

Effect of Quality Control on Implementation of Construction Projects in Rwanda: A Case Study of Horizon Construction Ltd, Gikondo to Rebero Road (2019-2022)

**UWAYISHIMA Simeon & Dr. WABALA Samuel** 

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\*1UWAYISHIMA Simeon & <sup>2</sup>Dr. WABALA Samuel
 <sup>1</sup>Master of Project Management, University of Kigali, Rwanda
 <sup>2</sup> Senior Lecturer, University of Kigali, Rwanda

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# Abstract

Since the 1987 World Commission on Environment and Development, project sustainability is increasingly becoming a critical element in project management. The increasing need for new project interventions means that donors are not prepared to keep investing scarce resources in the same projects for a long time, which calls for prioritization of sustainability throughout the project processes. This research project is based on a research project carried out in the horizon construction, focusing on effect of quality control in implementation of construction projects in Rwanda: the research has the following objectives: to find out factors consider in Plan qualities of project in horizon construction, to view the Perform quality assurance in monitoring and controlling of project, to view the Perform quality control help in executing of project. The researcher described the definition of key term and also usage of Project quality management. Competitive market and research used a sample size of 106 respondents from in horizon construction finance department and top management. The research was use questionnaires to collect data Then research conclude by saying that help in evaluating of the performance of business as well as certifying areas of improvement in horizon construction. Project quality management is performed to know the company Competitive market, investment profitability projections, and understanding the corporate financial position in terms of asset and liability comparisons from the balance sheet. Table presents the respondents opinion on reason of The visibility of the premise are checked to assure the availability of the premises, Rwanda with the mean of 4.42 percentage 93.4% Research findings also shows The major reason of quality control strategy in horizon construction are Perform Quality Assurance with mean of 4.43 at the average of 91.5%. Competitive market as dependent variable for this study is made during investment analysis to accept or reject a project by looking at reporting of the project management on profit and loss as well as calculate net present values of a project.

Keywords: Quality Control, Implementation of Construction

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### **1.0 Introduction**

The quality control strategies are knowledge areas, in quality control concerned with the quality of a project. Most of business and organization faced with different problem due to the un quality control strategies while horizon construction faced with following problems: No standardised effective implemented project, no recognising and this rewarding no excellence quality product which leads a loose of honest and ended up by losing big market where the government offer the market to the different companies. This is a serious constraint for efficient quality control, Non-efficient information and promotion policy. At the moment, the implementation of new rules for improved quality control strategies, mostly due to the lack of information or fear of change. Insufficient motivation factors and pressure of the law or other legal documents for a really consequent, the poor quality control strategies affect many cases, that is to say the quality indicators of construction was affected, nor adequately interpreted (Finch et al., 2017). In other cases, where quality indicators have been collected and interpreted was incorrectly, recommendations for improvement actions have not been implemented due to inequality control strategies. Mwaniki and Bichanga (2014) discovered that expatriate contractors are few in number, operate on a large scale and execute the majority of contracts in Nigeria; in contrast. In many cases, there are also incomplete control strategies. (Bichanga, 2014). No monitoring and evaluation of the quality control strategies of organization performance, or lack of an adequate policy, insufficient feed-back information concerning the skills and knowledge of the organization. And this entire problem should be solved by quality control strategies for the quality implementation and achievement of organisation goal.

#### 1.1 Objectives of the Study

The general objective of this study was to assess the effect of quality control strategies on implementation of construction project in Rwanda with reference to horizon construction.

#### **Specific Objectives**

- i. To examine the effect of premise control on implementation of road construction in horizon construction ltd.
- ii. To determine the effect of Execution Control on implementation of road construction in horizon construction ltd.
- iii. To determine the effect of special alert control on implementation of road construction in horizon construction ltd.

## **1.2 Research Questions**

- i. How does premise control affect implementation of road construction in horizon construction ltd?
- ii. How does Execution Control affect implementation of road construction in horizon construction ltd?
- iii. How does special alert control affect implementation of road construction in horizon construction ltd?



