



EFFECT OF PROJECT MANAGEMENT PRACTICES ON SOLAR HOME ENERGY PROJECT SUCCESS AT BUGESERA DISTRICT IN RWANDA.

JEAN PAUL SIBOMANA

Sciences, Project Management, University of Kigali (Rwanda)

P.O BOX 2611, Kigali-Rwanda, Venue: KACYIRU Sector, GASABO District, Kigali-Rwanda

Mail Id: paulsibomana10@gmail.com, Mobile No +250-788556168

ABSTRACT:

Achievement of a project means that a number of its perceived factors were attained. It is not guaranteed that project management practices resulted to proper implementation of projects. However, the success of projects largely depends on the way it is managed and controlled. The purpose of this research is to assess the effect of Project Management Practices on Solar Home Energy Project Success at Bugesera District in Rwanda. The study adopted a descriptive research design; that allowed the researcher to study the elements in their natural form without making any alterations to them. The population of this research involved three Hundred and three (303) staff from different departments. In this research the methods for data analysis were Comparative method; Analytical method; Historical method and Quantitative method. Quantitative data was analyzed using computer software Statistical Package for Social Sciences (SPSS) version 23.0. The analyzed data was presented using regression analysis. Through the findings, $\beta = 0.387$ (38.7%), its t value = 7.188 which indicates that it is greater than 1.96, and where $p = 0.000$, being less than 0.05, makes it significant. The researcher came to a conclusion by saying that there is a strong and positive relationship between the project planning & design and the solar home energy project success at Bugesera district in Rwanda. The $\beta = 0.298$ (29.8%), and the t value = 5.428, so this shows that it is greater than 1.96, and the p value is 0.000, which is less than 0.05 and this makes it significant. With these results, the researcher chose to go with the alternative or positive hypothesis,

and concluded that there is a strong and positive relationship between the stakeholder involvement and the solar home energy project success at Bugesera district in Rwanda. $\beta = 0.507$ (50.7%), and the t value = 10.152, which is greater than 1.96, and its p value is equal to 0.000, which makes this statistically significant since the p is less than 0.05. With this, the researcher concluded saying that there is a strong and positive relationship between the risk management and solar home energy project success at Bugesera district in Rwanda. Lastly, the researcher's findings show that the $\beta = 0.228$ (22.8%), its t value = 4.076, which is greater than 1.96. The p value = 0.000, which is less than 0.05, hence statistically significant. The researcher concluded that there is a strong and positive relationship between the project monitoring & evaluation and the solar home energy project success at Bugesera district in Rwanda. The researcher recommends that, the government should put much emphasis to provide the fee-for-service systems regarding the solar home energy. There should be put some of the plans to reduce costs such as taxes for the developers who want to invest in this field of green and clean energy.

Keywords: Project management, Project Management Practices, Monitoring and Evaluation, Performance of project, Project Planning, Risk Management, and Stakeholder Involvement.

Project management is a methodology and a discipline required for planning, organizing, and managing project labor and resources. Usually, a prerequisite for effective completion of a extend (Atkinson, 2019). According to the United Nations, the 17 Sustainable Development Goals (SDGs) cannot be achieved without sustainable energy, which is why high priority was given to affordable and non-polluting energy in SDG 7 (United Nations, 2015). The world population with access to energy has increased from 83 percent in 2010 to 90.2 percent in 2021. However, and despite the overall improvement in access to energy in the last years, rural areas in developing countries still show access levels that are far from the objectives declared in the 2030 Agenda (United Nations, 2019).

The state of New York has invested heavily in promoting solar systems by subsidizing costs for residential, commercial, and industrial energy users. These motivating forces are impelled by forceful targets for renewable vitality generation, of which sun oriented may be a component. Unused York has committed to forceful development in renewable vitality within the State's generally vitality asset portfolio. The state of Modern York has set an driven objective of having 100% carbon-free power by 2040, and one component of this involves a target for 6 gigawatts (GW) of sun powered introduced within the state by 2025 (Misbrener, 2019). Sun powered control is more reasonable, available, and predominant within the Joined together States than ever some time recently. From fair 0.34 GW in 2008, U.S. sun

powered control capacity has developed to 0.840 an evaluated 97.2 gigawatts (GW) nowadays. This is enough to power the equivalent of 18 million average American homes. Today, over 3% of U.S. electricity comes from solar energy in the form of solar photovoltaics (PV) and concentrating solar-thermal power (CSP) (United States, 2020).

