International Journal of Scientific Research and Management (IJSRM)
||Volume||11||Issue||01||Pages||EM-2023-4476-4490||2023||
Website: www.ijsrm.in ISSN (e): 2321-3418
DOI: 10.18535/ijsrm/v11i01.em08

Project Management Practices and Implementation of Projects in Manufacturing Companies in Rwanda. A Case of Inyange Industry Ltd.

Uwera Jessica

Master of Business Administration in Project Management of the University of Kigali.

Abstract
Achievement of a project means that a number of its perceived factors were attained. It is not guaranteed that project management practices will result to proper implementation of projects by manufacturing companies. However, the success of projects largely depends on the way it is managed and controlled. The challenges met during the implementation of project management practices has been during project planning, exceeding the set budget and going beyond its set schedule and poor quality. The general objective of the study is to investigate the influence of project management practices on the implementation of projects in manufacturing companies in Rwanda, Kigali city. The study's specific objectives are to examine how stakeholder participation, leadership support, communication and resource allocation influenced project implementation. The study will anchored by stakeholder theory, resource based view theory and cybernetics theory. The adopted a descriptive research designs. The target population was 73 manufacturing companies from the Inyange industry ltd. The targeted respondents were 73 comprising of employeesfrom different departments. The study used stratified sampling method to ensure that all cases are well represented and use simple random sampling method to select the respondents. Leadershipsupport is considered one of the critical success factors in project implementation; effective executive involvement can significantly improve project success. Maintaining open, regular and accurate channels of communication with all levels of project staff and stakeholders is vital to ensuring the effective implementation of capital expenditure projects. Allocation of resources helpsmanagers to bring together more productive and effective project teams and workgroups and enables them to appraise their schedules and easily estimate resource availability in real-time.

Key word: Stakeholder Participation, Leadership Support, Communication, Resource Allocation

Introduction

Bush bait and Cunningham (2012) indicate that projects are designed, planned and implemented in tandem with the sequence displayed by the project cycle. During these phases projects are influenced by a multiple of factors which can be external or internal to the organization responsiblefor its management and execution. The important thing for the project manager is to recognizewhat these factors are and how they impact on the project during the various phases from inception to final hand-over, or even disposal.

Project management in project implementation is the process of controlling the achievement of the project objectives. Utilising the existing organizational structures and resources, it seeks to managethe project by applying a collection of tools and techniques, without adversely disturbing the routine operation of the company (Kerzner, 2012). Hornstein (2015) argue that managementpractices in projects are important because the management define the what is required of thework, scope of the work, allocation of required resources, execution process planning, monitor work progress and amend changes form the initial plan that might arise during project implementation.

Project management practices are those fundamental issues inherent in the project, which must be maintained for an efficient and effective implementation of the project (Dissanayaka & Kumaraswamy, 2013). According to Ohara (2015) project management is articulated as a professional's capability to deliver, with due diligence, a project product that fulfils a givenmission, by organizing a dedicated project team, effectively combining the most appropriate

technical and managerial methods and techniques and devising the most efficient and effective breakdown and implementation routes.
Ahmed, Mohamad and Ahmad (2016) observe that leadership is an effective tool to be used by the project manager which moderately influence project outcome, otherwise, lack of leadership skills are directly associated with project failure. Haque and Anwar (2012) observe that top management needs tosupport project activities and project teams and take the leadership role. The authors further indicatethat top management commitment is essential for improving project performance in Pakistan. Senior management should provide support, authority, finance, and resources to the project managers for successful accomplishment of projects.

Communication in projects refers to information exchanges intended to create understandingamongst project stakeholders (Ruuska, 2016). According to Lester (2017) effective communicationis one of the most important factors that accounts for the success of any project. The effectiveness of project communication depends on the quality of the communication flows. The quality of communication all through the project life cycle can be described as the degree to which appropriate information reaches the intended information sources/receivers at the right time.

Allocation of resources leads to review and modify the project plan, revise stages, project completion dates (Selaru, 2012). Meredith and Mantel (2010) observe that the result of resource allocation enhances planned start and completion dates for each project activity, dates on which each resourcewill be required and the level of that requirement and planned cumulative expenditure incurred by the use of resources over time. Resources are scarce, therefore it important to carefully allocate them in order to obtain the desired results of the project.

