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ANALYSIS OF EFFECTIVE COMMUNICATION AND PROJECT SUCCESS: SURVEY ON ELECTRICITY ACCESS ROLL OUT PROJECT AT EDCL - EARP

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Abstract:

Effective communication strategies determined by an open meeting, communication through social network like emails, Facebook, twitter, what's app, and others network, it demands to talk one-on-one, effective training, information visually, personal presentation, give the report, presenting feedback and others. Project successful characterized by requirement fulfillment, within budget, within cost, customer satisfaction, and other benefits. The specific objectives of the study were the analysis of project communication strategies employed by EDCL-EARP; the extent to how be the project stakeholder involvement in EDCL-EARP; the relationship between communication strategies and success of EDCL-EARP; and effects of effective communication strategies with stakeholders on the project success in EDCL-EARP. The study applied qualitative and quantitative approaches; target population was 47 employees' team in EDCL-EARP. Findings showed 2.053 of mean of scheme communication strategies are reasonably used in EDCL-EARP, and its standard deviation outcomes showed 1.009 indicated the heterogeneity results for project communication strategies employed by EDCL-EARP. The results show mean of 2.045 and standard deviation of 1.040 for the project stakeholder involvement in EDCL-EARP. An average result on effective success factors of EDCL-EARP confirmed on 2.043 of average mean and average rate standard deviation of 0.993 heterogeneity of responses in EDCL-EARP. Overall average results on relationship between communication strategies and success of EDCL-EARP show average mean of 1.991; and average standard deviation of 0.917 heterogeneity of responses in EDCL-EARP. Overall average results on effects of effective communication strategies with stakeholders on the project success in EDCL-EARP show average mean of 2.012; and average standard deviation of 0.919 of responses in EDCL-EARP. The results indicated that the F-test= 13.332 and p-value =.001. This implies that independent variable is jointly significant. The results show that the F-test= 10.583 and p-value =.002. This implies that independent variable is jointly significant on Project success of EDCL-EARP. As conclusion, there is significant relationship between project communication strategies employed by EDCL-EARP and project success of EDCL-EARP.

Key Words: Effective Communication, Project Success, EDCL-EARP

Introduction:

Rwanda least cost power in 2019 reported that "Rwanda remains a land-locked republic with a superficial part of 26,338 km2 and a rising populace of 12,756,625. It is tightly busy with a 2016 GDP at 729 (continuous) 2016 USD/capital. Rwanda's cheap has been increasing at an annual normal rate of 8.3% and administration is guiding an annual regular growth rate of 11.5% over the EDPRS II period (2013-2018) Safeguarding 100% access to reasonable and contemporary sources of energy is vital to achieve this board. Rwanda's energy sector covers of dissimilar companies with numerous roles play as quantified within the Rwanda grid code. State-owned Rwanda Energy Group (REG) was joint in 2014 to expand, maintain and operate the energy infrastructure in Rwanda through its two companies the Energy Utility Corporation (EUCL) and the Energy Development Corporation (EDCL). Within this outline, planning of generation and transmission as well as electrification projects remains the joint responsibility of the Ministry of Infrastructure (MININFRA) and the REG" [1].

EDCL through EARP take many projects of power with the objectives of cumulative number MW to the people of Rwanda and these projects are intended in three categories, one they designed the project to smear for a grant or demanding loan from different partners outside the country with low interest rate and long term payback period; the second category of the project they have are those working together with the regions where any district come to EARP project manager and tell them, that they lack the electrification in such area in the district and EARP proceed the activities basing on the cheap the region has. The third one remains when EDCL-EARP itself chooses the any area for energy installation building on the need and budget they have and also founding on the strategic plan the country has to electrification to the populace. All those projects envisioned

with budget and scope for completion but most of them could not encounter deadline, and they take more time than expected time [2].

In 2013, EARP Schemes were recognized by Parent Ministries/agencies primarily to device the development budget of these ministries/ agencies. As recipients of funds from budget agencies, the projects are bound by the provisions of the Organic Law No 12/2013 of 12/09/2013 on State Finances and Property. The project's development goals are to support the expansion of access to reliable and cost-effective electricity services for households and priority public institutions and withstand the reliability of electricity supply in Rwanda and strengthen the institutional capacity of key sector players in the project. The targets were the Gifurwe substation rehabilitated and capacity upgraded to 10 MVA. Rulindo substation rearranged and capacity upgraded to 20 MVA in 2017; by 2018, 543 km of 30 kV lines constructed 822 km of 0.4 kV network constructed 800 (600 semi/low skilled) of which 120 would go to women (15%) and one audit report each year, completed in less than six months [3].