# 2.0 Literature Review

This chapter covers both the theoretical and empirical literature review related to the study. The theoretical literature review provides the framework for the study while the empirical literature review gives deeper insights into the most recent studies associated with the research study.

# **2.1 Theoretical Literature Review**

There are several theories that relate to the quality control strategies especially in implementation of construction like the Rwandan hospitality industry sector. Within difference theories that are in a found include the premise control theory, Controllability and Observability premises theory, implementation control theory and Controlling the premises theory and all this theory are applicable to the research topic which stated that effect of quality control strategies on implementation construction project as explained below.

# **Theory of Quality Management**

Scott and Cole (2000) claim that the quality effort is not readily linked to a well identified, clearly specified set of ideas and practices but, rather, appears as a loosely coupled collection of orientations and practices. We disagree with this judgement. The seminal authors on quality have presented influential theoretical and philosophical starting points for quality. Unfortunately, those starting points fall outside the usual paradigms of management scholars, and they have failed to spot them. This idea contrasts with the attitude in engineering sciences according to which engineering proceeds from scientific knowledge towards application. This contrast has time-honoured roots – it has been characterized as the difference between Platonic and Aristotelian epistemology (Koskela *et al.*, 2018). In the context of engineering, Platonic epistemology starts from reason (and in extended sense, from existing knowledge) and deduces prescriptions to be pushed towards the world. Instead, Aristotelian epistemology emphasizes observations made on the world and induction of new knowledge based on them.

## The Quality of Controllability and Observability Theory

Controllability and observability are main issues in the analysis of a system before deciding the best control strategy to be applied, or whether it is even possible to control or stabilize the system. Controllability is related to the possibility of forcing the system into a particular state by using an appropriate control signal. If a state is not controllable, then no signal was ever be able to control the state (Antunes et al., 2015). If a state is not controllable, but its dynamics are stable, then the state is termed stabilizable. Observability instead is related to the possibility of observing, through output measurements, the state of a system. If a state is not observable, the controller was able to determine the behavior of an unobservable state and hence cannot use it to stabilize the system. However, similar to the stabilizability condition above, if a state cannot be observed it might still be detectable (Melby et. al., 2002). From a geometrical point of view, looking at the states of each variable of the system to be controlled, every "bad" state of these variables must be controllable and observable to ensure a good behavior in the closedloop system. That is, if one of the eigenvalues of the system is not both controllable and observable, this part of the dynamics was remain untouched in the closed-loop system. If such an eigenvalue is not stable, the dynamics of this eigenvalue was be present in the closed-loop system which therefore was be unstable. Unobservable poles are not present in the transfer function realization of a state-space representation, which is why sometimes the latter is preferred in dynamical systems analysis. Solutions to problems of an uncontrollable or unobservable system include adding actuators and sensors (Chong, 2005). This theory is applicable to research topic which stated that effect of quality control strategies on



implementation construction project by Controllability and observability premises help construction project which useful by the difference organization to achieve their goals.

# **Implementation Control Theory**

There are also numerous theories that have been developed or adapted by researchers for potential use in implementation control to achieve enhanced understanding and explanation of certain aspects of implementation. Some of these have been developed by modifying certain features of existing theories or concepts, e.g. concerning organizational climate and culture. Examples include theories such as Implementation Climate. Klein (1996), Absorptive Capacity. (Zahra, 2002) and Organizational Readiness. (Weiner, 2009). The adaptation allows researchers to prioritize aspects considered to be most critical to analyse issues related to the how and why of implementation, thus improving the relevance and appropriateness to the particular circumstances at hand.

# **2.2. Empirical Literature Review**

## Effect of Premise control on Implementation of Road Construction

Management process of systematically and continuously checking to determine whether premises upon which the strategy is based if it still valid its Quantity, Quality and visibility of that plants and equipment. Every strategy is based on certain planning premises assumptions or predictions. If a vital premise is no longer valid, the strategy may have to be changed. The sooner an invalid premise can be recognized and rejected, the better are the chances that an acceptable shift in the strategy can be devised. Mwaniki and Bichanga (2014) A type of strategic control that involves identifying key assumptions and premises for plans and then gathering data systematically to monitor their ongoing accuracy. A major issue is determining which assumptions and premises should be monitored.

