

# INFLUENCE OF COMMUNITY PARTICIPATION ON PERFORMANCE OF DEVELOPMENT PROJECTS IN RWANDA. A CASE STUDY OF WATER AID RWANDA PROJECT (WARP) IN RUHUHA SECTOR IN BUGESERA DISTRICT

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DOI: <https://doi.org/10.5281/zenodo.10687579>

Published Date: 21-February-2024

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**Abstract:** This paper explored the influence of community participation on performance of development projects in Rwanda. A case study of Water Aid Rwanda Project (WARP) in Ruhuha sector in Bugesera District. Specifically, the objectives of this study were to find out the influence of involvement of community in information sharing and resource contribution on the performance of development projects in Ruhuha sector in Bugesera District. Descriptive survey design was chosen for the study using quantitative and qualitative approach. The study sampled 395 respondents taken as sample size. Data were collected by using of questionnaires and interview. The study used Statistical Package for Social Sciences (SPSS) version 21 to analyse data. The findings from the study indicated that communities have not fully participated in project cycle especially in information sharing as agreed by 63.6%, and 76.4% were satisfied when contributing resources. The study established that community participation through information sharing and resource contribution. The study indicated the adjusted  $r^2$  value of 0.619 which indicates that the multiple linear regression model that could explain for approximately 62% of the variations in performance of WARP project. The study reveals that some interventions need to be undertaken in order to achieve optimum community participation. The researcher suggested recommendations that the government to carry out a stakeholder mapping exercise in order to profile all stakeholders undertaking development initiatives.

**Keywords:** Community participation, performance, development project, information system, decision making, financial institutions, information sharing and resource contribution.

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## 1. INTRODUCTION

Community participation in resource contribution is closely linked to the question of project ownership and sustainability (Kahkone, 2019). Community projects require resources that are needed to meet the recurrent costs of running and maintaining the system. Depending on individual circumstances; resource mobilization need not always be financial in nature, but could either be in-kind, labour and local materials. Ostrom (2020) observed that as a condition of breaking the patterns of dependency and passivity it was necessary for project beneficiaries to provide labor, time, money and materials. David (2018) emphasized that since water is a shared common property resource and water services have some basic investment costs it is imperative that local communities work together to manage the resources and the services accruing.

Therefore, communities could engage in civic organizations while donors encourage existing incentives for shared action or co-production of the services.

World-wide, donor funded projects continue to complement the government's role in the provision of societal developmental needs such as access to social economic services such as education, health, water, agriculture, environmental among others. There is however, close and intimate relationship between donor funded projects success and the community involvement; which has not been widely examined (Makori & Wanyoike, 2015). David (2018) views participation as a step-wise cavalcade by which stakeholders affect and have control on the initiatives of development and the resources and the decisions which influence them nonetheless desires that participation is taken as faith in development matters as people believe wholeheartedly and don't question. Recently, community participation has evolved as a major model of development and a success basis for local development initiatives.

Community participation continues to capture a centre-stage position in many policies of nation-states and international development agencies in recent years. The common belief is that involving citizens in rural programmes and empowering them have the potential to boost their livelihoods and foster development. As such, many projects in poor countries will hardly receive any donor funding without a component on integrating the community in their proposals (Kakumba & Nsingo, 2018). It is therefore important that participatory ideas be applied to small scale development in ways that would allow the poor to be informed participants in development with external agents acting mainly as facilitator and sources of funds (Chambers, 2018). Arguments for participatory development as advocated by Chambers (2018) and others have led to the inclusion of participation as a crucial means of allowing the poor to have control over decisions. Inclusion of participatory elements in large scale development assistance came quickly at the World Bank, in social investment funds and other forms of assistance.

Community participation therefore, is a process that starts to inform, gather input or involve the community regarding decision making processes. It covers all levels of information, awareness creation, outreach, inputs involvement and collaboration (David, 2018). Fox & Meyer (2018) define citizen (community participation) as the involvements of citizens in a wide range of administrative policy making activities, including the determination of levels of service, budget priorities, and the acceptability of physical construction projects in order to orient government programmes toward community needs, build public support, and encourage a sense of cohesiveness within society.

Terry (2019) outlines the following as the objectives of citizen participation: provide information to citizen; get information from the citizens; improve public decisions; programmes, projects, and services; enhance acceptance of public decisions; programmes, projects, and services; supplement public agency work; alter political power patterns and resource allocation; protect individual and minority group rights and interests; and delay or avoid complicating difficult public decisions. According to Okafor (2021) what we observe when communities participate in their own projects include the followings: empowering communities to improve efficiency; local participation yields better projects, better outcomes, greater transparency and accountability, enhances service delivery and it also encourages donors' harmonization. In fact, experience has shown that given clear rules of the game, access to information and appropriate support poor men and women (communities) can effectively organize to provide good and services that meet their immediate priorities. This is because communities have considerable capacity to plan and implement programmes when empowered i.e. given power to decide and negotiate (Tade, 2017).

