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Abstract

The general objective of this study was to assess the effect of project planning on performance of construction project. The specific objectives of the study was to establish the effect of defining project objectives on performance of construction project in SESAM Cube Ltd; to examine the effect of setting milestones on performance of construction project in SESAM Cube Ltd; to assess the effect of creating a work breakdown on performance of construction project in SESAM Cube Ltd; and to establish the effect of allocating resources on performance of construction project in SESAM Cube Ltd. The study used inferential analysis research design. The target population for this study was 32 employees working in SESAM Cube Ltd. A statistical package for Social Sciences (SPSS) version 22.0 used to analyze the data collected throughout a questionnaire. For testing H01, the results revealed that defining project objectives was ($\beta_1=0.113$, $p=0.005$, <0.05 level of significance) showed a statistically significant relationship between defining project objectives and performance of construction project in SESAM Cube Ltd. There H01 was rejected. The statistical results revealed that setting milestones was ($\beta=0.316$, $p=0.002$, <0.05 level of significance). Therefore we rejected H02. The statistical results revealed that creating a work breakdown was ($\beta= -0.004$, $p=.015$, <0.05 level of significance) showed a statistically significant relationship between creating a work breakdown and performance of construction project in SESAM Cube Ltd. Therefore we rejected H03 hence the regression model predicting significant relationship between creating a work breakdown and performance of construction project. The statistical results also revealed that allocating resources was ($\beta=0.605$, $t=3.418$, $p=0.002$, <0.05 level of significance) showed a statistically significant relationship between allocating resources and performance of construction project in SESAM Cube Ltd. Therefore, we rejected H04. Based on the findings of this study, the study recommends that construction companies especially SESAM Cube Ltd should proper channel of resource mobilization for projects and a proper funding schedule to facilitate the completion of project.

Keywords: *project planning, defining project objectives, setting milestones, creating a work breakdown, allocating resources and performance of construction project.*

1. Introduction

A project could be viewed as a system, which is dynamic and ever changing from on stage to another in a life cycle (Atkinson, 2017). The accomplishment of project through the application and integration of the project management process of initiation, planning, executing, monitoring, controlling and closing, is known as project management (Peter, 2015).

Construction projects in UK are considered a success when they are completed on time and on budget, and when performance goals are achieved. Performance goals are directly related to productivity, time management, and decision making. In order to achieve these goals, and for construction engineering to be executed in the most effective and structured manner, companies need to build and maintain strong teams, track and measure success, and ensure the project runs smoothly (Smith, 2021).

Construction industry is a significant contributor to the U.S. economy. The industry has more than 680,000 employers with over 7 million employees and creates almost \$1.3 trillion worth of structures yearly (Dekle, 2020). The US building and construction sector is just one of the biggest industries worldwide, with a yearly expenditure of over \$1,293 billion. It contributes an essential portion to the GDP value of the USA, aiding it increase the economic climate. This has resulted in an explosion in building projects throughout the nation companies in this space remain in for quick development. Nonetheless, challenges are swiftly creeping up to hinder this explosion. Construction companies in US have been using the same performance management tactics for years. Some of these tactics work well and should be kept in rotation, while others could use some adjustments or be left out altogether. There is also room for improvement given the advancements of technology and changes to the construction industry and to society (Lin & Golparvar-Fard, 2020).

Haddara and Paivarinta (2021) reported that the planning process is not quite the same in India. In India, the project planning process has mostly a positive effect to the success or Performance of project; the conducive economic environment in which the project is running (Kerzner, 2014) causes this. Henry (2021) supported by adding that project management includes constantly planning what to do, monitoring progress, comparing development plans, taking corrective measures to ensure that development is relevant to the plan if necessary. For instance, about eighty percent of people living and working in United Arab Emirates (UAE) are expatriates from different nationalities with majority from India, Malaysia and Philippines. This implies that majority of the projects are run by foreign managers the labor force and other supplies are foreign sourced.