Due to low collaboration and communication between project designers and implementers, there was a failure to transfer the connection fees collected implies that EARP/EASSDP was deprived of resources for use in carrying out its activities. This is likely to adversely influence on the deliberate activities of the scheme and would eventually result into failure to achieve the envisaged objectives. In addition, there is risk that connection fees collected by former EWSA and EUCL but not transferred to EASSDP may have been used by those institutions to finance their own activities without prior approval/or communication by EARP/EASSDP (Auditor General Report, 2016). According to the issues mentioned from auditor general reports, it is clear that communication is among of the key causes of projects success or failure. The Centre questions for this study were: Which are the communication strategies used by EDCL-EARP (Electricity Access Roll-out Project); are there any modern technologies that have increased the forms of verbal communication for EDCL-EARP (Electricity Access Roll-out Project); what is the benefit of using visual mediums for communication over verbal forms of communication in EDCL-EARP; and which connection between communication strategies and success level of Electricity Access Roll-out Projects. For example, the determination of this research remained to examine the effective communication on project success in Rwanda especially EARP with Electricity Access Roll-out Project.

Objectives of the Study:

The general objective examined the influence of real communication on scheme success in Rwanda. This study is directed by four detailed objects as shadows:

- To examine effective project communication approaches used by EDCL-EARP
- To evaluate how the project stakeholder involvement in EDCL-EARP
- To analyze the relationship between communication strategies and the success of EDCL-EARP
- To identify the effects of effective communication strategies with stakeholders on the project success in EDCL-EARP

Research Questions:

The study responses the next research interrogations:

- What are effective project communication approaches employed by EDCL-EARP?
- How is the Project stakeholder involvement at EDCL-EARP (Electricity Access Roll-out Project)?
- What is the relationship between communication strategies and success of EDCL-EARP (Electricity Access Roll-out Project)?
- What are the effects of effective communication strategies with stakeholders on the project success in EDCL-EARP (Electricity Access Roll-out Project)?

Real Communication Approaches:

According to [4] argued that "communication is a vital managing action, and verified its foundations and matters". Message marks an organization obliging organism and associates of the goalmouth to bosses and assistants in the organization. Management message stays not a remote distinctiveness but it is greatly depending on contextual and cultural sensation. Within governments' people transmission and spread messages through face to face, written, and arbitrated channels such as telephones, SMS and E-mails. Real communication raises to the process of distribution evidence between two or more entities which leads to the wanted result. The evidence shared is transported and established efficiently without the envisioned sense being distorted or changed. It includes skills like non-verbal communication, focused listening, ability to comprehend and to controller one's own emotions and dealing anxiety. The infrastructures strategies charity for effective communication remains the open meetings, utilize emails, conversation one-on-one, training, evidence visually, personal performance, and presenting feedback [5].

Components of Real Communication:

Communication includes eight major devices including source, message, channel, receiver, feedback, environment, context, and interference; which are the objects of study of communication theory (Holmes & Gibson, 2001).

Communication Strategies and Project Success:

According to [6] said that "message methods are spoken, nonverbal, or graphic. Assimilating all tactics together permit to realize most achievement." Nonverbal message strategies consist of mostly visual cues, such as body language, facial expressions, physical distance between communicators, or the tone of your voice. The message remains argument of info between a sender and a receiver. It is significant for people to take into account every feature of how they are communicating evidence. Communication approaches remain the blueprints for how the information are switched. They are verbal, nonverbal, or visual which consent a business to meet employee needs and rise workplace knowledge [7]. Project portal is project work area or platform used to control, stored documents and maintained by a simple website. One of the modern technologies of 21st century to manage the platform of project communication is project portal where the project organization can switch, kept documents and preserved by a simple website. This remains usually possible to governor the activities by anyone who has access of the information by passwords protecting the site. It designates the effective communication by checking the sent information or shared information related to the project. Now the projects can be administered by enabling the shared reports, and plans of the schemes.

