

**FACTORS AFFECTING MARKET ACCESS IN AGRICULTURAL BASED PROJECTS IN RWANDA: A CASE OF HOME GROWN SCHOOL FEEDING (HGSF) PROJECT IN NYARUGURU DISTRICT.**

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**ABSTRACT:** *The issue of market access may usefully be considered according to three dimensions: physical access to markets; structure of the markets; and producers' lack of skills, information and organization. Physical access to markets. Distance to markets – and lack of roads to get to them (or roads that are impassable at certain times of the year) – is a central concern for rural communities throughout the developing world. It undermines the ability of producers to buy their inputs and sell their crops; it results in high transportation costs and high transaction costs, both to buyers and sellers; and it leads to uncompetitive, monopolistic markets. The objectives of the study is: to find out how market location determines market access for agricultural based projects in Rwanda, to find out how Market information determines market access to agricultural based projects in Rwanda, to explore the level at which the Influence of cooperative societies determines market access to farmers in Rwanda, to analyse the degree at which factor costs determines market access to farmers in Rwanda, to evaluate the extent to which trainings determines market access to farmers in Rwanda. The target population consisted of 100 cooperative management committee members from 20 cooperatives working with Home Grown School Feeding project in Nyaruguru District. That is; 5 committee members in each cooperative. A census method, also commonly called a total population, is one that was selected based on the fact that the size of the population was small and easy to identify and reach. The census method was used due to small size of the population. In data collection, the researcher used structured questions method. In this case the enumerators helped the target group respond to the questions. Data was than analysed and tested using descriptive statistics to test the relationship between the variables. The study found out that the fact that market access is determined by several determinants; that is: Producer's location in terms of distance to the buyer, nature of the road and means of transport, Market information in form of how the organization gets produce from members to a collection point for sale or delivery, knowledge about pricing and competitors, Factor costs like reduced transport costs, costs for collection of the produce and market search costs. All these costs should be minimal for the smooth operation of the farmers, Trainings mostly on marketing, managing post-harvest losses, branding and packaging, the use of modern seed multiplication techniques and introduction of low cost seed varieties. It is challenged by poor transportation infrastructure as the most pressing hinderance to their market access, High costs of collecting and preparing commodities for market, limited pricing information, long distance to the market and seasonal problems linked to rain/disruption of roads.*

**KEYWORDS:** Market Access, factors affecting Market Access, Agricultural Based Projects.

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## INTRODUCTION

Market access is an issue that many developing country governments, donors and nongovernmental organizations continue to grapple with. Agricultural markets are promoted as a possible pathway to rural development, as they are seen as important for economic growth and addressing poverty. Access to markets for smallholder rural farmers, however, is fraught with challenges. Market access issues present local to global connections that prove to be both opportunities and challenges for rural smallholder farmers (IFAD, 2010).

Starting in the early 1980s, a series of agricultural marketing reforms were introduced in most countries in the developing world, with the aim both of reducing the level of public expenditure incurred by the state agencies, and of promoting a more productive, commercially oriented and diverse agricultural sector. Crucially, they sought to limit, or completely eliminate, the role of the parastatal institutions in agricultural marketing, and so provide the space for private-sector involvement. In practice, and in retrospect not surprisingly, the emergence of private-sector market intermediaries (ranging from small-scale informal traders to large, often foreign owned, agro-processors) to fill the vacuum left by the withdrawal of the state has generally been less smooth and less rapid than expected. However, there has also been enormous variation in the composition of this intermediary sector and in the speed of its emergence. (Thorndike et al. (2004)

WFP Rwanda has been working in close collaboration with the Ministry of Agriculture and Animal Resources (MINAGRI) on a number of projects including market access (Purchase for Progress - P4P and Forward Purchasing Facility - FPF). WFP has built upon the progress made through the purchase for progress (P4P) initiative in supporting MINAGRI to strengthen its ability to assist smallholder farmers to access markets, both national and regional, while also enhancing their capacity in post-harvest handling, storage, commodity tracking, and management of the national strategic food reserves. WFP has supported MINAGRI in advancing the commercialization of smallholder farmers by addressing value chain issues. (Lankes, H.P, 2002)

### Statement of the Problem

The issue of market access may usefully be considered according to three dimensions: physical access to markets; structure of the markets; and producers' lack of skills, information and organization. Physical access to markets. Distance to markets – and lack of roads to get to them (or roads that are impassable at certain times of the year) – is a central concern for rural communities throughout the developing world. It undermines the ability of producers to buy their inputs and sell their crops; it results in high transportation costs and high transaction costs, both to buyers and sellers; and it leads to uncompetitive, monopolistic markets. Mazoyer et al. (2008).