Ameh and Odusami (2020) stated that construction industry in Nigeria comprises a group of heterogeneous and fragmented firms and, within firms, there is often a great diversity of activities. In addition, they added that a large construction company may be engaged in activities ranging from general building and civil engineering to material manufacturing, property development, and trade specialization. According to Menches, Hanna, Nordheim & Russel (2018), performance of any construction project involves numerous processes, with various permutations of stakeholders, typically including procurement, design, planning, execution and management of diverse tasks, control, site management and project closeout. Thus, the success of any project is measured by its end time, within the budget cost and meets the planned performance based on the initial plan. Hence, planning has an important role on the project success. The goal of the planning of a project is to prepare the structure for project execution and control. According to Idoro (2012), project planning and project performance are two complementary activities in project management and the basis of project success or failure is defined in project planning.

In Uganda, construction industry is the sector involved with the erection, repairs, and demolition of buildings and civil engineering structures in the economy (Nyangwara & Datche, 2015). Construction industry in Uganda plays a major role in the development and achievement of the goals of a society. Generally, the construction works are increasing rapidly to meet the growing needs of the population and to keep up with the global development. Construction industry is complex in its nature as it involves a number of parties such as clients, contractors, consultants, stakeholders, shareholders, and regulators. These parties affect the performance of

projects measured in terms of time, cost, quality, client satisfaction, productivity, and safety (Melba, Dhanya, & Ganapathy, 2015).

There are various factors that affect construction projects performance which include: closures, modification of drawings and changes in designs, poor management and guidance, poor relations, and coordination, lack of motivation, control, monitor or decision-making systems, inadequate infrastructure, political problems, cultural problems, and economic conditions (Alias, Dhanya, & Ramasamy, 2017).

Okuwoga (2014), termed that a road construction project is successfully completed if it passed four success test criteria namely: time; cost or funds; the effectiveness; and client's satisfaction. However, in a Ugandan, most construction projects are completed with significant cost, scope, and time deviations, a case of Kanoni – Sembabule – Villa maria (120KM) and Hima – Katunguru (58KM) roads construction projects were investigated due to implementation irregularities in the order of Ushs 322billion (US\$87.278Million) (Mwelu, Davis, & Jefferies, 2019). Most road construction projects are eventually completed more or less to specification, although they are seldom on time and within budget (Agaba & Shipman, 2017).

Alinaitwe, Apolot, and Tindiwensi (2013) show and prove that the failure of any project in Uganda is mainly related to the problems and failure in performance. There are many reasons and factors which attribute to such problems and appear through different directions such as; project procurement processes, project financing, risk occurrence factors and communication factors among others. Thus, if the key factors of influence that attribute to poor performance of road construction projects continue to be taken very lightly, government will remain to lose billions of shillings in failed or poorly executed road projects.

In Rwanda, the project planning change is inevitable but can be controlled. While changing it can create the extra resources or budget for many projects. Projects in Rwanda have succeeded, and their achievements become sustainable while for others Performance issues have remained a challenge. Before projects are allowed to commence their activities, they present their proposals and objectives to both funders and regulatory agencies, therefore as they commence their activities, they have a clear scope of the activities to be carried out. Project planning process in most projects affect the time projects would be strengthening the achievements for better Performance either during implementation or after implementation due to deviations in planned resources and time during project implementation (Camilleri, 2018). According to the RTDA (2021) officers said that the change of scope in construction project affected the project delay due to the changes; every scope necessitates the added budget that sometimes is not available at the time of scope change. This is why it important for project managers to recognize the need for having a rigorous scope control. This helps in achieving project deliverables in time and within a stated budget frame.

Problem statement

Despite the efforts by all players in the construction industry, many construction projects run a high-risk poor performance by being well over budget and significantly late. The construction industry generally has poor planning and poor schedule performance. While some degree of poor planning and time schedule performance is inevitable in construction projects, it is possible to improve the project planning processes and techniques to minimize their negative effect thus improve the project performance (Alias, Dhanya, & Ramasamy, 2017).

Ogunlana and Vithool (2020) stated that the construction industry performance problems in developing economies can be classified in three layers: problems of shortages or inadequacies in industry infrastructure (mainly supply of resources), problems caused by clients and consultants and problems caused by contractor incompetence/inadequacies. Long, Ogunlana, Quang, and Lam (2019) remarked that performance problems arise in large construction projects due to poor project planning where project managers concentrate their financial and

time resources in handling the immediate problems thus unable to anticipate and prepare for the next challenges.

