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Projects Alignment Strategies and Performance of Rwandan Selected Cooperatives: A Case of Cooperative Development Project

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### Abstract

The main purpose of this research was to assess the effect of projects alignment strategies on Rwandan selected cooperatives performance. The study was guided by three specific objectives which were to assess the effect of technology implementation on performance of cooperative development project, to evaluate the impact of organizational requirements on performance of cooperative development project and to examine the relationship between objective determination and performance of cooperative development project in Rwanda. The descriptive research design was used to analyze the collected data through questionnaire and interview guide into descriptive statistics with mean and standard deviation and inferential statistics with Pearson correlation and multiple linear regression analysis. The data were collected from 116 respondents who were selected using census method because the target population was manageable and reasonable for this study. The results of the first objective revealed that revealed that technology implementation has r=0.00 and sig=0.00 < 0.01) with schedule performance, (r=0.832 and sig=0.00 < 0.01) with budget performance, and (r=0.769 and sig=0.00 < 0.01) with quality performance which implies that there is a positive and significant relationship between technology implementation and performance of cooperative development project in Rwanda. The results of the second objective revealed that organizational requirement has (r=0.781 and sig=0.00 < 0.01) with schedule performance, (r=0.891 and sig=0.00 < 0.01) with budget performance, and (r=0.747 and sig=0.00< 0.01) with quality performance implying that there is a positive and significant relationship between organizational requirement and performance of cooperative development project in Rwanda. The results of the third objective revealed that objective determination has (r=0.820 and sig=0.00 < 0.01) with schedule performance, (r=0.786 and sig=0.00 < 0.01) with budget performance and (r=0.807 and sig=0.00 < 0.01) with quality performance implying that there is a positive and significant relationship between objective determination and performance of cooperative development project in Rwanda. Thus, recommendations were made to government to ensure that reliable and affordable internet and ICT infrastructure are built to ensure that most of the projects have access to internet and other technological advancement, and beneficiaries and



stakeholders as well as employees are recommend to participation in providing priorities and accessing the local community before determining the objective of the project and setting up organizational requirement in order to enhance performance which is significant to the whole community.

**Keywords:** Alignment Strategies, Project Performance, Cooperative Development Project, Rwanda

#### **1.1 Introduction**

Although, project managers and business leaders perceive project strategy as the paramount important tool to achieve project performance, alignment between organizational strategy and project management has to be given priority during selection and inception of the project throughout all the stages of project lifecycle because if not taken care of, the organization fails to get to success or get into a loss due to misalignment of conducted project (Hjelmbrekke *et al.*, 2014; and Patanakul & Shenhar, 2012). Misalignment of the projects is at the core center of causing reduction of project productivity, waste of resources and time that hinder the performance of the project.

Hence, the project managers have not to lie themselves that project alignment can be handle during the closure of the project, the project alignment starts with the selection and inception of the project up to the implementation of the project depending on the information given by the project monitoring and evaluation process (Kaiser *et al.*, 2015). The misalignment of the project has negatively affected the productivity, performance, and effectiveness of various projects in the large and small organizations around the world. That is why most of the research conducted in this field of the study have revealed that project failures have become common due to misalignment of the project (Alkaraghouli & Eldabi, 2013).

The strategies that can be adopted to ensure project alignment and performance are still obscure, and there are very fewer researchers who have been tried to look at the effects of alignment on project success, the effect of misalignment on project performance but no empirical studies on the alignment strategies that enhance project performance. As reviewed, most of the scholars have made detailed investigations on the methods of measuring alignment, correlation between business management and strategy or success of the project (Shenhar *et al.*, 2018; Patanakul & Shenhar, 2012; and Patanakul *et al.*, 2012).

Despite, the problem of knowledge gap concerning lack of empirical studies that are related to project alignment strategies and performance; the report of ADF (2014), has also stated the problem in hand concerning the way project misalignment has caused a number of project to fail, delay, cost overrun, immature closure and unsustainability of the projects in Rwanda due to advanced international competitiveness, acute skills shortages, lack of established think and do tanks which require development of strategic and capable leadership hence policymaking based on evidences. The same report showed that project conducted by government corporates have required resources and intellectual capacity to align them efficiently and effectively with the government of Rwanda policies and agenda of ensuring poverty reduction and making Rwanda a middle country income which is yet to achieve.



The study of Tuyishime (2016), has asserted that public projects face problems during the implementation period due to a minor change in the design of the project, though the objectives of the project remain aligned to the priorities of the country to enhance performance. Hence, projects like policies or strategies support projects of development are aligned with pillars of creating of human resource knowledge based economy and good governance as they are well determined by the strategies of Vision 2030, EDPRS and national leadership retreat recommendation (ADF, 2014). However, in private sector and NGOs conducted projects, misalignment of the project has increased the rate of disappointments in the project beneficiaries and stakeholders due to failures right after its start.

The problem of misalignment of the project and weak strategies prevent totally or partially the implementation of the strategies of the business in a project which hinder the achievement of the project goals. Thus, projects with weak alignment methods show less successful outcomes. The lack of project alignment contributed to the insignificant losses that are related to failure to meet demands of the beneficiaries on time or increase the scarcity of the project products which in turn cause the increase in cost of the project's product. The common problem to the projects is misalignment of the project management process. Thus, the researcher clearly states the problem of knowledge gap and the existing problem seeking to analyze whether cooperative alignment exercised by project have role in increasing of its performance. Therefore, it is in regard of the above statement, the researcher conducted this research to analyze the role of projects alignment strategies and the performance of Rwandan cooperatives with a case of Cooperative Development Project in Rwanda.

#### **1.2 Objectives of the study**

#### **1.2.1 General Objective**

The general objective of the study is to analyze the role of Projects alignment strategies and the performance of Rwandan cooperatives.

#### **1.3.2** Specific objectives

- (i) To assess the effect of technology implementation on performance of cooperative development project in Rwanda.
- (ii) To evaluate the impact of organizational requirements on performance of cooperative development project in Rwanda.
- (iii) To examine the relationship between objective determination and performance of cooperative development project in Rwanda.