Difficult market access restricts opportunities for income-generation. Remoteness increases uncertainty and reduces choice: it results in more-limited marketing opportunities, reduced

farm-gate prices and increased input costs. It also exacerbates the problem of post-harvest losses, which can reach as high as 50% in some areas. In doing so, it weakens incentives to participate in the monetized economy, and results in subsistence rather than market-oriented production systems. Acemoglu et al. (2006), By contrast, improved infrastructure leads to increased market integration and more commercially oriented production systems. Market access is thus a key determinant of household production systems. Rural markets are characterized by extreme asymmetry of relations between, on the one hand, large numbers of small producers/consumers, and on the other, a few market intermediaries. Bagwell et al. (2001), such market relations are characteristically uncompetitive, unpredictable and highly inequitable. Rural producers who face difficulties in reaching markets often become dependent on traders coming to the village to buy their agricultural produce and to sell those inputs and consumer goods. However, especially in remote areas, a trader may not arrive reliably or at all, and producers are often faced with little choice but to accept the first offer of the first trader 10 who shows up, however unfavourable it might be. Such a situation is exacerbated when the trader is also the only source of information on prices and other relevant market information. Bond et al. (2005), in their participation in agricultural markets, poor producers find themselves at a major disadvantage. Many have a poor understanding of the market, how it works and why prices fluctuate; they have little or no information on market conditions, prices and the quality of goods; they lack the collective organization that can give them the power they require to interact on equal terms with other, generally larger and stronger, market intermediaries; and they have no experience of market negotiation and little appreciation of their own capacity to influence the terms and conditions upon which they trade. (Lopez et al; 2005).

## **Objectives of the Study**

### **General Objectives**

The general objective of the study is to analyse the factors affecting market access in agricultural based projects in Rwanda.

### **Specific objective of the study.**

1. To find out how Producer's locations affect market access in agricultural products in Rwanda
2. To explore how Market information affect market access in agricultural based projects in Rwanda
3. To analyse the degree at which Factor costs affect market access to farmers in Rwanda
4. To explore the extent to which trainings affect market access in agricultural based projects in Rwanda.

### **Research Questions**

1. How does market locations affect market access in agricultural based projects in Rwanda?
2. How does Market information affect market access in agricultural based projects in Rwanda?
3. How does Factor costs affect market access in agricultural based projects in Rwanda?
4. How trainings affect market access in agricultural based projects in Rwanda?

### **Research Design**

Study used descriptive research design using case study method. Both quantitative and qualitative analysis is done used for the data collected.

**Target Population**

The target population consists of 100 cooperative management committee members from 20 cooperatives working with Home Grown School Feeding Project in Nyaruguru District; that is: 5 committee members in each cooperative.

**Sampling technique****Census techniques**

A census method, also commonly called a total population method will be used. The researcher will use this method based on the fact that the size of the population of 100 people was found to be affordable by the researcher, hence it was wholly considered for data collection.

**Instruments of data collection****Structured Interviews**

The researcher will use structured questions method because some of the respondents did not go to school and hence not able to write or read the questionnaire. In this case the enumerators will be needed to help the target group respond to the questions.

**Data Analysis**

Descriptive statistical method: When we use descriptive statistics it is useful to summarize our group of data using a combination of tabulated description (i.e., tables), graphical description (i.e., graphs and charts) and statistical commentary (i.e., a discussion of the results).

**RESEARCH RESULTS AND DISCUSSION****10.1. Connection of the cooperative to the nearest town****Table 1:** Available means of connection to the nearby town

| Road Connection | Frequency | Percentage |
|-----------------|-----------|------------|
| Very bad        | 24        | 24%        |
| Fairly good     | 68        | 68%        |
| Fairly bad      | 8         | 8%         |
| Very good       | 0         | 0%         |

Source: Primary data (2015)

The producer's location was first analysed from the connection of the cooperative to the nearest town to know if there are kinds of roads that allow or impede the accessibility of the cooperatives. The table below show that 68% asserts that the means of connection is fairly good but still the 24% who shown the connection means as very bad is considered. So this indicate that the there are no favourable connection means to the cooperative.

**Time taken to arrive at sell points.****Table 2: Time is considered long for the cooperatives to arrive at sell points.**

| How long it takes to arrive at sell points | Frequency | Percentage |
|--|-----------|------------|
| Strongly disagree                          | 0         | 0%         |
| Disagree                                   | 8         | 8%         |
| Agree                                      | 32        | 32%        |
| Strongly agree                             | 60        | 60%        |

Source: Primary data (2015)

The producer's location to the market was analysed from the time it takes to arrive at sell points and the influences to the market access of agricultural products. 60% strongly agree that the time it takes to arrive at sell points is long, 32% agree, well as 8% disagree. So a high percentage of 60% for responses on long time taken might be as a result of unfavourable road connections.