Stakeholders bring a wide range of skills, knowledge, and experiences to the project and if they arewell managed they can help to make the project more successful (Bourne, 2016). The success or failure of many conventional development projects and programmes has been attributed to stakeholders' inclusion or lack of involvement in the project cycle management. Maina (2013) observe that stakeholders' involvement is paramount in development projects. Even though, minordecisions and emergency situations are generally not appropriate for stakeholder participation, a complex situation with far-reaching impacts warrant stakeholder involvement and when done proactively, rather than in response to a problem, helps to avoid problems in the future.
According to Chandra (2008) project implementation refers to the process of actualizing theinvestment plan by putting certain specific actions and structures in place in order to operationalizethe investment dream and subsequently derive the targeted benefits from the project. White (2011) observe that there is only a 65% chance that a project will meet the project participants' expectations, while Burke (2013) states that just 18% of projects are executed within budget, 50% of them exceeded the planned costs, while 30% of the projects are so expensive that they are cancelled before completion.
Pinto (2010) indicates that the project implementation process is complex, usually requires extensive and collective attention to a broad aspect of human, budgetary and technical variables. In addition, projects often possess a specialized set of critical success factors in which if addressed and attention given will improve the likelihood of successful implementation. On the other hand, Slevin and Pinto (2011) observe that if these factors were not taken seriously might lead to the failure of the project. Business today is operating under high level of uncertainty, projects implementations are open to all sorts of external influence, unexpected events, ever-growingrequirements, changing constraints and fluctuating resource flows. This clearly shows that if projects are applied and steps are not taken in order to manage them effectively and efficiently, the chances of failure are high.

Mochal (2009) suggested that even with sound project teams and plans in place, organization's project success rate may not be as high as it could be. According to Meredith and Mantel (2011) the project implementation phase takes 80-85% of all the project activities and resources utilization. Project success requires a combination of product successes and project management success that is the

product (services, results or outcome) of the project if it is a success and if the project is well managed. However not all the project will adopt the five stages as some may be terminated before closure.

The manufacturing sector in Rwanda is one of the significant supporters of the financial improvement of the nation; it's the most complex in East Africa and is moderately differing. Agribusiness being the foundation of Rwanda's economy. Other vital exercises in the segment are meat and natural product canning, wheat flour and cornmeal processing, and sugar refining.Hardware generation, vehicle gathering, distributing, and pop fiery remains handling are all criticalparts of the segment (Baskin, 2008).

Rwanda's non-commodity export sector is very small and has distinct characteristics from the commodity exports sector. In 2012, 54% of merchandise exports were commodity exports (tea, coffee and minerals) and the rest were non- commodity exports (mainly agriculture products and light manufacturing). However, no commodity exports are increasing steadily, experiencing staggering growth in 2012. Commodity and non-commodity exports differ not only in size, but alsoin terms of export destination. Commodities are mostly exported to the EU, America and Asia; 1. Non-commodity exports include all exports of products other than tea, coffee and minerals. 2. The data in this section and in the following ones come from Gathani S., Stoelinga D., Understanding Rwanda's Agribusiness and Manufacturing Sectors, 2013; National Bank of Rwanda, Balance of Payments 1998-2012; and from Ministry of Trade and Industry, Annual Trade Report 2012.

According to the latest Agriculture Status Report on Africa, Rwanda ranked highest in agricultural growth. It was followed by Mali and Morocco. 80% of Rwanda's population depends on Agriculture for survival. The growth of Agriculture in Rwanda has been highly dependent on a structured system where cooperative societies are used to train farmers and provide ready market. The success of the agricultural sector in Rwanda has been heavily reliant on companies that have made it possible for farmers to get ready market for their produce.

Project implementation measurement is crucial in managing projects as it enables the project manager to establish challenges in budget and scope in time and devise proper mechanisms that address these challenges (Dissanayaka & Kumaraswamy, 2013). However, Turner and Muller (2015) observe that those that are involved in the project handling fail to take a proactive approach to overcoming the uncertainties. As a result of this, project delays and budget overruns are usually encountered due to an overlook of potential risk. Insufficient information and ineffective management of project not only caused project cost overrun, completion delays but also termination before completion.

Mugume Davis (2021) study examined on impact of project management practice on the success ofproject success in Rwanda construction industry and established that new and emerging criteria such as customer satisfaction, competency of the project team, and performance of subcontractors/suppliers is a determinant to the achievement moreover on scope, budget and quality. However, the study was based on the construction industry. Mugume Davis (2015) study investigated factors effecting performance of projects and found that organizational culture, project management culture, and the project manager affects project performance. However, the study was qualitative in nature which does not provide conclusive findings due to small sample size involved. This study therefore, sought to investigate the influence of project management practices on project implementation in manufacturing companies Inyange industry ltd in Rwanda.

The general objective of the study was to investigate the influence of project management practices on the implementation of projects in manufacturing companies. The specific objectives of the study were the following:

1. To establish the influence of stakeholder participation on the implementation of projectsin manufacturing companies in Inyange industry ltd, Rwanda.
2. To examine the influence of leadership support on the implementation of projects inmanufacturing companies in Inyange industry ltd, Rwanda.

3. To identify the influence of communication on the implementation of projects inmanufacturing companies in Inyange industry ltd, Rwanda.
4. To find out the influence of resource allocation on the implementation of projects inmanufacturing companies in Inyange industry ltd, Rwanda.