#### 2.2 Empirical Literature

#### 2.2.1 Technology implementation and project performance

The previous study conducted by Ma, *et al.*, (2021), in relation to technology implementation and project performance used correlational research design to study the fit between technology management and capability and it effect on new product development performance. The results of his research revealed a positive effect on new product development performance that exists between technology management and technological capability. The results also show that



technological capability is dominated by new product development performance while low new product development performance is dominated by management of technology.

The same researcher of Ma, *et al.*, (2021), revealed the high the new product development performance, the very high is the fit degree of managing technologies and technological capability (r=0.668 and p<0.01). The low new product development performance show the fit degree of technology management of (r=0.446 and p<0.05) with technological capability which is relatively low. Thus, it implies that the fit and new product development performance has strong correlation which means that technology management and technology capacity has the stronger fit and higher new product development performance. Thus, the researcher recommended technology implementation to increase the performance of the development of the new product.

The reviews of existing empirical literatures concerned with project alignment strategies and performance of project. The study of Van Der Waldt (2016) used qualitative research design in his study. The results of his study have revealed that project failure has reasons that most of the organizations do not align the project with core organizational strategies. The literature also increased multi-project functions to be translated into successful strategies to service delivery initiatives. The researcher has added that misalignment of the project leads to schedule and budget overruns and the wastages of the resources of the organization. Thus, he recommended that the project budget should be informed adequately by giving the details of the project and its plans and ensures provision of powers to the local project officers to form their own bid committees to easily fast track the procurement of resources.

The study conducted by Cullen and Parker (2015) have shown that project failed on the average of 50% in many different industries whereas the study of Alsudiri *et al.*, (2013) have demonstrated that the project failures that occurred due to misalignment between projects and strategy are at 30 percent. The research of Atkins (2019) used qualitative research design to conduct a study in the state of Florida in the United States of America on project management and strategy alignment in academia have revealed that misalignment has an impact on project success which are misuse of resources, bad decision making and misuse of capabilities which lead to unsuccessfulness of the projects.

#### 2.2.2 Organizational requirements and project performance

Research was conducted by Ong'ondi and Uche (2019) in South Sudan using multiple case studies to explore strategies. This study has concentrated on the alignment of project management and business strategy. Their research finding has revealed that misalignment of processes of project management and business strategy makes managers of the project to failure to attain the goals and objectives of the project. Thus, misalignment happens at distinct levels in the project which result in reduction of revenue, losses of competitiveness, extension of project scope and cost increase. That is why their study recommended the business leaders to involve project managers during the development of business strategies to ensure that the project is successful within the planned schedule of the project. In sense of the current study, the results of cost increase, extension of project completion duration like any other results demonstrated by this study affirms project inefficiency with such results. Thus, the results of the study affirm that project misalignment results into inefficiency of the project.



The study of Atkins (2019) was about organizational strategy and project alignment, project and strategy misalignment where the phenomenological design approach was used to find the best fit of research design. The conducted interviews showed that 50% of case studies observed showed that success of the project is based on project alignment that is not only reproduced through consistency in the process that cannot be created. The results have also indicated that all of the participants from commented personal communication to an open communication and the perceptions of the respondents showed that the project were successful at 100% all the time.

The same research of Atkins (2019) stipulated that most of the projects do not monitor or control the changes and align the project after the initial project selection which implies that even a very small change in the project or strategy could lead the whole project to misalignment where in the sense of the current study would results in performance. Therefore, he recommends creating process that allows alignment of the project with plan of the strategies, development proposed by leadership, plans communication within the organization.

The study conducted by Uwanyirigira and Rusibana (2020) in Rwanda, has used descriptive research design with 75 respondents chosen using simple random sampling techniques where the questionnaire and documentation was used during data collection process as the instruments. Thus, the results of the study revealed 60.0% and 40.0% of the respondents agreed strongly and agreed that the physical and natural resources are the primary resources of the project. In the same research the 60.0% of respondents strongly agreed that the project is has also financial resources and human resources in Huguka Dukore Akazi Kanoze project.

The same study of Uwanyirigira and Rusibana (2020) has also revealed 80.0% of the participants agreed that project performance is shown by high productivity and outcomes, the same percentage of respondent agreed that project performance is shown by meeting the stakeholders' needs and their satisfaction. The 66.7% of the participants agreed that the project performance is also indicated by cost and quality performance while 77.3% of the participants agreed that meeting the deadline is another indication of project performance. To be briefer, the results revealed that project scope and performance has a significant relationship. Thus, basing on the results the research recommended involving project beneficiaries in project scope definition to keep the right direction of the project to satisfy the needs of the beneficiaries.

#### 2.2.3 Objective determination and project performance

The study conducted in Thailand by Pongpanich and Chung (2016) has revealed that more than 80% of the agricultural cooperative projects in Thailand have got operational inefficiency. The research results have also proved that input and output variables have r=0.5 which is medium correlation and implying the when the input has the increase in value it also affect the increase in output value. Thus, the operational inefficiency generates problems to farmers and members of the cooperative projects. This study has also stated that its results can help the Thai government to know about the inefficiency within the agricultural projects and increase the performance through considering the input and output variables from benchmarks. The study concluded that its results help the agricultural cooperatives to understand the quality performance of the agricultural outputs through where organizational inefficiency has to be halted to improve and increase performance.

The research conducted by Alsudiri, *et al.*, (2013) found that poor alignment of the project results into failure and less success of the project using a case study method. The results have also shown



that project success is promoted by business impact which test positive if the project alignment and organizational strategy, goals and objectives that can only be accomplished through project activities. The findings of this study have concentrated on the factor that affects project success through alignment of the project. In the case of current study, the project performance can also only be attainment when the project is successfully, which implies that project alignment strategies has an effect on the project success as it does on project performance. Thus, the research recommends the company to execute business strategies that embeds project in the overall strategy.