In developing countries however, the concept of community participation is not as simple to implement, because the communities are traditionally not ready to take on this responsibility. In the authors' opinion, development programmes are more likely to succeed if a well-planned strategy to enhance participation is also incorporated into the programme planning (Harsh, 2019). This strategy enables communities to participate effectively in participatory development which is the most important approach towards enabling communities to help themselves and sustain efforts in development work. Communities are no longer seen as recipients of development programmes; rather, they have become critical stakeholders that have an important role to play in the management of programmes and projects in their areas (Burke, 2019). It is clear that community participation is a global concern particularly in the less developed countries. This is evidenced by studies taken by different authors in different countries. The problem lack of effective participation by community has caused poor project performance and is seen to be a major bottle reach in projects delivery.

In Rwanda, development projects are executed with the aim of achieving economic progress through acquisition of skills which enables people to source for income and hence improved livelihood. The livelihood project in Rwanda for example aims at improving people's income and hence alleviates poverty and hunger through skills development, promoting savings

and advancing loans for businesses start up among others. Studies by Mulwa (2019) indicated that the livelihood project has so far transformed the lives of the rural households though the question of participation is still of concern. For this reason, the researcher sought to carry out a study to investigate the influence of community participation on development project performance. A case of Water Aid Rwanda Project (WARP) in Ruhuha sector in Bugesera District.

Water Aid is an international NGO focused exclusively on ensuring equitable access to safe water, sanitation and hygiene education (WASH) for the world's poorest communities. It established a pilot country programme in Rwanda in 2009. With three staff and an annual budget of around GBP 285,000, the programme is implementing a national sector influencing programme as well as a district-wide programme, comprising sector coordination, technical support, rural water supply and technological innovation in rainwater harvesting and eco-san (Owen, 2018). Between 2017 and 2019, Rwanda's Ministry of Infrastructure, in collaboration with Water Aid and other water, sanitation and hygiene (WASH) organizations, supported the development of a costed WASH plan for the district of Bugesera as part of the government-endorsed district-wide approach. Water Aid Rwanda has made a clear difference to the water, sanitation and hygiene (WASH) sector. The gaps left by the departure of the World Bank's Water and Sanitation Programme, learning opportunities offered by the specific country context, the potential to engage at the highest levels of government, and the practical need to provide better water and sanitation services to an under-served and predominantly rural population, all justify Water Aid's continued presence. However, a clearer focus is required to halt the progressive creep towards generalization and a lack of unique value addition.

### **1.1 Statement of the Problem**

Rwanda lacks adequate water, yet water is a critical commodity for human life and sustenance. Although the majority of rural population were still not being using improved drinking water sources in the past. Official statistics indicate that the proportion of households having access to potable water without paying in these remote areas decreased falling down from 81 % to 69 % between 2005 and 2011. However, population growth and other land related use issues such as irrigation have outstripped the progress in a country where the hydrological network comprising of numerous lakes and rivers as well as its associated wetlands, covers more than 10 per cent of the its entire surface estimated to be 26,338 Square Kilometers. According to Macrotrends (2022) Rwanda clean water access for 2020 was 12.10%, a 0.05% increase from 2019.

Consequently, majority of Rwandans have to device their own solutions to the water crisis facing the country. Community water projects are critical components in the water provision matrix especially in rural areas where government-owned and run water companies do not offer services (Macharia, 2020). However, while many rural citizens depend on community water projects, the latter often fail to provide clean, safe and reliable water to targeted beneficiaries.

Donors initiate most of these projects, with the community assuming management roles after the donor has exited. Participatory development experts opine that projects implemented with the active participation of the community and beneficiaries are likely to perform efficiently and sustainably (Batchelor, 2019). Water Aid Rwanda project initiated WARP in Bugesera District in 2010 focused exclusively on ensuring equitable access to safe water, sanitation and hygiene education (WASH) for the world's poorest communities especially (Kamanzi, 2019). The project purposes to meet the water needs of people living in Ruhuha sector in Bugesera District. However, despite more than two and a half decades of existence, the community-run project has failed to expand significantly beyond the original area of operation, and targeted beneficiaries still experience prolonged water shortages and maintenance issues. Considering many residents of Ruhuha sector and its environs depend on this project for their water needs, it was important to carry out a study on the influence of community participation in the performance of WARP Project with focus on information sharing, resource contribution, collective decision making, resource contribution and project governance.

### **1.3. Hypothesis of the study**

The study sought to answer the following research hypothesis.

**H<sub>01</sub>:** Information sharing has no significant influence on performance of development projects

**H<sub>02</sub>:** Resource contribution has no significant influence ion performance of development projects

## **2. LITERATURE REVIEW**

### **2.1. Conceptual literature**

Community participation is very critical concept when it comes to rural development and project sustainability and success. Different researchers define participation differently depending on the cultural norms, institutions particular interests and the way it's perceived and evaluated by observers in practice (Burke, 2018). According to IFAD (2018). In the workshop report on community participation held in Washington DC by Economic Development Institute in 1986 the participants widely agreed with Plans (2018) definition of community participation developmental context as a dynamic. This definition calls for community engagement in project lifecycle stages if they are to influence the direction and execution of projects. This can be achieved through their active involvement in decision making regarding budgeting plans and control, being part of feasibility of project study hence to get authentic information and also taking part in project monitoring and evaluation in order to follow up the project to ascertain whether it's in the right path towards achievement of the set goals and advice accordingly where necessary among others.

