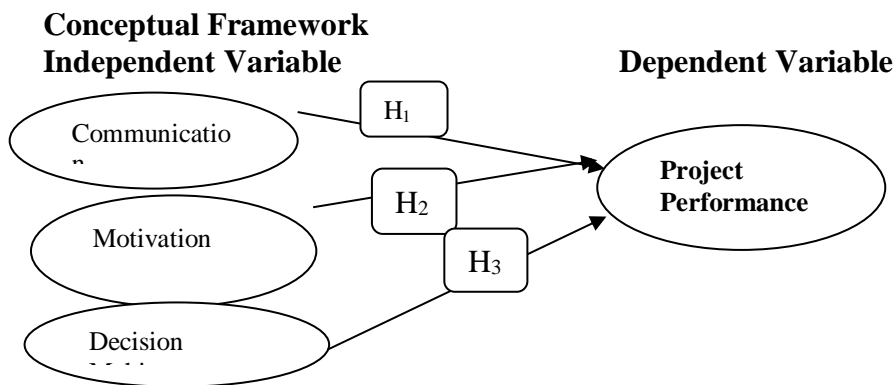
### **Contingency Theories and Leadership**

The idea of contingency theories was first put forth by Fiedler in 1958. According to contingency theories, the effectiveness of an executive with leadership qualities is determined by the interplay between his or her characteristics, behaviour, and the environment in which they are working (Charkrabarti, 2014). The Fieldler (1958) contingencies model states that a leader's leadership qualities and a favourable situation determine a group's performance. Different leadership philosophies perform better in various contexts. For instance, task-oriented leaders perform in both exceptionally positive and extremely negative circumstances, but association-oriented leaders flourish in the centre. According to Fiedler's theory of contingency, a leader's demeanour and power over the situation define how effective they are as a leader. According to the theory, project leaders and personnel must have strong working relationships. Other factors to consider include activities with defined processes and goals as well as the leader's ability to impose rewards and penalties. The lack of these three in the appropriate ratio and environment results in poor leadership. Since this theory emphasizes the value of leadership style, one of the characteristics being investigated, it is relevant to the current study.

Podgórska and Pichlak's (2019) research examined the relationship between project success and the leadership abilities of Polish project managers. Survey questions and semi-structured interview questions were utilized to support a hybrid strategy. The study included 102 project managers in

all, along with 11 executive project managers and individuals managing project managers appointed to the projects. To comprehend the connection between management and project success, regression analyses and correlation analyses were conducted. The results showed that there is empirical evidence to support the impact of project managers' leadership abilities, alongside their psychological and managerial abilities, on the success of projects. Additionally, the data analysis showed that additional competencies can influence a project's performance based on its kind.

The impact of project managers' abilities on the productivity of the construction industry was investigated by Robbertse and Amoah in 2022. To ascertain whether a hypothesis or theory is true, the study employed a quantitative research methodology. The Survey Monkey platform was used to disseminate a structured questionnaire with closed-ended questions to construction workers in the South African construction sector. Results: The study's primary conclusions demonstrated that the project managers' abilities have a beneficial impact on construction productivity. The primary determinants of productivity are listed as ineffective supervision and management, bad leadership, a lack of workers, labour shortages, a lack of knowledge and expertise, and inadequate communication. Communicating and leadership skills are the major project managers' abilities that influence construction productivity. The major project managers' abilities to increase construction productivity are leadership, time management, and communication.



**Figure 1:** Conceptual Framework

### 3. METHODS

The study used a quantitative methodology. The process of gathering and interpreting numerical data is known as quantitative research. It can be used to identify trends and averages, formulate hypotheses, examine causality, and extrapolate findings to larger populations (Apuke, 2017). The explanatory and cross-sectional study served as the study's foundation. Project success was the dependent variable and the variables that explained it included the manager's leadership abilities, such as communication, motivation, and decision-making, as independent variables. By utilizing multiple linear regressions, this study created a model for predicting the impact of a manager's competencies (Pandis, 2016).

The study's 167 participants included 132 regular employees and 35 management personnel from the Lindi Jumbo Ore Reserve and Mineral Resource Project.