Akia (2017), reveal that project management follows the standard project management life cycle regardless of their different and special characteristics. Due to Poor planning in project management is the number one mistake that leads to project failure. Where the cycle is faced with inadequacies and shortfalls that make the attainment of the desired objectives difficult. Resources are not adequately available to project management teams to facilitate the project management while the tools and techniques applied in project management at Makerere were not understood well enough to produce the required project outputs of time, cost and quality.

According to the RTDA (2021) Rwanda's construction industry including SESAM Cube Ltd faces challenges similar to those faced worldwide as result of poor planning. Weak planning is the root caused the delay in completion of projects in SESAM Cube Ltd is a big problem. Delays effect directly on contractors and clients alike because these participants incur extra costs since delays always end up in increased project cost. Additionally, the client faces revenue loss from delayed project completion. Lack of concrete planning exposes a project to failure of achieving project goals and unable to deliver the quality work as required. Different research have been conducted on effect of project planning on performance of construction project, but some did not focus on SESAM Cube Ltd. It is against that background that this research intends to carry out this research on the effect of project planning on performance of construction project with reference to SESAM Cube Ltd as case study.

Research objectives

The general objective of this study was to assess the effect of project planning on performance of construction project. Specifically, the study aimed to:

- To establish the effect of defining project objectives on performance of construction project in SESAM Cube Ltd.
- To examine the effect of setting milestones on performance of construction project in SESAM Cube Ltd.
- To assess the effect of creating a work breakdown on performance of construction project in SESAM Cube Ltd.
- To establish the effect of allocating resources on performance of construction project in SESAM Cube Ltd.
- To find out the effect of project planning on performance of construction project?

Research hypotheses

The present study adopted the following research hypotheses:

H01: There is no significant effect of defining project objectives on performance of construction project in SESAM Cube Ltd.

H02: There is no significant effect of setting milestones on performance of construction project in SESAM Cube Ltd.

H03: There is no significant effect of creating a work breakdown on performance of construction project in SESAM Cube Ltd.

H04: There is no significant effect of allocating resources on performance of construction project in SESAM Cube Ltd.

H05: There is no significant effect of project planning on performance of construction project.

2. Literature Review

Defining project objectives

Karlsson (2011) studied the effects of defining project objectives on project performance. Descriptive survey design was used and the study targeted projects in Sweden. The study found that education, culture and financial status are the background factors affecting methods and approaches in the management of projects. However, many middle level managers lack authority assigned. This is because managers have responsibility of a certain area within which they can make decisions over and this is a problem since it was not considered in this study. Many of the construction companies are more flat and power is extensively given to middle management. This is as well connected to the higher level of authority in the organization and may affect how finances are utilized.

Loid (2019) studied time planning functions effects on performance of the project in USA. The study was a survey of construction projects. The study targeted projects not completed in time and the respondents were project managers and sponsors. The study found that function is defined as the prior planning of the project at any time based on present certainties as well as revised prospects. The study also found that this is reasonable since the constraints as well as even the objectives of the project can change during the process of implementation. It is not easy and sometimes not possible at all to detect deviance from plans. It could be on this preface assert that; planning ought to be thorough to make control achievable, since it loses promptly its worth if nonconformity from it can't be revealed as well as amended promptly.

PMBOK (2014) investigated the influence of cost planning on project performance. This study utilized a descriptive research design. The respondents of the study were project managers. The study found that project cost planning practices, which includes the cost budgeting as well as cost estimating process, affects project performance. According to the study, cost-planning practices are essential to complete a given project within the agreed budget. The project's budget is crucial, and it has an influence in all areas in both projects planning as well as implementation.

The study recommended that it is crucial to keep track of expenses for various work packages and total costs in a project. However, the study failed to show the relationship strength between project performance and cost planning.

