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EFFECTS OF VIRTUAL TEAMWORK ON THE PROJECT EXECUTION IN RWANDA: (A CASE OF HIV AIDS PROJECT, GLOBAL FUND RWANDA)

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Abstract: **The Virtue Teams are geographically dispersed groups that work without necessarily being in one place or having to meet face to face. They use Information Technology tools (e.g. Video and sound call tools, Emails and websites, Databases and service platforms assisted by Servers etc)to coordinate and exchange information and hence Effective Research and Development for Project success. Virtual teams offer rapid solutions to Complex organizational Problems. Virtual teams enable organizations to gather Talents and expertise of internal members and different Stakeholders of a Project being undertaken while eliminating Time and distance barriers. The purpose of the research was to assess the effect of virtual team work on the proje Execution in Rwanda. Specific objectives was to evaluate to determine the effectiveness of virtual team working on project execution in Global fund Rwanda, to find out the benefits of virtual team on project execution in Global fund Rwanda, to identify factors hampering effective virtual team working on project execution in Global fund Rwanda and to analyze the contribution of virtual team behavior and attitude on project execution in Global fund Rwanda. The research used descriptive research design. The population of the study was 53 from Global Fund project and since the population was small a census was used. Primary data was collected using a structured questionnaire. Data was collected, analyzed and tested using descriptive statistics and Pearson Coefficient Correlation method. The data reveled that there is a significance relationship between effectiveness of virtual team working on project execution with a significant of 0.7. The study also revealed that benefits of virtual team on project execution with a significant of 0.6. Hence the researcher recommended that the government and its partners that virtual Teams is therefore appropriate particularly for the Global fund project since it relies on people who work and live in different parts of the world.**

Keywords: **Virtual teams, organizational Problems, HIV AIDS PROJECT, Global fund Rwanda.**

1. INTRODUCTION

1.1 Background of the study:

Over the last decade, Globalization and Technological advancement have led to increased use of virtual team. A Virtual team (also known as Geographically Dispersed Team) is a group of individuals who work across organizational boundaries, space and time and linked by strengthened by webs of communication technology (Bal, 2001).

The emergence of effective and relatively cheap information and communications technology (ICT), particularly web-based techniques, has led to the increased use of so-called “virtual teams.” While almost all the challenges associated with traditional teams present for virtual teams, they also have additional challenges resulting from reduced face-to-face communication and lack of community among participants (Danton, 2006). Virtual teams can be assembled on a “need basis” to collaborate on projects (Andres, 2002; Jarvenpaa, Knoll, & Leidner, 1998), particularly utilizing the skills of the employees who are geographically dispersed.

They have complementary skills and are committed to a common purpose, have interdependent performance goals and share an approach to work for which they hold themselves mutually accountable (Peterson & Stohr, 2001).

Virtual teams are important mechanisms for organizations seeking to leverage scarce resources across geographic and other boundaries (Munkvold and Zigurs, 2007).

Virtual teams have evolved as an approach to make it possible for individuals to work together without spending time face-to-face.

As compared to traditional, face-to-face teams, the successful use of virtual teams also provide organizations with significant savings in terms of the travel time and costs, Meeting Venues, living costs and other costs associated with face-to-face meetings. They have the potential to provide more flexibility and responsiveness and better resource utilization for the organization (Kanawattanachai and Yoo, 2007).

Founded in 2002, the Global Fund is a partnership between governments, civil society, the private sector and associations of HIV/AIDS, TB and MALARIA projects. The Global Fund aspires to contribute substantially to international goals by saving 10 million lives and preventing 140-180 million new infections from HIV/AIDS, TB and MALARIA between 2012 and 2016. Performance-based funding is one of the core principles of the Global Fund. This simply means that funding is dependent upon proven results measured against time-bound targets. Performance-based funding promotes accountability and provides an incentive for recipients to use their funding as efficiently as possible (Global fund, 2015).