Energy Project Success:

According to [8] stated that "project success views any endeavor in which human, material and financial resources are prepared in a novel way, to undertake a unique scope of work, of given specification, with constraints of cost and time, so as to achieve beneficial change defined by quantitative and qualitative objectives. A scheme remains responsible for reaching results and contributing to development impression. Since, the attainment of comprehensive, long-term development vicissitudes are depending on numerous belongings, and it interruptions usually not possible to excellence influence to one project."

Ways to Improve Energy Project Success:

There is ten ways to recover project performance if initiatives in general and project teams in particular device them: bypass an obstacle; cause people to stretch, not break; focus on the goal; follow a standardized process; learn from the past; maintaining ongoing communications; record the work being done; reuse previous work; seek buy-in from all involved; and seek simplicity, not complexity, in goals [9].

Factors of Energy project Successful:

According to [10] supposed that "exhausting the next success structures as a guide mark it easier for you to become a sense of what really stuffs to your customer. It does develop slightly more problematic when you have extra than one customer but treaty with that advanced. There is the chosen to contract with the obvious rudiments of the scheme, e.g., budget and schedule time, as well as some of the less obvious influences such as eminence and team gratification."

Stakeholder Satisfaction:

According to [11] different schemes there remain a number of people who have a conferred attention. Probabilities for your customer are characterized by additional administration that have to report to. There are several subdivisions complicated in the project. On a current project, although they only had one direct interaction, that contact had to report to eight different stakeholders, which meant every decision had to be considered in bright of the stakeholders' belvederes. However, if you are handling an internal project, it might not be wise to distressed stakeholders that you might want to deal with at a later date.

Meeting Project Objective:

It views to reason than that for your project, there are structures that the client has demanded that aren't successful to be used. The difficult query to answer is which features they are. At this point, the inquiry that substances is whether all in the necessities has to be delivered. If not, then you can use this later in the project to censored scope if you want to or craft a new mouth for an original feature to preserve the scheme on track.

Meeting an agreed Budget:

From a transaction's lookout, the first object you must look is to distinguish the remaining if the customer has a budget. If you have an established budget, the goal remains is to work out what you can bring for that budget and mark the client content that they became a good contract. However, there are times once the budget is not large sufficient for the sorts required. If that is the circumstance, then there is solitary two choices including increase budget/cut scope.

Delivering on Time:

The previous of the variables remains time. Apparently, time settles all injuries; but it can source chaos on a scheme if not managed suitably. What you should essential do is to know firstly, if there is a time limit, and by deadline that means a hard target, not one that has randomly been chosen by the customer because they would alike it by that period. If there is a deadline, the next inquiry is whether the time limit is a soft or solid deadline. In reality, there remains no such mechanism a hard deadline; what they are observing for now is whether the deadline has dependences that cause issues [12].

Adding Value:

According to Pearson, & Nelson, P. (2000) supposed that "about the obvious rudiments of projects; adding value to the commercial is not as understandable. They may not income even requested this inquiry of

the customer and they may not have requested it of themselves. It may be the circumstance that somebody advanced up has verbalized the project that goes ahead, the reasons for which are not fully understood. And it may not matter; what you want to know is if that is the instance.

Meeting Quality Requirement:

Superiority or quality can appear like an imperceptible feature of a project; what is quality to one person is unexceptional to another. That is fine; the goal remains to understand what your client reflects to be excellence and how much it matters to them. For instance, you may be able to bring the scheme on period but deprived of ensuring cross-browser compatibility. This remains something that you should consider as important; your customer may not care if it everything works in the most popular browsers.

Team Satisfaction:

According to [13] awareness of team pleasure remains something that is rarely elevated. If the team is not joyful, then it marks it much tougher to distribute.

Weber's Classic Organizational Theory:

According to [14] stated that "the widely valued management theorist, Max Weber is careful the pioneer of organizational studies. His theory of bureaucratic organizations remains the first effort to define organizational structure and stretch meaning to communication actions occur within organizations. Weberian theory holds the societies have clearly separate roles and responsibilities and hence communication stays hierarchical, structured, and clear. There is no scope for misperception in the messages being absorbed from top and hence organizations have inflexible machine-like structures, each individual gives by way of clear and unambiguous roles and responsibilities. Weberian analysis stretches a place of prominence to value and the way organizations work remains by assigning work according to capabilities and seniority strong-minded by fixed notions of these ideas."

