

# Relationship between Project Consultants' Performance and Project Success in the Rwandan Construction Industry

Elysé Masengesho<sup>1</sup>, Ji Wei<sup>1\*</sup>, Rosette Niyirora<sup>1</sup>, Nadine Umubyeyi<sup>2</sup>

<sup>1</sup>School of Civil Engineering, Lanzhou Jiaotong University, Lanzhou, China

<sup>2</sup>Faculty of Engineering, China University of Geosciences, Wuhan, China

Email: \*jiwei1668@163.com, elyamaombi@gmail.com

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## Abstract

As discovered, today's Rwandan construction industry is developing day by day, which plays a very important role in the country's economic growth. In the construction industry, project consultants play a very significant role in providing services for such projects. The project consultants provide services from the beginning of the project to the completion of the project. Using project consultants is very useful for construction projects because it can ameliorate project efficiency and effectiveness. The main purpose of this paper is to investigate the relationship between project consultants' performance and project success in the Rwandan construction industry. The data used in this study were obtained from primary and secondary sources. The secondary data was attained through an elaborated literature review of various books, articles, and papers related to this research to outlining and describing the chief ideas of this research title. The primary data was compiled through a questionnaire survey that was directed to 110 selected professionals in the construction projects in Rwanda to collect data from the site for statistical analysis of the research to test the hypothesis. However, a total of 90 usable responses were received within the scheduled period representing the response rate of 81.82%, which is likely to be representative and acceptable. Data collected from the questionnaire surveys were analyzed using the Statistical Package for Social Scientists (SPSS), excel spreadsheets, and Relative Importance Index (RII), which provide more merit presentations. The survey results show that even if there are many obstacles in the use of project consultants in the Rwandan construction industry such as lack of knowledge and practice in project consulting, lack of well-trained project consulting professionals, lack of training opportunities in project consulting, lack of knowledge and experience in addition to the senior management opposition, and lack of

local project consulting guidelines and information; they are needed in the construction project to make it more successful through reducing and saving the overall project's life cycle cost according to client's wishes, keeping time of construction project, improving quality of the project products in the present and future, removing major variations that affect construction project with its attendant cost overrun, and advising on construction project process. Therefore, it is more important to remark that the good performance of the project consultants in any industry especially in the construction industry will contribute to the successful implementation of the project. From the results of the study, the performance of project consultants is closely related to the success of the construction industry in Rwanda. The project consultants' leading skills and knowledge automatically guide the project to complete with accurate time, budget, and quality to make the project successful. In this paper, we will also consider the project success criteria; the role and responsibility of project consultants; the factors affecting the performance of project consultants; and the reasons that hinder the implementation of project consulting in the Rwandan construction industry.

### **Keywords**

Construction, Project Consultants, Project Success, Project Management, Rwanda

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## **1. Introduction**

Rwanda is a country that is often plagued by a shortage of skilled project consultants in many economic sectors, especially in the construction sector. Mostly the project owner believes in what the builders/project contractors promise to do throughout the contract documents, contrary they perform the work differently to the client's wishes because they know that he has no knowledge about the construction field and relate in general. If any construction project does not have a competent and knowledgeable consultant the consequences are significant losses for the project owners, where we can say such as cost overrun, project delay, poor project quality, disputes, and the deaths of workers due to there are important requirements that are overlooked during the construction process. Besides, a good project consultant helps any construction company in times of trouble and so on and enables the company to achieve success. Project consulting is more crucial, especially in construction measured throughout the project budget, project completion, and project quality as needed. Therefore, it is very important to know how the project consulting copes with the problems encountered in the project through good cooperation with all involved parts of the project. If the client looks for expert knowledge or advice on certain engineering issues or any issues involving engineering issues, consultation is required [1]. The project consultants will help the clients to overcome current obstacles or avoid future costly mistakes by providing the right help at the right time and de-

termine and implement solutions to problems faster, thus saving you time and money while their project is more critical and needs to be completed rapidly and correctly. With the project consultant's expertise and objective insights, you will be more efficient than you or your employees. With the construction of new projects, Rwanda's construction industry is developing very rapidly. Due to the rapid development of the construction industry, it is necessary to improve the performance and work quality of the services provided by consulting companies to meet the goals and objectives of the construction project and customer satisfaction [2]. Project consultant manages projects through several services in all construction project stages, such as planning, cost budgeting, value engineering, risk identification, analysis, response and control, schedule optimization, resource allocation, etc. Therefore, the research in this article paper is to investigate the relationship between project consultants' performance and project success of the Rwandan construction industry as it is more significant in the construction industry to have a better understanding of the project consultants' performance and their resultant impacts on project success.