**Distance from the Farmers' collection point to the market****Table 3: Long Distance from the Farmers' collection point to the market**

| Long distance from the Farmers' collection point to the market | Frequency | Percentage |
|--|-----------|------------|
| Strongly disagree  | 0         | 0%         |
| Disagree   | 0         | 0%         |
| Agree  | 40        | 40%        |
| Strongly agree   | 60        | 60%        |

Source: Primary Data

The distance from the farmer's collection point to the market was also analysed to find out whether it is associated with the determinants of market access for agricultural products. The findings displayed that 60% responded to have strongly agreed with the statement of long distance and the rest 40% agreed. None of the respondents disagreed. This also indicate that the long distance is related to the bad road connection mentioned above and the long-time taken is also a result of long distance.

**Public transport coming to the cooperative area****Table 4: Whether there is a public transport coming to the cooperative area**

| Public transport | Frequency | Percentage |
|------------------|-----------|------------|
| YES              | 72        | 72%        |
| NO               | 28        | 28%        |

Source: Primary data (2015)

The findings revealed a 72% yes and 28% no. this means that to a large extent of 72% responses confirm the accessibility of public transport. This also can be analyzed in other words that regardless of long distance and much time taken to reach the market by cooperatives, there is a public transport penetration which at least improves the market access conditions.

**Consequences of isolation for the Cooperative Area from public transport****Table 10.5: Consequences of isolation for the Cooperative Area from public transport**

| Consequences  | Frequency | Percentage |
|---|-----------|------------|
| markets are inaccessible                            | 10        | 10%        |
| No consequence                                      | 0         | 0%         |
| impedes getting inputs timely                       | 10        | 10%        |
| health services are inaccessible                    | 15        | 15%        |
| schools are inaccessible                            | 20        | 20%        |
| forces farmers to sell their produce at lower price | 45        | 45%        |

Source: Primary data (2015)

Though the percentage of no responses to the accessibility of public transport was found to be low, the research show some consequences to the isolation of some cooperative areas from public transport. the consequences ranges from forcing farmers to sell their produce at lower price, inaccessibility to schools, impeding getting inputs timely, markets and health services inaccessible.

**Where the cooperative sell their Produce.****Table: Cooperatives have main markets in which they sell the produce**

| Having main markets to sell their produce. | Frequency | Percentage |
|--|-----------|------------|
| Strongly disagree                          | 7         | 7%         |
| Agree                                      | 48        | 48%        |
| Disagree                                   | 10        | 10%        |
| Strongly agree                             | 35        | 35%        |

Source: Primary data (2015)

the researcher started with finding out whether the agricultural cooperatives have where to sell their produce. The findings show that on utmost 48% agree for having where to sell their

produce, 35% also strongly agree for the cooperative to have the main market where they sell he produce.

### Decisions about where to sell the cooperative produce:

**Table 7. Decisions about where to sell the cooperative produce.**

| Who makes decisions              | Frequency | Percentage |
|----------------------------------|-----------|------------|
| cooperative management committee | 7         | 28%        |
| cooperative members              | 3         | 12%        |
| both                             | 15        | 60%        |
| Other. Specify                   | 0         | 0%         |

Source: Primary data (2015)

60% of the respondents show both the cooperative management and members as co-decision makers who reach common decisions on where to buy, 28% show that cooperative management committee makes sole decisions on where to buy and lastly 12% indicate that cooperative members decides on where to sell. The high 60% responses of both management and ordinary members taking decisions on where to sell the produce indicates a good knowledge on potential sources of market for their produce as well as accountability to each other.

### The most common way the organization gets produce from members to a collection point for sale or delivery.

**Table 8: The most common way the organization collects produce from members to a collection point for sale or delivery is by members delivering their produce to the organization.**

|                | Strongly agree | Frequency | Percentage |
|----------------|----------------|-----------|------------|
| Disagree       |                | 20        | 20%        |
| Agree          | 72             | 72%       |            |
| Strongly agree |                | 8         | 8%         |

Source: Primary data (2015)

The common way the cooperative produce is being collected from members to the sell points is to understand how effective the cooperative is in delivering their produce to the market and whether they have any information on market availability or they keep their produce individually and waits the buyers. This is also an indicator of hopefully producing with market assurance. 72% of the respondents agree that their most common way of getting produce from the members to the collection point is through members delivering their produce to the organization. This means that the members collects their produce individually and deliver to the cooperative and then the cooperative delivers the members produce to the market. Given the large percentage of respondents agreeing on the most common way as that where members deliver their produce to the organisation, it implies a good knowledge of market sources and strong bargaining power of the cooperative unlike individual members.

