Project Communication a Dimension for Improved Project Performance: The Case of Selected Public University Projects

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Abstract

Achieving successful project performance is still a challenge in Uganda, though it can be improved through proper Project communication which clarifies project task and enables stakeholders to be wholly involved in the projects. However, despite the importance of project communication many projects in higher institutions have not performed to their expectations. Therefore, the purpose of the study was to examine the relationship between project communication and project performance in Public Universities in Uganda. A cross sectional survey design was used in this study to provide an in-depth investigation of the relationship between the variables. In order to achieve the objectives, a correlation design was adopted to determine relationships between different variables and the questionnaires were formed on that basis. Quantitative data was collected and analyzed and study results revealed a positive significant relationship between project communication and project performance ($r = 0.577**$, $p<0.01$) which implies that when communication increases project performance is enhanced.

Keywords: communication, performance, Kampala, communication networks

1.0 Introduction

In proposition to transform the Uganda's economy into middle income status, and achievement of the measured proposed vision 2040, the Ugandan Government highlighted education as part of its key drivers to growth. The government embarked on a number of projects in the education sector and more specifically in the institutions of higher learning to help build competition, technology, and development of the entire sector. Unfortunately most project performances rank below standards, have challenges related to completion time, out of scope, over shoot budgets, short of quality expectations, and in the extreme cases they have faced total shut down (MOFPED, 2015). Proper project performance is as the ability to complete the project according to desired specifications, within the specified budget and time schedule while keeping the customers and other stakeholders happy (Cella, Dymond, Cooper, & Turnbull, 2007). Communication clarifies project tasks, creates teamwork and gets all stakeholders involved in the running of the project (Ssenyange 2011). Maintaining effective communication with the project team over time raises the quantity of social ties amongst the different stakeholders, (Nangoli and Ahimbisibwe, 2012). Although not always a key focus for most project managers, communication is needed especially in the early stages of most projects as an interaction pattern among project members, to establish understanding, trust, build coordination and support from a variety of project personnel (Nangoli & Ahimbisibwe, 2012, Zhong&Low's 2009, Van Vuuren et al, 2006). Despite the issue of project communication being key in fostering project success, around 80% of projects embarked on in most institutions of higher learning in Uganda have not lived to their expectations. Specific projects like DATAD in Makerere University library intended to ease the retrieval of information online failed just within 3 weeks after installation as users failed to access the web poster (Kigozi, 2003). The Socket works information technology project in Makerere University Business School intended to enable on line admission, registration failed completely (Ad-hoc committee of Mubs council 2008). The perimeter wall project in Makerere University failed (PPDA report, 2007). CEMAS an information Technology project in Makerere University intended to manage the entire education information system, though still being installed the completed sections have so far registered great failures than anticipated successes (Christopher, 2016).

It is probable that these failures and inefficiencies of most University projects is due to their inability to address communication aspect (Zhong&Low's 2009, Baker, 2015 Van Vuuren et al, 2006), hence the need for this research to establish the relationship between project communication and project performance in Uganda's public universities, narrow down to failed projects and establish if these failures are attributed to communication challenges between the projects stakeholders, and consequently create meaningful interpretation of findings; making it easy for project managers and researchers to make correct conclusions and draw implications for project success and failures within Universities. The rest of this paper is as follows, review of relevant literature, development of hypothesis, followed by methodology and results from data analysis. Implications, limitations and recommendations for future research are also provided

2.0 Literature Review

In a project environment, it is exemplary for people to communicate with each other to enable the execution of planed tasks with certainty right through the project life cycle. (Nangoli & Ahimbisibwe, 2012**).** With effective communication relating to how project information is availed in the right format, at the right time, and with the