In order to ensure that countries receive best possible technical support and timely guidance, Global fund has launched web platforms dedicated to project support.

These online platforms aim at bringing together top experts into Virtual Teams that are able to provide high quality on-line advice to countries as they work through the project execution process. Global fund embraces the concept that team members engage and execute projects with limited or no direct physical interaction with other members, allowing the project to draw on the widest talent pool available among their global employee base. Teams typically never meet face-to-face and conduct different project tasks using Internet or GSM assisted Technologies to work, communicate, hold virtual meeting and make different project adjustments (Global fund, 2015).

While the Global fund views virtual teamwork as a significant approach towards pooling the talents and expertise of employees regardless of their location they strive to overcome time and distance barriers in order to accomplish critical tasks quickly and effectively.

Among other things, little is still known about Virtual Teamwork towards project execution, hence this sets serve for the basis for this study, taking a case study of Global fund project Rwanda.

1.2 Statement of the Problem:

In recent years, organizations have increasingly turned to virtual teams as a means of connecting and engaging geographically dispersed workers, lowering the costs associated with global collaboration and enabling greater speed and adaptability. Despite its goals to Fight AIDS, Tuberculosis, and Malaria and the goal of achieving an AIDS-free generation, in 2011 the Global Fund was criticized for not having sufficient systems in place to attract expertise human resource at the country level (Stanton, 2013).As a result, the Global Fund subsequently embarked on a restructuring mission to address these issues. A high-level review panel called for a set of specific organizational and managerial improvements in the Global Fund's practices, this restructuring has allowed the Global Fund to adopt virtual team working. However, since the introduction of virtual team, no studies have been conducted to assess how this restructuring has allowed the Global Fund to be more responsive to country needs and to align more closely with global goals of zero new HIV infections, zero AIDS-related deaths and zero discrimination. Therefore, this study seeks to assess virtual teamwork on project execution with a case study of Global fund project Rwanda.

1.3 Objectives:

1.3.1 The General objectives:

The main objective of this study is to assess the effect of virtual team work on the Project execution in Rwanda.

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1.3.2 The specific objectives underlying this study are:

i) To determine the effectiveness of virtual team working on project execution in Global fund Rwanda.

ii) To find out the benefits of virtual team on project execution in Global fund Rwanda.

iii) To identify factors hampering effective virtual team working on project execution in Global fund Rwanda.

iv) To analyze the contribution of virtual team behavior and attitude on project execution in Global fund Rwanda

1.3.3 Research questions:

The study is set to answer the following research questions;

i) To what extend do virtual teamwork affect project execution in Global fund Rwanda projects?

ii) What are the benefits of virtual team on project execution in Global fund Rwanda?

iii) What are the factors hampering effective virtual team working in Global fund Rwanda?

v) What is the contribution of virtual team behavior and attitude on project execution in Global fund Rwanda?

1.4 Scope of the study:

1.4.1Geographical scope:

This study will take place in Global fund project, Ministry of health, Kigali Rwanda.

1.5 Significance of the study:

The usefulness of this study is that, it would show the Human Resource policy makers of Global fund on how best to manage virtual teams in order to improve the performance of Global fund project in all countries around the world. The study also would show Rwanda Global fund project how to manage virtual team for increased performance of the project.