## Effect of Execution Control on Implementation of Road Construction project

The risk can be categorized based on project specific risk and non-project specific risk. Risk related to both the categories needs to be considered during identification of risk factors within a project. Project team, during analysis of risk event needs to define the boundaries up to which the risk needs to be considered and break down the risk event into independent risk elements. This facilitates in easy understanding of the risk events and helps in better selection of risk response strategy. The general checklist for source breakdown of risk includes commercial, financial, legal, political, environmental, communication, geographical, constructional, technological, operational, and management risks (Chitkara, 2011).

## Effect of Special Alert Control on Implementation of Road Construction

A special alert control is the need to thoroughly, and often rapidly, reconsider the firm's basis strategy based on a sudden, unexpected event. The analysts of recent corporate history are full of such potentially high impact surprises (i.e., natural disasters, chemical spills, plane crashes, product defects, hostile takeovers etc.). Where the project focus on Time duration, Time management of the event While Pearce and Robinson (2011) suggest that special alert control be performed only during strategy implementation, Preble recommends that because special alert controls are really a subset of strategic surveillance that they be conducted throughout the entire strategic management process. The characteristics of each control component are detailed including the component's purpose, mechanism used to implement it, the procedure to be followed, degree of focusing, information sources, and organizational/personnel to be utilized time duration and time management of the event.



#### Effect of Quality Control Strategies on Implementation of Road Construction

This study shall conceder only the first 3 strategies which is Premise Control, Implementation Control, Special Alert Control; because horizon road construction seems to be using only those 3 strategies in their normal construction. The impact of environmental factors on quality control strategies, and the empirical relations of implementation of construction lead an impact on environmental factors, and measures of organizational performance. Using a survey research methodology, it was found that most dimensions of quality control strategies witnessed reasonable levels of emphasis, and the impacts of environmental factors on quality control strategies have been substantial (Mugenda & Mugenda, 2003). Statistically-significant empirical relationships were established between most dimensions of quality control strategies and measures of performance. The findings have support in previous normative and empirical studies. Suggestions were made with respect to replicating the study in specific Rwandan industries and some developing African countries that have embraced the structural adjustment program.

#### 2.3 Identification of Research Gaps

This study strives to determine the effect of quality control strategies on road construction. Mostly of firms operating in stable business environments but very little on the service sector firms especially the operating and construction in highly uncertain environments. It happens that the position of Project quality management as a road construction tool has some problems to both planers and managers of businesses who are not aware of the importance of interdependence relationship that exist between quality management and road construction. (Goldratt, 1990). In view of the above stated problems, this research is embarked upon to identify the roles Project quality management play in constructional company, this study proposed to bridge the knowledge gap concerning the Project quality management in the highly road construction, an area that had received little focus to date.



# 2.4 Conceptual framework Review

The independent variable is Project quality management and the dependent variable is road construction.



## **3.0 Research Methodology**

This chapter covers the research design, target population, target sample size, sampling technique, nature of data to be used by the study, data collection tools, data collection procedure, measurement and analysis.

## 3.1 Research Design

The study was adopted a descriptive survey research as it enables the identification and classification of the elements or characteristics of the subject. According to Cooper and Schindler (2003), a descriptive study attempts to describe or define a subject, often by creating a profile of a group of problems, people, or events, through the collection of data and tabulation of the frequencies on research variables or their interaction. To gain in-depth information on the effect of quality management in road construction within a relatively short period, then a descriptive survey is the best suited. It was help in establishing the state of affairs as they are at the present.

# 3.2 Study Population and sample design

The study was conducted on 106 staff of horizon construction. These are administrators and employees in the mentioned construction company. Of these 4 was head of departments 32 project supervisors include 2 accountants and financial officers, 6 from IT Managers and 62 from engineers. The study employed census sampling.