Literature Review

This study will be guided by stakeholder theory by Freeman (1994). According to Freeman (1994) this theory is based on management of the organization and ethical issues in business that showsthe organization culture in the organizational management. The theory shows that organizations must put in mind individual matters and groups that may influence their activities when making decisions and attaining the goals of the organization (Gibson, 2000). Stakeholder theory addresses how the organization and its micro and macro environment relate to each other and its effects on how the organization activities are conducted (Filippone, 2012). Bourne (2009) shows that stakeholders are either from within or outside the organization. For example, in a given project clients, staff, suppliers, contractors, NGOs, government, and the local community among many others comprise are stakeholders.

Hill and Jones (2012) state that stakeholder theory can be used to buy in the community trust in a project. The same view is supported by Walumbao (2011) that established that stakeholder theory provide principles in which community interests as a stakeholder are identified, analyzed and canbe fulfilled. Danny (2014) opines that depending on how the community interests are identified andanalyzed, decisions can be made by a firm that help the community or at least prevent harm from coming to the community. These decisions may be to play by the rules of the game, adhere to legal contracts, or act on complaints or pressure brought to bear on the firm.

This study will be guided by Resource Based View theory as proposed by Barney (1991). Barney (1991) states that a firm is a collection of physical capital resources, human capital resources and organizational resources. The core premise of the resource-based view is that organizational resources and capabilities can vary significantly across firms, and that these differences can be stable. The theory focuses on the idea of costly-to-copy attributes of the firm as sources of businessreturns and the means to achieve superior performance and competitive advantage.

Chandler (1990) indicates that organizational capabilities emanate from lower management, middle and top management and that a firm can gain competitive advantage when its resources andcapabilities are used properly. He further states that if these organization capabilities were carefullysynchronized and assimilated it could achieve the economies of scale and scope needed to competein national and international markets. Barney (1991) states that, "sustainable competitive advantage is derived from resources that are valuable, rare, imperfectly imitable (due to path- dependence, causal ambiguity, and social complexity), and no substitutable". A resource-based view of the firm accepts that attributes related to past experiences, organizational culture and competences are critical for the success of the firm.

This theory is relevant to the study because it shows that organizations manage their waste on the basis of their resources and capabilities. A firm resource must, in addition, be valuable, rare, and imperfectly imitable and substitutable in order to be source of effective management of construction wastes. Resources may increase the company's capacity for proper management of projects and, thus, contribute to project performance by helping the firm to appropriate the value. Furthermore, resources may be used to erect entry barriers and so increase performance at the industry level.

Cybernetics theory propounded by Ross Ashby and Norbert Wiener in 1960 stressed on mathematics theory of communication and control systems using regulatory feedback. A positive feedback is achieved when intended outcome is attained or may be negative when in a situation where there is immediate response or can be delayed. Feedback can also be used to determine the efficacy of a certain communication send or in a circumstance that has already happened. Its main theme concerns how elements like digital, mechanical or biological manages its behavior, relays, responds to and changes information or can be altered to achieve these primary tasks effectively.

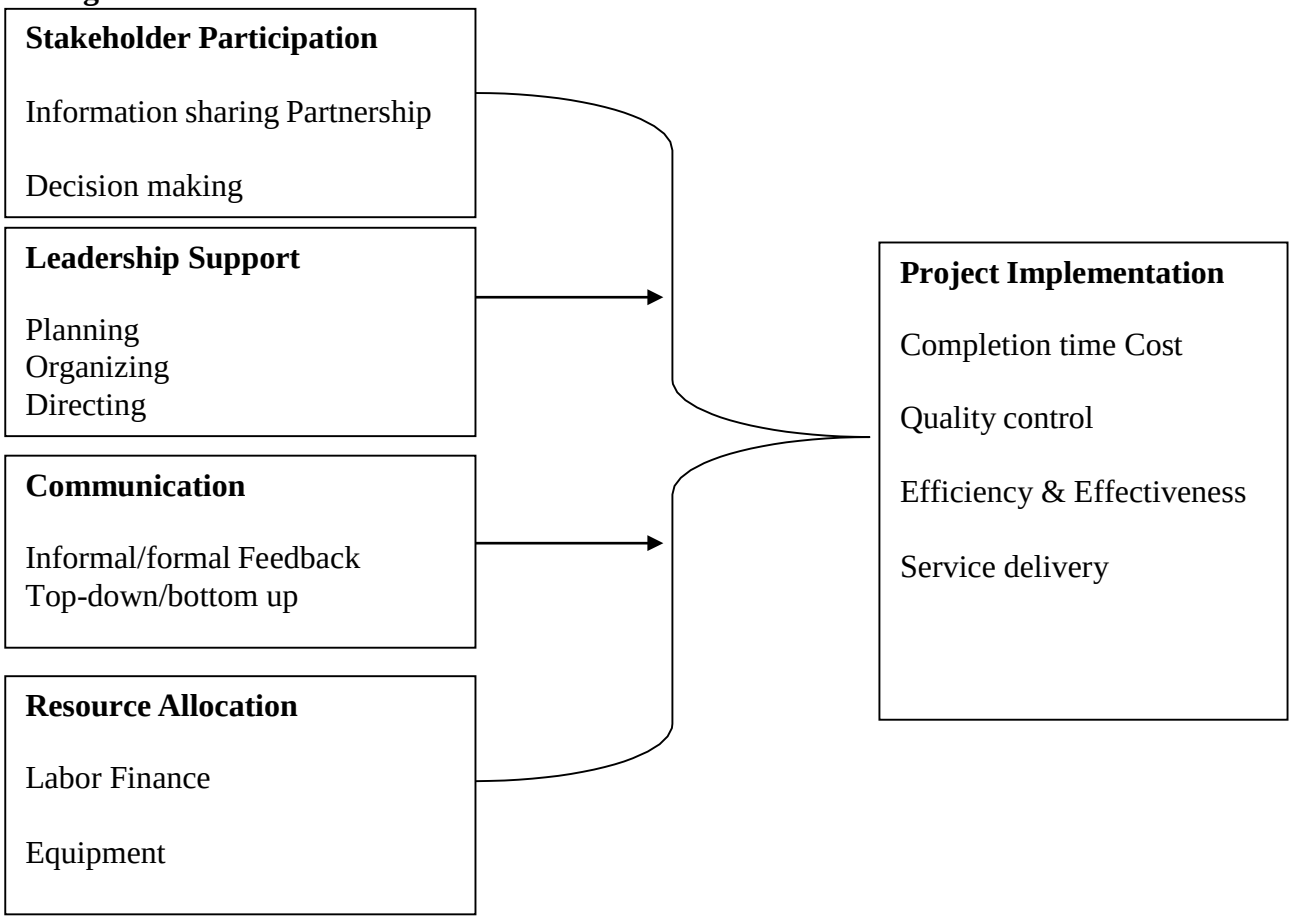
This theory is relevant to the study because it shows that there is a need for the project managers toindividually tell staff of new regulations and improvements within the systems of the company to permit workers to be aware and take part successfully in issues that pertain to them. Hence they need to realize whilst to apply