Empirical Review:

According to [15] said that "the renewable energy project implementation in the rural areas of Indonesia. There is the influences donating to the sustainability of renewable energy projects in the rural parts. It typically practices a qualitative method. Main data continued mainly to obtain from in-depth interviews conducted in site areas with the project owners, project managers, a key person in each local government, industry legislatures, and the local community, including local leaders and users of renewable energy. Secondary data in the form of various official scheme reports was also used. The results designated that the success of energy project implementation lay not only in good technology performance and long-term maintenance, but was also highly reliant on six key features, namely: (1) project planning and growth; (2) community contribution; (3) active communication and recipients; (4) availability of maintenance program, workshop and technician; (5) project management and institutionalization; (6) local government sustenance and networks. The findings from this study deliver useful understandings to all stakeholders complicated in the implementation of renewable energy technology for the rural parts in Indonesia."

According to [16] stated that "organizational communication channels like meetings, and reports and the relationship employee resistance to change initiatives like customer relationship management (CRM) organization at Capella University. The objective of the study is identifying a management problem or dilemma concerning in which communication channels should be in organizations to put into management of employee resistance during customer relationship management implementations. The multiple regressions analysis observed a quantitative correlational for the aims of determining the association between communication channels used during change initiatives and employee resistance to transformation. The study discovered the procedure of particular communication stations, such as e-mail, telephone/conference Bridge, instant messaging, and face-to-face interactions amended, there remained a trend for resistance to modify within the same measurement to be released. But results were not included in terms of observing at resistance to modify as a complete

Conceptual Framework:

In order to solve the problem, it is establishing the relationship between independent variable in terms of effective communication and the dependent variable in terms of projects successful.

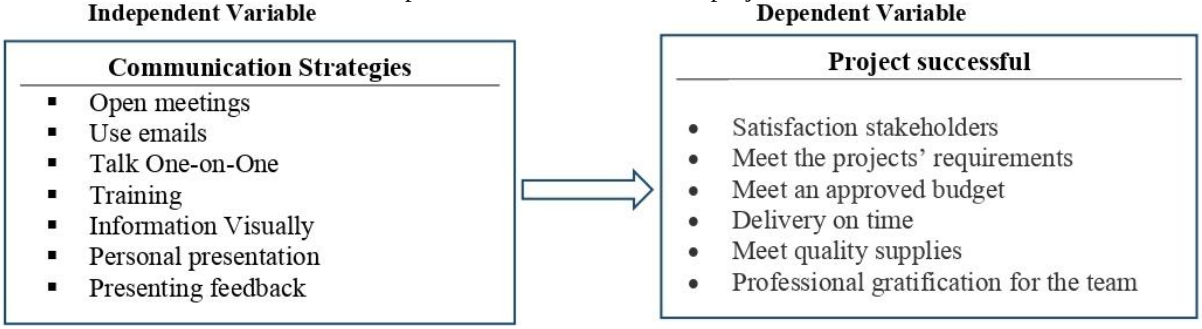

Figure 1: Conceptual Framework

Materials and Methodology:

Quantitative was adopted to analyze the communication approaches engaged in EDCL-EARP (Electricity Access Roll-out Project); and clarify the extent to which success influences of EDCL-EARP (Electricity Access Roll-out Project). Coefficient of determination is recognized to show the relationship between communication strategies project and its success level in EDCL-EARP (Electricity Access Roll-out Project).The target population was 47 employees' team involved in EDCL-EARP (Electricity Access Roll-out Project) from beginning to the end. There remain the engineers, project designers and planners' team, consultants and project technicians, project manager and assistants, and people in committees of follow up of construction progress. This study used census survey for taking all 47 respondents in Rural Electrification project as sample size. Primary information was composed for the drive of investigation at hand through questionnaire, interview and observation in EDCL-EARP (Electricity Access Roll-out Project).Questionnaires deliver a relatively cheap, quick and efficient way of gaining more information from a sample of people. Data can be composed relatively quickly because the researcher would not want to be offered when the questionnaires are accomplished. This remains useful for large populations when interviews were impractical. Surveys were dispersed to the team staff of EDCL-EARP (Electricity Access Roll-out Project) where it is estranged into four parts.