## 2. Literature Review

### 2.1. Construction Project Success

For any country, the success of a construction project is an important issue for most of its economic development, owners, and users [3]. In the project management literature, many researchers have extensively discussed the issue of project success. Wite's opinion was that if the project meets the construction technical performance specifications and the goals to be executed, and is highly satisfied with the project results, the project will be considered as an overall success [4]. Also, Ashley *et al.* said that the project is successful when having outcomes more beneficial than expected remarked in terms of cost, plan, quality, safety, and all involved parts satisfaction [5]. Most research on project success focuses on how to measure the success of the project and other specific factors that affect the success of the project [6]. For the architects, the project is successful when it bases on aesthetic performance, and for the contractors, the project is more successful when they get more benefits from the project. If the project is completed on time within the budget and everyone is satisfied, the project will be considered a success [7].

On the other hand, Lam *et al.* described that because the concept of success is still indefinite among project involved parts, it is difficult to measure whether the performance of the project is a success or a failure [8]. Collins and Baccarini pointed out that project success is not only related to completion time, cost, and quality objectives, but also requires relevant education to the project management community [9]. The concept of development project success is to set standards and criteria to help project participants complete the project with the best outcomes [10]. Therefore, when a project reaches the technical performance indicators and goals, the project is regarded to be an overall success, and the or-

ganization, project team, and users are highly satisfied with the project results [4]. Successful completion of cost, time, and quality goals was considered as direct project management success; project success involves the ultimate project goal [11].

### 2.1.1. Project Success Criteria (PSC)

Generally speaking, PSC is utilized to measure the success of a project. The criteria are the classic solution to the big problems of how to measure the success of a project [12]. Some researchers proposed that PSC should be particular to each project, so it should be decided by stakeholders at the beginning of each project [13] [14]. According to Baccharini, the project success criteria comprises of the following two parts [15]:

#### 1) Project Management Success

- This is focused on the project procedure, and has three criteria:
- Meet project time, project cost, and project quality targets.
- The project quality management procedure.
- Meeting the needs of project stakeholders for the project management procedure.

#### 2) Product Success

- This involves the impact of the final product of the project, and it has three criteria:
- Meet the strategic organizational targets of the project owner.
- Meeting users' needs (objectives).
- Meet the product-related needs of stakeholders.

### 2.1.2. Project Success Factors (PSF)

In general, PSF is applied to promote project success. Rockart defined the concept of PSF, as “a limited number of fields in which outcomes if those outcomes are satisfactory, will assure the successful aggressive performance of the project organization” [16]. Belassi and Tukul described that since the 1950s, most of the activity of project management has been focused on project programming troubles or circumstances based on the premise that the growth of better programming techniques will lead to better management and therefore the success of project completion [17]. However, there are many factors beyond the control of project management that could determine project success or project failure, and these factors are called critical success/failure factors [18]. Pinto and Slevin highlighted the main fourteen PSF, which are usually associated with successful implementation across a wide range of project companies and project types [19]. These main success factors are as follows:

- Projects mission
- Top management support
- Project scheduling progress
- Customer consultation
- Personnel recruitment

- Technical tasks
- Customer acceptance
- Monitoring and feedback
- Communication structure
- Troubleshooting
- Project leader features
- Power and politics influence
- Environmental effect
- Urgency

### **2.1.3. Characteristics of Project Success**

In every kind of economic business especially the construction industry, nothing better than to achieve the success of it, so there are main characteristics of that success from the starting point of the project to the end as put out by Baccarini [15] as follows:

#### **1) The Success of Project Management is Subordinate to the Success of Products**

The success criteria of time, cost, and quality of project management are subordinate to the product success goals with higher objectives. Accordingly, projects that fail in project management are regarded as project success because the higher-level goal of product success has been achieved.