formal or casual mode of conversation, for the reason that their primary objective is to gain effects from team of workers. Moreover, in making use of the cybernetics theory" it becomes useful for any enterprise that intends to reap worker overall performance to make sure that feedback mechanism must be sufficient either inside the attitude to work, productiveness, and better project implementation. All theories considered in y study contribute to the understanding of research variables.

Empirical Review

Kobusingye, Mungatu and Mulyungi (2017) carried out a study to evaluate stakeholders' involvement in project outcome through gathering and analyzing the information on the level of involvement of stakeholders in the process of project cycle management (PCM) in Rwanda. Thestudy sought to assess stakeholder's involvement in project identification, project planning, projectexecution and project review on project outcome. This study employed descriptive survey design.The target population for this study was the various stakeholders in the WASH project in Rwanda. Data was collected from a sample of 409 respondents. The primary data was collected from the community members using a semi structured questionnaire. In addition to questionnaire, the other primary data was obtained through interview to and observations. The researcher analyzed quantitative data using descriptive statistics by applying the statistical Package for Social Science (SPSS V.21.0). Conceptual content analysis was used for data that was qualitative in natureor aspect of the data collected from the open ended questions and the interview guide. In addition, descriptive analysis was applied to determine the relative contribution of each of the four variables with respect to project outcome. This study found that stakeholders' involvement in project initiation, planning, implementation, and review contributed to project outcome.

Independent Variables **Dependent Variable Project Management**



Source: Researcher (2022)

Figure 2.1 shows the relationship between independent variables and dependent variable. The independent variables include stakeholder participation, leadership support, communication and resource allocation and the dependent variable is the project implementation.

Methodology

The study adopted a descriptive research design. Kothari (2004) recommend that the use of descriptive research design enables the researcher to make a certain predictions by narrating data and traits of the target population. Through the use of descriptive research the researcher were able to collect data from a larger population cheaply and faster with the use of questionnaires and get conclusive findings.

The target population was 73 employees from Inyange industry ltd which comprise in different categories such as finance department, procurement & logistic, operation, Human Resources,Marketing, as shown in table below:

Sample Size		
Category	**Population**	**Sample Size**
Finance & Administration	25	25
Procurement & Logistic	8	8
Operation	17	17
Human Resources	4	4
Marketing	19	19
Total	**73**	**73**

Source (Researcher 2022)

Sampling techniques and sample size are important to establish the representativeness of thesample for generalization (Kombo & Tromp, 2006). The study used stratified sampling method to ensure that all cases were well represented and use simple random sampling method to select the respondents. The researcher considered entire target population as a sample size because the number of respondents (population) was less than 100

Sample Size		
Category	**Population**	**Sample Size**
Finance & Administration	25	25
Procurement & Logistic	8	8
Operation	17	17
Human Resources	4	4
Marketing	19	19
Total	**73**	**73**
Source (Researcher 2022)		

Questionnaires were used as data collection instruments. The questionnaires were structured into 5 sections ranging from A to F whereby section A collected data regarding the respondents backgroundinformation, section B was based on stakeholder participation variable, section C leadership support variable, section D communication variable, section E resource allocation variable and section F collected data on dependent variable (project implementation). The questions followed a likert scale whereby the respondents were required to rate questions as per their level of agreement.