Developed nations like the United States of America, Canada and Russia among others are keen on implementing sustainable development projects with community participation being at the centre stage to achieve uniform, steady and long-lasting development since it is the only way to recover from economic drawbacks. Development experts confirm that community participation is essential to sustainable development projects (Musa, 2017). As commonly experienced, different people view community participation from different perspectives. Participation plays very key role in project success and cannot be overlooked at all levels. Among the various reasons why participation is very important according to IFAD (2021). This means that all the stakeholders must be actively involved inclusive of beneficiaries which actually form the largest number of stakeholders.

#### **2.1.1. Community participation and project performance**

Participation is a process through which stakeholders influence and share control over development initiatives and the decision and resources which affect them. Unless the poor are given an opportunity to participate in the development of interventions designed to improve their livelihood, they will continue to miss the benefits of any intervention. World Bank (2020) defines community participation to include involvement of members of the beneficiary community in development, empowering people and helping them make decisions on desired developmental outcomes. It also advocates for community participation in health issues globally, since is the best strategy of ensuring improved health and better livelihoods for global citizens. Theron (2017) opines that participatory development emerged to curb the drawbacks of top down development, which entails conception, planning and implementation of projects by the elite without involvement or consultation with the masses, the latter being considered too uninformed and unsophisticated to engage in development work. However, this is not the usual practice thus the current topic deserves a discussion.

Advocates of community participation are generally careful to note important caveats such as the potential for local elite capture resources and ignorance of potential cross-community externalities, the overwhelming impression is that community participation is perceived to be less costly for government while being more responsive to community priorities. To date, these assertions have been weakly scrutinized from a micro econometric point of view. The literature on participation and poverty reduction is rich in case study material but not in quantitative analysis (Hoddinott et. al. 2021). Besides, Davis (2018) supports participatory development by asserting that people require opportunities to participate in development projects designed for their benefit as this entrenches a sense of responsibility and ensures project sustainability. Participatory development is therefore a grass root movement that rejects "top-downism" and "statism" as the recognized channels of development. However, despite the latter definitions of participation, it has been common practice in developing countries that the public are left out in water projects and to affirm the latter, the current study is being conducted.

### **2.2. Empirical literature**

Community participation tends to enhance project effectiveness when the involvement of beneficiaries contributes to better project design and implementation and leads to a better match of project services with beneficiary needs and constraints. Community participation can provide inputs for project design or redesign so that appropriate services are devised and delivered. Viewed thus, community participation entails the co-production of goods and services by beneficiaries jointly with the project authority. Here the focus is on the achievement of project objectives (Barnyard, 2019). Beneficiaries maybe expected to contribute labor, money or undertake to maintain the project. Self-help groups in low-income housing illustrate

this benefit of community participation. Community participation may thus be used to facilitate a collective understanding and agreement on cost sharing and its enforcement (Samad, 2018).

Findings from a study by Khwaja (2020) indicated that high level of participation is beneficial that brings inputs and knowledge. This study goes ahead to argue that is desirable in decisions but undesirable since it leads to worse project outcomes. In Africa, community participation is conceived as one of the key element of project sustainability. Mansuri et al (2021) states that participatory approaches make the projects more efficient and effective in addition to contributing in project sustainability. Most of the projects have been initiated to help the youth generation to improve their living standards along contributing to poverty reduction.

David (2018) adds that community participation can be seen as a process in which community members are involved at different stages and degrees of intensity in the project cycle with the objective to build the capacity of the community to maintain services created during the project after the facilitating organizations have left. Community participation throughout the whole project, thus from project design and implementation to evaluation, ensures the reflection of community priorities and needs in the activities of the project and motivates communities into maintaining and operating project activities after the project is completed.

### **2.2.1. Community participation and information sharing**

Information sharing helps developers to gather information and gain greater understanding of the issues. It involves talking to key people in the community in order to discuss their knowledge, experience and understanding of the issue. These people might already be involved in community development activities; they might be people that the community turns to in times of crisis or those who are seen as the heart of the community. Key people include health workers, traders, religious leaders, village chiefs, pastors and teachers (Ford, 2021).