In Africa, over 573 million people presently live without access to electricity which constitutes approximately 80% of the entire continent's population (World Bank, 2019). The lacking supply and get to clean and feasible vitality have not as it were smothered the continent's financial development or heightening wellbeing dangers but too brought about within the over-reliance on the woodland for fuelwood. The last mentioned contributes to other natural challenges as the larger part of the masses depends on biomass to meet vitality needs (Springer, et., 2018).

The EAC region's electricity sector is based primarily on hydropower. In 2015 renewable electricity accounted for approximately 65% of the region's total installed grid-connected power generation capacity. The remaining 35% was from thermal based generation. Although hydropower is the predominant energy source in the region, it is being affected adversely by rainfall caused by climate change as well as by the alteration of river flows due to deforested catchment areas. As low water levels reduce hydropower generation, diesel generation is playing an increasing role. Despite this, EAC partner states continue to develop new hydropower projects.

Electricity demand is projected to grow by an estimated 5.3% annually to 2020, meaning that the region's power generation capacity will have to increase significantly. Projections indicate that capacity will have to grow by 37.7% in Uganda, 75.3% in Tanzania, 96.4% in Kenya and 115% in Rwanda (Energy Saving Association, 2010)

Total installed electricity generation capacity is currently 160 MW, of which roughly more than 60% comes from hydrological resources and less than 40% from diesel-powered generators and other sources. Rwanda has a very pronounced peak demand load and hence supply is occasionally unable to match demand in these peak hours. The current on network get to power is assessed at 23% of families. National Electricity Consumption: The cost of electricity is currently not cost reflective and heavily subsidized. The diesel fuel and heavy fuel oil required to run petroleum-based power plants represents a large share of the total national import burden, and is one factor driving the high cost of electricity and currency depreciation. The loss estimate of 2014 in the power system (both technical and non-technical) was 23% (EWSA, 2013).

STATEMENT OF THE PROBLEM

Rwanda has plenteous sun-oriented vitality assets; this shape of vitality needs arrangements and directions for being extricated reasonably and advance sun powered system as a trade viewpoint where private companies can contribute with desire of advantage. Sun powered systems innovation in later decade has been extended quickly; this extension has been based on

administrative bolster by means of approaches, controls and other instruments. The governments got to advance sun-based vitality extraction to address natural issues such as climate alter and discuss contamination moderation, and vitality security. For most African nations, counting Rwanda, sun-based vitality approaches and controls are not upgraded in like manner; this leads to deficiently venture and tall sun-oriented vitality framework costs (Tuyishime, 2020).

The current electricity generation in Rwanda is from Hydro sources located mostly in the northern region of the country also known as a country of thousand hills, which is geographically a volcanic region. This becomes an opportunity to the erection of both micro, mini and large hydro power plants which is contrary to Bugesera context as per it's geographical situation. The distribution of grid electricity in Bugesera rural areas is not only expensive but also not recommended unless people are accommodating within appropriate settlements known as "Imidugudu" to economically avoid long transport of electricity from one individual to another which is costly (cost of electricity transmission per Km is high) (Stremke, 2015).

The nature of settlements within the Rwandan provincial zones is scattered, same was found in Bugesera Area where more than 40% have no get to power. Rwanda is among the fastest growing countries in Africa, with a target of having 100% of people accessing to electricity by 2024, and this cannot be achieved without finding solutions to power rural areas where almost 43% live in those areas. Thus,

through it is a government obligation to easier access of infrastructures to it's people, and it is also people's right to have access on them though the national economy most of the time shows the opposite. These places put much pressure to the government in a way of finding solutions to meet the customer electricity demand (Kempener, et al.; 2016).

People in such areas used to rely on fossil fuels, candles and kerosene as their energy solution for lighting, however, these sources of energy have many effects such as health and environmental effects. Moreover, they were imported out of the country and this means that customers have no power on price making, they usually face cost fluctuations even from international market and this makes Solar energy adoption an indispensable solution in such areas (Ministry of infrastructure, 2015). The existing hydropower plants can not satisfy the existing energy demand especially in rural areas where even connecting them to the power grid is almost impossible. Solar energy adoption or solar home system (SHS) will be the solution for house hold energy need. All these are serious problems that hard-pressed the researcher to do a study if Project Management Practices has an impact on Solar Home Energy Project Success at Bugesera District in Rwanda, toward the problem of facility, management, capacity and sometimes resistance to change.

