

#### Asian Journal of Agricultural Extension, Economics & Sociology 12(1): 1-12 2016: Article no AJAFES 26594

12(1): 1-12, 2016; Article no.AJAEES.26594 ISSN: 2320-7027



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# Success Determinants in Coffee Farmers' Organizations in Tanzania

### Webster Miyanda<sup>1\*</sup>, Hamidu Shungu<sup>2</sup> and Deus Ngaruko<sup>2</sup>

<sup>1</sup>Hanns R. Neumann Stiftung, Open University of Tanzania, Mbeya, Tanzania. <sup>2</sup>Centre for Economics and Community Economic Development, Open University of Tanzania, Tanzania.

#### Authors' contributions

This work was carried out in collaboration between all authors. Author WM designed the study, wrote the protocol and authors HS and DN supervised the work. Author WM carried out all fieldwork and performed the statistical analysis. Authors WM and DN managed the analyses of the study and author WM wrote the first draft of the manuscript and managed the literature searches. Authors HS and DN edited the manuscript. All authors read and approved the final manuscript.

#### Article Information

DOI: 10.9734/AJAEES/2016/26594

<u>Editor(s</u>

(1) Ian McFarlane, School of Agriculture Policy and Development, University of Reading, UK.

Reviewers:

(1) Vecdi Demircan, Suleyman Demirel University, Turkey. (2) Hab. Takács-György Katalin, Óbudai University, Hungary.

Complete Peer review History: http://sciencedomain.org/review-history/15429

Received 25<sup>th</sup> April 2016 Accepted 26<sup>th</sup> May 2016 Published 19<sup>th</sup> July 2016

### Original Research Article

#### **ABSTRACT**

This study aims at examining determinants of Success in Coffee Farmer Organisations (CFOs) in Mbeya and Kilimanjaro region. Based on FO members and expert informants interviews, the study was conducted in two FOs and outlined the importance of marketing system, transparence, FO opportunities and member commitment in influencing FOs success, it revealed that well performing FOs have several linkages including marketing, input and finance; have transparent business transactions. Descriptive statistic analysis was used to analyze the influence of (marketing system, transparence, FO opportunities and member commitment) independent variables (IVs) while MLRA methods were used to determine the significance of the same IVs on the sustaining FOs. The findings recommends that FO facilitators and producers strive in using strategies that encourage member commitment, opens several opportunities within the FO and enhance transparence in the organization's operations. Transparence service linkages in FOs should be enhanced while marketing and member commitments engineer the overall sustainability of the organisation.

Keywords: Farmer organization; producer groups; FOs success and smallholders.

#### 1. BACKGROUND INFORMATION

Coffee among other global cash crops is one of the crops produced largely by smallholder farmers. The crop has shown a more resilience in terms of economic fluctuations. Coffee has become the primary source of income for domestic and export revenues for more than 10 million households in 25 African coffee-growing countries. Coffee is of major economic importance to most of these countries, generating foreign exchange, tax revenues and employment creation. It is generally grown by smallholders on less than 2.5 acres of land in developing countries [1]. According to the Centre for Development Innovation, coffee ranks high among the most important agricultural commodities traded in international markets, in terms of both volume and value. Coffee production and agriculture in general generates more than 30% of GDP and employs more than 60% of the global population through its different segments including Farmers' Organizations (FOs) mobilization and management [2].

In Tanzania coffee is mostly grown in Kilimanjaro, Mbeya, Kagera and Ruvuma predominantly smallholders with unreliable capital and managerial organizational skills hence the need for sustaining FO for proper management, organization and systematic marketing. FOs establishes a mechanism that eliminate the exploitation of ruthless middlemen by running fair business and earning better prices for members; thus, increasing their incomes.

# 2. THEORETICAL REVIEW ON FOS SUCCESS FACTORS

Success theories in literature are based on market, finance and management aspect of the organisation. The theory of success factors can be used in four different ways: a) as a necessary ingredient in a management information system, b) as a unique characteristic of a company, c) as a heuristic tool for managers to sharpen their thinking, d) as a description of the major skills and resources required to be successful in a given market [3]. However, there is no one theoretical model or set of key success factors for successful organizational development, but success depends on 'organisational fit', [4]. 'Fit' is a concept widely recognised in the

management literature. 'Organisational fit' in rural development is the extent to which program design, beneficiary needs and the capacities of the assisting organisation are productively aligned. 'Fit' can be conceived as a function of the organisation membership. Therefore, FOs designs and management strategies to address members' felt needs in an economical manner qualifies the Fit concept.