### **3.3 Data Collection Instruments**

#### Questionnaire

Roth (1989) stated that Questionnaires are carefully framed questions intended to be answered by carefully selected people (respondents). Open-ended questions were preferred because they permit free response from the subjects. The questionnaire was very useful in answering objectives of this research study.

#### **Documentary Review**

These are tools used by the researcher together data from respondents and other sources that are relevant to the study, all the data was collected using questionnaire, where it was gather information about the contribution of investment appraisal on decision making in manufacturing industries in Rwanda, case study was held in horizon construction where the researcher was offer the questionnaire to the workers for the aim of collecting information by ticking and filling the gaps where necessary.

#### **3.4 Data Analysis and Interpretation**

Quantitative and qualitative approaches was used in data presentation and analysis. Quantitative (numeric) data was analyzed using descriptive statistics represented by mean, mode, range and standard deviation. The Statistical Package for Social Sciences [SPSS] version 20 was used in data processing and analyzing data. This enabled the researcher to visualize and summarize data without carrying out modeling.

Qualitative (non-numeric) data from desk research and key informant interviews was analyzed by content and narrative analyses respectively (Grinner & Wasiams, 1990). Content analysis was involve reading, recording and categorization of verbal or behavioral data for the purpose of classification summarization and tabulation. In narrative analysis, the data was explained by using the words of the respondents. Secondary and narrative data was used to complement primary data by making comparisons for which was help in drawing the conclusions and recommendations.



## 4.0 Research Findings

This chapter covers the data analysis as obtained from the field survey. Presentations are given in terms of frequency tables, means and standard deviations.

Table 1: shows	other genera	l reasons o	of quality	control	strategy	in in	plementation
construction in <b>b</b>	horizon						

REASONS		Implementati construction	ion o	of		
Another General Reasons Quality Control Strategy In Horiz construction	OfNO zon	% Frequency (Agree)	% Frequency (Disagree)	Mean	Std Dev	
Customer Satisfaction	106	67 (71)	33 (35)	3.75	1.295	
Prevention of over Inspection	106	74.5 (79)	25.5 (27)	3.92	1.204	
Continuous Improvement	106	70.8 (75)	29.2 (31)	3.84	1.258	
Stakeholder Satisfaction	106	55.7 (59)	44.3 (47)	3.41	1.315	
Perform Quality Assurance	106	67 (71)	33 (35)	3.72	1.278	
Quality Management of Projects	106	82.1 (87)	17.9 (19)	4.18	1.111	
AVERAGE		<b>69.5</b> (74)	30.5 (32)	3.80	1.2435	

#### Source: Survey Data (2023)

Table 1 shows the result of respondent's opinion on general reasons of quality control strategy in horizon construction ltd Rwanda. Where they said that Quality Management of Projects help in achievement and successful implementation of construction where the respondent s admired with mean of 4.18 at the percentage of 82.1%, while the 17.9 % of the respondents disagreed on the quality management of project as general reason of quality control strategy in horizon.

Followed by privation over inspection as another general reasons of quality control strategy in horizon where the respondent admired by saying quality control strategy done as privation of over inspection in implementation of construction in horizon with mean of 3.92 at the percentage of 75.5%, while the 25.5 % of the respondent disagreed by saying that quality control strategy as general reasons is not help in privation of over inspection in implementation of construction project in horizon.

Table 1 also shows that result of Continuous Improvement as general reasons of quality control strategy in horizon construction where respondents says that quality control strategy help in Continuous Improvement in implementation of construction project in horizon where the respondent admired with mean of 3.92 at the percentage of 75.5%, while the 25.5% of the respondent disagreed by saying that quality control strategy as general reason in horizon construction ltd are not help in Continuous Improvement construction.