SPECIFIC OBJECTIVE:

To examine the effect of Project planning and design on Solar Home Energy Project Success at Bugesera District in Rwanda;

To establish the effect of Stakeholder involvement on Solar Home Energy Project Success at Bugesera District in Rwanda;

To establish the effect of Risk management on Solar Home Energy Project Success at Bugesera District in Rwanda;

To evaluate the effect of Project monitoring & evaluation on Solar Home Energy Project Success at Bugesera District in Rwanda.

LITERATURE REVIEW:

Project planning & design and project success

Buba and Tanko (2017) study examined the influence of project planning on quality performance of construction projects. A total of 43 questionnaires were distributed to 3 key groups of respondents who included Quantity Surveyors, Builders, and Architects who were project managers in Nigeria. It was established that the ability of a project manager in giving direction is the best leadership style and contributes to the best artistic quality of the project and also leads to better inter-functional relationships. Githenya and Ngugi (2014) focused on determinants of implementing the housing projects in Nairobi County Kenya. It was established that planning in projects had a major effect on the execution of housing projects in Kenya. The limitation of the study was housing projects and sought to determine the factors of the implementation. The current research was on the performance of programs.

Novo, Landis and Haley (2017) consider explored on venture arranging and its part within the victory of

venture administration. The think about was carried out to discover project chief aptitudes along with its competency in authority and how they can lead to extend victory. The study results revealed that planning process are directly related with the project manager competency. Similarly, the project managers' leadership skills and project success is strongly correlated.

Stakeholder involvement and project success

Njogu (2016) carried out a consider on the Impact of Partners Association on Venture Execution in Nema Vehicle Emmission Control Venture in Nairobi Province, Kenya. This consider embraced graphic overview inquire about plan. The consider populace was 181 respondents who were directors, extend directors, operation supervisors, administrator and quality control officers. Stratified examining was utilized embraced. The survey was utilized to gather essential information. The think about uncovered that partner Involvement in extend checking includes a positive and noteworthiness impact in Car Outflow control extend Execution.

Mandala (2018) studied the influence of stakeholders' involvement on management of project on the road construction projects performance in Bondo sub-county, Siaya, Kenya. The study showed a significant impact of stakeholders on the Bondo Sub County's construction works by implementing projects. Both descriptive research methodology and cross-sectional survey design were utilized in this research. The current study used a descriptive research design.

Risk management and project success

Wanyonyi (2015) determined the influences of risk management on the performance of projects based on a case of selected international development organizations in Nairobi County, Kenya. The study revealed a statistically significant link between avoidance, transference, reduction, and acceptance of risk response plans and the achievement of international development organization-funded projects. Risk management strategies were a major focus of this study. The current study sought to assess the influence of risk management on the performance of programs.

Maghanga (2019) centered on the impact of the venture hazard administration hones on the execution of cement-manufacturing firms' ventures in Nairobi District, Kenya. Purposive inspecting was received in this ponder. There's prove of venture execution being impacted by extend hazard administration hones; venture chance shirking, venture hazard maintenance, venture hazard exchange and extend hazard control. In expansion, the relationship among the factors (free and subordinate) is critical. The considered centered on cement-manufacturing firms' ventures. The current ponders looked for to evaluate the impact of hazard administration on the victory of Ladies and Young ladies Financial Strengthening programs.