1.6 Conceptual framework:

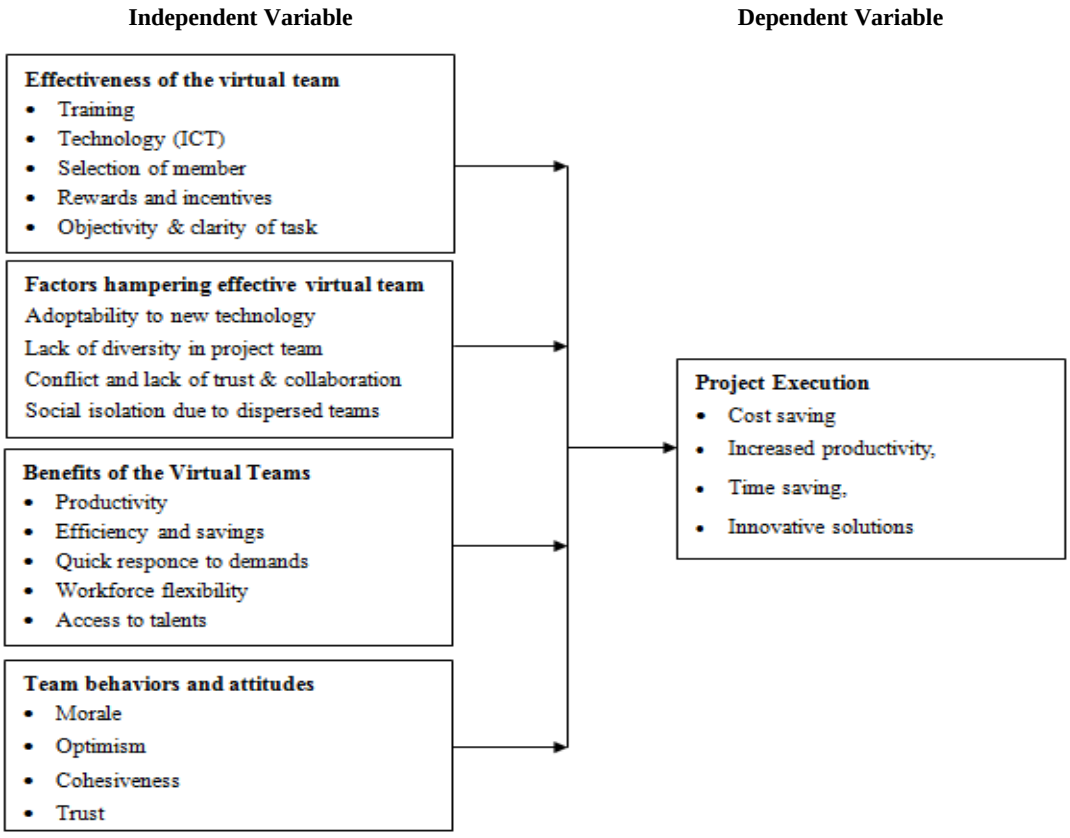

Figure 1: Conceptual Framework

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2. RESEARCH METHODOLOGY

2.1 Research Design:

This study used descriptive research design.

2.2 Target population:

The target population considered in this study was drawn from Global fund project Rwanda. Therefore a total of 53 respondents, disaggregated into 16 senior managers and 37 staff from Global Fund project will constitute the total population for the purposes of this study.

2.3 Sampling size and procedure:

Since the population was small, census method was used.

2.3.1 Sample size:

The study used a Census Method on selected Population

Table 2.1: Sample technique

No	Category	Number
1	Project coordinators	2
2	Project directors	2
3	Senior program officers	5
4	Public health Officers	8
5	Secretaries	6
6	Administrative assistants	6
7	M&E specialist	9
8	Procurement officers	4
9	Communications Officers	5
10	I.T. officers	6
Total		**53**

2.3.2 Sampling Procedure:

The study adopted a Census. The Census was used to select the respondents. Respondents was selected randomly using a lottery method.

2.4 Data Collection Instruments:

Data were collected using different instruments. Hence the use of:-

2.4.1 Questionnaires:

The researcher employed self-administered questionnaires.

2.5 Data Management and Analysis:

The data collected and summarized, coded and tabulated. Means, standard deviations and frequency distribution were used to analyze data. Data presentation was done by the use of frequency tables for easy understanding and interpretations. Linear regression was used to establish the relationship between the independent and dependent variables. The multiple linear regression equation that used for this study is: $Y= \beta 0 + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + e$.

