

# Effect of Relationship Management on Project Contract Performance in Rwanda: A Case of Bugesera Natural Region Rural Infrastructure Support Project

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**Abstract:** *Contract management is an issue of strategic importance both to organizations and to projects. Through successful contract management, project and organizations can increase control and effectiveness and reduce cost hence provide strategic and competitive advantages. This study analyzed the influence of the relationship between service providers and the client on the performance of the contracts and hence the success of the project. The study was guided by the following specific objectives: to assess the influence of mutual trust on the contract performance and to evaluate the role of excellent communication on the performance of a. The study used descriptive survey design. The study used data collected from 24 respondents made up by service providers and staff of Bugesera Natural Region Rural Infrastructure Support Project in Rwanda. Census was used as sample design. Data was collected using structured questionnaires. Multiple regression analysis was used to establish the effect of relationship management to the contract performance in project. Results showed that 64.9% of the contract performance may be caused by mutual trust and excellent communication.*

**Keywords:** Mutual trust, excellent communication, Contract performance

## 1. Introduction

Institutions rely on contracts with service providers to keep them going. Shippers, vendors, outsourced services and independent contractors all require a high level of contract management to maintain efficient relationships for the institutions. Understanding the impact of poor contract administration on your organization can justify the investment in comprehensive contract management services. To meet their mandates and deliver their programmes, organizations of the United Nations system awarded over US \$ 16 billion in contracts for goods and services in 2013. This volume of resources demonstrates the extent of risk exposure that organizations are facing when engaging with contractors. Member States and donors expect these organizations to establish governance structures and measures of accountability to ensure efficient and effective management of contracts and minimize the risk of fraud, corruption and mismanagement. In response, the organizations have introduced reforms to modernize and streamline procurement. Progress has been made on many fronts: procurement functions have been strengthened, platforms and networks have been established, and procurement policies and practices among the United Nations system organizations continue to be harmonized. The reforms, however, have focused mainly on the “pre-award” activities of the procurement process. Less attention has been paid to approaches to effectively manage contracts “post-award” (i.e. after contracts have been signed). This is despite the fact that post-award contract management represents one of the highest risk areas in the procurement life cycle. (George, Bartsiotas, 2014).

Ntayi, Byabashaija, Eyaa, Ngoma and Mulira (2010) observe that millions of dollars get wasted in Uganda due to inefficient and ineffective obstacles and challenges in the procurement process of which contract management is a part. Meanwhile contract management continues to receive less attention from policy makers and academics. In Uganda, little empirical evidence does exist on the determinants and constraints to effective contract management based on practitioners’ view point despite the increasing drive towards the demand for money.

In Rwanda, the Auditor General Office report (2014) states that only during 2013, there were forty six (46) instances noted where contracts worth Frw 23,771,011,119 were delayed. Additional nine (9) contracts worth Frw 908,562,999 were abandoned. Contracts for 78 projects worth Frw 126,052,898,036 were delayed or not completed within contract period. However, despite all the above findings, little study has been done in public contracting and more so in developing countries, like Rwanda, Kenya, Uganda and others in confirmation of the facts mentioned above. Good contract management goes much further than ensuring that the agreed terms of the contract are being met – this is a vital step, but only the first of many. No matter what the scope of the contract, there will always be some tensions between the different perspectives of customer and provider. Contract management is about resolving or easing such tensions to build a relationship with the provider based on mutual understanding, trust, open communications and benefits to both customer and provider – a ‘win/win’ relationship (OGC, 2002). The fact that projects are continually confronting challenges to be successful, project managers must work regularly on their relationships with contractors. The aim of this study is to assess the influence

of mutual trust on the contract performance and to evaluate the role of excellent communication on the contract performance.