### Wasted your produce because of lack of markets

**Table 10.9: Wasted cooperative produce because of lack of markets**

| Wastage | Frequency | Percentage |
|---------|-----------|------------|
| YES     | 72        | 72%        |
| NO      | 28        | 28%        |

Source: Primary data (2015)

The wastage of produce because of lack of market indicate the innaccessibility to market information and lack of perfect knowledge on market trends. When there is access to pricing information and knowledge on fluctuation in market of agricultural produce, the wastage of the produce is unlikely to occur. The findings display that 72% of the respondents agree to have ever wasted their produce because of lack of market, well as 28% didn't ever face the wastage of their produce as a result of the lack of markets. This implies that to a large extent the cooperative produce is wasted as a result of lack of markets.

#### Means of transport to get to the nearest market centre.

**Table 10: The means of transport to get to the nearest market center is favorable.**

| Favorable Means of transport | Frequency | Percentage |
|------------------------------|-----------|------------|
| Disagree                     | 55        | 55%        |
| Strongly agree               | 10        | 10%        |
| Agree                        | 21        | 21%        |
| Strongly disagree            | 14        | 14%        |

Source: Primary data (2015)

The research findings show that the majority 55% of respondents disagree with the statement that the means of transport is favorable. This indicate that the unfavourable transport means is related to the problem of bad road connection.

#### The cost to and from the market center.

**Table 10.11: How the cost of transport to and from the market center is considered**

| Cost of transport | Frequency | Percentage |
|-------------------|-----------|------------|
| Very low          | 0         | 0%         |
| low               | 4         | 16%        |
| high              | 7         | 28%        |
| Very high         | 14        | 56%        |

Source: Primary data (2015)

The research also captured the cost of transport to understand the extent to which transport costs are market access determinants. The findings show that 56% of respondents indicated the cost of transport to be very high. This might be connected to the distance that was found to be long and bad road connections.

#### Cooperative trainings increased market access through improved quality of products in the past 12 months.



**Table 10.12: Cooperative trainings increased market access through improved quality of products**

| trainings         | Frequency | Percentage |
|-------------------|-----------|------------|
| Strongly agree    | 25        | 25%        |
| Disagree          | 15        | 15%        |
| Agree             | 60        | 60%        |
| Strongly disagree | 0         | 0%         |

Source: Primary data (2015)

The findings revealed that 64% of the respondents answered Agree. This means that cooperative trainings increased market access through improved quality of products. This means they didn't meet any form of missing the markets as a result of lack of trainings. This further shows that trainings are vital factor in the market accessibility.

### 10.13. How do you evaluate the benefits from the trainings provided in the last 12 months

**Table 10.13. Trainings have been beneficial to the cooperative members**

| Training received | Frequency | Percentage |
|-------------------|-----------|------------|
| Strongly agree    | 38        | 38%        |
| Disagree          | 8         | 8%         |
| Agree             | 54        | 54%        |
| Strongly disagree | 0         | 0%         |

Source: Primary data (2015)

### Relationship between Factors affecting Market Access and Agricultural based Projects.

The respondents talked about the relationship between the two variables where they argued that independent variable affects directly the independent one positively.

The table 4.22. displays the extent to which factors affecting market access and agricultural based projects are related. We say that the correlation is:

- Strong if  $|r| > 0.8$
- Middle if  $0.5 < |r| < 0.8$  and
- Weak otherwise.

The correlation between Market access for agricultural based projects was found to be 0.97 for cooperative training, 0.85 for market information, 0.904 for producer's location and 0.797 for factor costs. From the results of the Pearson analysis, it should be noted that the relationship between factors affecting market access and agricultural based projects is strong.

## CONCLUSIONS AND RECOMMENDATIONS

### Conclusion

Conclusively, market access for agricultural products in Rwanda is highly determined by: Producer's location in terms of distance to the buyer, nature of the road and means of transport, Market information in form of how the organization gets produce from members to a collection point for sale or delivery, knowledge about pricing and competitors, Factor costs like reduced transport costs, costs for collection of the produce and market search costs. All these costs should be minimal for the smooth operation of the farmers, Trainings mostly on marketing, managing post-harvest losses, branding and packaging, the use of modern seed multiplication techniques and introduction of low cost seed varieties.

## RECOMMENDATIONS

The research was concerned with the factors affecting market access in agricultural based projects in Rwanda. It is in this regard the recommendations were availed basing on research findings, conclusion as well as study area.

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