Project monitoring & evaluation and project success

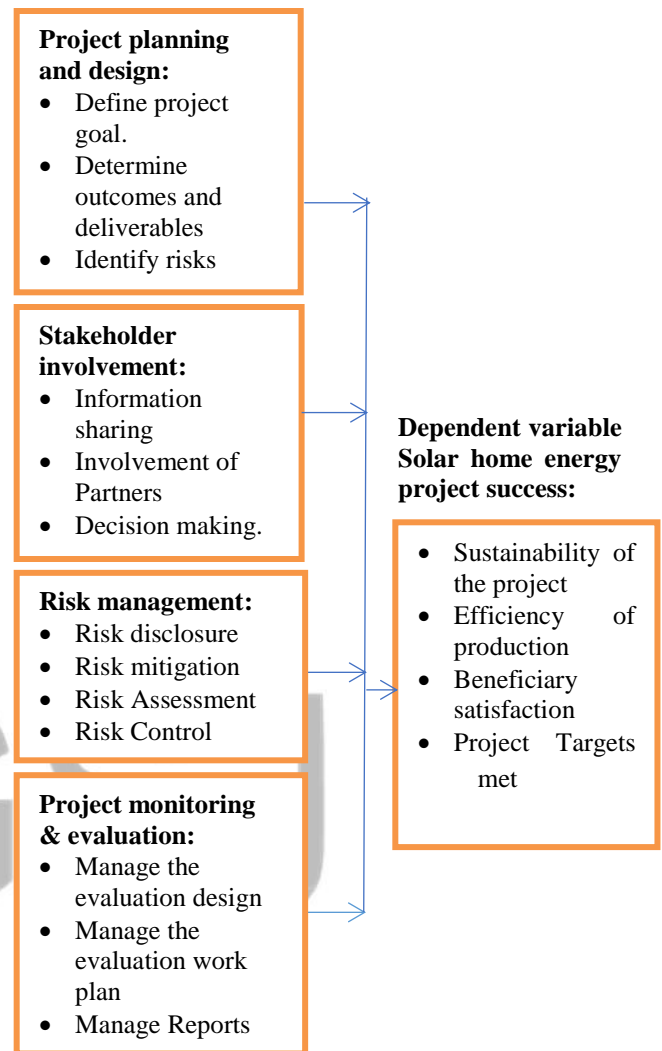
Ngatia (2016) think about looked at regulation determinants of participatory checking and assessment frameworks usage among community-based

ponder utilized an expressive study investigate plan. The target populace was 138 respondents from which same test of 122 was get from. The think about concluded that the components Affecting Execution of Checking and Assessment of Government Ventures in Kenya have various shortcomings, which in the event that not changed will genuinely influence the victory of the program. These incorporate reserves required in carrying out a few running costs of navigating the tremendous Narok East Sub Province and installments like remittances for M&E committee are insufficient driving to destitute execution of M & E exercises.

Waithera and Wanyoike (2015) in their ponder looked at how extend Checking and Assessment impact execution of Youth Supported Agribusiness Ventures in Bahati Sub-County, Nakuru Province, Kenya. A census was conducted on the target populace of 50 agribusiness youth financed bunch ventures. Information was collected through organized surveys. Discoveries appeared that as it were the preparing of staff had a factually noteworthy impact on venture checking and assessment execution of youth supported agribusiness ventures (p esteem of 0.01, <0.05). The think about concluded that youth support supervisors ought to consider advertising brief, formal checking and assessment preparing courses to all youth bunches that apply for the reserves.

CONCEPTUAL FRAMEWORK

Independent variable
Project management practices:



Source: Researchers, 2022

Conceptual framework is a research tool intended to assist a researcher to develop awareness and understanding of the situation under scrutiny and to communicate this (Kombo and Tromp, 2006). The conceptual framework below illustrates the relationship between the independent variables on one hand and the dependent variable on the other. The research embraced an understanding that practices of project management were drivers that facilitated the

success of project. The project management practices that were the independent variables included; project planning and design, stakeholder involvement, risk management and monitoring and evaluation. On the other hand, the Solar Home Energy Project Success at Bugesera District in Rwanda formed the dependent variable of the study.

RESEARCH METHODOLOGY

Research design

According to Mugenda and Mugenda (1999), a research design refers to the structure or plan of a research, which strives to find appropriate solutions to research questions, which comprises of a summary of the research work ranging the form hypothesis, methods and techniques for gathering and analyzing data and presenting the outcomes in a form which can be understood. It was focused on explaining the aspects of the study in a detailed manner. A descriptive research design was adopted because the study is concerned about a univariate question in which the researcher asked questions about the size, form, distribution and existence of Project Management Practices on Solar Home Energy Project Success.