Presentation of Findings

Stakeholder Participation

The first research objective sought to establish the influence of stakeholder participation on the implementation of projects in manufacturing companies in Kigali City, Rwanda.

Stakeholder Participation

Statement	Mean (M)	Standard Deviation (SD)
Stakeholder analysis is done to identify extent of decision making	4.09	1.197
Stakeholder participation enhances support of the project	4.11	0.832
Stakeholder participation improves decision making process	4.37	0.547
Stakeholder participation helps in the identification of deviation in the project	4.23	0.808
Committing the necessary resources to ensure the project is successful	4.57	0.502
Making their detailed requirements known	4.49	0.612
Aggregate Score	**4.35**	**0.714**

Source: Survey Data (2022)

The results in Table 4.4 show that the respondents strongly agreed that stakeholder participation influence the implementation of projects in Inyange Industries in Kigali City as shown by the aggregate mean score of 4.35 with a significance variance of 0.714. The respondents strongly agreed on the statement that committing the necessary resources to ensure the project is successful, making their detailed requirements known and that stakeholder participation improves decision making process as shown by mean score of 4.57, 4.49 and 4.37 respectively and with respective standard deviation of 0.502, 0.612 and

0.547. This is in line with the findings of Mulisa and Kankuyu (2014) who established that the performance of roads projects is determined by project communication, feasibility study, holding seminars and conferences.

The respondents also agreed on the statements that Stakeholder participation helps in the identification of deviation in the project, stakeholder participation enhances support of the project and that stakeholder analysis is done to identify extent of decision making as shown by mean score of 4.23, 4.11 and 4.09 respectively and standard deviation of 0.808, 0.832 and 1.197. This agrees with the findings of Adan (2012) who found that the role of project implementation by project managers and government officials' role led to better performance of projects.

Leadership Support

The second research objective sought to examine the influence of leadership support on the implementation of projects in manufacturing companies in Kigali City, Rwanda.

Leadership Support

Statement	Mean (M)	Standard Deviation (SD)
Leadership helps in design and application of appropriate standards in project management	3.89	1.491
Leadership helps in delegating and utilization of roles concerning assurance of within the set structures	3.40	1.459
Leadership helps in having a contingency plan for managing risks involves in projects	4.34	0.968
Leaders monitor the whole project process and utilizes resources together with making necessary corrective action	3.37	1.734
Direct, manage and motivate the project team	3.94	1.110
Leadership helps in building and sustaining proper communication between project stakeholders	4.40	0.912
Aggregate Score	**4.44**	**1.225**

Source: Survey Data (2022)

The results in Table 4.5 shows that the respondents strongly agreed that leadership support influence the implementation of projects in manufacturing companies in Kigali City, Rwanda as shown by the aggregate mean score of 4.44 with a significance variance of 1.225. The respondents strongly agreed on the statements that Leadership helps in building and sustaining proper communication between project stakeholders and that leadership helps in having a contingency plan for managing risks involves in projects as indicated by mean score of 4.40, and 4.36 respectively with respective standard deviation of 0.912 and 0.968. This agrees with the findings of Yang, Huang and Wu (2011) who shows that better project management leadership leads to better project team member's relationships. The study also revealed that teamwork spirit has a statistical significance influence on project performance.

The respondents agreed on the statements that direct, manage and motivate the project team and that leadership helps in design and application of appropriate standards in project management as shown by mean score of 3.94 and 3.89 respectively and with respective significance variance of 1.110 and 1.491. This is in line with the findings of Novo, Landis and Haley (2017) who revealed that leadership traits are directly related with the project manager competency. Similarly, the project managers leadership skills and project success is strongly correlated.

The respondents were neutral on the statement that Leadership helps in delegating and utilization of roles concerning assurance of within the set structures and that leaders monitor the whole project process and utilizes resources together with making necessary corrective action as indicated by mean score of 3.40 and 3.37 respectively and with respective significance variance of 1.459 and 1.734. This contradicts with the findings of Buba and Tanko (2017) who established that the ability of a project manager in giving direction is the best leadership style and contributes to the best artistic quality of the project and also leads to better inter-functional relationships.

Communication

The third research objective sought to identify the influence of communication on the implementation of projects in manufacturing companies in Kigali City, Rwanda.

Communication

Statement	Mean (M)	Standard Deviation (SD)

There is effective communication of project objectives to all the stakeholders	4.08	0.406
Ongoing meetings between management/staff/stakeholders are carried out during project implementation	4.00	0.123
There is a regular review and adjustments of communication plans	4.71	0.860
The organization has established communication strategies to help minimize potential disputes and misunderstandings during project implementation	4.89	0.471
There is a clear communication giving stakeholders opportunity to comment/ cast a vote in order to identify clients needs.	4.20	1.623
Aggregate Score	**4.38**	**0.672**

Source: Survey Data (2022)

The results in Table 4.6 shows that the respondents strongly agreed that communication influence the implementation of projects in manufacturing companies in Kigali City, Rwanda as shown by the aggregate mean score of 4.38 with a significance variance of 0.672. Majority of the respondents strongly agreed on the statements that the organization has established communication strategies to help minimize potential disputes and misunderstandings during project implementation and that there is a regular review and adjustments of communication plans as shown by mean score of 4.89 and 4.71 respectively with respective significance variance of 0.471 and 0.860. This is in line with the findings of Afroze and Khan (2017) who showed that these practices have significant and positive impacton project performance; project complexity has a minimal impact on the communication and performance relationship.