Where: Y represents the dependent variable which is Project Execution , $\beta 0$ represents Constant,X_1 represents Team behaviors and attitudes ,X_2 Benefits of the Virtual Teams , X_3 Factors hampering effective virtual team,X_4 Effectiveness of the virtual team , β_1; β_2; $\beta_3$represent regression coefficient and e represents the error term.

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3. RESEARCH FINDINGS AND DISCUSSION

3.1 Descriptive statistics:

3.1.1 Effective of the virtual team on project execution:

Table 3.1: Mean and standard deviation per variable

	N	Minimum	Maximum	Mean	Std. Deviation
Training	53	3.00	5.00	4.4059	.56372
Technology	53	3.00	5.00	4.3305	.66385
Selection of member	53	3.00	5.00	4.4435	.63175
Reward and incentives	53	2.00	5.00	4.3640	.67777
Objectivity and clarity of task	53	2.00	5.00	4.4340	.64543
Valid N (listwise)	53				

The study used 5 point Likert scale statements from strongly disagree to strongly agree by ascendant order. The Table 3.1 shows the descriptive statistics namely min, max, mean and standard deviation for each variable. For variables training, technology, selection of member, reward and incentives and objectivity and clarity of task, the minimum was 3 and the maximum was 5 which means that none of respondents disagreed nor strongly disagreed with the statements, rather they agreed and strongly agreed with the statement but some of them were undecided regarding the statements.

The mean for those four variables varies from 4.3 to 4.4 which means that many of the respondents strongly agreed with the statement regarding each variable. For the variable reward and incentives and objectivity and in the clarity of task of Global fund Rwanda projects, the min was 2 and the max was 5; this implies that among respondents, some disagreed with the statement and some were undecided. The mean in this case was 4.3 which show that a great number agreed and strongly agreed with the statement regarding reward and incentives and objectivity and clarity of task of Global fund Rwanda projects. The mean varies from 4.3 to 4.4 which means that many of the respondents agreed with the statement. The standard deviation varies from 0.56 to 0.67. This means that there was a certain degree of heterogeneity in the answers of respondent.

3.1.2 Effective of the factors hampering effective virtual teamwork on project execution:

Table 3.2: Mean and standard deviation per variable

	N	Minimum	Maximum	Mean	Std. Deviation
Adoptability to new technology	53	3.00	5.00	3.9899	.42456
Lack of diversity in project team	53	2.00	5.00	3.9305	.59381
Conflict and lack of trust & collaboration	53	3.00	5.00	4.0495	.59178
Social isolation due to dispersed teams	53	3.00	3.00	4.1440	.68997
Specialized skills participation	53	3.00	5.00	4.4340	.54521
Valid N (listwise)	53				

The study used 5 point Likert scale statements from strongly disagree to strongly agree by ascendant order. The Table 3.2 shows the descriptive statistics namely min, max, mean and standard deviation for each variable. For variables Adoptability to new technology, Lack of diversity in project team, Conflict and lack of trust & collaboration, Social isolation due to dispersed teams and Specialized skills participation, the minimum was 3 and the maximum was 5 which means that none of respondents disagreed nor strongly disagreed with the statements, rather they agreed and strongly agreed with the statement but some of them were undecided regarding the statements.

The mean for those four variables varies from 3.9 to 4.4 which means that many of the respondents agreed and strongly agreed with the statement regarding each variable. For the variable Lack of diversity in project team of Global fund Rwanda projects the min was 2 and the max was 5; this implies that among respondents some disagreed with the statement and some were undecided. The mean in this case was 3.9 which show that a great number agreed and strongly agreed with the statement regarding reward and incentives and objectivity and clarity of task of Global fund Rwanda

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projects. The mean varies from 3.9 to 4.4 which means that many of the respondents agreed with the statement. The standard deviation varies from 0.42 to 0.68. This means that there was a certain degree of heterogeneity in the answers of respondent.