Sampling design

This part of the study presents the population of research, sample size determination and sampling technique. The sample design provides information on the target and final sample sizes, strata definitions and the sample selection methodology. The term "sampling plan" may be restricted to mean all steps taken in selecting the sample; the term "sample design" cover in addition the method of estimation;

and "survey design" may cover also other aspects of the survey, e.g. choice and training of interviewers, tabulation plans, etc. "Sample design" is sometimes used in a clearly defined sense, with reference to a given frame, as the set of rules or specifications for the drawing of a sample in an unequivocal manner (Ngechu, 2004).

Target population

According to Cooper and Schindler (2003), a population is referred to as the total collection of elements about which the researcher wishes to make some inferences. Bailey (2004) says that the populace is widespread objects over which investigate is to be carried out. The ideal practice in research would be to gather information from the entire population; this ensures maximum coverage of the population concerned in the research. But due to limited time and funds the entire population of the research cannot be covered and the sample defined as a sub set of population was used. The entire population of the study who are supposed to provide the information data related to the objectives of the research study was based on 1250 beneficiaries of Solar Home Energy Project; therefore, the entire target population of this research is 1250 populations.

Sample size determination

Test measure assurance is the act of choosing the number of perceptions or duplicates to incorporate in a factual test (Lavrakas, 2018). Before identifying the respondents to this research, it is necessary to indicate how the sample size was determined. In order to determine the sample size, the following formula

designed by Yamane (1967) was used; where, n is the sample size; N is size of the population and e is marginal error or level of confidence.

$$\text{General scientific formula: } = \frac{N}{1+N(e)^2}$$

And then the sample size is: $n = \frac{1250}{1+1250(0.05)^2}$; $n = \frac{1250}{4.125} = 303.03$; then the sample size is 303 respondents.

Therefore, for the current study, the sample size is 303 respondents those were selected from beneficiaries of Solar Home Energy Project-Bugesera.

Sampling technique

Kothari (2014) defines sampling design/technique as a definite plan for obtaining a sample from the sampling frame. The testing strategies to be utilized are a widespread and purposive testing procedure. Purposive examining (too known as judgment, particular or subjective examining) could be an examining procedure in which analyst depends on his or her possess judgment when choosing individuals of populace to participate within the think about was utilized to choose the member of meet.

Data Collection Procedures

According to Maree (2007), data collection is a process that involves applying selected measuring instruments to the selected population for investigation. Similarly, de Vos et al., (2011) contend that quantitative data collection methods often employ measuring instruments such as structured observation schedules; structured interviewing schedules; questionnaires; checklists; indices; and scales.

The study used both primary and secondary data. For the secondary data, the researcher reviewed books, articles and documents from university library and other libraries in Kigali relate to the topic under the study; secondly the researcher used questionnaire as a major toll of primary data collection. The questionnaire had 3 major parts section and each section contained concerning each objective.

Reliability

This study initially employed the test-retest reliability as a type of (also called Stability) answers the question, to determine whether the scores would be stable over time.” Sometime later, the same test was re-administered to the same or highly similar group. The test was subjected in two weeks later with a reliability coefficient of $r = 0.70$, giving evidence of consistency. This study also used the Cronbach’s α to check the reliability of the items measuring the constructs and the measurement scale designed for the questionnaires, which were highly representative of each variable. The Cronbach’s α was still put at 0.7. Constructs with Cronbach’s α below 0.7 was rejected. In this case, whenever the Cronbach’s α was greater 0.7, which indicated that the constructs have high reliability (Lee Cronbach, 1978).

Regression analysis for the effect of Project Management Practices

ANOVA ^a						
Model		Sum of Squares	df	Mean Square	F	Sig.
Project planning and design	Regression	27.749	1	27.749	52.409	.000 ^b
	Residual	157.781	298	.529		
	Total	185.530	299			
Stakeholder involvement	Regression	16.497	1	16.497	29.083	.000 ^b
	Residual	169.033	298	.567		
	Total	185.530	299			
Risk management	Regression	47.654	1	47.654	102.997	.000 ^b
	Residual	137.876	298	.463		
	Total	185.530	299			
Project monitoring & evaluation	Regression	9.652	1	9.652	16.355	.000 ^b
	Residual	175.878	298	.590		
	Total	185.530	299			

Source: Primary data (2022)

An assessment of the regression equation's ability to explain the data using the ANOVA results is provided. The developed regression model makes many changes to the independent variable and demonstrates the huge impact of the dependent variable. The table above displays the regression result for this approach, which produced a range estimate of 0.000b and demonstrates that the statistical significance was taken into account. This coefficient suggests that there is a strong and positive relationship between the project planning and design and the solar home energy project success at Bugesera district in Rwanda according to a straightforward analysis. The regression model therefore continues to be statistically significant and aids in our ability to forecast how each variable will interact with one another. With this being proved, the researcher concluded by saying that the project planning, and design impact the solar home energy project success at Bugesera district in Rwanda.