#### **2) The Success of Project Management Directly Affects the Success of Products**

The success of project management directly affects the accomplishment of a product's success. Well, project management contributes to product success, but it is impossible to avoid product failure. For example, project management can assist identify the infeasible project nature and point that the project should be deserted or changed. In terms of cost and/or time overruns, poor project management can lead to failure of the product such as profitability or market share.

#### **3) The success of a project is affected by time**

Every measure of success has its time scale. The success of the product can only be judged after the project product is put into use, which may be many years after the project is completed. For the success of project management, it is a short-term measurement standard to judge whether a project has successfully achieved the time, cost, and quality objectives. In the whole process of the project, judge whether the project is carried out in a high-quality way and whether it successfully meets the needs of the project team.

## **2.2. Project Consultants Performance in the Construction Industry**

Many construction projects are finished without any conventional project consulting practices. Most of the time these projects are frequently plagued by delays, poor quality, and cost overruns. The key is not just to finish a project, but to finish it correctly. If the project finishes with poor quality, large cost overruns,

or continuous delays, likely, you and your company will not get the maximum return on your investment from the time and energy you spend. Therefore, to realize project management, firstly you must understand what a construction project is [20]. The management of all sorts of construction projects needs the professional knowledge and comprehensive knowledge system of the organization. The project consultants are characterized by knowledge, performance, and interpersonal skills [1]. The project consultant has no specific definition. Most definitions describe management consulting in terms of the tools, roles, responsibilities, and services provided by skills to perform tasks assigned by the client or project owner [21]. The role and responsibilities of project consultants in the construction industry are very broad and depending on their skills and current experiences. Therefore, if the client looks for expert knowledge or advice on certain engineering issues or any issues involving engineering issues, consultation is required [1]. The project consulting team will provide the right help at the right time to help the clients overcome current obstacles or avoid high-level errors in the future, and determine and implement problem solutions faster, thereby saving you time and money. Without an excellent performance of the project consulting team, it is difficult to ensure the success of the project. Besides, to make the project successful, the manager needs effectively and efficiently to complete the work of the team members. This, together with the introduction of project consultants' knowledge brings about project success [22].

### **2.2.1. Role and Responsibilities of the Project Consultants in the Construction Industry**

With its professional knowledge and ability, the project consultants have been undertaking several responsibilities in the construction project for a long time. Since 1984, Rona pioneering research on strengthening the relationship between clients and consultants, many research energy have been committed to investigating the role and responsibilities of project consultants in construction projects [23]. In addition, the appointment of the project manager will influence the success or failure of the project. Therefore, a successful project consultant should perform several roles and responsibilities at the same time, and play a vital role in all stages of the construction project (the initial stage, design stage, construction stage, pre-construction stage, and post-construction stage) [24]. **Table 1** below shows the roles and responsibilities of project consultants in different construction stages [1] [24]-[35].

### **2.2.2. Leadership Skills of the Project Consultants in the Construction Industry**

The construction industry needs mainly leadership because the success or failure of construction projects largely depends on who leads and coordinates them [24]. However, 80% of project failures are caused by poor leadership, including insufficient leadership, lack of teamwork, low efficiency of problem-solving and weak communication skills [36]. In addition, some losses or failures of the construction industry have become the object of constant criticism particularly its

**Table 1.** Role and responsibilities of the project consultants in the construction industry.

Project Stages	Role & Responsibility
Initial	Feasibility studies and plans; identify stakeholders who may influence project decisions, activities, and results; recording information about stakeholders including benefits, participation, influence, and the potential effect on the success of the project.
Design	Review the green design concept, last drawings, and environmental documents and specifications; and coordinate the design process so that they can deliver the project following established stakeholders and/or client requirements.
Pre-construction	Arrange bidding documents; contractor qualification; bid evaluation; define the project; project management; architects and consultants appointment; design process management; set sustainable development targets; provide project cost estimates; set schedules for the incorporated project teams.
Construction	Monitoring project quality and time; supervising contract changes; information management; team coordination; appointing contractors; site and plan management; safety management; coordination with customers, architects and other consultants; procurement management; considering the environmental effect of the project; control possibilities of risk for avoiding the increase of costs; and control the added chain.
Post-construction	Packaging and sealing technical and commercial; last cost report; monitoring whether all sustainability standards are met; and providing customers and end-users with construction documents related to operation and maintenance.