The previous study conducted by Irfan, *et al.*, (2021) on project planning and manager competencies in public sector project success used quantitative approach of descriptive research design to survey 260 engineers and the results of the study showed  $R^2 = 0.566$  which is 56.6% which explains that a unit change project planning affect 56.6% of competencies of project manager, and since the coefficient of determination value was closed to 1 its means there is high level of predicted accuracy.

The same research of Irfan, *et al.*, (2021) suggested that  $R^2$  which is from 0.5 to 0.75 which is acceptable and moderate while the individual effect size (f<sub>2</sub>) values are 0.35 and 0.15 implying that planning has large effect, competencies of project manager have medium effect respectively. Thus, this shows that project planning has maximum variance in the success of the project. Thus, it implies that when the project is well planned is likely to successfully perform better where in the case of this study if the objective is well determined and followed the project performance increases.

#### 2.3 Critical review and research gap identification

After a review of above literature, it was shown that some studies focused only to the project management and strategies alignment, others assessed the operational performance in agricultural cooperative in Thailand, probing strategy and project alignment analysis in South Africa (Atkins, 2019; Pongpanich & Chung, 2016; Van Der Waldt, 2016; and Ong'ondi & Uche, 2019). These studies are criticized in the Table 1 to prove the relevancy of conducting this study on project alignment strategies and performance of cooperative development project in Rwanda.

Therefore, there is a shortage of research that linked project alignment strategies and performance of cooperative development projects in the sense of technological implementation, organizational arrangement and determination of objective of the project to enhance project performance. For instance, Atkins (2019) assessed project management and strategy alignment. However, his research did not show the impact of project management on the technology implementation strategy, organizational requirement, or determination of objectives as alignment strategies whereas this research has focused on relating them with performance of cooperative development project as they are well criticized in the Table 1.



#### Table 1: Critical Review

Author	Country	Work Title	Variables	Findings	Research Gap
Atkins	USA	Project	Project	The findings revealed	The study concentrated
(2019)		manageme	manageme	that projects are	on project management
		nt and	nt	successful when are	and strategy alignment
		strategy	Strategy	aligned with their	rather that looking at the
		alignment	alignment	strategies.	role of project alignment
		in academia			strategies in enhancing
					performance.
Pongpanich	Thailand	Assessment		The results also revealed	This study has only
& Chung		of	Operation	that input and output	concentrated on the
Peng (2016)		operational	al	variables have medium	operational efficiency of
		efficiency	efficiency	correlation (r=0.5)	agricultural cooperatives
		of		implying that when input	rather that evaluating the
		agricultural		has value increase it	role of project alignment
		cooperative		affect also increase of	strategies to project
		s in		value in output.	performance.
		Thailand			
Van Der	South	Probing	Strategy	The results showed that	The findings of the study
Waldt	Africa	strategy	of probing	project failures are results	have ignored the role of
(2016)		and project		of the organizations	project alignment
		alignment	Project	which do not comply	strategies in terms of
			alignment	with specific alignment	promoting project
				with their core strategies	performance
Ong'ondi &	South	Project	Managem	The findings of the study	The results of the study
Uche	Sudan	alignment	ent of	have revealed that	have concentrated on the
(2019).		manageme	project	misalignment with	causes and the results of
		nt	alignment	business strategy in	misalignment rather than
		processes	Business	project management	putting emphasis on
		and	strategies	causes the business	project alignment and
		business		managers to not achieve	business strategies. Thus,
		strategies		goals and objectives. The	this is the reason why the
				results have also asserted	researcher wants to put a
				that misalignment ends	lot of emphasis on the
				up in loss of	role of project alignment
				competitiveness,	strategies on project
				reduction of revenue,	performance.
				extension of project time	
				scope and increase of	
				cost.	

#### Source: Empirical literatures by researcher

Table 1 shows the critical review and research gaps that have been left by the previous researcher in the empirical findings as presented in the able. The researcher has made these critics to show the reason this study is required in this field of project alignment strategies and project performance. For instance, the study of Pongpanich and Chung (2016) has revealed that input and output variables have medium correlation meaning input got value increase which affected output value increase. However, the study has ignored project management and strategies alignment.



Referring to the above criticized empirical studies there is no conclusive result for studies investigating the role of project alignment strategies on performance of project. Thus, this study will attempt to show how the project strategies are aligned to achieve performance of the project.

#### **3.1 Research Methods and materials**

This research used a descriptive research design in order to collect both qualitative data from the respondents who were interviewed and quantitative data from the questionnaire. That is why descriptive research design is expected to be used to collect such data because it acts as measurement of relative position of the respondents' perceptions (Creswell & Poth, 2018). The population of the study is the total of the objects or individual that is concerned by the study (Gravetter & Lori-Anni, 2003). The researcher used a target population of 116 people who are currently related and working for cooperative development project including 60 beneficiaries, 48 project stakeholders and 8 employees of cooperative development project. The sampling techniques refer to the techniques that applied to select the representative individuals or respondents in the study (Hyat, 2013). The census method is the process of collecting data from the field where all the members of a population is used and their provided data are analyzed. Thus, since the target population is reasonable and manageable the researcher took the whole of 116 people as the respondents of the study.

Data collection instruments are taken as the tools that are used together information from the informants as the primary objects or individuals to which or whom investigation is focused (Almutairi, *et al.*, 2014). Thus, the investigator distributed the questionnaire to informants and give interview to respondents to get information of the study. The questionnaire has three sections where the section one is socio-demographic characteristics of respondents, the section two covers the question related to the strategies of project alignment while section three covers the questions related to performance of cooperative development project. The questionnaire was distributed to 60 employees of cooperative as direct beneficiaries of cooperative development beneficiaries and 48 stakeholders of the project while the interview was scheduled for 8 employees of the cooperative development project.

The analysis of the data was concerned with the analysis of the descriptive statistic data which was analyzed by making measurement of mean and standard deviation to get the overall opinion of the respondents. The inferential analysis was used to measure the relationship between strategies of project alignment and performance of cooperative development project through Pearson correlation and multiple linear regression model of  $Y=\beta 0++\beta 1X1+\beta 2X2+\beta 3X3+\epsilon$ , whereby the Y represents the performance of cooperative development project,  $\beta$ s represent the coefficients of determination and X<sub>1</sub> as technology implement X<sub>2</sub> as organizational requirement and X<sub>3</sub> as objective determination and as whole they are predictors of project alignment strategies. Thus, the qualitative data was analyzed using thematic analysis to form narratives that will be recorded in direct speeches from the 8 interviewees involved in the study.