The respondents agreed on the statements that there is a clear communication giving stakeholders opportunity to comment/cast a vote in order to identify clients needs, there is effective communication of project objectives to all the stakeholders and that ongoing meetings between management/staff/stakeholders are carried out during project implementation as indicated by mean score of 4.20, 4.08 and 4.00 respectively and with standard deviation of 1.623, 0.406 and 0.123. This concur with the findings of Affare (2012) who established that poor communication had resulted in project delays, project cost overrun and project abandonment.

Resource Allocation

The fourth research objective sought to find out the influence of resource allocation on the implementation of projects in manufacturing companies in Kigali City, Rwanda.

Resource Allocation

Statement	**Mean (M)**	**Standard Deviation (SD)**
Project equipment is assigned to staff for use during project implementation	4.29	1.126
Project staff allocation is a prerequisite for onset of project implementation	3.34	1.371
The organizations have human resource management policies that measure project performance and include reward schemes for staff motivation.	4.71	0.825

There exists periodic budget monitoring to measure expenditures against budget	3.51	0.781
There is approved budget for the implementation of project	3.00	0.804
The organization provide the right quantity of the right material at the right time for the implementation of projects	4.57	0.502
Aggregate Score	**3.98**	**0.860**

Source: Survey Data (2022)

The results in Table 4.7 shows that the respondents agreed that resource allocation influence the implementation of projects in manufacturing companies in Kigali City, Rwanda as shown by the aggregate mean score of 3.98 with a significance variance of 0.860. Majority of the respondents strongly agreed on the statements that the organizations have human resource management policies that measure project performance and include reward schemes for staff motivation and that the organization provide the right quantity of the right material at the right time for the implementation of projects as shown by mean score of 4.71 and 4.57 respectively and with respective significance variance of 0.825 and 0.502. This in line with the findings of Obegi and Kimutai (2017) who established that there exists periodic budget monitoring to measure expenditures against budget, project staff complete their project on time.

The respondents agreed on the statements that Project equipment is assigned to staff for use during project implementation and that there exists periodic budget monitoring to measure expenditures against budget as shown by mean score of 4.29 and 3.51 respectively and with significance variance of 1.126 and 0.781 respectively. This concurs with the findings of Wambua (2013) who found that HRM practices have an effect on project performance.

The respondents were neutral on the statements that project staff allocation is a prerequisite for onset of project implementation and that there is approved budget for the implementation of project as shown by mean score of 3.34 and 3.00 respectively and with significance variance of 1.371 and 0.804 respectively. This is in contrary to the findings of Umulisa *et al.* (2015) who revealed that financial resource planning practices were found to influence the project performance.

Project Implementation

The sought establish the extent to which the implementation of projects in manufacturing companies in Kigali City, Rwanda was achieved.

Project Implementation

Statement	**Mean (M)**	**Standard Deviation (SD)**
Projects are delivered on specified time	4.52	0.464
Projects are implemented within the set budget	4.45	1.278
Implementation of projects have minimized cost to the organization	4.03	1.671
Aggregate Score	**4.33**	**1.138**

Source: Survey Data (2022)

The results in Table 4.8 indicated that respondents strongly agreed that project management practices influence the implementation of projects in manufacturing companies in Kigali City, Rwanda as shown by the aggregate mean score of 4.33 and with significance variance of 1.138. Project time, budget and cost was greatly improved as shown by the mean score of 4.52, 4.45 and 4.03 respectively and with respective significance variance of 0.464, 1.278 and

1.671. Hornstein (2015) argue that management practices in projects are important because the management define the what is required of the work, scope of the work, allocation of required resources, execution process planning, monitor work progress and amend changes form the initial plan that might arise during project implementation.

Regression Analysis

Multiple regression analysis was conducted to test relationship among variables using statistical Package for Social Sciences (SPSS) version 17.0.

Project Implementation

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.688[a]	.473	.403	.472

a. Predictors: (Constant), Stakeholder participation, leadership support, communication, resource allocation

Source: Survey Data (2022)

From the findings in Table 4.9 the value of adjusted r squared was 0.403(40.3%) an indication that there was variation of 40.3% on the implementation of projects in manufacturing companies in Kigali City, Rwanda was due to changes in Stakeholder participation, leadership support, communication, resource allocation at 95% confidence interval. Additionally, this therefore means that factors not studied in this research contribute 59.3% of the project implementation and a further research should be conducted to investigate the other factors that contribute to this gap.