Setting milestones

Alinaitwe, Apolot, and Tindiwensi (2013) explored milestones and performance of construction projects in Nairobi City County, Kenya. The specific objectives were to determine the effects of human resource planning practices, financial resource planning practices, material usage planning practices and time management on performance of construction projects in Nairobi City County, Kenya. The target population was one hundred and twenty-five construction projects within Nairobi City County. Semi-structured questionnaires were used to collect data from one hundred and twenty-five project managers who formed the respondents of the study. The results indicated that project completion was being done without much struggle and that the budgeted funds were enough to complete the project. The study concluded that human resource planning, time management, material resource planning and financial resource planning positively and significantly contributes to performance of the construction projects. The study recommends that the cost estimation be founded on the project scope and be associated to the project plan.

Kiiza and Muiruri (2020), explore the influence of milestones on performance of food sustainable initiative project in Rwanda. The objectives of the study included determining how

schedule influences performance of food sustainable initiative project in Rwanda. The study adopted descriptive research design using quantitative and qualitative approaches. The population involved in this study was 6 technical staff from the FSIP and 80 beneficiaries that were taken as target population. To sample respondents, stratified random and non-probability sampling techniques were used, with a sample size of 86 respondents. To acquire primary data, structured questionnaires and interview procedures were used. Using IBM SPSS version 20, descriptive and inferential analysis such as frequencies, percentages, and correlation were employed to provide quantitative data in the form of tables. Results from findings indicated that there is insignificant negative correlation of $r=-0.681$ and $p\text{ value}=0.000$ between variables statistically correlated given the $p\text{ value}$ is <0.005 . Finally, the study recommended that to ensure effective Planning of all project activities, emphasis should be put on Work Break Structure in order to develop a project schedule, as it defines all the work that needs to be completed to achieve the goals and objectives of the project.

Akpan and Chizea (2016) studied the determinants of time planning systems in the construction firms. A case study of failed projects in Nigeria was selected. The study found that time planning

system necessitates the sensible evaluation of actual implementation with standards that are pre-established and if implementation is different from the conventional objectives/goals then the

corrective action is enforced immediately. Conversely, execution of a project refers to actualizing a project plan and at the same time, tracking the plans effectiveness in the achievement of the set goals and this can be defined as project control in action. The study did not establish the effects of time planning on project performance.

Creating a work breakdown

Fatima, Alyaa, and Abdul (2013), investigated the role of change management in the effectiveness of project implementation in Malaysia. They employed documentary analysis to discover that the number of projects that fail is currently high, and that this is attributable to a variety

of causes, the most important of which is bad project management. Furthermore, time passes quickly from day to day, making it difficult to create a dynamic structure. As a result, good management is necessary to ensure project execution efficacy. Because it focuses on enhancing project planning to cope with the present large change element in order to assure the outcomes and longevity of any company, advantage lucky change management is in great demand.

In Ghana, Ofori (2013) conducted research on project management methods and critical success criteria. Their study's purpose was to identify and assess the quality of project planning using management techniques. With a sample of 200 managers from diverse economic sectors, the study employed an exploratory strategy and a survey method to collect data about Ghanaian enterprises' project management methods. According to the findings, top management support, avoiding risk management, an effective communication plan, clarity of project goals, and stakeholder involvement are all essential elements that contribute to project success.

Allocating resources

Kress (2014) studied the effects of material planning on project performance through a survey design of selected constructions firms in UK. The study targeted construction projects not completed in time in London. The study found that the project management primary objective is to meet otherwise surpass the material usage sponsors anticipation of the project. According to the study these anticipations are usually expressed within 3 groupings; a given project generates preferred result with minimum defects. Cost: A given project generates preferred result for the expected cost Schedule: A given project generates the preferred result within the

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expected period.
However, the study did not consider many forces intervening and attempting to push projects off target.

Plenert and Best (2012) studied the influence of material level on project performance in Nigeria. The study was a survey of construction companies. Descriptive analysis was utilized, and the study found that most of the JIT cost benefits took place when inflation increases bringing about great increases in the cost of carrying inventory. The study recommended that firms must be capable of only focusing our planning on materials needed, and when they are needed. The study failed to indicate clearly the relationship between material usage and project performance

2.1 Theoretical framework

The study explored three theories namely: Agency theory, Modern Portfolio Theory and Stewardship theory.