#### 4.0 Research Results

# 4.2.1 Technology implementation and performance of cooperative development project in Rwanda

The results of the study regarding this first objective of the study concerned with technology implementation.



#### **Table 2: Technology implementation**

Technology implementation strategy	Mean	SD
Technology implementation is applied to enhance administration competence	4.010	1.115
Technology implementation strategy is used to identify and assess risks	3.969	1.142
Technology implementation is used to facilitate information flow project	3.963	1.139
Technology implementation strategy is used to define requirements of project	3.974	1.144
Technology implementation is used to accelerate accomplishment of tasks	3.979	1.142
Technology implementation is used to explore the full potential of employees	3.989	1.115
Overall mean	3.980	

#### Source: Primary Data, 2022

#### Key: 1: Strongly Disagree, 2: Disagree, 3: Not Sure, 4: Agree and 5: Strongly Agree.

The results in Table 2 demonstrated that a mean of 4.010 and standard deviation of 1.115 confirmed that a big number of respondents strongly agreed that technology implementation is applied to enhance administration competence. The mean of 3.969 and standard deviation of 1.142 confirmed that a big number of respondents strongly agreed that technology implementation is used to identify and assess risks. The mean of 3.963 and standard deviation of 1.139 confirmed that a big number of respondents strongly agreed that technology implementation is used to facilitate information flow project. The mean of 3.974 and standard deviation of 1.144 confirmed that a big number of respondents strongly agreed that technology implementation is used to define requirements of project. The mean of 3.979 and standard deviation of 1.142 confirmed that a big number of respondents strongly agreed that technology implementation is used to define requirements of project. The mean of 3.979 and standard deviation of 1.142 confirmed that a big number of respondents strongly agreed that technology implementation is used accelerate accomplishment of tasks. The mean of 3.989 and standard deviation of 1.115 confirmed that a big number of respondents strongly agreed that technology implementation is used to explore the full potential of employees. The overall mean of 3.980 falls under agree level in the used Likert scale which implies that a big number of respondents agreed that technology implementation strategy is applied in cooperative development project in Rwanda.

The quantitative results have demonstrated that technology implementation strategy is applied in cooperative development project which is supported by the qualitative results which has asserted that technology implementation strategy has facilitated both the employees, beneficiaries and stakeholders in providing and attaining services of cooperative development project in an easy and effective way which enhances project performance. These findings are also supported the results of Ma *et al.*, (2021) who proved that firms with high new product development performance relies on technological capability and low new product development performance relies on technology management.



### Table 3: Correlation analysis between technology implementation and performance of cooperative development project in Rwanda.

		Schedule performance	Budget performance	Quality performance
	Pearson Correlation	.888**	.832**	.769**
Technology implementation	Sig. (2-tailed)	.000	.000	.000
F	Ν	116	116	116

\*\*. Correlation is significant at the 0.01 level (2-tailed).

#### Source: Primary Data, 2022

The findings in Table 3 revealed a significant and positive relationship between technology implementation and schedule performance with (r=0.888 and sig=0.00 < 0.01) level of significance, between technology implementation and budget performance with (r=0.832 and sig=0.00 < 0.01) level of significance, and between technology implementation and quality performance (r=0.769 and sig=0.00 < 0.01) level of significance. Thus, this implies that there is a positive and significant relationship between technology implementation and performance of cooperative development project in Rwanda.

The results of the study state that technology implementation and performance of cooperative development project has a positive and significant relationship which is supported by the results of the study of Ma, *et al.*, (2021) whose results of the study revealed that technology management and technological capability has a positive effect on the new product development performance.

### **4.2.2** Organizational requirements and performance of cooperative development project in Rwanda

#### Table 4: Organizational requirement

Organizational requirement as a strategy	Mean	SD
Organizational requirement is used to define the activities of the project on	3.963	1.144
calendar		
Organizational requirement is applied in setting clear vision of CDP project	3.969	1.123
Organizational requirement is applied in strengthening execution framework to	3.948	1.159
yield better results		
Organizational requirement is used to promote suitable competitive advantage	3.984	1.149
of the project		
Organizational requirement is applied in initiating the potential benefits of the	3.953	1.161
project		
Overall mean	3.963	

#### Source: Primary Data, 2022

KEY: 1: Not Sure, 2: To a small extent, 3: To a moderate extent, 4: To a great extent and 5: To a very great extent.



The results in Table 4 demonstrated that a mean of 3.963 and standard deviation of 1.144 confirmed that organizational requirement as a strategy is used to define the activities of the project on calendar to a great extent. The mean of 3.969 and standard deviation of 1.123 confirmed that organizational requirement as a strategy is applied in setting clear vision of CDP project to a great extent. The mean of 3.948 and standard deviation of 1.159 confirmed that organizational requirement is applied in strengthening execution framework to yield better results to a great extent.

The mean of 3.984 and standard deviation of 1.149 showed that organizational requirement is used to promote suitable competitive advantage of the project to a great extent. The mean of 3.953 and standard deviation of 1.161 confirmed that organizational requirement as a strategy is used applied in initiating the potential benefits of the project to a great extent. The overall mean of 3.963 falls under the level of great extent in the used Likert scale which implies that a big number of respondents confirmed that organizational requirement as a strategy is applied to a great extent in cooperative development project in Rwanda.

In an interview conducted with one of the employees of cooperative development project asserted that: "All the activities of cooperative development project are defined by the organizational requirement strategy to enhance the attainment of the goals, objectives, priorities, and vision of the project that backs performance of the project. The implementation of organizational requirement strategy is the only long running process that requires much attention of all project stakeholders because at this point each employee is more accountable to his/ her actions than ever because it involves consulting and work to achieve donor work plan ministry work plan, district work plan and make sure the cooperative priorities are put first without hindering those work plans".