fragmentary and bad records on project quality, waste, financial claims, safety, and efficiency [37]. One of the reasons for these failures is poor leadership. According to the Project Management Association (PMI), to ensure the effectiveness of project management, project management professionals need to have skills, comprehensive management expertise, and other capabilities [38]. Strict project management skills help to effectively manage the project process [39].

Research shows that there is a powerful correlation between project consultants' leadership skills and project success. The leadership skills, characters, behavior, and attitude of project consultants are very vital because their daily activities affect the behavior and their team members' success [40]. Therefore, according to the literature, the eight leadership skills of construction project consultants in the construction projects are shown in **Table 2** below.

### 3. Research Approach

#### 3.1. Methods of Data Collection

During this study, the collected data were derived from the primary source and secondary source. The secondary data was gotten from the review of literature of books, articles, and papers related to the study to describe the main concepts about the relationship between project consultants' performance and project success in the Rwandan construction industry. The primary data was developed by a questionnaire survey method that was directed to the employees in the construction companies to collect data from the site for statistical analysis of the research to test the hypothesis. All necessary questionnaires were distributed randomly

**Table 2.** Leadership skills of project consultants in the construction industry.

Author	Leader skills appropriate for project consultants
Zulkifli <i>et al.</i> [24] and Serhan [41]	<p><b>1) Communication skill</b> It involves the ability to exchange information with individuals or groups. This means that the project consultant needs to successfully communicate with stakeholders to accomplish their sustainable development goals. Adapting the different views of the project team and stakeholders on sustainability to ensure the success of the project.</p>
Schmid & Adams [42] and Zulch [43]	<p><b>2) Motivation skill</b> Motivation skill is the ability to make a person achieve their targets. Motivation is a skill that the project consultant can use to ensure that the project team can achieve the project objectives on time according to the budget. However, the lack of such motivation often conducts to conflicts, strikes, insufficient productivity, pressure, and project failure.</p>
Pryke & Smyth [37] and Zulch [43]	<p><b>3) Decision making and problem-solving skill</b> Including the ability and capability to determine and solve problems. Decision-making is a procedure of gaining the team's commitment to sustainability and collective support. However, problem-solving is a procedure for analyzing sustainability criteria and naming possible solutions.</p>
Giotis [44]	<p><b>4) Conflict management skill</b> It is the ability to resolve conflicts positively. Conflict management is also regarded as one of the crucial soft skills for a project consultant to achieve project success.</p>
Bruce [45] and Farooqui [46]	<p><b>5) Delegation skill</b> It includes working with subordinates to determine direction, authority, and responsibility. Without this skill, the project consultant's ability to manage the team and deliver outcomes will be limited. This is very significant to make full use of the project team, and the project consultant provides the ability and capability to pay attention to the real situation.</p>
Farooqui [46] and Glavinich [47]	<p><b>6) Planning and goal setting skill</b> It includes the planning process and the ability to accomplish the wanted aims. In the process of planning and scheduling, a project consultant should regard the effect of green standards on the overall progress of construction projects. In addition, setting feasibility or viable and sustainable priorities during a construction project will help to demonstrate a framework or model for all future conclusions making.</p>
Foley & Macmillan [48]	<p><b>7) Team building skill</b> A team is defined as a team of person who has skills that are devoted to common goals and are mutually responsible for their achievements. The project consultant should also be involved in team-building skills to ensure the success of the project.</p>
APM [49]	<p><b>8) Negotiation skill</b> It includes the ability to find common ground and achieve agreements to solve problems. Project consultants need to use negotiation skills throughout the project life cycle.</p>

either personally or via email amongst the selected professionals and a total of 110 questionnaires were submitted as follows: 16 questionnaires were distributed to clients, 29 to project contractors, 26 to project consultants, 19 to design managers, and 20 to quantity surveyors. A total of 90 usable responses were received



within the scheduled period, but 20 were not returned. This response rate was finally achieved after several efforts were made in terms of follow-up emails and calls. The response rate of 81.82%, which is likely to be representative and acceptable.