Agency theory

According to the theory, project managers of asset left on their own are expected to act on the best interest of those who have appointed or elected them. This implies that the entire project ought to be carried out in a manner to benefit owners (Lan, 2010). In agency theory terms, the project beneficiaries are principals and project managers are the agents. Therefore, the agents, since they hold power on behalf of the principal, are expected to exercise control for the benefit of the principal by ensuring sufficient returns (Bonazzi, 2017). Agency theory specifies mechanisms that reduce loss and increasing benefits (wealth creation) to the principal thus, managers should always act to the best interest of the beneficiaries. This theory is significant in managing projects and it indeed emphasizes on the need of taking the interest of the stakeholders in all management decisions of the projects. Agency theory is applicable to the study in that it supports the works of project managers in ensuring that resources such as time, finance, human and materials are utilized to the best interest of the project performance.

Modern Portfolio Theory

Modern portfolio theory is a theory of finance that attempts to maximize portfolio expected return for a given amount of portfolio risk, or equivalently minimize risk for a given level of expected return, by carefully choosing the proportions of various assets (Markowitz, 2012). Modern portfolio theory asserts that firms choose investments based on discounted future expected returns and that for maximum risk adjusted returns firms should diversify across industries and asset classes. It was basically a methodology for producing balanced portfolios. On the business front it has assisted financial managers to come up with a balance portfolio of investments through the financial planning process of securing and employing capital resources on assets that will generate optimal returns (RanjanVarma, 2009).

Stewardship theory

Stewardship theory supports financial planning must be done well to see a positive relationship between the firms' success and the managers. The stewards maximize as well as protect wealth of shareholders through firm performance. According to Davis, Schoolman & Donaldson (1997) a steward who successfully makes improvement project performance satisfies the majority stakeholder groups within an organization, when these groups have interests that are served well by increasing wealth of the organization (Davis, Schoorman, & Donaldson, 1997)..

3. Research methodology

The study adopted Regression Analysis design in order to interpret data. Therefore, both quantitative (questionnaire) and qualitative (interview) research techniques were used by the researcher in order to collect data (information) related to the objectives of the study and for data analysis.

The employees of SESAM Cube Ltd was constituted as the target population. Accessible population is part of the target population that can access by the researcher. According to H/R manager, SESAM Cube Ltd served by 32 employees. Therefore, it was no needed of determining sample size in order to achieve accuracy and for the research data collection; the researcher distributed the questionnaire to all 32 employees. With this method, researcher aimed to collect data from every single individual or unit within that population, without selecting a subset through sampling. By doing so, researcher expected to gain an accurate and comprehensive understanding of the entire group under investigation.

Both primary and secondary data sources were utilized, with primary data collected through questionnaires and key informant interviews. Secondary data were obtained through a documentary review process.

The research instruments were tested for validity and reliability. Questionnaires, as a primary data collection method, were designed to align with the research objectives, utilizing a mix of close-ended and open-ended questions, primarily based on a Likert scale. Documentary review supplemented the primary data collection process, enhancing the depth of information acquired. For reliability, the Cronbach's alpha values for various variables were calculated, all surpassing the acceptable threshold of 0.7, indicating strong internal consistency. Editing, coding, and tabulation processes were employed to ensure data quality, consistency, and organization.

Data analysis involved Statistical Package for Social Science (SPSS V 21.0) for quantitative analysis. Descriptive statistics like frequencies, percentages, mean scores, and standard deviation were employed. Inferential statistics, including Pearson correlation analysis and multiple regression analysis, were conducted to establish relationships between project planning and performance of of construction project. Ethical considerations were a priority, ensuring confidentiality by avoiding the disclosure of respondents' identities and maintaining strict confidentiality of sensitive information throughout the study

4. Findings

This section shows the findings of this research by presenting it from analysis. Where this is required, interpretations are provided after each table, always taking into consideration the initial research questions. This section thus establishes the ground up on the research questions were answered before drawing conclusion. The analysis was made on the responses obtained from 32 SESAM Cube Ltd employees.