3.1.3 Benefit of the virtual teamwork on project execution:

Table 3.3: Mean and standard deviation per variable

	N	Minimum	Maximum	Mean	Std. Deviation
Productivity	53	3.00	5.00	4.4051	.56372
Efficiency and savings	53	3.00	5.00	4.3205	.66385
Quick response to demands					
Workforce flexibility	53	2.00	5.00	3.3242	.54565
Access to talents	53	3.00	5.00	4.4344	.57543
Valid N (listwise)	53				

The study used 5 point Likert scale statements from strongly disagree to strongly agree by ascendant order. The Table 3.3 shows the descriptive statistics namely min, max, mean and standard deviation for each variable. For variables training, technology, selection of member, reward and incentives and objectivity and clarity of task, the minimum was 3 and the maximum was 5 which means that none of respondents disagreed nor strongly disagreed with the statements, rather they agreed and strongly agreed with the statement but some of them were undecided regarding the statements. The mean for those four variables varies from 4.4 to 3.3 which means that many of the respondents agreed and strongly agreed with the statement regarding each variable. For the variable productivity, Efficiency and savings, quick responses to demands, workforce flexibility and access to talents of Global fund Rwanda projects the min was 2 and the max was 5; this implies that among respondents some disagreed with the statement and some were undecided. The mean in this case was 4.3 which show that a great number agreed and strongly agreed with the statement regarding Workforce flexibility.

The mean varies from 4.3 to 3.3 which means that many of the respondents agreed with the statement. The standard deviation varies from 0.54 to 0.66. This means that there was a certain degree of heterogeneity in the answers of respondent.

3.1.4 Team behaviors and attitude on project execution:

Table 3.4: Mean and standard deviation per variable

	N	Minimum	Maximum	Mean	Std. Deviation
Morale	53	3.00	5.00	4.3058	.54371
Optimism	53	3.00	5.00	3.9305	.65375
Cohesiveness	53	3.00	5.00	4.6435	.53165
Trust	53	2.00	5.00	3.8640	.47777
Valid N (listwise)	53				

The study used 5 point Likert scale statements from strongly disagree to strongly agree by ascendant order. The Table 3.4 shows the descriptive statistics namely min, max, mean and standard deviation for each variable. For variables training, technology, selection of member, reward and incentives and objectivity and clarity of task, the minimum was 3 and the maximum was 5 which means that none of respondents disagreed nor strongly disagreed with the statements, rather they agreed and strongly agreed with the statement but some of them were undecided regarding the statements. The mean for those three variables varies from 4.3 to 3.8 which means that many of the respondents agreed and strongly agreed with the statement regarding each variable. The mean in this case was 4.1 which show that a great number agreed and strongly agreed with the statement regarding team behaviors and attitude on Project Execution in Global fund Rwanda projects. The mean varies from 4.3 to 3.8 which means that many of the respondents agreed with the statement. The standard deviation varies from 0.65 to 0.47. This means that there was a certain degree of heterogeneity in the answers of respondent.

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3.1.5 Frequencies and percentages:

Table 3.5: Frequency and percent table

Effectiveness of the virtual team					
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Undecided	2	3.8	3.8	3.8
	Agree	28	51.9	51.9	55.6
	Strongly agree	26	44.4	44.4	100.0
	Total	53	100.0	100.0	

Factors hampering effective virtual team					
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Undecided	6	10.9	10.9	10.9
	Agree	24	45.2	45.2	56.1
	Strongly agree	23	43.9	43.9	100.0
	Total	53	100.0	100.0	

Benefits of the Virtual Teams					
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Undecided	4	7.5	7.5	7.5
	Agree	22	40.6	40.6	48.1
	Strongly agree	27	51.9	51.9	100.0
	Total	53	100.0	100.0	

Team behaviors and attitudes Analysis				
	Frequency	Percent	Valid Percent	Cumulative Percent
Undecided	5	8.5	7.5	7.5
Agree	28	52.5	40.6	48.1
Strongly agree	22	42.0	51.9	100.0
Total	53	100.0	100.0	

This table above shows the frequencies and percentages of responses from respondent. The answers are from 1 up to 5 from strongly disagreed to strongly agree. For the variable team competencies, (3,8% of respondent) were undecided regarding the statements, (51.9%) agreed with the statement while (44.4%) strongly agreed with the statements which show that team competencies has a positive effectiveness of virtual team on project execution. This is in line with the findings from correlation analysis (Table 3.5).