**Table 2: Study Population**

<b>Respondents</b>	<b>Population</b>
Management of Lindi jumbo ore reserve and mineral resource project	35
Ordinary Staffs	132
<b>TOTAL</b>	<b>167</b>

Source: Field Dat, 2023

**Sample Size and Sampling Procedures**

In this study, stratified sampling was employed. Sampling is the process of selecting a portion of a population to take part in a study; it is the selection of a group of individuals for a study in such a way that the individuals picked represent the larger group from which they were chosen (Ogula, 2005). To make sure that a sample taken from an overall population is indicative of particular subgroups or "strata" inside that population, a stratified approach is a statistical sampling approach that is utilized (Iliyasu & Etikan, 2021). With this approach, the population is segmented into unique, non-overlapping subgroups according to a trait or attribute that the researcher is interested in. The administrative and regular staffs were the two categories in question, and each of their subgroups is referred to as a stratum. Several different formulas were used to determine the sample size. Yamane (1967) developed a more straightforward formula for calculating sample size from a population as an alternative to Cochran's approach. He states that a 0.5 sample size with a 95% confidence level is appropriate. Where by

n = Sample size

N = Population

e = Level of Precisions (Level of tolerance 5% = 0.05)

1 = Constant

$$n = \frac{167}{1+167(0.05) (0.05)}$$

$$n = \frac{167}{1.41}$$

$$n = 118 \text{ respondents}$$

Out of an overall population of 167, 118 participants were selected to make up the study's sample. To generalize data obtained using a sample with stratification based on statistical likelihood; Saunders et al. (2009) define a sample as a true representation of a particular population. As suggested by Pallant (2010), 118 samples were consequently chosen.



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This sample size is deemed suitable considering the time and financial restrictions because it is sizable enough to present an accurate picture of the circumstances (Freiman et al., 2019).

**Table 3: Sample Size of the Respondents**

<b>Respondents</b>	<b>Population</b>	<b>Sample Size</b>	<b>Sampling design</b>	<b>Data Collection Tools</b>
Staff Management	35	30	Stratified Sampling	Questionnaire
Ordinary Staff	132	88	Stratified Sampling	Questionnaire
<b>TOTAL</b>	<b>167</b>	<b>118</b>		

**Source:** Field Data, 2023

### **Questionnaire**

To gather information from one or more respondents, a questionnaire is a paper-based or electronically organized research instrument consisting of a formal set of questions or other types of prompts (Parfitt, 2013). Some respondents received questionnaires from the researcher as a means of gathering data. The project management team and other team members received the surveys for the Lindi Jumbo ore project. Using closed-ended questions to encourage specific responses, this technique allowed respondents to freely express their ideas. The researcher used questionnaire methods as opposed to interviews and observation. The technique is less expensive, impartial toward the interviewer, and less demanding on the respondent, which helps them feel more at ease. Here is the link to the survey.

### **Data analysis**

The primarily quantitative data acquired were assessed using descriptive statistics including frequency, arithmetic mean, and standard deviation. An SPSS table was used to display the data. To investigate the link between independent factors and their effects on dependent variables, multiple linear regression analysis was used. Multiple linear regression is a statistical technique that uses several independent factors to predict the outcomes of a dependent variable (Kumari & Yadav, 2018). The method allows analysts to determine the variance of the model as well as the proportional contributions of each independent variable to the overall variance.

### **Variables and Measurement**

The variable will be measured using five points. On the Likert scale, 1 is strongly disagree, 2 is neutral, 3 is agree, 4 is agree, and 5 is strongly disagree. The data acquired will be based on methods for career development in the areas of organizational succession planning, employee career planning, and managerial career counselling. In this case, the demographic data will be presented using the ordinal nominal scale.

### **Regression Assumptions**

A fundamental regression equation typically contains assumptions for ordinary least square (OLS)

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regression. To achieve the goals of the regression analysis, the assumptions required for the data to be suitable for analysis were examined. In the Ordinary Least Square, five assumptions were looked at (Pandis, 2016; Uyank & Güler, 2013). These features are referred to as linearity, normality, outlier, homoskedasticity, and multicollinearity.