Community mapping helps to draw the community together to tell their story together. This tool involves community members drawing a map of their community to tell story together. They draw either on paper or outside on the ground, using whatever resources are available. They are given little guidance of what to include. The important point of the exercise is to discuss what people have drawn. The map might show the natural and physical resource in the area-forest, rivers, roads, house and wells. It might show important people and organizations (Fox, 2018). However, according to (Mansouri et al, 2021), it should be born in mind that there is no one correct" way of doing community development or development planning for that matter. He argues that it would require a super-human being to provide a perfectly clinical way of doing community development, knowing exactly what to do. As people tackle one-issue after another, the success they attain towards reaching their concrete objectives gives them not only a learning opportunity on how to tackle the next task better, but also builds their own self-confidence. By gaining in the ability to reach certain objective, people also gain in self-sufficiency. Their reliance on external resources to reach an objective diminishes, and when they become self-reliant, they also gain in human dignity. They come to discover their own potential and what they can do to make a difference in their lives (Swanepoel, 2020).

### **2.2.2. Community participation and resource contribution**

Mayer (2020) argued that community-based development relies on communities to use their social capital to organize themselves and participate in development processes. Thus, concepts such as participation, community, and social capital are critical to how community participation in resource provision is conceptualized and implemented. Project managers have finite amounts of money for project execution, and this varies with the size and complexity of the projects.

According to Environmental Law Institute Staff (1999) it is in all parties" interests that project sustainability is proportionate, and that resources are optimized so that funds are invested in community infrastructure rather than unnecessary aspects of the projects. Long term engagement of communities by project managers, and a process of prioritization, can avoid the pitfall of trying to meet all needs of the community (Ostrom, 2020).

### **2.3. Theoretical framework**

Theoretical framework is the structure that can hold or support a theory of a research study. The theoretical framework introduces and describes the theory that explains why the research problem under study exists. This increased interest arose



after the realization that the previous approaches to understanding development had failed, and resulted in the propagation of the people-centred approach.

### **2.3.1. Modernization theory**

Modernization theory such as the evolutionist theory of Darwin is based on the broad belief that societies move from the traditional to modern stage through a series of stages. According to Davids (2018). The essence of modernization is for less-developed countries to become developed, they should follow the path taken by the developed countries over the past 100-200 years.

Narayan (2018) summarized the main principles of evolutionism: The process occurs gradually over time; all societies go through the same number of stages, irreversible and progressive, and at the end, all societies end up looking the same. Societies eventually reach a maturity stage, characterized by neo-liberalism system where the economy is determined by markets, with little or no intervention from the state. The training and technology required to reach this stage, according to modernists, is provided by the West. For example, interventions in developing countries in terms of aid have been structured along the lines of the modernization theory. Aid agencies identify problems in certain target communities and proceed with the intention to change them, in the Western sense. This has resulted in several projects failing to achieve the desired goals. The modernization theory has also failed to explain growing disparities within societies, where both very rich and extremely poor people are found.

Classical growth model also leads to a convergence hypothesis-the hypothesis that per capita income in countries with similar institutional structures will gravitate toward the same level of income per person. As countries get more capital and become richer, their growth rates would slow down while poorer countries with little capital should grow faster than richer countries. Eventually, per capita incomes among countries should converge. These predictions of convergence have not come true for many countries.

Ayres (2018) one of the main proponents of the dependency theory, stated that it's the ignorance of the underdeveloped countries history that leads them to assume that their past and indeed their present resemble earlier stages of history of the now developed countries. The study generally held that economic development occurs in a succession of capitalist stages and that today's underdeveloped countries are still in a stage of history through which the now developed passed long ago.

Among the criticisms laid against modernization theory is that the theory assumes there is a single way to advancement, which is not the case. The theory assumes that all societies evolve from a common starting point of underdevelopment and transform along a reductionist continuum of economic and social change from traditional to modern society. This belief has been certainly proven wrong by the rise of the Asian Tigers as well as, most recently, the spectacular rise of China as a global power in the past few decades (Ayres, 2018). Furthermore, the current world economic crisis poses a huge challenge for modernization theory. Freeman (1963) postulated that capitalism is extremely unstable, lurching from boom to depression with depressing regularity. This criticism against the modernization theory laid the foundation for a more radical dependency theory.

Contemporary underdevelopment is largely explained in part as the historical product of past and continuing economic relations between the satellite underdeveloped and the now metropolitan countries (Ayres, 2018). Development in core countries and underdevelopment in the peripheral countries are two sides of the same coin. The main standpoint of dependence theorists is that one country's advantage (core) is another's disadvantage (periphery), that is, one necessarily implies another. This relationship can be explained by three distinct factors: lack of investment by multinational companies, unequal balance of trade, and surplus extraction (Freeman, 1963).

### **2.3.2. Dependency theory**

Dependency theory has been criticized for its radical leftist solution to this unfair relationship between developed and developing nations; that is, cutting ties. Such attempts have been disastrous in countries such as Zimbabwe, Cuba and Venezuela and have failed to address underdevelopment. In addition, globalization has led to crucial interdependence between nations. In addition, dependency theorists have also laid all the blame on Western nations but ignore poor governance and corruption in developing nations.