The ANOVA table summarizes a brief report on how well the regression equation fits the aforementioned data. The developed regression model demonstrates

the great significance of the dependent variable and offers numerous modifications to the independent variable. In this method, the regression value shown in the table above demonstrates that the statistical significance was examined, bringing the regression's results to a ballpark estimate of 0.000b. This coefficient, when interpreted simply, shows a strong and positive correlation between successful the stakeholder involvement impacts the solar home energy project success at Bugesera district in Rwanda. As a result, the regression model continues to be statistically significant and aids in our ability to forecast how each variable will behave in relation to one another. According to the research done, there is a connection between the effect of stakeholder involvement on solar home energy project success.

A short report of how well the regression equation matches with the aforementioned data is given in ANOVA table. The built-up relapse display indicates that the dependent variable is categorically significant and influences the independent variable in a variety of ways. Since the quantifiable centrality was examined, as indicated by the regression value in the table above, the relapse findings are almost at 0.000b. This coefficient shows that there is a strong and positive relationship between the risk management and solar home energy project success at Bugesera district in Rwanda using an easy analysis. The relapse demonstration is kept statistically significant in this way, and it affects how we predict the behavior for each variable in relation to the others. So far, basing on the interpretation of the data, the researcher concluded that there is a strong relationship between

the risk management and solar home energy project success at Bugesera district in Rwanda.

A brief report of how well the regression equation matches with the aforementioned data is given in ANOVA table. The built-up relapse display indicates that the dependent variable is categorically significant and influences the independent variable in a variety of ways. Since the quantifiable centrality was examined, as indicated by the regression value in the table above, the relapse findings are almost at 0.000b. This coefficient shows that there is a strong and positive relationship between the project monitoring & evaluation and solar home energy project success at Bugesera district in Rwanda using an easy analysis. The relapse demonstration is kept statistically significant in this way, and it affects how we predict the behavior for each variable in relation to the others. So far, basing on the analysis of the data, the researcher concluded by saying that the project monitoring & evaluation affect the solar home energy project success at Bugesera district in Rwanda.

Summary of Hypothesis Finding

Model summary for the Project Management Practices on Solar Home Energy Project Success

Model Summary									
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics				
					R Square Change	F Change	df1	df2	Sig. F Change
1	.387 ^a	.150	.147	.72764	.150	52.409	1	298	.000
2	.298 ^a	.089	.086	.75314	.089	29.083	1	298	.000
3	.507 ^a	.257	.254	.68020	.257	102.997	1	298	.000
4	.228 ^a	.052	.049	.76824	.052	16.355	1	298	.000

Source: Primary data (2022)

The regression equation predicted that the dependent variable was significant as it affects the independent variable to increase at the level of 38.7%. The values showed that a statistical significance was run and the

sig. value was 0.000 which is less than 5%. ($p < 0.05$). With this, the regression model was statistically significant and it could help us to predict the accountability of the variables. Here, $0.000 < 0.05$. After considering the alternative or positive hypothesis in light of the information presented thus far, the researcher rejects the null hypothesis. The alternative or affirmative hypothesis is that there is statistical significance of project planning and design on solar home energy project success at Bugesera District in Rwanda.

As the dependent variable can change the independent variable at the level of 29.8% by considering R column and 8.9% with regression square, the regression equation predicted that the dependent variable was significant to effect Solar Home Energy Project Success. The results indicated that a statistical analysis was conducted, and the sig. value was 0.014, which is less than 5%. ($p < 0.05$). After considering the alternative or positive hypothesis in light of the information presented thus far, the researcher rejects the null hypothesis. The alternative or positive hypothesis is that there is statistical significance of stakeholder involvement on solar home energy project success at Bugesera district in Rwanda.