### **Regression Model**

$$Y_1 = \beta_0 + \beta_1 COMM + \beta_2 MOTV + \beta_3 DECS + \epsilon$$

Where,  $\beta_0$  intercepts,  $\beta_1$  – communication variable,  $\beta_2$  – Motivation Variable and  $\beta_3$  – Decision making Variable. All these are regression coefficients indicating the strength and direction of the relationship between each independent variable and the dependent variable.  $\epsilon$  represents the error term, accounting for unexplained variance in project performance

### **Validity**

Taherdoost (2016) claims that "validity" refers to how effectively the study's data accurately reflects the variables. In other words, how valuable and accurate are the data given the results? The pre-testing of the research instruments will maintain the external validity of the research instrument (questionnaire). Before beginning the fieldwork, a pilot test will be carried out using the same research tools with a distinct but homogeneous sample of 15 participants. The pretest will generate content, related to structure, and scale valid comments that will be incorporated into the data-gathering tools. The Content Validity Index (CVI) was used to guarantee that data validity is upheld (Labrague, et al., 2020).

### **Reliability**

According to Taherdoost (2016), reliability is the extent to which a phenomenon's measurement yields a steady and consistent result. Reliability also heavily depends on repeatability. Testing for dependability is crucial since it relates to the uniformity of a measuring instrument's components. For instance, a scale or test is considered reliable if it produces the same results after multiple measurements under the same circumstances. This study measured scale reliability using Cronbach's alpha. Data generalizability is evaluated objectively using Cronbach's alpha, a reliability coefficient. The cutting-off value was discovered to be .7.

## **4. RESULTS**

### **Sample Description**

To attain the sample description, four demographic characteristics were involved; namely age, gender, education level and experience (**Table 4**). To some extent, these demographic variables are contributing to the manager's leadership skills. Respondents under 30 years were less than 10% making them the lowest age category. The highest group was those with the age between 41-50 who constituted nearly 40%. Again as the age advanced they drop just above 10%.

On a gender basis, this is a male-oriented job working in ore mining hence men are commanding the majority who are more than two-thirds of the participants. This confirms the explanation mining is a muscular-oriented work. However, females are there for administrative and technical duties.

Descriptive results show that those participants below the bachelor's degree level are the majority



(Table 4). They constitute more than 90% while those with postgraduate degrees are less than 5%. The experience results show that the majority of participants have been on the project for more than 15 years. Hence the project is having very experienced working personnel.

**Table 4: Sample Description**

S/N		Frequency	%	Mean	Std. Dev.
<b>1</b>	<b>Age</b>			<b>3.34</b>	<b>.954</b>
	18 -30	1	.8		
	31 - 40	22	18.6		
	41- 50	46	39.0		
	51 - 60	34	28.8		
	60 and Above	15	12.7		
<b>2</b>	<b>Gender</b>			<b>1.66</b>	<b>.475</b>
	Male	40	66.1		
	Female	78	33.9		
<b>3</b>	<b>Education Level</b>			<b>2.23</b>	<b>.891</b>
	Certificate	30	25.4		
	Diploma	37	31.4		
	Bachelor	45	38.1		
	Masters	6	5.1		
<b>4</b>	<b>Experience</b>			<b>2.86</b>	<b>1.193</b>
	1-5	17	14.4		
	6 – 10	29	24.6		
	11 – 15	39	33.1		
	17 - 20	20	16.9		
	21 and Above	13	11.0		

**Source: Data Analysis, (2023)**

**Descriptive Statistics Results for the Effect of Manager’s Communication Skills**

The descriptive statistics were carried out (Table 7). This means standard deviations were computed. The results revealed that my manager diplomatically handles conflicts and difficult situations and scored the highest mean on the manager's communication skills (M = 4.22, SD = .935). My manager communicates clearly and effectively with the team and scored second (M = 4.04, SD = 1.073). This was followed by my manager encouraging open communication and discussion among team members (M = 4.03, SD = 1.102). The item that scored least on the effect of the manager's communication skill was my manager's keeping the team informed about project progress and changes (M = 3.58, SD = 1.208). This was followed by my manager actively listening to team members' concerns and ideas. (M = 3.97, SD = 1.086. My manager provides constructive feedback and guidance was found in the middle ( M = 3.98, SD = .978)