right impact to the project stakeholders. (Priyadharshini & Satheesh, 2015). Project communication is gaining prominence as a way of referring to information exchanges particularly intended to create understanding, effectiveness and eventual impact on project performance. (Ruuska,1996; Nangoli et al., 2012; Nangoli, 2010; Ramsing 2009). Research has revealed that projects involve unique coordinated activities and resources, which calls for a project manager's unique skill in communication in order to lead and control unique set of activities and resources for the project to attain its set performance goals (Goczol and Scoubeau, 2003; Maylor, 2005). Additionally Cornelissen (2006) examined communication and project success and results revealed that Project communications is a key factor in project performance; he argues that effectiveness in communication ensures timely and appropriate collection, dissemination, storage, and ultimate disposition of project information among project stakeholders. With exultant projects being those that meet desired beneficiary specifications within specified budget and time schedule therefore, to achieve efficient project outputs there is need for the application of knowledge, skills, tools, and techniques to project activities at each stage of project development (Effy&Sosik, 2000, Cella et al, 2007).). According to Hargie&tourish, (2009), in order for project managers to establish whether the project is on the right track and moving towards achieving its goals, he calls for an evaluation of the communication practices. Audits into the different internal and external communication practices help improve the overall project communication. Several researchers have measured the level of communication both within organizations and on projects using the communication audit survey developed by (Goldhaber& Rogers, 1979). This tool is viewed as the most comprehensive in trying to measure all aspects of communication systems in an organization (Hargie & Tourish, 2000). It covers the researcher's scope in project communication extensively, with a total of 122 questions covered within the 8 sections of the questionnaire, addressing issue relating to amount, of information, timelines of information, communication relationship, follow up and satisfaction with the level of outcome. Several researchers have been credited the tool with interesting features like being able to compare actual and ideal situation, having both face validity and predictive validity, and being very comprehensive in all aspects (ICAC, 2000, Nangoli, 2010, wilihnganz, 1988). With a number of studies adopting this tool extensively, for example Downs & Adrian, (2004) used it in weighing to employee perceptions of their organization internal communication practices, Wulandari, (2010) used in measuring the relations that exist between trust communication, and employee satisfaction, it has certainly proved to be an efficient tool in measuring project communication.

With studies proving that the core of project communication is the individuals plus their personal capacity to communicate, this brings in a new dimension of training staffs in communication skills. Herkt (2007) argues that the core difference between very successful projects and less successful projects is in the ability of project manager's development of interpersonal skills. A project manager's major responsibility should be executing decision making and building efficient mutual relationships among a diverse group of project stakeholders (Herkt, 2007; Parkin, 2007). In agreement Schein (1996) insists that its only through communication that information is shared to provide a fundamental understanding of the tasks that are to be performed as well as the goals to shot at, since most project are always undertaken by people from various ethnic complexities and attitudes. Ng et al., (2006) adds that effectual communication creates a feeling of responsibility within a person and the tasks he has been allocated to accomplish, making it possible for members and various stakeholders on the team to act without much supervisory control. Additional Varona, (1996) contends that communication drives people to work and collaborate with each other to achieve asset targets. Since projects involve people of different qualities and desires, the greater the level of communication in a project the higher the level of teamwork and performance of projects. Basing from this discussion its evident that communication positively impacts on project performance and eventual success; it's upon this that we want to assess whether the registered failures in public universities project can be attributed to failure in communication.

3.0 Methodology

To crosscheck our claims that project communication has an impact on project performance; we did investigate into the relationship between communication and project performance. Our study adopted a cross sectional and quantitative survey design, correlation and regression analysis was used to establish the relationship between dependent and independent variable and the extent to which the predictor variable explains changes in the dependent variable. The study population was 150 government and donor funded projects in 5 Public universities, in the last four years, including Makerere University, Kyambogo University, Mbarara University, Gulu University and Makerere University Business School. A sample size of 127 projects was arrived at basing on Yamane's (1973) sample size selection approach, and in order to obtain and balance the samples stratified sampling method was employed, with each university acting as a stratum The researcher administered 127 structured survey questionnaires purposively selecting Estates Manager and project managers as the units of inquiry because of their vast experience and their involvement in running most of these projects, and of the 127 questionnaires issued 117 were deemed fit for analysis after data cleaning. The study also considered secondary data relating to communication, project completion time, cost, budgets, quality, project targets and the execution

of projects and the overall performance of projects were obtained from published University project performance reports, published articles, Text books, News papers and reports from of ministry of education and sports.

3.1 Measurement of variables

To measure project communication the study adopted the communication audit survey developed by Downs and Hazen (1977) and modified Goldhaber' (1979), it's a commonly used tool of late in measuring communication on projects since it broad based with 122 questions and 8 sections that can be tailor-made to capture each researchers aspect of the study.   Project performance was measured using time, project targets, quality, stake holder satisfaction as defined as the competence areas of a project performance measurement in the Project Management Body of Knowledge (PMBOK, 1996) and used by several researchers like (Nangol, 2010 Jaaza et al., 2015)

3.2 Validity and reliability

After development of the data collection instrument, validity and reliability analysis was conducted by employing the content validity index (CVI) and Cronbach's coefficient for each element of project communication and project performance. The validity test results were all above 0.70 deemed adequate (Anastasi, 1982). Reliability results for all the constructs were also above the recommended decisive position of 0.70 (Hair et al., 2009) as shown in Table 1.