**Table 3** below shows how many questionnaires were distributed and collected from the respondents.

### 3.2. Methods of Data Analysis

This involved processing, editing, coding, classification, and tabulation of all data collected so that it can be analyzed. The data set after coding was posted to a worksheet for data cleaning to remove errors. Data collected from the questionnaire surveys were analyzed using the Statistical Package for Social Scientists (SPSS) and excel spreadsheets for influence rates of project consultants in terms of time, cost, and quality, while the Relative Importance Index (RII) used to rank the reasons of the need of project consultants, the factors affecting the performance of project consultants, and the reasons that may hinder the implementation of project consultancy in the Rwandan construction industry. Thus, those all methods provide more merit presentations. The Relative Index Analysis (RIA) for each variable is calculated by using the formula as follows: “Very important” equals 5 points, “Important” equals 4 points, “Medium important” equals 3 points, “Low important” equals 2 points, and “Not important” equals 0 points.

Relative Importance Index (RII) was used for each category and calculated as follows:

$$\text{RII}(\%) = \frac{\text{RIA}}{N}$$

where:  $\text{RIA} = 100X_1 + 75X_2 + 50X_3 + 25X_4 + 0X_5$ , and  
 $N = X_1 + X_2 + X_3 + X_4 + X_5$

**RIA:** Relative Index Analysis.

**RII:** Relative Importance Index.

**$X_1$ :** Number of respondents answering very important.

**$X_2$ :** Number of respondents answering important.

**Table 3.** Organization response rate in percentage.

Types of Organization	Number of Questionnaires		Percentage Returned (%)
	Sent	Returned	
Clients	16	12	75.00
Project contractors	29	23	79.31
Project consultants	26	21	80.77
Design managers	19	16	84.21
Quantity surveyors	20	18	90.00
<b>Total</b>	<b>110</b>	<b>90</b>	<b>81.82</b>

$X_3$ : Number of respondents answering medium important.

$X_4$ : Number of respondents answering low important.

$X_5$ : Number of respondents answering not important.

$N$ : The total number of respondents.

#### 4. Findings and Discussions

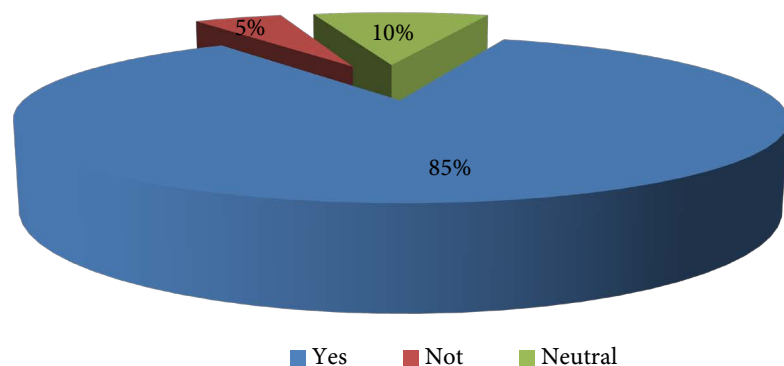
This chapter comprises the analysis, presentation of the data, and interpretation of the results of this study. It is necessary to analyze the data collected to answer the research questions to complete this study properly and meet the research objectives. The research findings are interpreted according to the aims and objectives of the study that were appropriate for the establishment of abstract and conclusion.

##### 1) Influence rates of project consultants in terms of time, cost, and value in projects

**Figure 1** shows that 85% of the respondents accepted that the presence of project consultants in construction project affect positively the time, cost and value of the project, 5% of respondents showed that in Rwandan construction projects when the designers and contractors are qualified in construction field there is no need of consultants in reducing the time of completion and cost, and improving value, and 10% of respondents remained neutral on this issue. **Figure 1** below indicates that the influence of project consultants in construction projects leads the project to reduce the construction cost and time of completion of the work to sustain its value.