**Table 4: Descriptive Statistics Results for the Effect of Manager’s Communication Skills**

	Min.	Max.	Mean	Std. Dev.
My manager communicates clearly and effectively with the team.	1	5	4.04	1.073
My manager actively listens to team members' concerns and ideas.	1	5	3.97	1.086
My manager provides constructive feedback and guidance.	1	5	3.98	.978
My manager keeps the team informed about project progress and changes.	1	5	3.58	1.208
My manager encourages open communication and discussion among team members.	1	5	4.03	1.012
My manager diplomatically handles conflicts and difficult situations.	1	5	4.22	.935

N- 118

Source: Data Analysis (2023)

**Descriptive Statistics Results for the Effect of Manager’s Motivation Skills**

Descriptive statistics were run for the effect of managers' motivation skills on project performance. Minimum, maximum, mean and standard deviations were computed (**Table: 5**). The results showed that my manager provides support and resources to help the team succeed and scored the highest (M = 4.865, SD = 1.021). This was followed by my manager recognising and appreciating the team's efforts and achievements (M = 3.85, SD = 1.059). Thirdly my manager sets clear and challenging goals for the team (M = 3.822, SD = 1.0988). The least score on the effect of the manager's motivational skill variable was my manager provides support and resources to help the team succeed (M= 3.71, SD = 1.163) followed by my manager encouraging and empowering team members to take initiative and make decisions (M = 3.75, SD = 1.037)

**Table 5: Descriptive Statistics Results for the Effect of Manager’s Motivation Skills**

	Min	Max	Mean	Std. Dev.
My manager exhibits enthusiasm and positivity towards the project and the team.	1	5	3.81	1.184
My manager sets clear and challenging goals for the team.	1.0	5.0	3.822	1.0988
My manager recognizes and appreciates the team's efforts and achievements.	1	5	3.85	1.059
My manager provides support and resources to help the team succeed.	1	5	3.71	1.163
My manager fosters a sense of teamwork and collaboration among team members.	1	5	4.865	1.021

My manager encourages and empowers team members to take initiative and make decisions.	1	5	3.75	1.037
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N- 118

Source: Data Analysis (2023)

**Descriptive Statistics Results for the Effect of Manager’s Decision-Making Skills**

Minimum, maximum, mean and standard deviation was computed for the effect of the manager's decision-making skills variable (**Table: 6**). The results revealed that my manager demonstrates a good balance between cautiousness and decisiveness in decision-making having the highest score (M = 3.73, SD = 1.299) followed by My manager's decisions align with the overall project goals and objectives (M = 3.64, SD = 1.160). The third place was my manager is open to feedback and willing to reconsider decisions if needed (M = 3.61, SD = 1.140). The least score on the effect of the manager's decision-making skills was My manager makes timely decisions when faced with project-related challenges ( M = 3.46, SD = 1.318) followed by My manager considers the opinions and input of team members before making decisions ( M = 3.50, SD = 1.286)

**Table 6: Descriptive Statistics Results for the Effect of Manager's Decision-Making Skills**

	Min	Max	Mean	Std. Dev
My manager makes timely decisions when faced with project-related challenges.	1	5	3.46	1.318
My manager considers the opinions and input of team members before making decisions.	1	5	3.50	1.286
My manager gathers and analyzes relevant data before making important project decisions.	1	5	3.57	1.291
My manager is open to feedback and willing to reconsider decisions if needed.	1	5	3.61	1.140
My manager demonstrates a good balance between cautiousness and decisiveness in decision-making.	1	5	3.73	1.299
My manager's decisions align with the overall project goals and objectives.	1	5	3.64	1.160

N – 118

Source: Data Analysis (2023)