Table 1 Reliability Coefficients

	Anchor	Cronbach Alpha Value	Content Validity Index
Project Communication	5 Point	0.952	0.818
Project Performance	5 Point	0.904	0.714

4.0 Results

The results of this study are reported and discussed in this section following the analysis of the collected data, all intending to answer the research question of looking for the relationship between project communication and project performance.

4.1 Sample Characteristics.

The findings showed that most of the respondents were Male (65.5%) and the female comprised (34.5%). This revealed some bit of gender imbalance in appointment of female employees to oversee university projects probably attributed to low levels of women in technical professions with in Uganda. On marital status, the findings indicate that majority of the respondents were married (56.6%) followed by single (37.2%) and lastly Divorced (6.2%).this figure shows a bigger percentage of married participating more in University projects and this is a true sign of maturity and responsibility. When it came to the tenure the findings revealed that majority of the respondents had spent 2-3 years in their respective positions (36.6%) followed by respondents who had spent less than 2 years (26.6%), those who had spent were 4-6 years (22.8%) and lastly respondents who had spent more than 6years (14.8%), this indicated that the average respondent was had spent 2-3 years (Mean =2.26) in the University implying that majority of the respondents were well versed with the way how projects were being run in their respective Universities and consequently qualified to answer the questions. On the highest level of education attained, the findings showed that majority of the respondents were Degree holders (59.3%) followed by masters' holders (26.9%) and lastly Diploma holders (13.8%). The findings further showed that the average respondent was a degree holder (Mean =2.13), meaning all the respondents were qualified and had the knowledge to understand and interpreter and supervise projects.

Table 2 Background Characteristics

		Count	Valid Percent	Min	Max	Mean	SD
Gender	Male	95	65.5				
	Female	50	34.5	1.00	2.00	1.34	0.48
	Total	**145**	**100.0**				
Marital Status	Single	54	37.2				
	Married	82	56.6				
	Divorced	9	6.2	1.00	3.00	1.69	0.58
	Total	**145**	**100.0**				
Tenure	Less than 2 yrs	38	26.2				
	2 - 3 yrs	53	36.6				
	4 - 6 yrs	33	22.8	1.00	4.00	2.26	1.01
	More than 6 yrs	21	14.5				
	Total	**145**	**100.0**				
Academic Level	Diploma	20	13.8				
	Degree	86	59.3				
	Masters	39	26.9	1.00	3.00	2.13	0.63
	Total	**145**	**100.0**				

 Source: Primary Data

4.2 Determinates of Communication Effectiveness

 In order to establish the effectiveness of communication in the selected projects and to establish those factors that play a great role out of the many in the attainment of the effectiveness in communication in the selected projects, factor analysis and determination of the mean of these factors was carried out and below is a table with the results

Table 3: Factor Analysis: Effectiveness of communication in the selected projects.

Factor Analysis: Effectiveness of communication in the selected projects.	Awareness	Information Flow
We are always kept well informed about what is going on in the project	.686	
Project targets are always explained in a meaningful way	.710	
Project team members have access to project information	.841	
Information with regard to the project is freely available	.798	
Project managers explain to me the pros and cons of the different activities in the running of the project	.797	
Am satisfied with the amount of information I receive from my supervisor		.633
All communications to stakeholders as regard to the project are timely		.747
Communication amongst team members is usually active and accurate		.598
Our Project targets are clearly communicated.		.688
Our stakeholders are happy with the communication channels we use to reach them		.858
Stakeholders are reliably informed of the progress of our projects		.812
Eigen Value	7.479	0.788
Variance %	67.988	7.165
Cumulative %	67.988	75.154
	Mean	**SD**
Awareness	3.37	0.82
Information Flow	3.17	0.89
Global variable Descriptive	3.24	1.01

Source: Primary data

The results showed Awareness and Information flow as key determinates of project communication with variances of 67.988% and 7.165% respectively. On awareness, it was noted that the essential issues had to do with ensuring that the employees are always kept well informed about what is going on in the project (.686) and in addition, Project targets should always be explained in a meaningful way (.710). With Information Flow, the findings showed that the most essential items on this component were to do with ensuring that communication channel used is most preferred by stakeholders and efficient wherever it's used (.858) and ensuring that stake holders are reliably informed of the progress in the project (.812). The findings further indicated that the level of project communication effectiveness was low (Mean =3.24) on a five point scale.