##### 2) Reason for the need for project consultants in projects

Reasons for the need for project consultants in the Rwandan construction industry were identified and provided in the questionnaire form, where the respondents provided all accurate data according to their overview on the benefits from hiring the project consultants in construction projects. **Table 4** below shows the summary of reasons that lead the construction organization to become interesting to hire project consultants. Construction projects goals according to the respondents agreed that it can be achieved when the part of project consultants has a meaningful responsibility in that working field. As



**Figure 1.** Influence rates of project consultants.

**Table 4.** Reason for hiring the project consultants.

Reasons for having the project consultants	N	RIA	RII (%)	Rank
To advise on construction project process	90	6650	73.8889	5
To improve the quality of the project products in the present and future	90	7575	84.1667	3
To enhance professionalism	90	4075	45.2778	10
To identify project problems and arise real answers solutions to them	90	5325	59.1667	7
To reduce and saving the overall project's life cycle cost according to the client's wishes	90	7825	86.9444	1
To set project goals by giving different instructions	90	5875	65.2778	6
To remove major variations that affect construction project with its attendant cost overrun	90	7125	79.1667	4
To enhance sustainable construction projects	90	4425	49.1667	9
To keep the time of the construction project	90	7700	85.5556	2
To enhance reliability, availability, and client during the project starting process until the project completion	90	4825	53.6111	8

many researchers stated, while your project faces critical problems that need to be quickly solved in clear ways, the project consultants may be your fast and correct answer. Apart from the different information from the respondents, the main top 5 reasons pushing the clients for hiring the project consultants in their project in the Rwandan construction industry are as follow: to reduce and saving the overall project's life cycle cost according to client's wishes (RII = 86.94%), to keep the time of construction project (RII = 85.56%), to improve quality of the project products in the present and future (RII = 84.17), to remove major variations that affect construction project with its attendant cost overrun (RII = 79.17), and to advice on construction project process (RII = 73.89).

### 3) Factors affecting the performance of project consultants in projects

The project firm assigns a project consultants' team who is governed under contract conditions, and they perform the services for the client's wishes to meet the project targets from the starting up to the completion of the project. They have themselves to maximize the project revenues, thereby meeting the expectations of the general management of the project and to meet the demands of the client organization, thereby cutting into the project's financial return for their own company. Therefore, several factors may affect the performance of the project consultants' team in Rwandan construction projects as shown in **Table 5** below. According to respondents, the main top 10 factors includes the ability to work as a team (RII = 84.17%), creativity in controlling own cost and developing own efficiencies (RII = 79.17%), timely submission of reports, payment certification and claims (RII = 77.30%), ability to make decisions when necessary (RII = 73.89%), coordination of contractors' work promptly (RII = 66.94%), political influence from higher authority (RII = 65.28%), accurate and reliable budget

**Table 5.** Factors affecting the performance of project consultants.

Factors affecting the performance of project consultants	N	RIA	RII (%)	Rank
<b>1) Related to Management of Project</b>				
Adequate technical background	90	4700	52.22	20
Poor relationship among team members	90	2350	26.11	30
Ability to coordinate	90	5400	60.00	11
Ability to make decisions when necessary	90	6650	73.89	4
Competence of the team	90	4175	46.39	22
Ability to delegate authority	90	5300	58.89	14
Ability to work as a team	90	7575	84.17	1
<b>2) Related to Cost Management</b>				
Accurate and reliable budget estimate	90	5775	64.17	7
Ability to foresee and budget for potential inflation	90	5150	57.22	15
Excessive variation orders	90	4025	44.72	23
Proper planning and scheduling of works	90	5625	62.50	9
Creativity in controlling their own cost and developing their efficiencies	90	7125	79.17	2
<b>3) Related to Quality of Work</b>				
Design team experience	90	4975	55.28	17
Delay in producing design document	90	2550	28.33	29
Adequate material test records	90	5100	56.67	16
Excessive variation orders	90	2875	31.94	27
Excessive errors or omission	90	3325	36.90	26
<b>4) Time Related</b>				
Coordination of contractors' work promptly	90	6025	66.94	5
Timely decision making	90	5725	63.61	8
Timely submission of reports, payment certification, and claims	90	6975	77.50	3
Time for completing major specified work sections	90	3725	41.39	24
<b>5) Environmental Related</b>				
Political influence from higher authority	90	5875	65.28	6
Economic influence in terms of remuneration and allowances	90	5575	61.94	10
Social in terms of family relations	90	2725	30.28	28
Weather influence	90	4825	53.61	19
Level of technological advancement	90	5375	59.72	12
<b>6) Others</b>				
Project type	90	4525	50.28	21
Project value	90	5325	59.17	13
Project duration	90	4900	54.44	18
Urgency	90	3575	39.72	25