The table shows also that 10.9% respondents were undecided vis a vis the statements regarding team behavior & attitude, while 45.2% respondents agreed with the statements and 43.9% respondents strongly agreed with them. This also showed the relationship between team behavior & attitude and project execution as demonstrated by correlation analysis (table 3.5). Concerning the variable factors hampering the effectiveness of virtual team 7.5% respondents were undecided vis a vis the statements, 40.6% (97 respondents) agreed with the statements while 51.9% respondents strongly agreed with the statement which means that there is a causal link between factors hampering the effectiveness of virtual teams and success of projects.

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3.2 Inferential statistics:

Table 3.6: Pearson correlation coefficient

Project Execution	Analysis	Effectiveness of the virtual team	Factors hampering effective virtual team	Benefits of the Virtual Teams	Team behaviors and attitudes	Project Execution
Effectiveness of the virtual team	Pearson Correlation	.675	.629	.543	.577**	1
	Sig. (2-tailed)	.000	.000	.000	.000	.000
	N	53	53	53	53	53
Factors hampering effective virtual team	Pearson Correlation		1	.221		.712**
	Sig. (2-tailed)	.000	.000	.000	.000	.000
	N	53	53	53		53
Benefits of the Virtual Teams	Pearson Correlation			1		.662**
	Sig. (2-tailed)					.000
	N	53		53	53	53
Team behaviors and attitudes	Pearson Correlation			1	0.577	.662**
Project execution	Sig. (2-tailed)					.000
	N	53		53	53	53

The table 3.6 shows that there was a very strong positive relationship between effective of the virtual team and project execution at a significance level of 0.01; The Pearson correlation coefficient between them is .777. The strong positive relationship has been observed between team behavior & attitude and project execution at a significance level of 0.01. The Pearson correlation coefficient between them was .712. Lastly a moderate positive relationship at 0.01 level of significance has been observed between factors affecting virtual teamwork and project execution with r=.662. The next table 3.6 helped appreciating how much the model contributed to project execution.

3.2.1 Coefficient of determination analysis:

Table 3.7: Coefficient of determination

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.811[a]	.657	.653	.39921
a. Predictors: (Constant), Effectiveness of the virtual team, factors hampering virtual team, Team behavior and attitude and benefit of the virtual team				

The table 3.7 helped to appreciate how much the model as a whole contributed to project execution. The coefficient of determination (R^2) of 0.657 means that 65.7% of the variation in project execution is caused by effectiveness of the virtual team. Only 34.3% of the variation in project execution is not explained by the model. In order to assess if the model is a good fit for the data the p-value given by the analysis of variance (ANOVA) was computed and results are shown in next Table-3.7

Table 3.8: significance of the model

ANOVA[b]						
Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	71.880	3	23.960	150.347	.000[a]
	Residual	37.451	235	.159		
	Total	109.331	238			
a. Predictors: (Constant), Effectiveness of the virtual team, factors hampering virtual team, Team behavior and attitude and benefit of the virtual team.						
b. Dependent Variable: Project execution						

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The table 3.8 shows that the p-value for the overall regression relationship was (p = .000), this value is much less than the level of significance of 0.05. which means that there is almost zero chances over one thousand that the model as a whole can be removed from predictors without affecting the project execution. This indicates that there was a statistically significant effect of virtual team on project execution. In order to know the contribution of each independent variable to the prediction of IT project performance.