Regression Analysis

The study also wanted to establish the relationship between planning project and performance of construction projects. Multiple regression analysis was used to identify the coefficient of model, the analysis of variance (ANOVA) of the model, The section also presents the coefficient of determination.

Multiple linear regression model

The researcher conducted a regression analysis to determine the change in the (dependent variable) performance of construction projects because of change in the four independent variables. Regression analysis allows you to model, examine and explore spatial relationship, and can help explain the factors behind observed spatial patterns. Regression analysis is also used for prediction.

This section shows the results from the data collected that helps in answering research question five, achievement of objective five and testing null hypothesis five. H₀₅: There is no significant effect of project planning on performance of construction project.

Table 1 Model Summary Between project planning and performance of construction project

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
5	.631 ^a	.398	.309	1.49969

a. Predictors: (Constant), defining project objectives, setting milestones, creating a work breakdown, and allocating resources.

From the results of the analysis, the findings show that project planning (defining project objectives, setting milestones, creating a work breakdown, and allocating resources) contributed to 30.9% of the variation in performance of construction project in SESAM Cube Ltd as explained by adjusted R² of .309 which shows that the model as a good prediction while .691 representing 69.1% of performance of construction project in SESAM Cube Ltd comes from other variables that are not included in the model studied. This implies that these variables are very significant and need to be factored to improve performance of construction project

Table 2. ANOVA^a Between project planning and performance of construction project

Model		Sum of Squares	Df	Mean Square	F	Sig.
5	Regression	40.150	4	10.038	4.463	.007 ^b
	Residual	60.725	27	2.249		
	Total	100.875	31			

a. Dependent Variable: performance of construction project

b. Predictors: (Constant), defining project objectives, setting milestones, creating a work breakdown, and allocating resources.

The results of the findings above revealed that the level of significance was .007(b) which is less level of significance of 5% and this implies that the regression model is significant in predicting the relationship between project planning (defining project objectives, setting milestones, creating a work breakdown, and allocating resources) and performance of construction project in SESAM Cube Ltd. F-test is 4.463 implies that the model was statistically relationship between project planning (defining project objectives, setting milestones, creating a work breakdown, and allocating resources) and performance of construction project in SESAM Cube Ltd.

Table 3. Coefficients^a Between project planning and performance of construction project

Model	Unstandardized Coefficients		Standardized Coefficients	T	Sig.
	B	Std. Error	Beta		
(Constant)	36.707	10.166		3.611	.001
Defining project objectives	.186	.304	.113	.613	.005
Setting milestones	.379	.186	.316	2.035	.002
Creating a work breakdown	-.008	.455	-.004	-.018	.015
Allocating resources	.734	.215	.605	3.418	.002

a. Dependent Variable: Performance of Construction Project

The Multiple regression model equation would be $(Y = \beta_0 + \beta_1X_1 + \beta_2X_2 + \beta_3X_3 + \beta_4X_4 + \epsilon)$
 Where Y dependent variables while X= independent variables
 X1= Defining project objectives, X2= setting milestones, X3= creating a work breakdown; and
 X4= allocating resources

Becomes:

$$Y = 36.707 + 0.113X_1 + 0.316X_2 + -0.004X_3 + 0.605X_4 + 10.166$$

Using the regression equation above and holding all factors constant (defining project objectives, setting milestones, creating a work breakdown, and allocating resources) performance of construction projects. The coefficient of defining project objectives was ($\beta_1=0.113$, $p=0.005$, <0.05 level of significance) showed a statistically significant relationship between defining project objectives and performance of construction project in SESAM Cube Ltd. The results implied that a unit increase in defining project objectives would result to an increase of 0.113 units in performance of construction project in SESAM Cube Ltd. This was concurred with Alinaitwe, Apolot, and Tindiwensi (2013) explored project objectives practices and performance of construction projects in Nairobi City County, Kenya. The results indicated that project completion was being done without much struggle and that the budgeted funds were enough to complete the project. The study concluded that determining project objectives positively and significantly contributes to performance of the construction projects.