estimate (RII = 64.17%), timely decision making (RII = 63.61%), proper planning and scheduling of works (RII = 62.50%), and economic influence in terms of remuneration and allowances (RII = 61.94%).

#### 4) Reason behind non-application of project consulting in projects

The project consulting method is one of the best and most reliable methods, especially in the construction industry, as this method has been shown to increase productivity at a lower cost. The construction industry in Rwanda is progressing significantly as compared to the surrounding countries, but the use of the project consultancy method is sometimes unsuccessful due to a variety of reasons as shown in **Table 6** below. According to the respondents, the five highly ranked reasons are lack of knowledge and practice in project consulting (RII = 82.22%), lack of well-trained project consulting professionals (RII = 78.06%), lack of training opportunities in project consulting (RII = 76.11%), lack of knowledge and experience in addition to the senior management opposition (RII = 70.28%), and lack of local project consulting guidelines and information (RII = 68.05%).

**Table 6.** Reasons that hinder the implementation of project consulting.

Reasons that hinder the implementation of project consulting	N	RIA	RII (%)	Rank
Lack of knowledge and experience in addition to the senior management opposition	90	6325	70.28	4
Lack of training opportunities in project consulting	90	6850	76.11	3
Lack of well-trained project consulting professionals	90	7025	78.06	2
Not suitable for low-cost project	90	3975	44.17	9
The higher management does not believe in the benefits of project consulting	90	5725	63.61	6
Too expensive to carry out project consulting	90	3700	41.11	10
Interruption to normal work schedule	90	4800	53.33	7
Lack of knowledge and practice in project consulting	90	7400	82.22	1
Lack of local project consulting guidelines and information	90	6125	68.05	5
Other factors, like the nature of works and the owner of the project	90	4450	49.44	8

## 5. Conclusions

The research in this article paper was to investigate the relationship between project consultants' performance and project success of the Rwandan construction industry as it is more significant in the construction industry to have a better understanding of the project consultants' performance and their resultant impacts on project success.

It is more important that the project consultants must have a detailed understanding of several constraints like project budgets, project time given for completion, and all resources necessitated for the project due to their skills, knowledge, and experience to manage projects correctly and clearly. In addition,

project consulting is only useful when participating in the project from starting to the completion of the project. From the results of the study, it is obvious that in the Rwandan construction industry, there is a close and strong relationship between the performance of the project consultants and the success of the project. The survey results show that even if there are many obstacles in the use of project consultants in the Rwandan construction industry such as lack of knowledge and practice in project consulting, lack of well-trained project consulting professionals, lack of training opportunities in project consulting, lack of knowledge and experience in addition to the senior management opposition, and lack of local project consulting guidelines and information; they are needed in the construction project to make it more successful through reducing and saving the overall project's life cycle cost according to client's wishes, keeping time of construction project, improving quality of the project products in the present and future, removing major variations that affect construction project with its attendant cost overrun, and advising on construction project process. The project consultant's leading skills and knowledge automatically guide the project to complete with accurate time, budget, and quality to make the project successful. Therefore, it is more important to remark that the good performance of the project consultants in any industry, especially in the construction industry is conducive to the smooth implementation of the project and the smooth progress of various activities at all stages of the project. Finally, we can conclude that if we want to successfully start and complete any construction project, then we must have a project consultant.

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### Conflicts of Interest

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