The survey was collected by close and open-ended questions. The researcher estimated the participation rate of 100% for answering the questionnaire. The design of questionnaire remains five Likert scales to assess the appreciations of respondents. The documents targets remained available reports about EDCL-EARP (Electricity Access Roll-out Project). Documentation was a set of documents providing on paper, online, on digital or analog media such as audio tape. Instances are user attendants, white papers, on-line assistance and quick-reference guides. It was fetching less common to understand paper documentation, and it was circulated via websites, software products, and other on-line requests. This portion clarified how data gotten from respondents in EDCL-EARP (Electricity Access Roll-out project) were amended, coded and completed the statistical tables by using numerous methods to examine these data in significant way. After processing data is concerned with putting the responses into meaningful groups where it contains of editing, coding, recording, classifying and tabulation. Qualitative scheme is used to expose trends in believed or feelings and dump deeper into the problematic. Quantitative or descriptive statistic methods display the frequency, and percentages on the communication strategies and the success aspects of EDCL-EARP (Electricity Access Roll-out Project). The correlation coefficient analysis continued to be useful for testing the relationship between communication approaches and success of EDCL-EARP (Electricity Access Roll-out Project).

Results and Discussion for Findings:

Analysis and presentation of this section comprises with descriptive statistics on analysis of the project communication strategies employed by EDCL-EARP (Electricity Access Roll-out Project); extent of the project stakeholder involvement in EDCL-EARP; the relationship between communication strategies and success of EDCL-EARP; the effects of real message strategies with investors on the scheme success in EDCL-EARP (Electricity Access Roll-out Project) and association constant; reversion analysis; and conversation of investigation results. EDCL through EARP have many projects of electricity with the objectives of increasing number MW to the people of Rwanda, and these projects are designed in three categories including one designed the project to apply for a grant or requesting loan from different partners outside the country with low interest rate and long-term payback period. Secondly, the projects have those working together with the districts where any district come to EARP project manager and tell them that they want the electrification in such area in district and EARP proceed the activities basing on the budget of the district. Third, when EDCL-EARP itself chooses the any area for electricity installation basing on the need and budget they have and also basing on the strategic plan the country has towards electrification to the population.

Table 1: Expressive figures results on the scheme communication approach employed by EDCL-EARP

Project Communication Strategies Employed by EDCL-EARP	Mean	SD
Meetings is used as part communication between work team in EDCL-EARP	2.06	1.09
Everyone makes sure the tasks progressing as it should be, and shared progress reports to the rest of the team in EDCL-EARP	1.77	.914
Being present in working environment of EDCL-EARP is most important part of successful communication between staff	2.13	1.20
Communication, workflow, and creativity of team are always evolving in EDCL-EARP for making some discussion of activities	2.09	1.17
Training is strategy used in EDCL-EARP as communication tool,	2.32	.837
Team management in EDCL-EARP sometime talk one-on-one, and conducting personal presentation	1.87	1.03
Information visually is used in EDCL-EARP	1.98	.872
They are giving the feedback or reports of the activities taken as communication strategy	2.23	1.14

in EDCL-EARP		
A good meeting has a programme and only includes those who necessity knows what is existence deliberated	1.96	.658
Email is used to share an update or communicate to concerned people in EDCL-EARP,	1.89	.890
Like conferences, emails, once the vanguard of the electrical revolution used in EDCL-EARP	2.04	1.16
Communication with stakeholders in EDCL-EARP is related with similar channels of internal and external communication	2.09	1.01
An excessive way to have an amenable spectator remains to make them aware of when they are going to communicate with them.	2.26	1.15
Overall Average	2.053	1.00

Source: Primary Data, Field results (2021)

Overall average results show 2.053 of mean which means project message strategies are reasonably used in EDCL-EARP, and its standard deviation results shows 1.009 indicated the heterogeneity results for scheme communication strategies working by EDCL-EARP which means that population or sample remains one, every member takes a different value for scheme communication approaches used in EDCL-EARP.

Table 2: Perception of respondents on the extent of project stakeholder involvement in EDCL-EARP

Project stakeholder involvement in EDCL-EARP	**Mean**	**SD**
There is information sharing with project stakeholder involvement in EDCL-EARP	1.85	.977
There is effective intermittent engagement of project stakeholders in EDCL-EARP	2.04	1.210
Project stakeholder involvement in EDCL-EARP is effective in control over decisions	2.27	1.210
Goal setting is effectively in EDCL-EARP due to project stakeholder involvement	2.02	.765
Overall Average	2.045	1.040

Source: Primary Data, Field results (2021)

Overall average results show mean of 2.045 and standard deviation of 1.040 for the project stakeholder involvement in EDCL-EARP which confirmed that there is information sharing with project stakeholder involvement in EDCL-EARP, effective intermittent engagement of project stakeholders in EDCL-EARP, project stakeholder involvement in EDCL-EARP is effective in control over decisions, and goal setting is effectively in EDCL-EARP due to project stakeholder involvement.