**Descriptive Statistics Results for the Dependent Variable Project Performance**

The minimum, maximum, mean and standard deviation for the dependent variable of project performance results was computed (**Table:7**). The results showed that the projects I've worked on meet or exceed the client's/customer's expectations scored the highest ( M = 3.75, SD = 1.255), This was followed by The projects I've worked on effectively utilize available resources ( M = 3.61, SD = 1.247). Thirdly the projects I've worked on are completed within the set deadlines (M = 3.53, SD = 1.279). The least score on the dependent variable project performance was the projects I've worked on achieve the intended objectives and deliverables (M = 3.31, SD = 1.356) followed by the projects I've worked on meet the specified quality standards (M = 3.44, SD =

1.251)

**Table 7: Descriptive Statistics Results for the Dependent Variable Project Performance**

	Min	Max	Mean	Std. Dev
The projects I've worked on are completed within the set deadlines.	1	5	3.53	1.279
The projects I've worked on meet the specified quality standards.	1	5	3.44	1.251
The projects I've worked on achieve the intended objectives and deliverables.	1	5	3.31	1.356
The projects I've worked on stay within the allocated budget.	1	5	3.47	1.376
The projects I've worked on effectively utilize available resources.	1	5	3.61	1.247
The projects I've worked on meet or exceed the client's/customer's expectations.	1	5	3.71	1.255

N- 118

Source: Data Analysis (2023)

**Multiple Linear Regression Analysis Results**

In multiple linear regressions testing the hypothesis for the effect of a manager's leadership skills on project performance, the model summary, Anova results, regression Coefficients and regression assumptions results are reported.

**Model Summary**

The effect of a manager's leadership skills (independent variable) on project performance (dependent variable) was tested using multiple regression analysis. (Table 8) summarizes the regression model with corrected r<sup>2</sup> statistics (. 811). From these results, it means that 81.1 % of the difference in project performance can be attributed to the manager's leadership skills.

**Table 8: Model Summary Results**

Model	R	R Square	Adjusted R Square	Std. The error in the Estimate
1	.901 <sup>a</sup>	.811	.806	.48234
a. Predictors: (Constant), DECS, COMM, MOTV				
b. Dependent Variable: PP				

DECS = Decision-Making Skills, COMM = Communication Skills, MOTV = Motivational Skills and PP = Project Performance.

Source: Regression Analysis, (2023)

**Anova Results**

The results of the variance (ANOVA) analysis are presented in (Table 9). This is also known as the model fit results. The F- statistics and their related sig. values are of relevance and particular interest. According to the results the F – statistics was found to be 163.199 (P < 0.001). Therefore

these findings support the model's prediction that the model has the power to predict project performance from the manager's leadership skills scores. There it can be concluded here that the model is accurately predicting project performance from a manager's leadership skills.

**Table 9: Anova Results**

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	113.907	3	37.969	163.199	.000 <sup>b</sup>
	Residual	26.523	114	.233		
	Total	140.429	117			
a. Dependent Variable: PP						
b. Predictors: (Constant), DECS, COMM, MOTV						

Source: Regression Analysis, (2023)

**Regression Coefficient Results**

The coefficients of the regression model are presented in (Table 10). The coefficients have the power to predict the project performance by  $B = .576$  ( $p < 0.05$ ) constant. The coefficients demonstrate that a manager's communication skills predict employee performance positively, with a standardized  $B = .073$  ( $p < 0.05$ ) value. The findings also show that a manager's motivational skills have the power to predict project performance positively  $B = .349$  ( $P < 0.001$ ). Managers' decision-making skills were also found to predict positively the project performance  $B = .690$ , ( $P < 0.001$ ). Therefore from the coefficient regression results it is clear that the manager's communication skills have the most effect on project performance ( $B = .073$ ,  $p < 0.05$ ) followed by the manager's decision-making skills ( $B = .690$ ,  $P < 0.001$ ) and lastly from the regression coefficient analysis was the manager's motivational skills ( $B = .349$ ,  $P < 0.001$ ).