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Followed by Customer Satisfaction as general reasons of quality control strategy in horizon where the respondent admired by saying that quality control strategy in horizon construction Itd are help in Customer Satisfaction by controlling the implementation of project and where the respondent admired with mean of 3.72 and percentage of 67%, with std dev1.295 while the 33 % of the respondent disagreed by saying that quality control strategy reason of in horizon are not contribute in Customer Satisfaction.

Last but not least this table 1 also shows that result of perform quality assurance as another general reason of quality control strategy in horizon construction where respondents says that quality control strategy contribute in perform quality assurance where the respondent admired with mean of 3.72 and percentage of 67%, with std dev1.278 while the 33 % of the respondent disagreed that perform quality assurance is not a result of general reason of quality control strategy in horizon construction ltd.

Table 2.	Implication	of	quality	control	strategy	on	implementation	of	construction i	in
horizon.										

Implication of quality control strategy NO	% Freque	ency % Frequency	Mean	Std Dev
on implementation of construction.	(Agree)	(Disagree)		
Quality control strategy are implied <sup>106</sup> through premise control	88.6 (94)	11.4 (12)	4.35	0.957
Quality control strategy are implied106 through execution control,	86.8 (92)	13.2 (14)	4.22	0.986
Quality control strategy are implied106 through Special alert control.	89.6 (95)	10.4 (11)	4.31	0.919
AVERAGE	88.3 (94)	11.7 (12)	4.293	0.954

## Source: Survey Data (2023)

Table 2 shows the result of respondent's opinion on Implication of quality control strategy on implementation of construction. Where they said that Quality control strategy are implied through premise control and this where admired with very big mean of 4.35 at the percentage of 88.6 % and std dev of 0.957 while the 11.4 % of the respondent disagreed on Implication of quality control strategy on implementation of construction where they said that Quality control strategy are not implementation of construction where they said that Quality control strategy are not implementation of premise control

Followed by Quality control strategy are implied through implementation control of construction in horizon ltd where the respondent admired by saying that Quality control strategy are implied through execution control with mean of 4.22 at the percentage of 75.5% and std dev of 0.986, while the 13.2 % of the respondent disagreed by saying that Quality control strategy are not implied through execution control.

Last but not least Quality control strategy are implied through Special alert control of construction in horizon ltd where the respondent admired by saying that Quality control strategy are implied through Special alert control admired with mean of 4.31 at the percentage of 89.6% and std dev of 0.919, while the 10.4 % of the respondent disagreed by saying that Quality control strategy are not implied through Special alert control.



 Table 3. Descriptive Benchmark in quality control strategy in Implementation of construction in horizon

Benchmark	Implemen construction	tation	of	
Benchmark in quality control strategy NO	% Frequency	% Frequency	Mean	Std Dev
	(Agree)	(Disagree)		
Systematic, structured step by step <sup>106</sup> process	82.1 (87)	17.9 (19)	4.17	1.108
Continuous to be truly effective 106	55.7 (59)	44.3 (47)	3.42	1.323
Evaluation a process and hence,106 necessarily, measurements are essential and constituent parts of this process	70.8 (75)	29.2 (31)	3.85	1.263
Products, Services and Processes106 evaluation	67 (71)	33 (35)	3.73	1.284
Best Practices, should be directed to those 106 companies or business activities that are recognized as the best in the sector	67 (71)	33 (35)	3.75	1.295
Improvement This process constitute a106 commitment to the principle of continuous	74.5 (79)	25.5 (27)	3.92	1.209
AVERAGE	69.5 (74)	30.5 (32)	3.806	1.2605