The two classical development theories of modernization and dependency failed to explain the continued underdevelopment of the third world nations, epitomized by increasing poverty and inequalities. This led to the emergence of the people-centred approach. This paradigm shifts to a more people-centred approach focused on micro-level as opposed to macro-

level theorizing. Davids (2018) indicated that people-centred development is a process by which the members of the society increase their personal and institutional capacities to mobilize and manage resources to produce sustainable and justly distributed improvements in their quality of life consistent with their own aspirations. Unlike in past theories of development, humans are placed at the Centre, contrary to the „trickle-down“ approach in other development initiatives.

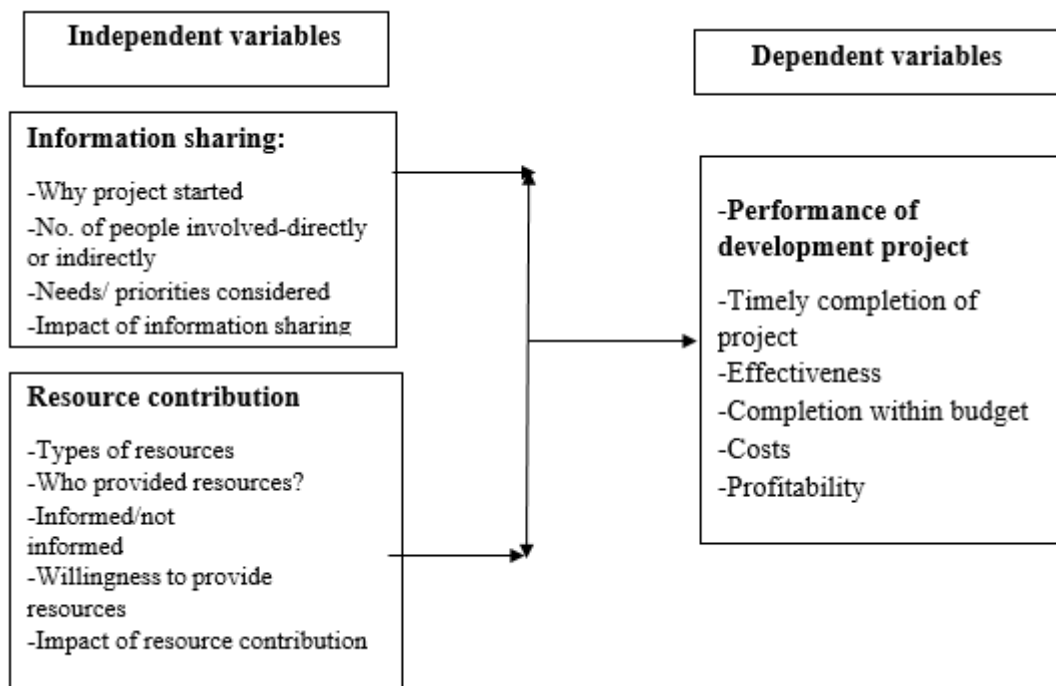
Ostron (2018) argued that in the people-centred approach, four fundamental questions are asked about the development process and include the following: From what? By whom? From whom? Humanist thinking on development implies more than economic growth and includes transformation of institutional, socio-cultural and political systems and structures, hence addressing development in a holistic way. The ultimate objective of development is enhancement of human capacities to enable people to manage their own lives and their environment (Srinivasan, 2020).

There is no agreement among planners and professionals about the contribution of community participation to improving the lives of people, particularly the poor and disadvantaged. Some completely dismiss its value altogether, while others believe that it is the magic bullet“, that will ensure improvements especially in the context of poverty alleviation. Despite this lack of agreement, community participation has continued to be promoted as a key to development. Although advocacy for participation waxes and wanes, today, it is once again seen by many governments, the United Nations agencies and non-governmental organizations (NGOs), as critical to programme planning and poverty alleviation (World Bank, 2018).

#### 2.4. Conceptual framework

Miles and Huberman (2018) define a conceptual framework as a visual or written product, one that explains, either graphically or in narrative form, the main things to be studied; the key factors, concepts, or variables and the presumed relationships among them. The Conceptual framework for the study is shown in figure 1

**Figure 1. Conceptual framework**



Source: Researcher, 2021

### 3. METHODOLOGY

The study adopted descriptive research design. The descriptive research designs helped researchers identify characteristics in their target market or particular population. These characteristics in the population sample can be identified, observed and measured to guide decisions.

For the purpose of this study, 10 community development committee members and 30,028 direct project beneficiaries was involved in this study (NISR, 2022). The population of the study included men and women between the age of 18 and 70 years old in Ruhuha sector in Bugesera District. This population constituted of

30,028 persons who set to benefit from WARP in Ruhuha sector The idea behind the selection of these people was to avoid collecting information from people who lack full knowledge about community participation in WARP.

**Table 1: Table representing target population**

| Category          | Total ipopulation |
|-------------------|-------------------|
| Committee members | 10                |
| Beneficiaries     | 30,028            |
| <b>Total</b>      | <b>30,038</b>     |

**Source:** researcher, i2023

This study used purposive and random sampling techniques. The purposive sampling techniques, also called judgement sampling, is deliberate choice of a respondent due to the qualities of respondent possesses. The simple random sampling was used to select a number of staff that were taken as a sample size. This sample random simply gives each member of population a chance of being selected. This ensured that each member of the target population has unequal and independent chance of being included in the sample.