Analysis of Variance

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	6.002	4	1.500	6.734	.001[a]
	Residual	6.684	161	.223		
	Total	12.686	165			

a. Predictors: (Constant), Stakeholder participation, leadership support, communication, resource allocation

b. Dependent Variable: Project Implementation

Source: Survey Data (2022)

The significance value is 0.001[a] which was less than 0.05 thus the model is statistically significance in predicting how various factors affect implementation of projects in manufacturing companies in Kigali City, Rwanda. The F critical at 5% level of significance was 1.500. Since F calculated is greater than the F critical (value = 6.734), this shows that the overall model was significant. The relationship ($p < 0.05$) indicated a linear relationship among the variables under the study meaning there was 95% chance that the relationship among the variables was not due to chance.

Analysis of Variance

Model		Unstandardized Coefficients		Standardized Coefficients		
		B	Std. Error	Beta	t	Sig.
1	(Constant)	.411	.904		4.235	.000
	Stakeholder Participation	.790	.113	2.124	4.859	.001
	Leadership Support	.622	.048	4.062	2.458	.000
	Communication	.711	.081	1.020	2.142	.002
	Resource Allocation	.823	.071	3.645	4.577	.000

a. Dependent Variable: Project Implementation

Source: Survey Data (2012)

As per the SPSS generated Table 4.11, the equation ($\mathbf{Y = \beta 0 + \beta 1X1 + \beta 2X2 + \beta 3X3 + \beta 4X4 + \varepsilon}$) becomes:
Y= 0.411+0.790 X1+ 0.622 X3+ 0.711 X3 + 0.823X4

Where
According to the regression equation established, taking all the independent variables into constant at zero, implementation of projects in manufacturing companies in Kigali City, Rwanda would be 41.1%. The data findings analyzed also showed that all the independent variables had a positive and significant effect on the implementation of projects in manufacturing companies in Kigali City, Rwanda as indicated by t-values. The relationships ($p < 0.05$) are all significant with stakeholder participation (4.859, $p< 0.05$), leadership support (2.458, $p< 0.05$), communication (2.142, $p< 0.05$) and resource allocation (4.577, $p< 0.05$). Resource allocation was found to be the most (82.3%) significant among the other variables under study, followed by stakeholder participation (79.0%), communication (71.1%) and leadership support (62.2%).Allocation of resources leads to review and modify the project plan, revise stages, project completion dates (Selaru, 2012). Stakeholders bring a wide range of skills, knowledge, and experiences to the project and if they are well managed they can help to make the project more successful (Bourne, 2016). Communication in projects refers to information exchanges intended to create understanding amongst project stakeholders (Ruuska, 2016). Ahmed, Mohamad and Ahmad (2016) observe that leadership is an effective tool to be used by the project manager which moderately influence project outcome, otherwise, lack of leadership skills are directly associated with project failure.

Summary of Findings
The general objective of the study was to investigate the influence of project management practices on the implementation of projects in manufacturing companies in other variables under study, followed by stakeholder participation (79.0%), communication (71.1%) and leadership support (62.2%). The study's specific objectives were to examine how stakeholder participation, leadership support, communication and resource allocation influenced project implementation. The study adopted a descriptive research design. The population was drawn from 49 manufacturing companies from the industrial area of other variables under study, followed by stakeholder participation (79.0%), communication (71.1%) and leadership support (62.2%).comprising of project managers and project team members. Data was collected using questionnaires and analyzed using both descriptive statistics and regression analysis. The summary of the findings is shown as follows:

The first research objective sought to establish the influence of stakeholder participation on the implementation of projects in manufacturing companies in other variables under study, followed by stakeholder participation (79.0%), communication (71.1%) and leadership support (62.2%). and established a positive and significant relationship between stakeholder participation and project implementation. Committing the necessary resources to ensure the project is successful; making stakeholder detailed requirements known improves decision making process towards effective implementation of projects.

The second research objective sought to examine the influence of leadership support on the implementation of projects in manufacturing companies in other variables under study, followed by stakeholder participation (79.0%), communication (71.1%) and leadership support (62.2%) and established a positive and significant relationship between leadership support and project implementation. Leadership helps in building and sustaining proper communication between project stakeholders and in having a contingency plan for managing risks involves in projects.
The third research objective sought to identify the influence of communication on the implementation of projects in manufacturing companies in The third research objective sought to identify the influence of communication on the implementation of projects in manufacturing companies in Kigali City ,Rwanda and established a positive and significant relationship between communication and project implementation. The organization has established communication strategies to help minimize potential disputes and misunderstandings during project implementation and that there is a regular review and adjustments of communication plans.

The fourth research objective sought to find out the influence of resource allocation on the implementation of projects in manufacturing companies in Kigali City ,Rwanda and established a positive and significant relationship between resource allocation and project implementation. The manufacturing companies have human resource management policies that measure project performance include reward schemes for staff motivation and provide the right quantity of the right material at the right time for the implementation of projects.