#### Source: Survey Data (2023)

Table 3 shows the result of respondent's opinion on Benchmark in quality control strategy in horizon implementation of construction. Where they said that Systematic, structured step by step process and this where admired with mean of 4.17 at the percentage of 82.1 % and std dev of 1.108 while the 17.9 % of the respondent disagreed on Systematic, structured step by step process where they said that are not applied in horizon. The respondents admired by saying that Continuous to be truly effective with mean of 3.42 at the percentage of 55.7% and std dev of 1.323, while the 44.3 % of the respondent disagreed by saying that Continuous to be truly effective are not implied in horizon. The respondents admired by saying that Evaluation a process and hence, necessarily, measurements are essential and constituent parts of this process with mean of 3.85 at the percentage of 70.8% and std dev of 1.263, while the 29.2 % of the respondent disagreed by saying that Evaluation a process and hence, necessarily parts of this process are not applicable in horizon. The respondent admired by saying that Products, Services and Processes evaluation with mean of 3.73 at the percentage of 67% and std dev of 1.284, while the 33 % of the respondent disagreed by saying that Products, Services and Processes evaluation and processes evaluation the saying that Products, Services and Processes evaluation and processes are not applicable in horizon. The respondent disagreed by saying that Products, Services and Processes evaluation with mean of 3.73 at the percentage of 67% and std dev of 1.284, while the 33 % of the respondent disagreed by saying that Products, Services and Processes evaluation are not applicable in horizon. Itd.

Second to the last the table 3 also shows Best Practices, should be directed to those companies or business activities that are recognized as the best in the sector as an element the Benchmark in quality control strategy in horizon implementation of construction where the respondent admired by saying that Best Practices, should be directed to those companies or business

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activities that are recognized as the best in the sector with mean of 3.75 at the percentage of 67% and std dev of 1.295, while the 33 % of the respondent disagreed by saying that Best Practices, should be directed to those companies or business activities that are recognized as the best in the sector are not applicable in horizon ltd.

Last but bot list the last the table 3 also shows Improvement This process constitute a commitment to the principle of continuous improvement as an indicator of the Benchmark in quality control strategy in horizon implementation of construction where the respondent admired by saying that Improvement This process constitute a commitment to the principle of continuous improvement with mean of 2.92 at the percentage of 74.5% and std dev of 1.209, while the 25.5 % of the respondent disagreed by saying that Improvement This process constitute a commitment This process constitute a commitment to the principle of the

# Table 4. Descriptive Statistics for Indicators of quality control strategies as measure of implementation of construction in horizon.

Indicators Imp	plementation of construction				
Indicators of quality control strategy as measuresN of implementation of construction. horizon construction for	% Frequency (Agree)	% Frequency (Disagree)	Mean	Std Dev	
Premise control					
The quantity of the premise are controlled 106	91.5	8.5	4.43	.873	
The quality of the premise are controlled 106	(07) 89.6	(0) 10.4	4.30	.917	
The visibility of the premise are checked to assure the 106	(89) 93.4	(11) 6.6	4.42	.804	
availability of the premises	(99)	(07)			
Execution Control					
In Execution Control, techniques are controlled for106 the implementation of construction	78.3 (83)	21.7 (23)	4.08	1.180	
In Execution Control, formulation are controlled for106 providing quality construction product	78.3	21.7	4.04	1.162	
providing quarty construction product	(83)	(23)			
In Execution Control, measures are taken for the case106	74.5	25.5	3.97	1.230	
of risk management In Execution Control, evaluation are done in order to 106	(79) 68.9	(27) 31.1	3.79	1.278	
follow steps for the implementation of construction	(73)	(33)			
Special alert control					
Time duration are set for the implementation of 106	76.4	23.6	4.00	1.195	
construction and cutting the cost	(81)	(25)			
Time management are done for the implementation of 106	80.2	19.8	4.07	1.124	
construction and finish work on time	(85)	(21)			

Source: Survey Data (2023)



Table 4 shows the result of under Premise control of respondent's where they said that the quantity of the premise as Indicators element of quality control strategies as measure of implementation of construction in horizon most of respondent said that quality of the premise are useful control strategy with mean of 4.43 on the percentage of 91.5% and std dev of 0.873 while the 8.5% of the respondent disagreed by saying that The quantity of the premise are not quantity control strategies as measure of implementation of construction in horizon.