The following Table-3.8 shows the coefficients of the model. In order to appreciate statistically how much the change in value of one independent variable affected the success of project execution while variables remained constant, the regression coefficients have been calculated and answers are shown in table 3.8

3.2.2. Regression coefficient analysis :

Table 3.9 : Regression coefficients

Coefficients[a]						
Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Independent Variable)	-.028	.211		-.133	.894
	Effectiveness of the virtual team	.561	.080	.467	7.034	.000
	Factors hampering virtual team	.293	.058	.287	5.066	.000
	Team behavior and attitude	.147	.062	.137	2.360	.019
	Benefit of the virtual team	.234	.061	.134	2.24	.000
B). Dependent Variable: Project execution						

The Table-3.9 shows the beta coefficients of the model. It helps to appreciate how much every independent variable contributes to the prediction of the dependent variable. One should notice that the p(t)>0.05 for all variables which means that every independent variable count in this model. From the table above the regression equation may be written as follow:

$Y= \beta_0+\beta_1X_1+\beta_2X_2+\beta_3X_3+ \beta_4X_{4+}\varepsilon$

$Y= -.028+0.561X_1+0.293X_2+0.147X_3+0.234X_4+0.399$

The regression model demonstrates that a unit increase in effectiveness of the virtual team increases Project execution by 0.561 units, while other variables remain constant. One unit increase in Team behavior & Attitude would increase project execution by 0.293 units if other variables remain constant.

Finally, a unit change in factors hampering virtual team would increase project execution by 0.147 units, while other variables stay constant.

3.2.3 Effectiveness of the virtual teamwork on the project execution:

The coefficient of correlation between Team competencies and success of project execution equal to 0.777 (Table-4.4) and is significant at 0.01 level which means that there is a strong (Deborah, 2016) positive relationship between team competencies and success of project execution. The regression analysis (Table-4.7) helped to appreciate statistically the influence of team competencies to predict the success of project execution. The regression coefficient of the variable team competencies is 0.561. The value of this coefficient means that if the variable team competencies were increased by one unit, it would have caused the success of project execution to increase by 0.561. P-value for team competencies is 0.000 which means that there is almost zero chance in 1000 that the parameter team competencies be zero, which implies that the term of the regression equation containing the parameter team competencies cannot be eliminated without significantly affecting the accuracy of the regression.

These results are in harmony with those of Smith et al(2013) who concluded that when the project team possesses professional, technical and social competencies; the project has a very high probability to achieve its intended objectives and goals (Smith et al, 2013). They are also in line with the findings of Bradley et al, (2007) who proved that team competencies is relevant to the achievement of the project's goals, milestones, and objectives, as defined by the project's requirements outlined by the owner; whereas, success is closely associated with how sound the task work and teamwork are completed.

3.3 Team behavior, attitude and success in a project:

According to the table 4.3 there is a strong positive correlation between team behavior & attitude and success of project execution. The Pearson correlation coefficient between them was .712. The regression coefficient for the variable team behavior & attitude was .293 this implies that if team behavior & attitude was increased by one unit, the success of project execution would have increased by 0.293 at the condition other variables remaining constant. The observation of the p-value of this variable (team behavior & attitude) indicated that it is a very important factor in predicting success of project execution. These results are in line with those of (Haggard, 2013) who found that the efforts to promote team spirit, positive attitudes characterized by high level of optimism and a culture of excellence in project management were designed to create a very positive working environment throughout the whole project and to help employees to feel healthier and perform their jobs effectively.

3.3.1 Factors hampering effective virtual teamwork and projects execution:

The Pearson correlation coefficient computed (.662) showed that there is moderate positive correlation between factors hampering effective virtual team and project execution. The β coefficient for factors hampering effective virtual team (.147) implies that if this variable is increased by one unit, it will cause the success of the project execution to increase by 0.147 units if other variable stay constant. The observation of p-value allow to conclude that the variable factors hampering effective virtual team is of great importance in success of project and particularly in the case of project execution because there is only 19 chances over 1000 that the project may succeed without factors hampering effective virtual team. These findings have similarity with those of Yang et al (2011) who found that effective project factors hampering effective virtual team is crucial in order for the objectives to be achieved since it helps to build team synergy that result in productive, collaborative efforts which in turn lead to project performance.

4. SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

4.1 Summary:

4.1.1 Effectiveness of the virtual teamwork on project execution:

The first objective was to determine the effect of the virtual team and project execution of Project execution. The study showed that there is a strong positive correlation between effective of virtual team and Project execution. The Pearson correlation coefficient was .777. In other to determine statistically the effectiveness of virtual team on Project execution, the regression coefficient has been carried out and the β coefficient for this variable in the model was .561 which implies that if the team effectiveness are increased by one unit, the project execution will be increased by 0.561 units. The p-value for the variable team effectiveness was .000 which confirms the capital importance of this variable in project execution.

4.1.2 Team behavior, attitudes and success in a project:

The second objective for this study was to assess the effect of team behavior and attitude on project execution. The correlation analysis demonstrated that there is strong positive relationship at 1% level of significance with r = .712. In order to assess statistically the effect of team behavior and attitude on project execution the regression analysis has been processed and the β coefficient showed that an increase of one unit in team behavior & attitude would increase the project execution by .293 unities. The p-value (.000) for this variable demonstrated that this factor is very important in prediction of project execution.

4.1.3 Factors hampering effectiveness of virtual teamwork on projects execution:

The third objective for this study was to analyze the factors hampering effectiveness of virtual team on project execution. The correlation analysis helped to demonstrate that there is a moderate positive relationship between these two variables at a significance level of 1% with r = .661. The regression analysis showed that the β coefficient for the factors hampering effectiveness of virtual team was .149 which means that if there is an increase of one unit in this variable, it will cause the project execution to increase by 0.149 units if other variable remain constant. Moreover the p-value demonstrated that this variable is indispensible in predicting the project execution because there was only 1.9% chance that Project execution would succeed without the factors.

4.2 Conclusions:

Virtual teams offer cost savings, flexibility and many other benefits, but they also create various challenges, particularly associated with effectiveness of the virtual teams and team behaviour and attitude . Lack of project visibility, failure to see emotional aspects of members, difficulty in contacts, technology constraints, and so forth are all associated with ineffectiveness of virtual team. Problems resulting from miscommunication should be avoided through precise and effective communication; this can be facilitated by more complex and interactive communications technologies that are growing in popularity. It is also apparent that the management of virtual teams requires skills that differ from those required for the management of co-located project teams. That is, it is a challenge for leaders who are more comfortable and familiar with traditional face-to-face interactions to manage virtual team projects. In the virtual environment, it is difficult to monitor performance of team members and implement solutions, as well as develop team members through mentoring and coaching. Furthermore, team members are remote from other team members and co-located supervisors.

In this environment, trust, shared understanding, and depth of relationships among team members serve as important antecedents for virtual collaboration (Peters & Manz, 2007, p. 124). The study also shows that virtual teams for projects can be established using the existing personnel of an organization, even though project-specific activities often require skills that differ from those required of personnel in undertaking their ordinary day-to-day activities.

However, the leadership of such teams requires high-level communication and coordination skills if the work of team members is to be harmonized effectively.

4.3 Recommendations:

After analysis and interpretation of data, the researcher came up with the following recommendations To Whom It May Concern especially to project managers: Project managers must base the recruitment of staff on competencies and enhance the competency level of the staff by providing adequate trainings to them. Project managers must pay attention to the behavior and attitude of their subordinate and know every employee individually so that they could manage their behavior and this will increase the success of the project under their responsibility.

4.3.1 Suggestions for further research

This research has been limited on Global fund Project in Rwanda; other similar researches may be done in other projects and locations to confirm or to contradict the findings.

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