The sample size was calculated Using Yamane simplified formula to calculate sample sizes, with

$$n = \frac{N}{1 + N(e)^2}$$

Where n is the sample size, N is the population size, and e is the marginal error of 5% through level of confidence of 95%. Thus, this formula is applied to the above sample

$$n = \frac{30,028}{1 + 30,028(0.05)^2} = 384.7 \cong 395$$

Therefore, for the case of this study, the sample size was 395 respondents, then, current researcher was chosen the sample size of population to be questioned through simple random sampling technique.

In order to obtain useful and accurate data and arrive at valid results, the researcher used the following data collection methods: Questionnaire and interview schedule. The study used primary data collected through questionnaires. The questionnaires were self-completed but the researcher was available to clarify any unclear questions. In addition, an interview guide was also being used in this study.

After editing, coding and tabulation of data collected, the researcher went ahead to analyze the data. Constructing tables, filling in relevant figures and calculating the percentages from the numbers corresponding to various responses was also followed. Instead of using whole numbers, percentages accruing to each category were used. Thus, the interpretation of data presented in tables helped to test the hypothesis. The data were checked for completeness and comprehensibility and were analyzed using SPSS and Excel.

The researcher used both qualitative and quantitative data analysis methods. Descriptive statistics with mean and standard deviation. The qualitative data was consolidated, analyzed in terms of content and a narrative report was produced presenting the respondents' views on the influence of community participation on performance of development project

The study was conducted a multiple regression analysis to test the relationship between independent variables and dependent variable. The regression equation was:

$$Y = \beta_0 + \beta_1X_1 + \beta_2X_2 + \epsilon$$

Whereby Y= Project Performance

X1= Information sharing

X2= Resource contribution

$\beta_1$  and  $\beta_2$  are coefficients of determination  $\epsilon$  is the error term.



#### 4. RESEARCH FINDINGS AND DISCUSSION

This section covers data analysis, results, response rate, and discussions of the study in reference with the research objective and research methodology.

##### 4.1 Questionnaires completion rate

The research activity was fruitful judging from the return rate of the respondents. The results of the response and completion are presented in Table 2.

**Table 2: Response rate**

| Respondents       | Targeted   | Obtained   | Response rate(%) |
|-------------------|------------|------------|------------------|
| Committee members | 2          | 2          | 100              |
| Community members | 393        | 250        | 63.7             |
| <b>Total</b>      | <b>395</b> | <b>252</b> | <b>77.3</b>      |

Source: Primary data, 2023

As shown in Table 2, from the targeted respondents, 143 questionnaires from community members were not returned, so the participation rate was reduced to 143(36.3%) of the community members. Overall, the response rate of respondents was 63.7%. Only two committee members were given interview.

##### 4.2. Descriptive statistics on information sharing

This research question originates from the research objective one in which the researcher sought to determine the stakeholder's views on the influence of information sharing on performance of development projects in Ruhuha sector in Bugesera District. To obtain the respondent's views, the researcher administered the questionnaire items to the respondents.

**Table 3: Level of involvement**

| Level of involvement    | Frequency  | Percentage |
|-------------------------|------------|------------|
| All community members   | 10         | 4          |
| Some community members  | 146        | 58.4       |
| Many community members  | 75         | 30         |
| A few community members | 19         | 7.6        |
| <b>Total</b>            | <b>250</b> | <b>100</b> |

Source: Primary data, 2023

From the results in Table 3, shows the level of involvement of respondents. that majority of Community are involved in the projects. Findings of 58.4% of the respondents from project community members were involved respectively. The results show that many of community members are fully involved in the affairs of the project thus leading to better performance of the projects.

The findings support African Institute of South Africa report (2002) that the mobilization of people in development is central to the public participation process to ensure empowerment of beneficiaries to "effectively involve themselves in creating the structures and in designing policies and programmes that serve the interest of all as well as to effectively contribute to the development process and share equitably in its benefits.

**Table 4: Respondents involvement**

| Community involvement | Frequency  | Percentage |
|-----------------------|------------|------------|
| Directly              | 91         | 36.4       |
| Indirectly            | 159        | 63.6       |
| <b>Total</b>          | <b>250</b> | <b>100</b> |

Source: Primary data, 2023

The results in Table 4 revealed that the majority (63.6%) of community members had been involved indirectly in the affairs of the project. From the results, it's clear that involvement of community is important ingredient in determining performance of projects. Communities should be encouraged to take front role in project cycle.

The results of the study support Igboeli (1992) who argues that, rather than imposing development projects on a community, its members should be allowed to participate meaningfully in the planning and execution. Development is meaningless if it does not harness the potentials of the beneficiaries who are the primary stakeholders.