This Table also shows the result of respondent's under Premise control by saying that the quality of the premise are controlled as Indicators element of quality control strategies as measure of implementation of construction in horizon most of respondent said that The quality of the premise are controlled with mean of 4.30 on the percentage of 89.6% and std dev of 0.917 while the 10.4 % of the respondent disagreed by saying that The quality of the premise are not controlled strategies as measure of implementation of construction in horizon.

Table 4 also shows that visibility of the premise are checked to assure the availability of the premises control as Indicators element of quality control strategies as measure of implementation of construction in horizon most of respondent said that The visibility of the premise are checked to assure the availability of the premises this were admired with mean of 4.42 on the percentage of 93.4% and std dev of 0.804 while the 6.6% of the respondent disagreed by saying that The visibility of the premise are checked to assure the availability of the premise are checked to assure the availability of the premise are checked to assure the availability of the premise are checked to assure the availability of the premise are checked to assure the availability of the premise are checked to assure the availability of the premise are checked to assure the availability of the premises as measure of implementation of construction in horizon.

Followed by the execution control result where the respondent admire by saying that In Execution Control, techniques are controlled for the implementation of construction as Indicators element of quality control strategies as measure of implementation of construction in horizon this were admired with mean of 4.08 on the percentage of 78.3% and std dev of 1.180 while the 21.7 % of the respondent disagreed by saying that In Execution Control, techniques are not controlled for the implementation of construction as measure of implementation of construction in horizon.

This table 4 also shows the results under the execution control where the respondent admire by saying that In Execution Control, formulation are controlled for providing quality construction product as Indicators element of quality control strategies as measure of implementation of construction in horizon this were admired with mean of 4.04 on the percentage of 78.3% and std dev of 1.162 while the 21.7 % of the respondent disagreed by saying that In Execution Control, formulation are not controlled for providing quality construction product as measure of implementation of construction in horizon.

This table 4 also shows the results under the execution control where the respondent admire by saying that In Execution Control, measures are taken for the case of risk management as element of Indicators of quality control strategies as measure of implementation of construction in horizon this were admired with mean of 3.97 on the percentage of 74.5% and std dev of 1.230 while the 25.5% of the respondent disagreed by saying that In Execution Control, measures are not taken for the case of risk management as measure of implementation of construction in horizon.

This table 4 shows the results under the execution control where the respondent admire by said that In Execution Control, evaluation are done in order to follow steps for the implementation of construction as element of Indicators of quality control strategies as measure of implementation of construction in horizon this were admired with mean of 3.79 on the percentage of 68.9% and std dev of 1.278 while the 31.1 % of the respondent disagreed by saying that In Execution Control, evaluation are not done in order to follow steps for the implementation of construction as measure of implementation of construction as measure of implementation of construction.



First to the last table 4 also shows the results under the special alert control where the respondent admire by said that Time duration are set for the implementation of construction and cutting the cost as Indicators element of quality control strategies as measure of implementation of construction in horizon this were admired with mean of 4.00 on the percentage of 76.4% and std dev of 1.195 while the 23.6% of the respondent disagreed by saying that Time duration are not set for the implementation of construction and cutting the cost as measure of implementation of construction in horizon.

Last but not least table 4 also shows the results under the special alert control where the respondent admire by said that Time management are done for the implementation of construction and finish work on time as Indicators element of quality control strategies as measure of implementation of construction in horizon this were admired with mean of 4.07 on the percentage of 80.2% and std dev of 1.124 while the 19.8% of the respondent disagreed by saying that Time management are not done for the implementation of construction and finish work on time as measure of implementation of construction in horizon.

# **5.0** Conclusion

This study sought to establish the effect of quality control strategies on implementation of construction project in Rwanda. The study thus concludes that quality control strategies has a statistically significant effect on implementation of construction in Rwanda as it is shown in this indicators Premise control, followed by Implementation control and lastly Special alert control.

## 6.0 Recommendations

In consideration of the findings, the study suggests that construction managers and stakeholders should configure their synergy in enhancing quality, control strategies in the order of implementation of construction (Premise control, followed by implementation control and lastly Special alert control to implementation of construction.

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