Table 3: Imaginative statistic results on effective success factors of EDCL-EARP (Electricity Access Roll-out Project)

Effective Success Influences of EDCL-EARP (Electricity Access Roll-out Project)	**Mean**	**SD**
EDCL-EARP has satisfied the stakeholders and beneficiaries' needs;	2.11	.814
EDCL-EARP meet the project's objectives as required in scheduling the projects;	1.89	.983
EDCL-EARP meet an agreed budget;	1.87	.875
EDCL-EARP deliver on time while starting and ending time;	2.15	1.021
EDCL-EARP add value for infrastructure needed in these areas;	2.26	.966
EDCL-EARP meet quality requirements;	1.66	.788
EDCL-EARP has intelligence of professional satisfaction for the team;	2.21	1.250
The idea of team satisfaction remains something in EDCL-EARP that is rarely raised;	1.96	.999
EDCL-EARP has satisfied stakeholders;	2.06	1.071
EDCL-EARP meets the project's objectives/requirements;	2.06	1.071
EDCL-EARP meet an agreed budget;	1.83	.916
EDCL-EARP is delivered on time;	2.23	.840
EDCL-EARP meet with beneficiaries satisfaction,	2.17	1.257
There is a professional satisfaction for the team in EDCL-EARP.	2.15	1.063
Overall Average	2.043	0.993

Source: Primary Data, Field results (March, 2021)

Overall average results on effective success factors of EDCL-EARP (Electricity Access Roll-out Project) confirmed on 2.043 of average mean and average rate standard deviation of 0.993 heterogeneity of responses in EDCL-EARP.

Table 4: Descriptive statistic results on relationship between communication strategies and success of EDCL-EARP (Electricity Access Roll-out Project)

Relationship Between Communication Strategies and Success of EDCL-EARP	**Mean**	**SD**
Open meeting between employees help to discuss and take decision led to project success of EDCL-EARP,	2.26	1.132

Presenting feedback enhance stakeholder satisfaction as a lead of project success;	2.13	.992
Talk one-on-one of employee is effective communication that help to meet quality requirements on agreed budget of project successful;	2.02	.642
Training employees help to meet project's objectives/requirements;	1.94	1.051
Using emails is way of managing time delivery to project success;	1.64	.965
Personal presentation is usefully professional satisfaction for the team in the project	1.96	.721
Overall Average	1.991	0.917

Source: Primary Data, Field results (2021)

Overall average results on relationship between communication strategies and success of EDCL-EARP (Electricity Access Roll-out Project) show average despicable of 1.991; and average normal deviation of 0.917 heterogeneity of responses in EDCL-EARP. The results above were supported by below correlation test results and regression analysis test.

Table 5: Overall correlation Coefficient between communication strategies and success of EDCL-EARP (Electricity Access Roll-out Project)

		Project communication strategies employed by EDCL-EARP	Project success of EDCL-EARP (Electricity Access Roll-out Project)
Project communication strategies employed by EDCL-EARP	Pearson Correlation	1	.478**
	Sig. (2-tailed)		.001
	N	47	47
Project success of EDCL-EARP (Electricity Access Roll-out Project)	Pearson Correlation	.478**	1
	Sig. (2-tailed)	.001	
	N	47	47
**. Correlation is important at the 0.01 level (2-tailed).			

Findings indicated the p-value equals 0.001 which is less than 0.01. This an indicator of relationship between Project communication strategies employed by EDCL-EARP and Project success of EDCL-EARP (Electricity Access Roll-out Project). Correlation coefficient test show the relationship of 0.478** categorized as positive and moderate correlation on project success of EDCL-EARP (Electricity Access Roll-out Project). This leads to confirm that there is significant relationship between Project communication strategies employed by EDCL-EARP and Project success of EDCL-EARP (Electricity Access Roll-out Project).