## 2. Statement of the problem

Understanding the impact of poor contract management on an organization can justify the investment in comprehensive contract management services. In Rwanda during 2013, there were forty six (46) instances noted where contracts worth Frw 23,771,011,119 were delayed. Additional nine (9) contracts worth Frw 908,562,999 were abandoned. In 2014 weaknesses in contract management were still persistent across board in public entities and have resulted into increased cost of Government projects, significant delays in completion and lack of value for money for many Government projects. There are also various failed or abandoned projects which have denied beneficiaries envisaged facilities and services. Contracts for 78 projects worth Frw 126,052,898,036 delayed and were not completed within contract period. Out of these, 14 projects worth Frw 3,368,946,434 failed to proceed or contracts were abandoned after paying Frw 1,898,334,461 to the contractors (Auditor General Office, 2014). Due to delayed completion of works, many public entities incurred extra supervision costs for the additional time required to supervise delayed works. This has ultimately increased costs of construction works (Auditor general Office, 2013).

According to International Association for contract and Commercial Management (2014), the average company is spending 70% of its revenue on external contractors thus the ability to manage relationship is critical key to both company and project success however the same source stated that 65% of mega project fail due to lack of contract relationship management. These problems and others related to contract management happen every year. What reasons might be behind this poor contract management? What actions should be taken to counteract this loss of money? According to UK local government association, (2013) one of the contract management critical success factor is relationship built during procurement process and actively managed. On the other hand Ng et al. (2002) identified that the lack of open communication is a main reason for the failure of construction contract in construction. Akintoye and Main, (2007) found that a lack of trust is a major barrier to the collaborative relationship in contract management. This study intends to contribute to the success of contract management by appreciating the effect of mutual trust and excellent communication on contract performance.

## 3. Objectives of the Study

### 3.1 General Objective

The general objective of the study was to assess the effect of relationship management on project contract performance in Rwanda: a case study of Bugesera Natural Region Rural Infrastructure Support Project.

### 3.2 Specific Objectives

1. To assess the influence of mutual trust on the contract performance in “Bugesera Natural Region Rural Infrastructure Support Project
2. To evaluate the effect of excellent communication on the contract performance in “Bugesera Natural Region Rural Infrastructure Support Project

## 4. Research Questions

3. What is the influence of mutual trust on the contract performance in “Bugesera Natural Region Rural Infrastructure Support Project”?
4. What is the effect of excellent communication to the contract performance in “Bugesera Natural Region Rural Infrastructure Support Project”?

## 5. Research Methodology

This research used the descriptive survey design. The object is to obtain insight into the relationships between variables and new ideas relating to the research problem (Creswell, 2014). The study targeted 24 people made out by 15 employees of the project and nine service providers of the project. All of main service providers (those with whom collaborative relationship should have been established) who worked with PAIRB during its lifespan were included. The data collection instruments were both questionnaires and interview. The service providers included in the research were contacted according to their availability and at the place of their choice and many of them were contacted by telephone. The list of these service providers was dressed jointly with the management of the project with respect to criterion of inclusion. Two principal modes of administration were self-completion and interviewer administration. The responses were designed in terms of Likert's five-point scale (Strongly disagree to strongly agree). To determine the reliability of the study the Cronbach's alpha method was used. To do so, first, an initial sample made of 10 questionnaires was prepared and then by using the data from these questionnaires and the SPSS software the reliability factor was calculated.

In order to ensure logical completeness and consistency of responses, the completed questionnaires were checked thoroughly by editing, coding, entering and then presented in comprehensive tables which show the responses of each category of variables and analyzed through descriptive and inferential statistics. The quantitative data generated were keyed in and processed by use of Statistical Package of Social Sciences (SPSS) version 23 to generate information which was presented using tables. The linear regression model was used to show the relationship between the relationship management and the contract performance.

The following general multiple regression model was adopted:

$$Cp = \alpha + \sum_{i=1}^{n=2} \beta_i X_i + \varepsilon$$

Where:

$C_p$  = Contract performance  
 $\alpha$  = Constant (intercept)  
 $\beta_1, \beta_2$  = Model Coefficients for independent variables  $X_1, X_2$  (mutual trust, excellent communication),  
 $\varepsilon$  = Error Term

alpha of every construct is greater than 0.7 (ranging from 0.717 to 0.829). The findings presented in the Table-1 confirm the reliability of the instrument.