#### 3. EMPIRICAL LITERATURE REVIEW

Empirical literature on factors that influence FOs success shows that member commitment; coffee marketing systems and high coffee production with member access to finance, inputs and marketing are necessary for the success of the organisation. Understanding of the causes of failure helps clarify recipes for success [5]. Good communication, a sense of common purpose and cohesion. social-economic homogeneity, autonomy and freedom from the outside interference are factors cited by [5] as contributors of FO success. A transparent process of governing tools establishment is cardinal for the success of the organisation. The important aspect of an organisation's decisionmaking process is to encourage member participation [6]. When these two are handled wrongly, the FO is likely to plunge into a costly experience, which in most cases result in organisation disintegration. Governing tools that are established by members are highly valued compared to the imposed by the government and those established by coffee traders for marketing, credit or operational reasons.

#### 4. RESEARCH METHODOLOGY

#### 4.1 Research Design

The design was a mixed research strategy, which employed the use of surveys through structured interviews using questionnaire, FGDs, case study and unstructured interviews, plus document reviews in data collection in which both qualitative, quantitative, primary and secondary data were collected. The combination of methods and tools facilitated triangulation of data collected and ensured the provision of more pragmatic results [7]. A mixture of methods helped the researchers to include the use of induction, deduction, and abduction logic of inquiry [8]. This strategy was used because

researchers needed better evaluate the extent to which the research findings will be trusted and inferences made from the same [9]. In order to collect a lot of information through different means and be able to validate the findings from these different data collection categories, the researchers used a combination of FGDs, interviews and case studies.

### 4.2 Sampling, Data Type and Collection Methods

The sampling frame included 2 regions and 2 FOs with their 10 PGs, which were purposely selected. An additional of 62 farmer respondents with a beneficiary background at FO level in both regions were selected at an average of 6 members per Producer Group, 8 board members as solicitors of FO and PG essential services were purposively selected and 17 key expert informants with an operational background at FO and district level (i.e. agriculture and CDOs), an implementing background on local level (i.e. NGO staff - HRNS), and a business-oriented background (i.e. private sector representatives) were selected using a snowball method.

#### 4.3 Data Processing

Given that FO success is most frequently defined in terms of group objectives, strong leadership, group cohesion and services offered by FOs, the survey tool is designed to capture this multi-dimensional aspect. Indicators of agreeing, disagreeing or neutrality to FO success factors (i.e. frequency of: group objectives, strong leadership, group cohesion and services), were estimated using proxies and used to construct FO success indices that constitute independent variables and factors determining FO success as dependent variable were calculated.

MLRM was used to determine the effect of Marketing system, transparence, FO opportunities and member commitment (independent variables) on FO Success (dependent variable). The basic LRM used to analyze factors, which determine FO success, is denoted as follows.

FSc = (Z) = 
$$\beta_0$$
 +  $\beta_1$ SF<sub>1</sub> +  $\beta_2$ SF<sub>2</sub> +  $\beta_3$ SF<sub>3</sub> +  $\beta_4$ SF<sub>4</sub>+  $\beta_4$ SF<sub>5</sub>+  $\beta_4$ SF<sub>4</sub>+  $\beta_4$ SF<sub>5</sub>+  $\beta_4$ SF<sub>5</sub>+  $\beta_4$ SF<sub>5</sub>+  $\beta_4$ SF<sub>5</sub>+  $\beta_4$ SF<sub>6</sub>+  $\beta_4$ SF<sub>7</sub>+  $\beta_4$ SF<sub>7</sub>+  $\beta_4$ SF<sub>7</sub>+  $\beta_4$ SF<sub>7</sub>+  $\beta_4$ SF<sub>7</sub>+  $\beta_4$ SF<sub>8</sub>+  $\beta_4$ S

FSc = when FOs and their members are aware and observe Marketing system, transparence, take advantage of opportunities and ensure member commitment.