Table 7: Model Summary[b]

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.478[a]	.229	.211	4.675
a. Predictors: (Constant), Project communication strategies employed by EDCL-EARP				
b. Dependent Variable: Project success of EDCL-EARP (Electricity Access Roll-out Project)				

The results in table 7 indicates that Adj. R2= 0.211 representing 21.1% change from Project success of EDCL-EARP (Electricity Access Roll-out Project). This means that 79.9% of Project success of EDCL-EARP (Electricity Access Roll-out Project) come from other variables that are not included in Model of this research.

Table 8: ANOVA[a]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	291.384	1	291.384	13.332	.001[b]
	Residual	983.516	45	21.856		
	Total	1274.900	46			
a. Dependent Variable: Project success of EDCL-EARP (Electricity Access Roll-out Project)						
b. Predictors: (Constant), Project communication strategies employed by EDCL-EARP						

The results from table 8 indicated that the F-test= 13.332 and p-value =.001. This implies that independent variable is jointly significant. Therefore, we have rejected H01 which states that there are no effects of effective communication on the project success in EDCL-EARP (Electricity Access Roll-out Project). However, the findings help to confirm that there are significant effects of effective communication on the project success in EDCL-EARP (Electricity Access Roll-out Project).

Table 9: Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	14.342	3.454		4.152	.000
	Project communication strategies employed by EDCL-EARP	.503	.138	.478	3.651	.001
a. Dependent Variable: Project success of EDCL-EARP (Electricity Access Roll-out Project)						

Table 10: Descriptive statistic results on effects of effective communication strategies with stakeholders on the project success in EDCL-EARP

Effects of Effective Communication Strategies With Stakeholders on the Project Success in EDCL-EARP	**Mean**	**SD**
The passive participation of stakeholders influences project success of EDCL-EARP,	2.00	1.042
Interactive participation of stakeholders helps project success of EDCL-EARP;	1.93	.941
The functional participation among stakeholders stimulates project success of EDCL-EARP;	1.93	1.008
Optimal participation among stakeholders lead to project success and sustainability of EDCL-EARP;	2.31	.694
Stakeholder's participation lead to project success of EDCL-EARP;	1.89	.914
Overall Average	2.012	0.919

Source: Primary Data, Field results (2021)

Overall average results on effects of effective communication strategies with stakeholders on the project success in EDCL-EARP show average mean of 2.012; and average standard deviation of 0.919of responses in EDCL-EARP. These results were maintained by regression analysis test between project stakeholder involvement at EDCL-EARP and Project success of EDCL-EARP (Electricity Access Roll-out Project) presented in table 11.

Table 11: Correlation coefficient between effective communication strategies with stakeholders and the project success in EDCL-EARP

		Project success of EDCL-EARP (Electricity Access Roll-out Project)	Project stakeholder involvement at EDCL-EARP
Project success of EDCL-EARP (Electricity Access Roll-out Project)	Pearson Correlation	1	. 436**
	Sig. (2-tailed)		.002
	N	47	47
Project stakeholder involvement at EDCL-EARP	Pearson Correlation	.436**	1
	Sig. (2-tailed)	.002	
	N	47	47
**. Correlation is significant at the 0.01 level (2-tailed).			

Findings on table 11 indicated the p-value equals .002 which is less than 0.01. This an indicator of relationship between Project stakeholder involvement at EDCL-EARP and Project success of EDCL-EARP (Electricity Access Roll-out Project). Correlation coefficient test show the relationship of 0.436**categorized as positive and moderate correlation on project success of EDCL-EARP (Electricity Access Roll-out Project). This leads to confirm that there is significant relationship between Project stakeholder involvement at EDCL-EARP and Project success of EDCL-EARP (Electricity Access Roll-out Project).

Table 12: Model Summary[b]

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.436[a]	.190	.172	4.789
a. Predictors: (Constant), Project stakeholder involvement at EDCL-EARP				
b. Dependent Variable: Project success of EDCL-EARP (Electricity Access Roll-out Project)				

The results in table 12 indicates that Adj. R2= 0.172 representing 17.2% change from project success of EDCL-EARP (Electricity Access Roll-out Project). This means that 82.8% of project success of EDCL-EARP (Electricity Access Roll-out Project) come from other variables that are not included in Model of this research.