During the same interview employee stated that: "Organizational requirement strategy involves a lot of activities that required us to work as a team but during the changing environment due to covid-19 the process was very difficult even if we had system to handle that, and this has led to the change of some initiatives that the team has to integrate within the organizational requirement. To cut story short, organizational requirement strategy is core strategy that keeps the project performing in predicted way to hit the targets of the project".

Therefore, the quantitative results have shown that organizational requirement strategy is applied in cooperative development project to a very great extent while the qualitative results revealed that organizational requirement strategy is the core strategy that keeps the project performing as expected. Thus, these results are supported by the results of the study of Atkins (2019) which revealed that 50% of the case observed showed that success of the project is based on project alignment in terms of organizational requirement that is the basis of organizational consistency in the process of prioritizing the targets and objectives of the project.

# Table 5: Correlation analysis between organizational requirement and performance of cooperative development project

		Schedule performance	Budget performance	Quality performance
	Pearson Correlation	.781**	.891**	.747**
Organization requirements	Sig. (2-tailed)	.000	.000	.000
	Ν	116	116	116

#### Source: Primary Data, 2022

The findings in Table 5 revealed a significant and positive relationship between organizational requirement and schedule performance with (r=0.781 and sig=0.00 < 0.01) level of significance, between organizational requirement and budget performance with (r=0.891 and sig=0.00 < 0.01) level of significance, and between organizational requirement and quality performance (r=0.747 and sig=0.00 < 0.01) level of significance. Thus, this implies that there is a positive and significant relationship between organizational requirement and performance of cooperative development project in Rwanda.

The results of the study have shown that organizational requirement and performance of cooperative development project has a positive and significant relationship which is supported by the study of Uwanyirigira and Rusibana (2020) which revealed that there is a significant relationship between determination of project scope as organizational requirements including meeting the needs of stakeholders (p=0.667) and meeting deadline (p=0.773) and project performance.

### 4.2.3 Objective determination and performance of cooperative development project in Rwanda

#### Table 6: Objective determination

Determination of objective as a strategy	Mean	SD
Determination of objective is applied in measuring project efficiency	4.000	1.124
Determination of objective is applied in defining the project outcomes	3.969	1.142
Determination of objective is applied in reflecting actions to be accomplished	3.948	1.159
Determination of objective is applied in measuring the progress of CDP project	3.969	1.137
Determination of objective is used in measuring the performance of CDP	3.948	1.159
project		
Overall mean	3.966	

#### Source: Primary Data, 2022

### Key: 1: Not Sure, 2: To a small extent, 3: To a moderate extent, 4: To a great extent and 5: To a very great extent.

The results in Table 6 showed that a mean of 4.000 and standard deviation of 1.124 confirmed that objective determination as a strategy is applied in measuring project performance to a great extent. The mean of 3.969 and standard deviation of 1.142 confirmed that objective determination is



applied in defining the project outcomes to a great extent. The mean of 3.948 and standard deviation of 1.159 showed that objective determination is applied in reflecting actions to be accomplished to a great extent.

The mean of 3.969 and standard deviation of 1.137 confirmed that objective determination is applied in measuring the progress of CDP project to a great extent. The mean of 3.948 and standard deviation of 1.159 showed that objective determination used in measuring the performance of CDP project to a great extent. The overall mean of 3.966 falls under agree level of the used Likert scale which implies that a big number of respondents confirmed that objective determination is applied to a great extent in cooperative development project in Rwanda.

In an interview conducted the interviewee stated that: "project work plan is tailored around its objectives to achieve the overall goal of the project. Thus, to determine the objective of the project, the beneficiaries and stakeholders of the project are engaged to know their priorities and adopt high impact leadership practices to achieve them, identify and remove roadblocks, career development, continuous monitoring and evaluations as well as effective planning and internal controls help to determining the achievable objectives to enhance project performance".

Therefore, the descriptive results have revealed that objective determination strategy is applied in cooperative development to a very great extent while the qualitative results have indicated that determination of the project is based on the priorities of the beneficiaries and stakeholders of the project to enhance project performance. Thus, the results of the study are supported by the results of the study of Ong'ondi and Uche (2019) which showed that misalignment of processes of project management and business strategy makes managers of the project to failure to attain the goals and objectives of the project.

		Schedule performance	Budget performance	Quality performance
	Pearson Correlation	.820**	.786**	.807**
Objective determination	Sig. (2-tailed)	.000	.000	.000
	Ν	116	116	116

 Table 7: Correlation analysis between objective determination and performance of cooperative development project

\*\*. Correlation is significant at the 0.01 level (2-tailed).

#### Source: Primary Data, 2022

The findings in Table 7 revealed a significant and positive relationship between objective determination and schedule performance with (r=0.820 and sig=0.00 < 0.01) level of significance, between objective determination and budget performance with (r=0.786 and sig=0.00 < 0.01) level of significance, and between objective determination and quality performance (r=0.807 and sig=0.00 < 0.01) level of significance. Thus, this implies that there is a positive and significant relationship between objective determination and performance of cooperative development project in Rwanda.

The correlation analysis results between objective determination and performance of cooperative development project have indicated positive and significant relationship. These results are supported by the findings of the study of Alsudiri *et al.*, (2013) who proved that project success is only promoted by business impact which tested positive if project alignment and organizational strategy, goals and objectives were correlated and gave results of r=0.6 at 0.01 significance level.