The coefficient of setting milestones was ($\beta_2=0.316$, $p=0.002$, <0.05 level of significance) showed a statistically significant relationship between setting milestones and performance of construction project in SESAM Cube Ltd. The results implied that a unit increase in setting milestones would result to an increase of 0.316 units in performance of construction project in SESAM Cube Ltd. This was supported by a study of Loid (2019) studied time planning functions effects on performance of the project in USA. The study targeted projects not completed in time and the respondents were project managers and sponsors. The study found that function is defined as the prior planning of the project at any time based on present certainties as well as revised prospects.

The coefficient of creating a work breakdown was ($\beta_3= -0.004$, $p=0.015$, <0.05 level of significance) showed that creating a work breakdown has negative and significant effect

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performance of construction project in SESAM Cube Ltd. The results implied that a unit change in creating a work breakdown would result to a decrease of -0.004 units in performance of construction project in SESAM Cube Ltd. This was concurred with Kiiza and Muiruri (2020), explore the influence of project planning process on performance of food sustainable initiative project in Rwanda. Results from findings indicated that there is insignificant negative correlation of $r = -0.681$ and $p \text{ value} = 0.000$ between variables statistically correlated given the $p \text{ value}$ is < 0.005 . Finally, the study recommended that to ensure effective Planning of all project activities, emphasis should be put on Work Break Structure in order to develop a project schedule, as it defines all the work that needs to be completed to achieve the goals and objectives of the project.

The coefficient of allocating resources was ($\beta_4 = 0.605$, $p = 0.002$, < 0.05 level of significance) showed a statistically significant relationship between allocating resources and performance of construction project in SESAM Cube Ltd. The results implied that a unit increase in allocating resources would result to an increase of 0.605 units in performance of construction project in SESAM Cube Ltd. This was agreed with Kress (2014) studied the effects of material planning on project performance through a survey design of selected constructions firms in UK. The study targeted construction projects not completed in time in London. The study found that the project management primary objective is to meet otherwise surpass the material usage sponsors anticipation of the project.

5. Conclusion

The study assessed the effect of project planning on performance of construction project. The study found that project planning (defining project objectives, setting milestones, creating a work breakdown, and allocating resources) has positive and significant effect on the performance of construction project. Thus, the study concludes that project planning do positive effect to the performance of construction project. The study concluded that most of the firms accord project planning is important role that aims to improve performance of construction projects. Most firms defining objectives to its project. Additionally, the study concludes that defining project objectives are in line with overall goal. The study concluded that defining project objectives positively and significantly contributes to performance of construction projects. The study concluded that setting milestones has a positive and significant effect on performance of construction projects. The study concludes that setting milestones for the project was properly determined and that the milestones were fair to complete the project. The study concludes that creating a work breakdown their project scope and visualize all the tasks required to complete their projects. The study concludes that creating a work breakdown has a positive and significant effect on performance of construction projects. The study concludes that allocating resources has effect on performance of construction project. It was clear that allocating resources was effective as it was indicated in the quality of the resources used, right resource used and the indication that all allocating resources has a positive and significant effect on performance of construction projects.

6. Recommendations

In the data analysis and interpretation as shown in above discussion, the study sought to come up with the following recommendations in line with the research objectives as given below.

the study recommends that construction companies especially SESAM Cube Ltd should proper channel of resource mobilization for projects and a proper funding schedule to facilitate the completion of project. The study further recommends that SESAM Cube Ltd should create work breakdown in order to develop a project schedule as it defines all the work that needs to be completed to achieve the goals and objectives of the project. SESAM Cube Ltd should

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always clearly plan to achieve its objective by the end of the project. SESAM Cube Ltd should develop accurate and attainable schedules, the study recommends accurate sequencing of activities. SESAM Cube Ltd should focus on accurate allocating resources because accurate allocating resources improves performance by decreasing the necessary lead-time, giving the construction project owners a higher quality of production and service. SESAM Cube Ltd should work on all possible alternatives that help them to complete the project objectives on the agreed time. SESAM Cube Ltd should communicate every employees to understand the objectives of the project. SESAM Cube Ltd should always monitor the resource usage throughout a project life cycle.

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