Conclusions

The study concludes that,
Community participation during implementation of projects in manufacturing companies is a vital as it leads to better outcomes for all stakeholders, stakeholder ownership and lower project costs. Leadership support is considered one of the critical success factors in project implementation; effective executive involvement can significantly improve project success.

Maintaining open, regular and accurate channels of communication with all levels of project staff and stakeholders is vital to ensuring the effective implementation of capital expenditure projects. Allocation of resources helps managers to bring together more productive and effective project teams and workgroups and enables them to appraise their schedules and easily estimate resource availability in real-time.

Recommendations for Policy And Practice

The study recommends that:
Stakeholder participation is crucial to the long-term success of project implementation. Therefore, the study recommends that strict scrutinization of project teams to be done to ensure that all the stakeholders are well represented. This will ensure that various needs are effectively addressed.

Project implementation cannot be effective without an excellent or good level of support from top management. The top managers from the manufacturing companies should ensure proper planning; organizing is done according to the set objectives of the project and also lead and motivate the staff involved in the implementation of the projects.

Project activities should be communicated to every party concerned during implementation of projects and the manufacturing companies should establish the right channels of delivery messages and feedback in both top-down and bottom-up communication.

The management of the manufacturing companies should identify the right resources towards effective implementation of the projects. Frequent estimation should be carried out for each assignment within the project so that utilization of resources can occur in the most effective manner possible.

Suggestions For Further Studies

The study focused on how project management practices influences the implementation of projects in manufacturing companies in Kigali City, Rwanda. Therefore, further study should be carried out focusing on other variables that have not been studied to address that gap as indicated in the coefficient of determination and established a positive and significant relationship between communication and project implementation. The organization has established communication strategies to help minimise potential disputes and misunderstandings during project implementation and that there is a regular review and adjustments of communication plans.

The fourth research objective sought to find out the influence of resource allocation on the implementation of projects in manufacturing companies in Kigali City, Rwanda and established a positive and significant relationship between resource allocation and project implementation. The manufacturing companies have human resource management policies that measure project performance include reward schemes for staff motivation and provide the right quantity of the right material at the right time for the implementation of projects.

References

1. Adan, I. H. (2012). *Influence of stakeholders role on performance of constituencies development fund projects a case of Isiolo North Constituency, Kenya*. Unpublished Masters in project planning and management, University of Nairobi.
2. Affare,M. A. W. (2012). *An assessment of project communication management on construction projects in Ghana* (Doctoral dissertation).
3. Afroze, G., & Khan, R. A. (2017, September). Investigating impact of effective communication practices and project complexity on performance of international development projects. In *Intelligent Data Acquisition and Advanced Computing Systems: Technology and Applications (IDAACS), 2017 9th IEEE International Conference on* (Vol. 1, pp. 387-393). IEEE
4. Ahmed, R., Mohamad, N. A. B., & Ahmad, M. S. (2016). Effect of multidimensional top management support on project success: an empirical investigation. *Quality*
5. Alqahtani, F., Chinyio, E., Mushatat, S., & Oloke, D. (2015). Factors Effecting Performance of Projects: A Conceptual Framework. *International Journal of Scientific & Engineering Research*, *6*(4), 670-676
6. Baskin, J. B. (2008). The development of corporate financial markets in Kenya, 1600–1914: Overcoming asymmetric information. *Business History Review*, 62(2), 199-237
7. Bourne, L. & Walker, D. H. T. (2016). Using a Visualizing Tool to study Stakeholder influence two Australian Examples. *Project Management Journal*, 37(1), 5-21
8. Buba, S. P. G., & Tanko, B. L. (2017). Project Leadership and Quality Performance of Construction Projects. *International Journal of Built Environment and Sustainability*, *4*(2).
9. Bushbait, A. A. & Cunningham, M. J. (2012). Comparison of Delay Analysis Methodologies.
10. *Journal of Construction Engineering and Management*, 4(2), 315-322
11. Dissanayaka, S. M. & Kumaraswamy, M. M. (2013). Evaluation of factors affecting time and cost performance in Hong Kong building projects. *Journal of Engineering, Construct Architect Management*, 6 (3), 287-298
12. Haron, N. A., Devi, P., Hassim, S., Alias, A. H., Tahir, M. M., & Harun, A. N. (2017). Project management practice and its effects on project success in Malaysian construction industry. In *IOP Conference Series: Materials Science and Engineering*, 291(1), 214 - 218
13. Hornstein, H. A. (2015). The integration of project management and organizational change management is now a necessity. *International Journal of Project Management*, *33*(2), 291- 298.
14. Kerzner, H. R. (2012). *Project management case studies*. John Wiley & Sons.
15. Maina, B. M. (2013). *Influence of stakeholders' participation on the success of the economic stimulus programme: a case of education projects in Nakuru County, Kenya*. Retrieved from

http://erepository.uonbi.ac.ke:8080/xmlui/handle/123456789/56416
16. Meredith, J. R. & Mantel, S. J. (2010). *Project management. A managerial approach.* Fourthedition. Wiley