#### Table 7: Schedule performance

Schedule performance	Mean	SD
The earned and planned value for the project is more than 7,400,000 US dollars	3.948	1.159
on average		
Project materials are delivered within two working days as per the schedule	3.979	1.119
Employees are available within one hour before the actual start time of activity	4.005	1.103
Project duration is always within three standard deviations of mean	3.969	1.137
Resource planning is done one month before actual budgetary process	3.948	1.159
Progress of the project is tracked by comparing actual start and finish dates	4.010	1.115
Overall mean	3.948	

#### Source: Primary Data, 2022

#### Key: 1: Strongly Disagree, 2: Disagree, 3: Neutral, 4: Agree and 5: Strongly Agree.

Table 7 demonstrated that a mean of 3.948 and standard deviation of 1.159 confirmed that a big number of respondents agreed the earned and planned value for the project is more than 7,400,000 US dollars on average. The mean of 3.979 and standard deviation of 1.119 confirmed that a big number of respondents agreed that project materials are delivered within two working days as per the schedule. The mean of 4.005 and standard deviation of 1.103 confirmed that a big number of respondents agreed that employees are available within one hour before the actual start time of activity. The mean of 3.969 and standard deviation of 1.137 confirmed that a big number of respondents agreed that project duration is always within three standard deviations of mean.

The mean of 3.948 and standard deviation of 1.159 confirmed that a big number of respondents agreed that resource planning is done one month before actual budgetary process. The mean of 4.010 and standard deviation of 1.115 confirmed that a big number of respondents agreed that progress of the project is tracked by comparing actual start and finish dates. The overall mean of 3.948 falls under agree level of the used Likert scale which implies that a big number of respondents agreed that there is schedule performance of cooperative development project in Rwanda.

### Table 8: Model summary between project alignment strategies and schedule performance of cooperative development project in Rwanda

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.924ª	.854	.850	.49922

a. Predictors: (Constant), Objectives determination, Technology implementation, Organizational requirements

#### Source: Primary Data, 2022

The results in Table 8 demonstrated 0.924 of regression coefficient, 0.854 of regression square, 0.850 of adjusted regression square, and 0.49922 of standard error of the estimate. Thus, the regression square of 0.854 proves that a unit increase in predictors of project alignment strategies which are technology implementation; organizational requirements and determination of objectives explain the increase of 85.4% in schedule performance of cooperative development project in Rwanda.

Table 9: Analysis of variance (ANOVA) between project alignment strategies and schedule
performance of cooperative development project in Rwanda

Model	Sum of Squares	Df	Mean Square	F	Sig.
Regression	163.699	3	54.566	218.946	.000 <sup>b</sup>
Residual	27.913	112	.249		
Total	191.612	115			

a. Dependent Variable: Schedule performance

b. Predictors: (Constant), Objectives determination, Technology implementation, Organization requirements

#### Source: Primary Data, 2022

The findings in Table 9 showed 163.699 of regression sum of squares, 27.913 of residual regression sum squares with 191.612 of the total sums of squares, 3 of the regression degree of freedom, and 112 of the residual degree of freedom with the total of 115 degree of freedom. The 54.566 of regression mean square and 0.249 of residual mean square, the F value of 218.946 and the significance level of (0.00 < 0.05) critical level of significance which implies that there is statistical significance between project alignment strategies and schedule performance of cooperative development project in Rwanda.

Model	Unstanda	rdized Coefficients	Standardized Coefficients	t	Sig.
	В	Std. Error	Beta		
(Constant)	.023	.092		.237	.013
Technology implementation	.551	.062	.553	8.939	.000
Organization requirements	.134	.060	.133	2.343	.027
Objectives determination	.318	.057	.316	5.545	.000

Table	10:	Regression	coefficients	between	project	alignment	strategies	and	schedule
perfor	man	ce of coopera	ative develop:	ment proj	ect in Rv	vanda			

a. Dependent Variable: Schedule performance

#### Source: Primary Data, 2022

The results in Table 10 indicates that technology implementation and schedule performance has statistically significant and positive relationship because (b=0.551 and sig=0.00 < 0.05) critical level of significance. The organizational requirements and schedule performance has statistically



significant and positive relationship because (b=0.134 and sig=0.027 < 0.05) critical level of significance. The objectives determination and schedule performance have statistically significant and positive relationship because (b=0.318 and sig=0.00 < 0.05) critical level of significance. Hence, the regression model  $Y=\beta_0+\beta_1X_1+\beta_2X_2+\beta_3X_3$  became schedule performance = 0.023 + 0.551 (technology implementation) + 0.134 (organizational requirements) +0.318 (objectives determination) which shows that the increase of schedule performance is dependent to the predictors of project alignment strategies. Thus, this implies that project alignment strategies have a statistically significant and positive relationship with schedule performance of cooperative development project in Rwanda.

The descriptive and regression analysis results of this current research have shown that project alignment strategies have statistical positive and significant relationship with schedule performance of cooperative development project which is supported by the research of Uwanyirigira and Rusibana (2020) whose results showed that project performance is indicated by schedule, cost and quality performance at 70,4%, 66.7%, and 77.3% of all the participants of the study.

#### **Table 1: Budget Performance**

Mean	SD
3.963	1.139
3.974	1.144
3.907	1.192
3.933	1.160
3.963	1.139
3.948	
	Mean           3.963           3.974           3.907           3.933           3.963           3.948

#### Source: Primary Data, 2022

Table 11 showed that a mean of 3.963 and standard deviation of 1.139 confirmed that a big number of respondents agreed the earned and actual cost of the project is lesser than 7,400,000 US dollars on average. The mean of 3.974 and standard deviation of 1.144 confirmed that a big number of respondents agreed that resources are available within one hour before the actual start time of the activity. The mean of 3.907 and standard deviation of 1.192 confirmed that a big number of respondents agreed that the economy of the project is stable.

The mean of 3.933 and standard deviation of 1.160 confirmed that a big number of respondents agreed that the management makes sure the project materials are enough to provide results. The mean of 3.963 and standard deviation of 1.139 confirmed that a big number of respondents agreed that the earned value analysis help management to measure the amount of work performed on project beyond the view of cost and schedule reports. The overall mean of 3.948 falls under agree level of the used Likert scale which implies that a big number of respondents agreed that there is budget performance of cooperative development project in Rwanda.



### Table 2: Model summary between project alignment strategies and budget performance of cooperative development project in Rwanda

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.930 <sup>a</sup>	.865	.862	.48964

a. Predictors: (Constant), Objectives determination, Technology implementation, Organization requirements

#### Source: Primary Data, 2022

The results in Table 12 demonstrated 0.930 of regression coefficient, 0.865 of regression square, 0.862 of adjusted regression square, and 0.48964 of standard error of the estimate. Thus, the regression square of 0.865 proves that a unit increase in predictors of project alignment strategies which are technology implementation; organizational requirements and determination of objectives explain the increase of 86.5% in budget performance of cooperative development project in Rwanda.