**Table 10: Regression Coefficients Results**

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	Collinearity Statistics	
		B	Std. Error	Beta			Tolerance	VIF
1	(Constant)	.576	.234		2.462	.015		
	COMM	.073	.071	.055	1.028	.306	.574	1.742
	MOTV	.349	.086	.265	4.052	.000	.388	2.579
	DECS	.690	.061	.658	11.325	.000	.490	2.041
a. Dependent Variable: PP								

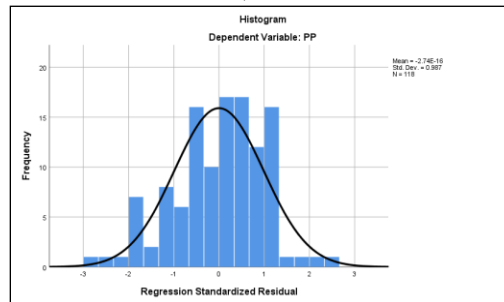
Source: Regression Analysis, (2023)

Source: Regression Analysis, (2023)

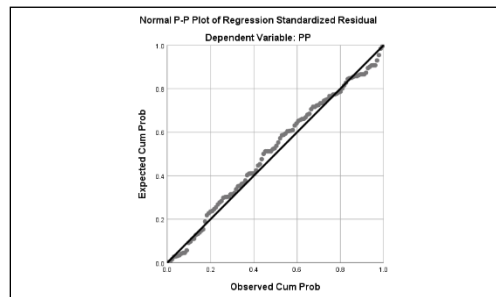
**Outliers, Normality, Linearity and Homoskedasticity Regression Assumptions Testing Results**

In the histogram (Figure 2), the residual distribution is depicted by a bell-shaped curve. The residuals have a normal distribution since the mean is close to 0 and the SD is close to 1. As shown in Figure 3, residuals also map along the diagonal. There isn't much of a break from the norm as a result. There are no outliers, as shown by the histogram in (Figure 2) which shows that some of the residual values fall inside the 3 cutoff. According to Tabachnick and Fidell (2007), any value outside the cutoff of  $|3|$  is an oddity.

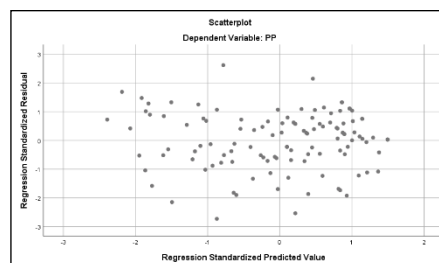
(Figure 4) diagonal dots accelerate along the diagonal line, demonstrating that the data is linear. In Figure 4, the rectangular distribution of the case residual dots around zero (0) indicates Homoscedasticity (equality of variance). There is no justification to be concerned about heteroscedasticity (unequal variance in the data).



**Figure 2:** Histogram  
Source: Data Analysis, 2023



**Figure 3:** Normal P-Plots for the Standardized Residual of Communication Skills Variable  
Source: Data Analysis, 2023





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**Figure 4:** Scatter Plots for the Standardized Residual for Communication Skills Variable

#### **4. DISCUSSION**

This study demonstrated a positive relationship between management communication and project performance. The result supports the notion that management communication influences project performance favourably. A crucial and complex component of project management is the impact a manager's communication abilities have on the performance of the project. The foundation of a project's execution's success is effective communication, which can have a significant impact on several project-related elements (Irfan et al., 2021). Furthermore, Muneer, et al. (2022) found that managers must be able to convey the project's goals, objectives, and scope in a precise and unambiguous manner. Moreover, Bennett, Gadlin, and Marchand (2018) found that the project team members openness and trust are fostered by excellent communication skills. A manager who encourages open communication and pays close attention to team members' ideas will help create a setting where collaboration thrives. Any endeavour will inevitably experience conflict and problems. A manager with great communication skills may resolve problems, mediate disputes, and give constructive criticism, according to Wachsmuth, Jowett, and Harwood's (2018) study on the subject. Conflicts are avoided from escalating and adversely influencing project development by swiftly resolving them. In both resource allocation and time management, communication is crucial. The team can maximize their efforts and deliver within the required timeframes when the manager can effectively communicate project priorities, deadlines, and resource requirements (Zhou, et al., 2019). Thus, the ability to communicate effectively is one that every project must possess.