4.3 Correlation analysis/zero order matrix

The study objectives involved examining the relationship between the study variables, and the correlation results revealed that project communication is significantly and positively related to project performance (r = 0.577**, p<0.01) this shows that when communication increases project performance is enhanced. On the awareness component of communication, findings indicated that it is significantly and positively related to project performance(r=0.546**, p<0.01) which implies that the level of awareness is increased project will be finished on time and meet the set expectations. Findings further indicated that there is a positive relationship between information flow and project performance(r=0.637**,p<0.01).This implies that when there is timely communication to all project participants and stakeholders as regards to what is happening in the project , projects will perform as expected.

Table 4 Relationship between the Variables

	1	2	3	4	5	6	7	8
Awareness-1	1.000							
Information Flow-2	.839**	1.000						
Project Communication-3	.804**	.863**	1.000					
Project Performance-8	.546**	.637**	.577**	.639**	.665**	.468**	.623**	1.000

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

Source: Primary data

4.4 Regression Model

This model helped examine the degree to which the components of project communication can predict Project Performance, Regression test was run and the results are as shown in the table below.

Table 4 the Regression model

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
(Constant)	.250	.261		.959	.339
Project Communication	.271	.088	.256	3.098	.002
Dependent Variable: Project Performance.					
R Square	.470				
Adjusted R Square	.458				
Sig.	.000				

Source: Primary data

The findings in the regression table 7 show that the predictors Communication, can explain 45.8% of the variance in Project Performance (Adjusted R Square = .458). The remaining 54.2% was predicted by other factors outside the study. Project communication

(Beta = .271, sig. < .01).with awareness and information flow was noted to be better predictor of the project performance. The regression model was also valid (sig. <. 01)

5.0 Discussions

Arising from our study results, it's clear that project communication is significantly and positively related to project performance, indicating that improvements in project communication will clearly improve on project performance, which is in conformity with the findings and views raised by Laker (2007). Additionally project communication was also viewed as a good predictor of project performance. This is true because organizations and projects with proper information flow, and clearly awareness, will be in position to receive eventual project success. These findings are also in line with the arguments raised by Ramsing (2009) and Van Vuuren et al., (2006) who observed that effective communication clarifies project targets which in turn lead to teamwork and effective project performance. This point of view is also consistent with Baker (2007) who states that 95 % of all project challenges are due to poor communication and that project managers should have relevant communication skills to present facts, details, status, and project requirements in the most efficient way. Communication is paramount for projects to perform as planned especially when project participants and stakeholders are always and timely informed, through their most preferred channel. Therefore when communication is effective within the projects, all project participants and stakeholders will ensure that project expectations are realized. Overall project communication dimensions accounts for 45.8% variance in project performance, meaning that the remaining 55.2% are explained by precursors not addressed by this study, meaning that there are several factors that explain project performance. In a related case Johnson et al. (2001) described successful project performance as one that has to meet diverse functionalities including meeting planned time, budget, and other stakeholder functions, other than effective communication alone.

6.0 Conclusion

Our study area of project communication and project performance is not a new area, it has been widely studied in many countries including Uganda but less focus had been put on university projects. Our findings have brought in a new dimension of relating project communication to performance in university projects. Our

findings further revealed project communication being positively related, and a good predictor of project performance, this has provided an understanding to project managers that they need to put much emphasize on awareness and information flow to all the stakeholders for them to realize project success.   Similarly by the study findings revealing communication as a fundamental explainer for project success, and clearly citing information flow and awareness as a good dimensions for success, these results therefore signal to project managers to clearly develop efficient models of ensuring that information flows to all stakeholders without any barriers and also ensuring that project participants are also trained in communication skills to ensure good project performance.

7.0 Recommendation

To provide and endure with project success, project implementers should ensure that communication to all project participants and stakeholders as regards to what is happening is effectively conducted. A clear channel of communication preferred by the majority within the project should be used such that there are no complaints and conflicts developing during the project life cycle. Additionally Project managers should also orient employees on how project communication is going to be conducted, do thorough, analysis of information flow chats within the entire project, awareness campaigns concerning how the works should react to particular forms of communication, and ensuring that due feedback channels are well established. Finally in an attempt to have the best success on projects, there is also need to establish strong internal communication structures and processes to facilitate stakeholders to succeed in carrying out their tasks. Project information systems need to be developed, policy manuals and clear flow chats culture and above all making clear and proper communication as part of the organization culture.

8.0 Study Limitations and Areas for Further Study.

This study used a single research methodological approach and future research through interviews could be undertaken to broaden the perspective. The standard questionnaire limited the ability to collect views about information outside the standard questions. The study dimensions were realistically only proxies for an underlying embryonic phenomenon which may render them not very appropriate for studies. Further research should look at; 1) information sharing, risk management and performance of projects in Universities. 2) Teamwork, ethics and project performance in organizations. 3) Procurement management and performance of projects.

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