# Table 3: Analysis of variance (ANOVA) between project alignment strategies and budget performance of cooperative development project in Rwanda

Model	Sum of Squares	df	Mean Square	F	Sig.	
Regression	172.390	3	57.463	239.684	.000 <sup>b</sup>	
Residual	26.852	112	.240			
Total	199.241	115				

a. Dependent Variable: Budget performance

b. Predictors: (Constant), Goals & objectives determination, Technology implementation, Organisation requirements

#### Source: Primary Data, 2022

The findings in Table 13 showed 172.390 of regression sum of squares, 26.852 of residual regression sum squares with 199.241 of the total sums of squares, 3 of the regression degree of freedom, and 112 of the residual degree of freedom with the total of 115 degree of freedom. The 57.463 of regression mean square and 0.240 of residual mean square, the F value of 239.684 and the significance level of (0.00 < 0.05) critical level of significance which implies that there is statistical significance between project alignment strategies and budget performance of cooperative development project in Rwanda.



Table 4: Regression coefficients between project alignment strategies and budgetperformance of cooperative development project in Rwanda

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	В	Std. Error	Beta		
(Constant)	.014	.096	-	14	2.887
Technology implementation	.276	.060	.272	4.56	7 .000
Organization requirements	.553	.058	.542	9.48	1 .000
Objectives determination	.204	.056	.199	3.62	1 .000

a. Dependent Variable: Budget performance

#### Source: Primary Data, 2022

The results in Table 14 indicates that technology implementation and budget performance has statistically significant and positive relationship because (b=0.276 and sig=0.00 < 0.05) critical level of significance. The organizational requirements and budget performance has statistically significant and positive relationship because (b=0.553 and sig=0.00 < 0.05) critical level of significance. The objectives determination and budget performance have statistically significant and positive relationship because (b=0.204 and sig=0.00 < 0.05) critical level of significance. Hence, the regression model  $Y=\beta_0+\beta_1X_1+\beta_2X_2+\beta_3X_3$  became budget performance = 0.014 + 0.276 (technology implementation) + 0.553 (organizational requirements) + 0.204 (objectives determination) which shows that the increase of budget performance is dependent to the predictors of project alignment strategies. Thus, this implies that project alignment strategies have a statistically significant and positive relationship with budget performance of cooperative development project in Rwanda.

The descriptive and regression analysis results of this research have proved that there is a positive and significant relationship between project alignment strategies and budget performance of cooperative development project. These results are supported by the findings of the study of Pongpanich and Chung (2016) who proved that input and output have r=0.5 which is medium correlation implying that the increase of input affect also the increase of output where project alignment strategies is the input while budget performance is the output value.

Table 5:	Quality	performance
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Quality performance	Mean	SD
The actual quality and planned quality are used to determine quality variance in	3.948	1.159
project		
Quality management team oversees all the activities to ensure excellence of the	3.979	1.119
project		
Quality performance index sets expectations to reduce turnover of the project	4.000	1.124
Quality earned value shows quality of completed against planned work in the	3.979	1.147
project		
Quality index shows the ratio of quality cost to sales of the project	3.979	1.119
Overall mean	3.977	

Source: Primary Data, 2022



The Table 15 demonstrated that a mean of 3.948 and standard deviation of 1.159 confirmed that a big number of respondents agreed the actual quality and planned quality are used to determine quality variance in project. The mean of 3.979 and standard deviation of 1.119 confirmed that a big number of respondents agreed that quality management team oversees all the activities to ensure excellence of the project. The mean of 4.000 and standard deviation of 1.124 confirmed that a big number of respondents agreed that quality performance index sets expectations to reduce turnover of the project.

The mean of 3.979 and standard deviation of 1.147 confirmed that a big number of respondents agreed that quality earned value shows quality of completed against planned work in the project. The mean of 3.979 and standard deviation of 1.119 confirmed that a big number of respondents agreed that quality index shows the ratio of quality cost to sales of the project. The overall mean of 3.977 falls under agree level of the used Likert scale which implies that a big number of respondents agreed that there is quality performance of cooperative development project in Rwanda.

### Table 6: Model summary between project alignment strategies and quality performance of cooperative development project in Rwanda

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.857 <sup>a</sup>	.735	.728	.69314

a. Predictors: (Constant), Objectives determination, Technology implementation, Organization requirements

#### Source: Primary Data, 2022

The results in Table 16 demonstrated 0.857 of regression coefficient, 0.735 of regression square, 0.728 of adjusted regression square, and 0.69314 of standard error of the estimate. Thus, the regression square of 0.735 proves that a unit increase in predictors of project alignment strategies which are technology implementation; organizational requirements and determination of objectives explain the increase of 73.5% in quality performance of cooperative development project in Rwanda.

### Table 7: Analysis of variance (ANOVA) between project alignment strategies and quality performance of cooperative development project in Rwanda

Μ	odel	Sum of Squares	Df	Mean Square	F	Sig.
	Regression	149.388	3	49.796	103.646	.000 <sup>b</sup>
1	Residual	53.810	112	.480		
	Total	203.198	115			

a. Dependent Variable: Quality performance

b. Predictors: (Constant), Goals & objectives determination, Technology implementation, Organization requirements

#### Source: Primary Data, 2022

The findings in Table 17 showed 149.388 of regression sum of squares, 53.810 of residual regression sum squares with 203.198 of the total sums of squares, 3 of the regression degree of freedom, and 112 of the residual degree of freedom with the total of 115 degree of freedom. The 49.796 of regression mean square and 0.480 of residual mean square, the F value of 103.646 and the significance level of (0.00 < 0.05) critical level of significance which implies that there is statistical significance between project alignment strategies and quality performance of cooperative development project in Rwanda.