A significant component of project management is how a manager's ability to motivate employees affects project performance. The involvement, dedication, and productivity of the project team are critically dependent on motivation. The success of a project can be greatly influenced by a manager's capacity to inspire and motivate team members. This study discovered that a manager's ability to motivate employees positively impacts project performance. The result supports the theory that a manager's capacity for motivation influences the success of a project. Henkel and Haley (2020), who corroborate this conclusion, discovered that a manager with excellent motivational abilities can foster a work environment in which team members are invested in the project's success.

Additionally, Kwon Kim's (2020) study discovered that motivated workers are more likely to go above and above, show initiative, and take responsibility for their work, all of which boost project outcomes. Fapohunda (2013) discovered, however, that driven managers can promote a thriving and encouraging team culture. A manager can raise morale and promote teamwork by acknowledging and thanking the team's contributions. Additionally, Ramirez-Mora, Oktaba, and Patlán-Pérez (2020) add that a cohesive team that functions effectively together is more likely to complete a project's objectives. Motivating leaders provide their team members control over their jobs and assign them responsibility.

In their research, Lenka and Gupta (2020) discovered that having confidence in one another's skills helps foster higher creativity and invention, which in turn fosters more efficient problem-solving and decision-making. The team's accomplishments and efforts are recognized and appreciated by motivational managers. Recognizing and rewarding exceptional accomplishments promptly can encourage positive behaviour and promote continual growth. Therefore, a manager's ability to

inspire employees is crucial to predicting performance.

One of the most important aspects of project management is how a manager's decision-making abilities affect project performance. Throughout the project lifecycle, a manager's choices can have a big impact on whether the project succeeds or fails. Effective decision-making entails taking into account a variety of variables, evaluating risks, and selecting the best course of action to accomplish project goals. According to this study, a manager's decision-making abilities have a beneficial impact on project performance. The results support the idea that a manager's decision-making abilities are linked to project success. A manager's ability to make decisions is crucial to determining the project's course and creating a detailed strategy. Meredith, et al.'s (2017) study revealed that choices made about the project's scope, goals, and resource allocation during the project's start phase serve as the basis for a successful project's execution.

Al-Dabbagh (2020) also discovered that making wise decisions requires spotting potential hazards and devising countermeasures. Risks can be avoided or reduced by a manager who can decide wisely when they are there, depending on how they will affect the project's timeline and deliverables. When managing a project, time is a crucial component. Project timings are directly impacted by decisions made by the manager about work priority and project scheduling. Effective time management makes that the project stays on course and is completed by the deadline. However, Carlucci et al. (2020) discovered that successful resource allocation requires decision-making abilities. To assign the proper resources to the right tasks and maximize productivity and performance, a manager must evaluate the team's abilities, knowledge, and workload.

## **5. LIMITATION AND IMPLICATION**

The results of this study are only constrained by several restrictions, for instance, the model utilized did not take into account the impact of other variables from the manager's leadership qualities or other variables related to project performance. Therefore, these restrictions provide a wide range of opportunities for additional research and analysis in the field that focuses on project performance-related variables.

## **6. CONCLUSION**

In conclusion, it may be put that, strong leadership is the foundation of efficient project management. To complete a project, a manager's leadership abilities have an impact on team dynamics, decision-making, stakeholder engagement, conflict resolution, and adaptation. Managers may motivate their colleagues to excel by modelling good leadership, which will ensure project success and have a long-lasting positive effect on the firm as a whole.

## **7. RECOMMENDATIONS**

Programs for manager training and development in leadership should be given top priority by organizations. Managers will have the tools they need to effectively inspire and manage their teams if they invest in developing their leadership abilities. The team should be given a clear and compelling vision for the project by the manager. Creating a sense of purpose and alignment among team members through a shared vision will improve project performance. Teams with strong leaders are more likely to communicate honestly and openly. To improve teamwork and problem-solving, managers should foster an environment where team members feel free to voice their opinions and concerns. Project managers are advised to recognize and reward team members

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for individual and collective accomplishments inspiring them to give their best effort. To promote morale and preserve motivation, managers should recognize extraordinary efforts and commemorate project milestones. Decisions made by effective managers must be timely and well-researched.

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