#### 4.3. Descriptive statistics of resource contribution

This research question originates from the research objective two in which the researcher sought to establish the stakeholders' views on the influence of resource contribution on performance of development projects in Ruhuha sector in Bugesera District. To obtain respondents perceptions, the researcher administered questionnaire item to the respondents. The responses to the relevant items are presented in the subsequent questions.

**Table 5: Resources required for the project**

| Resource required ifor iproject | Frequency  | Percentage |
|---------------------------------|------------|------------|
| Human                           | 201        | 80.4       |
| Equipment                       | 16         | 6.4        |
| Material                        | 21         | 8.4        |
| Finances                        | 4          | 1.6        |
| Both human and material         | 8          | 3.2        |
| <b>Total</b>                    | <b>250</b> | <b>100</b> |

**Source:** Primary data, i2023

Table 5 indicates that majority of community members contributed human resource. That is represented by 80.4% of respondents from project management committee and respectively 6.4% for equipment, 8.4% for material, 1.6% for finances, 3.2% for both human and material. The results imply that majority of the respondent's content that human resources are locally available and less costly enabling community to readily contribute the resource thus improving performance of the projects because resource contribution by community is an indicator of project performance.

**Table 6: Frequency of community resource contribution**

| Frequency of resource | Frequency  | Percentage |
|-----------------------|------------|------------|
| Never                 | 11         | 4.4        |
| Sometimes             | 5          | 2          |
| Often                 | 63         | 25.2       |
| Always                | 171        | 68.4       |
| <b>Total</b>          | <b>250</b> | <b>100</b> |

**Source:** Primary data, 2023

Table 6 shows that majority of community members had always and often contributed their resources towards the projects. That is represented by 68.4% from project management and

Community's willingness to contribute their resource shows their acceptance to own the project and also reduces the costs of the project. This trend is highly recommended for improved project performance and sustainability.

These findings concur with Hillman (2016) who sees community development as a method of helping local communities to become aware of their needs, to assess their resources more realistically, to organize themselves and their resources in such a way as to satisfy their needs and in so doing, acquire the attitude, experiences and cooperative skills for repeating this process again and again on their own initiative.

**Table 7: Respondents’ opinion on community feelings**

| Community feelings | Frequency  | Percentage |
|--------------------|------------|------------|
| Very satisfied     | 51         | 20.4       |
| Satisfied          | 191        | 76.4       |
| Neutral            | 8          | 3.2        |
| Dissatisfied       | 0          | 0          |
| Very dissatisfied  | 0          | 0          |
| <b>Total</b>       | <b>250</b> | <b>100</b> |

Source: Primary data, 2023

Results from Table 7 shows that majority of community members (76.4%) were satisfied when contributing resources. Respectively 20.4% were very satisfied, but 8% were neutral. The findings indicated that community members were very satisfied while contributing their resource

These results are in agreement with Dongier et al.,(2021) and Narayan (2012) findings that development Framework of any project for its sustainability should have increasing emphasis on empowerment and involvement of the community around in resource mobility”.

#### 4.5. Correlation analysis

In this section, Pearson correlation is used to examine the relationship between the independent variables (IV) and the dependent variable (DV). Pearson correlation analysis findings indicated the relationship between community participation and performance of development project. The correlation existing between decision making and all the independent variables; comparability and reliability was strong and positive and negative for some (0.490, and 0.651 respectively) significant at the 0.01 level. All the predictor variable; information sharing and resource contribution were satisfactory with a significant level of 0.000 each.

#### 4.6. Multiple regression

The regression analysis was also carried out to test to assess the influence of icommunity participation on performance of development projects in Rwanda. A case study of Water Aid Rwanda Project (WARP) in Ruhuha sector in Bugesera District. The results of the regression are shown in the following tables

**Table 8: Model summary**

| Model | R                 | R Square | Adjusted R Square | Std. Error of the Estimate |
|-------|-------------------|----------|-------------------|----------------------------|
| 1     | .788 <sup>a</sup> | .621     | .615              | .67658                     |

a. Predictors: (Constant), information sharing and resource contribution

The Table 8 above indicates the fit of model. It shows the fitness of the regression model in explaining the variables under study. The findings show that the predictor variables; information sharing and resource contribution adequately explained decision making. R square of 0.621 supported the findings. This implies that the predictor variables can explain 62.1% of the decision making which implies that 37.9% of decision making can be explained by other factors not captured by this study

**Table 9: Analysis of variance**

| Model |            | Sum of Squares | df  | Mean Square | F       | Sig.              |
|-------|------------|----------------|-----|-------------|---------|-------------------|
| 1     | Regression | 183.832        | 4   | 45.958      | 100.397 | .000 <sup>b</sup> |
|       | Residual   | 112.152        | 245 | .458        |         |                   |
|       | Total      | 295.984        | 249 |             |         |                   |

a. Dependent variable: performance of development project

b. Predictors: (constant), information sharing and resource contribution,

The table above indicated standard regression which provides the effect of individual predictor variables. Those variables are project governance, information sharing, collective in decision making, Resource contribution. The table shows the output analysis and whether there is a statistically significant difference group mean. As seen, it, the significance value is 0.000 Therefore, there is a statistically significant difference in the mean length of model.