**Table 1:** Reliability statistic (Cronbach's Alpha)

| Mutual trust |            | Excellent communication |            | Contract performance |            |
|--------------|------------|-------------------------|------------|----------------------|------------|
| Alpha        | N of items | Alpha                   | N of items | Alpha                | N of items |
| .829         | 5          | .717                    | 5          | .757                 | 7          |

## 6. Research Findings

### 6.1 Reliability test

The data corrected using structured questionnaire has been test to whether the instrument is reliable. The Cronbach's alpha coefficient test was used to evaluate the internal consistency reliability. The reliability analysis results exhibited an acceptable level, the value of Cronbach's

### 6.2 Variables Interdependence test

In order to assess if there is a linear dependence between variables the Pearson correlation coefficient has been calculated. The results are shown in the following Table-2.

**Table 2:** Pearson Correlation

|                         |                     | Mutual_trust | Excellent_communication | Contract_performance |
|-------------------------|---------------------|--------------|-------------------------|----------------------|
| Mutual_trust            | Pearson Correlation | 1            |                         |                      |
|                         | Sig. (2-tailed)     |              |                         |                      |
|                         | N                   | 24           |                         |                      |
| Excellent_communication | Pearson Correlation | .226         | 1                       |                      |
|                         | Sig. (2-tailed)     | .289         |                         |                      |
|                         | N                   | 24           | 24                      |                      |
| Contract_performance    | Pearson Correlation | .598**       | .661**                  | 1                    |
|                         | Sig. (2-tailed)     | .002         | .000                    |                      |
|                         | N                   | 24           | 24                      | 24                   |

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

The Table-2 shows that at 0.01 level, the correlations between independent variables (mutual trust and excellent communication) and dependent variable (contract performance) are significant. The Pearson's correlation coefficient between mutual trust and Contract performance is 0.598, the one between excellent communication and CP is 0.661. The existence of a strong correlation does not imply a causal link between the variables; for knowing this, later the regression analysis was carried out.

### 6.3 Regression analysis

After noticing that there is correlation between independents variables and dependent variable, the regression analysis has been made in order to assess whether the independent variables may predict the dependent variable. In other words should mutual trust and excellent communication be used to predict contract performance? The backward stepwise regression procedure has been used.

**Table 3:** Regression Model Summary

| Model | R                 | R Square | Adjusted R Square | Std. Error of the Estimate |
|-------|-------------------|----------|-------------------|----------------------------|
| 1     | .806 <sup>b</sup> | .649     | .616              | .29849                     |

a. Predictors: (Constant), excellent\_communication, mutual\_trust

The Table-3 shows an  $R^2$  (coefficient of determination) of 0.649 which means that 64.9 % of variability in the dependent variable is accounted for by all of two Independent variables together. In order to know if the

model is a good fit for the data; in other words if the independent variables as a whole should be used to predict the dependent variable, the analysis of variance has been carried out. Results are shown in following Table-4.

**Table 4:** Analysis of variance

| Model | Sum of Squares | df    | Mean Square | F     | Sig.   |                   |
|-------|----------------|-------|-------------|-------|--------|-------------------|
| 1     | Regression     | 3.462 | 2           | 1.731 | 19.431 | .000 <sup>b</sup> |
|       | Residual       | 1.871 | 21          | .089  |        |                   |
|       | Total          | 5.333 | 23          |       |        |                   |

a. Predictors: (Constant), Excellent\_communication, Mutual\_trust  
 b. Dependent Variable: Contract\_performance

The Table-4 shows F-tests in order to determine whether the models are the good fit for the data. According to the



p-value ( $p > .000$ ), the model is a good fit for the data. In other words as per the table above, the significance value is at 0.000 that is less than 0.05. Therefore, the regression model is statistically significant in predicting how independent variables affect the contract performance.

Nevertheless, regarding “how much each independent variable contributes to the prediction of the model” is summarized in the following Table 5.

**Table 5:** Regression coefficients<sup>a</sup>

| Model                                       | Unstandardized Coefficients |            | Standardized Coefficients | t    | Sig.  |      |
|---|-----------------------------|------------|---------------------------|------|-------|------|
|   | B                           | Std. Error | Beta                      |      |       |      |
| 1   | (Constant)                  | .855       | .630                      |      | 1.358 | .189 |
|   | mutual_trust                | .452       | .127                      | .472 | 3.560 | .002 |
|   | excellent_communication     | .419       | .100                      | .555 | 4.181 | .000 |
| a. Dependent Variable: contract_performance |                             |            |                           |      |       |      |

The Table-5 shows how much every independent variable contributes to the prediction of the dependent variable. One should notice that the prob(t) for the both variable is less than 0.05 which means that both variables have a significant effect in the model.