Table 13: ANOVA[a]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	242.732	1	242.732	10.583	.002[b]
	Residual	1032.168	45	22.937		
	Total	1274.900	46			
a. Dependent Variable: Project success of EDCL-EARP (Electricity Access Roll-out Project)						
b. Predictors: (Constant), Project stakeholder involvement at EDCL-EARP						

The results from table 13 indicated that the F-test= 10.583 and p-value =.002. This implies that independent 2variable is jointly significant on Project success of EDCL-EARP (Electricity Access Roll-out Project). We failed to accept Ho2 stated that there are no significant effects of effective communication strategies with stakeholders on the project success in EDCL-EARP (Electricity Access Roll-out Project). According to the results, there are significant effects of effective communication strategies with stakeholders on the project success in EDCL-EARP (Electricity Access Roll-out Project).

Table 14: Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	19.393	2.354		8.238	.000
	Project stakeholder involvement at EDCL-EARP	1.096	.337	.436	3.253	.002
a. Dependent Variable: Project success of EDCL-EARP (Electricity Access Roll-out Project)						

The results from Table 14 indicated that project stakeholder involvement at EDCL-EARP has positive and significant effect on project success of EDCL-EARP (Electricity Access Roll-out Project) ($\beta 2 = 0.436$, $t = 3.253$; p-value= $.002 \leq 0.01$).

Conclusion and Recommendations:

According to the findings from EDCL-EARP (Electricity Access Roll-out Project), they resolved that there remains a significant relationship between project communication strategies working in project's activities and its success; there is the relationship between project communication strategies within project stakeholder involvement and project success of EDCL-EARP (Electricity Access Roll-out Project). An additional to that the study has achieved the set objectives, answered the research questions, the problem of the study was resolved by saying that there is greater impact of effective communication on the project success in Rwanda. Communication remains an investment for every organization because it needs budget, they should plan and implement it because even though they take the experienced professionals, they need also strong communication between them to enhance their projects success. Based on the results from the present study, the following suggestions can be provided for future studies: a) Broaden the study to a larger number of companies in the energy sector to compare the management of these organizations; b) Regarding a project's lifecycle, prioritize and analyze the communication factors at each project phase; c) It is also recommended that company maturity level be studied in more detail to identify whether the level of maturity has any influence on the prioritization and correlation of project success factors and general effectiveness and efficiency in project management.

References:

1. Rwanda Least Cost Power, (2019) planning of generation and transmission as well as electrification projects.
2. Bishumba, (2017) request approximations amount of electricity required in the country
3. REG Report, (2018). area for energy installation building on the need and budget in Rwanda
4. African Development Fund, (2017). Gifurwe substation rehabilitated and capacity upgraded to 10 MVA, and Rulindo substation rearranged and capacity upgraded to 20 MVA
5. Auditor General Report (2016) evaluation of EARP Schemes
6. Robson (2006) Management message stays not a remote distinctiveness Fuller and Valacich, (2008). Effective communication refers to the process of sharing information between two or more entities
7. Hartley, (2005, 345) communication strategies is to create the right information in the right time and place
8. Tonnquivist, (2008, 166). Effective Communication Strategies and Project Success
9. Murray, J.P., (2001). "Recognizing the Responsibility of a Failed Information Technology Project as a Shared Failure", Information Systems Management, 18 (2): 25-29.
10. Barge, (2004) A project as an accountable for achieving outcomes and contributing to development impact.
11. Ammeter, A., P., & Dukerich, J., M., (2002). Leadership, team building, and team member characteristics in high performance project teams. Engineering Management Journal, 14 (4), 3 10.
12. Klien et al., (2002) Ways to improve energy project success
13. Rickards, T., Chen, M. &, Moger, S. (2001).Development of a self-report instrument for exploring team factor, leadership and performance relationships. British Journal of Management, 12(3), 243-250.
14. Murray, J.P., (2001). "Recognizing the Responsibility of a Failed Information Technology Project as a Shared Failure", Information Systems Management, 18 (2): 25-29.
15. Dong, C., Chuah, K.B., &Zhai, L. (2004). A Study of Critical Success Factors of Information System Projects in China.Proceedings of the PMI Research Conference, London.
16. Turner, J.R. & Müller, R. (2005).The project manager's leadership style as a success factor on projects: a literature review. Project management journal.36 (1). pp. 49-61.
17. Anderson, (2007) organizational communication as a field has grown immensely in scope and depth over the last few decades
18. Ishelina Rosaira (2017) study on renewable energy project implementation in the rural areas of Indonesia.