Table	8:	Regression	coefficients	between	project	alignment	strategies	and	quality
perfor	man	ce of cooperation	ative develop	ment proj	ect in Rw	anda			

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		В	Std. Error	Beta		
	(Constant)	.209	.136	-	1.529	.129
1	Technology implementation	.272	.086	.265	3.182	.002
1	Organisation requirements	.228	.083	.222	2.765	.007
	Objectives determination	.469	.080	.453	5.891	.000

a. Dependent Variable: Quality

performance

#### Source: Primary Data, 2022

The results in Table 18 indicates that technology implementation and quality performance has statistically significant and positive relationship because (b=0.272 and sig=0.02 < 0.05) critical level of significance. The organizational requirements and quality performance has statistically significant and positive relationship because (b=0.228 and sig=0.007 < 0.05) critical level of significance. The objectives determination and quality performance have statistical significant and positive relationship because (b=0.469 and sig=0.00 < 0.05) critical level of significance. Hence, the regression model  $Y=\beta_0++\beta_1X_1+\beta_2X_2+\beta_3X_3$  became quality performance = 0.209 + 0.272 (technology implementation) + 0.228 (organizational requirements) + 0.469 (objectives determination) which shows that the increase of quality performance is dependent to the predictors of project alignment strategies. Thus, this implies that project alignment strategies have a statistically significant and positive relationship with quality performance of cooperative development project in Rwanda.

Both descriptive and regression analysis results of this current research have indicated that project alignment strategies have significant and positive relationship with quality performance of cooperative development project. The result of this current research is supported by the findings of the research of Uwanyirigira and Rusibana (2020) whose results indicated that 66.7% of participats agreed that project performance is indicated by cost and quality performance in Huguka Dukore Akazi Kanoze project in Rwanda.

#### **4.3 Discussion of findings**

The results of the study regarding this first objective of the study concerned with technology implementation and performance of cooperative development project in Rwanda which demonstrated the overall mean of 3.980 falling under agree level in the used Likert scale which



implied that a big number of respondents agreed that technology implementation strategy is applied in cooperative development project in Rwanda. The same results of the study were supported by research of Ma, *et al.*, (2021) who proved that firms with high new product development performance relies on technological capability and low new product development performance relies on technology management.

The results of the study regarding this second objective of the study concerned with organizational requirements and performance of cooperative development project with the overall mean of 3.963 falling under the level of great extent in the used Likert scale which implies that a big number of respondents confirmed that organizational requirement as a strategy is applied to a great extent in cooperative development project in Rwanda. The same results are supported by the results of the study of Atkins (2019) which revealed that 50% of the case observed showed that success of the project is based on project alignment in terms of organizational requirement that is the basis of organizational consistency in the process of prioritizing the targets and objectives of the project.

The results of the study regarding this third objective of the study concerned with objective determination and performance of cooperative development project with an overall mean of 3.966 falling under agree level of the used Likert scale which implies that a big number of respondents confirmed that objective determination is applied to a great extent in cooperative development project in Rwanda. The same results are supported by the research ofOng'ondi and Uche (2019) which showed that misalignment of processes of project management and business strategy makes managers of the project to failure to attain the goals and objectives of the project.

#### **5.2** Conclusions

In conclusion, the results responding to the first research question concerning technology implementation and performance of cooperative development project have shown an overall mean of 3.980 implying that a big number of respondents strongly agreed that technology implementation strategy is applied in cooperative development project in Rwanda. The result was also supported by the correlation analysis results of the same objective which revealed that technology implementation has r=0.00 and sig=0.00 < 0.01) with schedule performance, (r=0.832 and sig=0.00 < 0.01) with budget performance, and (r=0.769 and sig=0.00 < 0.01) with quality performance which implies that there is a positive and significant relationship between technology implementation and performance of cooperative development project in Rwanda.

The results responding to the second research question concerning organizational requirements and performance of cooperative development project have shown an overall mean of 3.963 implying that a big number of respondents confirmed that organizational requirement is applied to a very great extent in cooperative development project in Rwanda. The same results are supported by the correlation analysis results which revealed that organizational requirement has (r=0.781 and sig=0.00 < 0.01) with schedule performance, (r=0.891 and sig=0.00 < 0.01) with budget performance, and (r=0.747 and sig=0.00 < 0.01) with quality performance implying that there is a positive and significant relationship between organizational requirement and performance of cooperative development project in Rwanda.

Therefore, the results responding to the third research question concerning objective determination and performance of cooperative development project in Rwanda have revealed an overall mean of 3.966 implying that a big number of respondents confirmed that objective determination is applied



to a very great extent in cooperative development project. The results are also supported by correlation analysis results have revealed that objective determination has (r=0.820 and sig=0.00 < 0.01) with schedule performance, (r=0.786 and sig=0.00 < 0.01) with budget performance and (r=0.807 and sig=0.00 < 0.01) with quality performance implying that there is a positive and significant relationship between objective determination and performance of cooperative development project in Rwanda.

#### **5.3 Recommendations**

The findings of this research have revealed that there a significant and positive relationship between technology implementation and performance of the project. Thus, the employees of the cooperative development project and beneficiaries are encouraged to implement technology use guidelines in their respective work to increase the performance of their projects. In general, since technology implementation affects positive performance of the project the Government of Rwanda and internet providers in Rwanda are encouraged to ensure that reliable and affordable internet and ICT infrastructure are built to ensure that most of the projects running in the country have access to internet and technology to enhance performance.

The results of the study have also revealed that organizational requirement has a positive and significant relationship with performance of cooperative development project in Rwanda. Thus, the beneficiaries, employees and stakeholders of cooperative development project are recommended to put in place organizational strategies that are effective and efficient in enhancing the vision, objectives, goals and priorities of the project in order to advance project performance.

The findings showed determination of objective and cooperative development project performance has a positive and significant relationship in Rwanda. Thus, stakeholders, employees and beneficiaries of cooperative development project are encouraged to participate in determining the attainable statements that reflects the objectives and the goals of the project so that development actors in the project have a measuring stick to know where they have reached in attaining the set goals for project performance.

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