From the table above the regression equation may be written as follow:

$$CP = 0.855 + 0.452(Mt) + 0.419(Ec) + 0.29849$$

Where: CP=Contract performance, Mt = Mutual trust and Ec=Excellent communication

## 6.4 Discussion and conclusion

### 6.4.1 Mutual trust and contract performance

The coefficient of correlation between Mutual trust and contract performance equal to 0.598 (Table-2) and is significant at 0.01 level which means that there is a moderate (Deborah, 2016) positive relationship between mutual trust and contract performance in PAIRB because the coefficient is positive. The regression analysis (Table-5) helps to appreciate the influence of mutual trust to predict the contract performance (causal link between the variables). The regression coefficient of the variable mutual trust is 0.452 which means that there is a positive moderate relationship. The value of this coefficient means that if the variable mutual trust increases by one this will cause the contract performance to increase by 0.452. Prob(t) for mutual trust is 0.002 which means that there is only 2 chances in 1000 that the parameter mutual trust could be zero, which implies that the term of the regression equation containing the parameter mutual trust cannot be eliminated without significantly affecting the accuracy of the regression. These results are in harmony with those of Ahimbisibwe, Nangoli and Tusiime (2012) who found that if characteristics of outsourced formal contracts are combined with relationships of high buyer-supplier trust, supplier delivery performance improves significantly. Muhwezi and Ahimbisibwe (2015) on the other hand found that at 0.05 level, trust is significantly associated with contract performance in Ugandan public procuring and disposing entities.

### 6.4.2 Excellent communication and contract performance

The Table-2 shows that there is a strong positive relationship ( $r=0.661$ ) between excellent communication and contract performance. In other to appreciate the causality relationship between the variable the regression coefficients table (Table-5) shows that the variable excellent communication has regression coefficient of 0.419 which implies that if the variable excellent communication is increased by one, the contract performance is increased by 0.419. The Table-5 shows that Prob(t) of excellent communication at 0.05 significant level is almost zero(0.000) which implies that excellent communication is an indispensable parameter for the performance of contracts. This results confirm what Shaoling, Xinyan, Jiabao and Yunsheng (2013) found in China stating that relationship commitment and information sharing have a significant positive impact on contract performance. Maame (2012) confirmed also that poor communication had resulted in project delays, project cost overrun and project abandonment in Ghana construction projects. The objective of this study was to assess the effect of mutual trust and excellent communication on the project contract performance in PAIRB. Based on the findings, mutual trust and excellent communication have a positive effect on contract performance. This is illustrated by the fact that those variables (mutual trust and excellent communication) registered a moderate positive correlation with the contract performance. Regarding the influence of mutual trust on contract performance in PAIRB, if mutual trust is increased by 1% it causes the contract performance to increase by 0.452% other parameters remaining constant, whereas the increase of 1% in excellent communication causes an increase of 0.419% in contract performance. Regarding prediction of contract management, the contract performance may be predicted by the variables mutual trust and excellent communication at 64.9%. The remaining 35.1% are caused by other parameters beyond this research.

This study gives the idea of implication of mutual trust and excellent communication in contract management and it is appropriate to make following recommendations: Project managers and other people involved in contract management should consider their relationship with service providers and enhance the mutual trust between

them in other to improve the performance of contract thus the success of the projects under their responsibility ; where possible each project must have a person in charge of relationship, even though each employee must keep clean the image of the project by promoting and maintaining good relationship with service providers. It is critical for the project managers and decision makers to consider the issue of communication with seriousness. For this the information must be shared between the project and the service providers and this should be stipulated in the binding contract. And the contract must be in the common language of both parties. This research focused only on two parameters to predict the contract performance; therefore, further researches are needed for other parameters which may influence the contract performance.

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