We can analyze the Sig. value or the p value as the dependent variable can change the independent variable, the regression equation predicted that the dependent variable was statistically to affect the dependent variable at the level of 50.7% by taking into consideration regression column or 25.7% of effect that can be caused by Risk management to increase the

Square column. The results indicated that a statistical analysis was conducted, and the sig. value was 0.004, which is less than 5%. ($p < 0.05$). After considering the alternative or positive hypothesis in light of the information presented thus far, the researcher rejects the null hypothesis. The alternative or positive hypothesis is that there is statistical significance of risk management on solar home energy project success at Bugesera district in Rwanda.

After analyzing the Sig. value or the p value the values showed that a statistical significance was run and the sig. value was 0.000 which is less than 5%. ($p < 0.05$). As the dependent variable can change the independent variable, the regression equation predicted that the dependent variable was statistically to affect the dependent variable at the level of 22.8% by taking into consideration regression column or 5.2% of effect that can be caused by Project monitoring & evaluation to increase the Solar Home Energy Project Success by considering R Square column. The researcher rejects the null hypothesis after weighing the alternative or positive hypothesis in light of the data up to this point. The alternate or positive hypothesis is that there is statistical significance of project monitoring & evaluation on solar home energy project success at Bugesera District in Rwanda.

Conclusions

Testing Hypothesis: There is statistical significance of Project Management Practices on Solar Home Energy Project Success at Bugesera District in Rwanda.

Coefficients						
Model		Unstandardized Coefficients		Unstandardized Coefficients	T	Sig.
		B	Std. Error	Beta		
Project planning and design	VAR00001	.496	.069	.387	7.188	.000
Stakeholder involvement	VAR00002	.342	.063	.298	5.428	.000
Risk management	VAR00003	.467	.046	.507	10.152	.000
Project monitoring and evaluation	VAR00004	.265	.065	.228	4.076	.000

Source: Primary data (2022)

According to coefficient table findings, Results indicate that beta =0.387 (38.7%), its t value =7.188, indicating that its greater than 1.96, where $p = 0.000$, being less than 0.05, hence significant, being less than 0.05, makes it significant. These results demonstrate that the null hypothesis is not accepted. The researcher came to a conclusion by saying that there is a strong and positive relationship between the project planning and the solar home energy project success at Bugesera district in Rwanda.

Basing to the coefficient table, beta =0.298 (29.8%), its t value =5.428, indicating that its greater than 1.96, where $p = 0.000$, which is less than 0.05 and this makes it significant. With these results, the null hypothesis is rejected, and the researcher chose to go with the alternative or positive hypothesis, and concluded that there is a strong and positive relationship between the stakeholder involvement and the solar home energy project success at Bugesera district in Rwanda.

Another thing, the results from the coefficient table, Results indicate that $\beta = 0.507$ (50.7%), its t value $= 10.152$, indicating that its greater than 1.96, where $p = 0.000$, which makes this statistically significant since the p is less than 0.05. With this, the researcher rejected the null hypothesis and went with the alternative or positive hypothesis. So, he concluded saying that there is a strong and positive relationship between the risk management and solar home energy project success at Bugesera district in Rwanda.

Lastly, on the coefficient table, the researcher's findings show that the $\beta = 0.228$ (22.8%), its t value $= 4.076$, indicating that its greater than 1.96, where $p = 0.000$, being, which is less than 0.05, hence statistically significant. Here, the null hypothesis has been rejected, and the researcher concluded that there is a strong and positive relationship between the project monitoring & evaluation and the solar home energy project success at Bugesera district in Rwanda.

Recommendations

According to the energypedia, "Over the period 1989 to 1999 reported retail prices for complete solar homes systems were in the range of US\$ 10 to 22 per Wp. Price information is often difficult to compare, some include cost of installation others only hardware." (Energypedia, 2016). This statement shows that the cost for the home solar energy systems costs high. This includes the cost for the installation and the amount for the tools to use. With this being said, the researcher is recommending the government of Rwanda, and people involved in this case to make sure that they are making it easy, so that the people in Bugesera district and

others in the rest of the country where solar systems is needed to help them to access home energy systems on the price that they can easily afford.

The government should put much emphasis to provide the fee-for-service systems regarding the solar home energy. There should be put some of the plans to reduce costs such as taxes for the developers who want to invest in this field of green and clean energy.

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