**Table 10: Summary of Multiple Regression Analysis**

| Model |                       | Unstandardized coefficients |            | Standardized coefficients | t      | Sig. |
|-------|-----------------------|-----------------------------|------------|---------------------------|--------|------|
|       |                       | B                           | Std. Error | Beta                      |        |      |
| 1     | (Constant)            | -1.863                      | .351       |                           | -5.304 | .000 |
|       | Information sharing   | .376                        | .090       | .207                      | 4.191  | .000 |
|       | Resource contribution | -.052                       | .361       | -.036                     | -.143  | .007 |

a. Dependent Variable: Performance of development project

Table 10 shows results indicating that the most effective community participation influencing performance of WARP project in Ruhuha sector in Bugesera district was information sharing ( $\beta = 0.207$ ,  $p < 0.05$ ). This was followed by resource contribution in that order. The beta values for these variables; -1.0863,  $p < 0.05$ ; 0.376, and -0.52,  $p > 0.05$  respectively illustrate a corresponding change of the dependent variables equal to the number of standard deviations when the respective standard deviation of the independent variable changes by one.

#### 4.7. Hypotheses Testing

Hypothesis testing is used to examine a regression analysis test. Regression test was used to examine the effect of independent variable on dependent variable. The hypothesis testing was performed by using SPSS tool and the result is as presented in Table 11.

In statistics significance testing the p-value indicates the level of relation of the independent variable to the dependent variable. If the significance number found is less than the critical value also known as the probability value ( $p$ ) which is statistically set at 0.05, then the conclusion would be that the model is significant in explaining the relationship; else the model would be regarded as non-significant.

**Table 11: Summary of Hypotheses**

| Hypothesis   | Rule                                    | P-Value  | Comment  |
|--|---|----------|--|
| H <sub>01</sub> : Information sharing has no influence on performance of development projects    | Reject H <sub>0</sub> if p value < 0.05 | p < 0.05 | Information sharing influences performance of development projects       |
| H <sub>02</sub> : Resource contribution has no influence on performance of development projects. | Reject H <sub>0</sub> if p value < 0.05 | p < 0.05 | Resource contribution influences on performance of development projects. |

Source: Primary data, 2023

The Table above indicates the summary results of hypothesis. The regression R value obtained, in which  $r = 0.787^a$  (see Table 8) represented the correlation coefficient of the model whose order value  $> 0$ . This illustrates that the incorporation of many variables improved the model when analyzing the effect of AIS on decision making. The adjusted  $r^2$  value of,  $r = 0.621$ , also indicates that the multiple linear regression model could explain for approximately 62% of the variations in participation in leadership. This indicates that community participation has a great influence on performance of development project. To identify the independent variables that were mostly responsible for effective devolution in the area, the beta value was used.

Therefore, the researcher found that research hypotheses including: “H<sub>1</sub>: Information sharing has no influence on performance of development projects.; H<sub>2</sub>: Resource contribution has no influence on performance of development

projects.”; all were tested; verified and then they are rejected referring to the statistical (regression analysis) findings and then according to the research, the correlation of 0.788 (78.8%) categorized as positive and very high correlation; this leads to confirm that there is significant relationship between community participation and performance of development project.

## **5. CONCLUSION AND RECOMMENDATIONS**

### **5.1. Conclusion**

The regression R value obtained, in which  $r = 0.788$  represented the correlation coefficient of the model whose order value  $> 0$ . This illustrates that the incorporation of many variables improved the model when analyzing the influence of community participation on performance of WARP. The adjusted  $r^2$  value of,  $r = 0.615$ , also indicates that the multiple linear regression model could explain for approximately 62% of the variations in performance of WARP project. This indicates that the community participation has a great influence on performance of WARP project in Ruhuha sector. To identify the independent variables that were mostly responsible for effective devolution in the area, the beta value was used.

The variation of Spearman Coefficient correlation is between -1 and 1. Spearman Coefficient correlation is significant when it is equal or greater than 0.01 level. According to the research, the correlation of 0.788 (78%) which is positive and very high correlation. As the significant level is at 0.01 (1%), the p-value of 0.000 (i.e. 0.0%) is less than 1%. This leads to confirm that there is significant relationship between community participation and performance of development project.

### **5.2. Recommendations**

The following are key recommendations arising from the study:

- i. There is need for the government to carry out a stakeholder mapping exercise in order to profile all stakeholders undertaking development initiatives, the areas of focus, locations where the projects are being implemented, target beneficiaries and funds allocated for such development initiatives. This will avoid double targeting of beneficiaries, ensure equity, effective and efficient utilization of resources.
- ii. There is need for the development actors to involve community when developing budgets for the projects. This will enable the community to identify resources which they can contribute for example; locally available materials, unskilled labour, security and this will reduce project cost, improve both ownership and performance of the projects.

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