#### 4.3.1 Dependent variable

Z = FO success factors (Marketing system, transparence, FO opportunities and member commitment).

#### 4.3.2 Independent variables

 $\beta_{0}$  Factors keeping people in FOs (regression intercept).

SF <sub>1=</sub> Group objectives (SDA, DS, Neutral, Agree, SA).

SF<sub>2</sub>= Strong leadership (SDA, DS, Neutral, Agree, SA).

SF <sub>3</sub>= Group cohesion (SDA, DS, Neutral, Agree, SA).

SF<sub>4</sub>= Services offered (SDA, DS, Neutral, Agree, SA).

 $\beta_{1-4}$ = Parameter estimates.

Z = Farmer organisation success.

e = Error term.

### 4.4 Research Results: Determinants of FOs Success

There are several factors FO success of which, this research has neither exhausted nor mentioned half of them. It is prudent to note that success challenges are not enclosed to a unique case but manifest as a universal phenomenon that needs a combination of approaches and means in mitigating [10].

1.6% of respondents did not have formal education, 82.3% went up to primary level while 16.1% went up to secondary level. Except for the FOs office bearers, the majority of participants were standard seven leavers with a few exceptions who had secondary school certificates; hence this study establishes that most coffee producers in the study areas are mainly standard seven school leavers, few have gone up to form four while the minority do not have any formal education. Respondents have an average household size of 5<sup>1</sup> in both areas with an average farm size of 1.34 ha in the south (Mbeya) and 0.58 ha in the northern (Kilimanjaro) with average productivity of 340 kgs and 273 kgs respectively. All producers interviewed were

<sup>&</sup>lt;sup>1</sup> Considering father, mother and children. This only looked at a monogamy perception in both areas.

working with HRNS and have an average gross margin of US\$1,027 south and US\$461 north per hectare.

In addition, selected factors contributing to FOs success including Leadership Type; Process of Decision Making; Process of Governing Tools Establishment and Access and Frequency of Information Sharing are discussed in details below. The discussion in the following sections aggregates the findings from the survey, interviews, FGDs and case studies in order to establish a rich understanding of the success determinants. Empirical findings show that several facets need to be addressed in order for sustainability to be attained in FOs as presented in Fig. 1.

Individual producer success directly contributes to the FO success. However, for individuals to succeed the FO should solicit essential services for them such as finance and marketing which will enhance their increased production and commitments.

Fig. 1 reveals that member commitment is vital in FO success with a rate of 32.3% followed by better coffee marketing systems at 25.8% with high coffee production at third position (24.2%) while member access to finance and inputs was the least at 17.7%.

#### 4.4.1 Member commitments

These findings reveal that producers understand and know exactly factors that influence their FO's

success. Taking reference from Fig. 1, researchers claims that increasing coffee production is imperative for FO success. FOs should aim at is encouraging their members to increase production, as this will serve them well during market fluctuations. This is because only volumes and quality will keep them running as a viable FO.

### 4.4.2 High coffee production and access to services

Essential services such as linkages to finance, inputs, marketing and extension play vital roles in increasing coffee production by giving incentive to producers and sustaining their organisations. Formation of PGs add strength, increase management and marketing efficiency plus production due to the increase in the number of extension and organisation development trainings given to members. Youths and women participation in coffee production and perhaps in total agricultural production was also seen as a contributing factor in sustaining FOs [10]. Lack of youth participation in coffee production activities has been largely fueled by rural-urban migration. This is a worrying situation as the percentage of the elderly above 50 years is higher as opposed to the youth a situation that is greatly depriving the coffee industry much needed labor and succession rendering CFOs a slim future. Continuation of coffee production by the next generation is therefore at stake and posing several unanswered questions for the CFOs success.

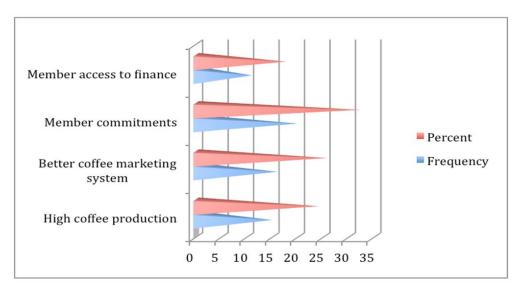


Fig. 1. Factors influencing success in FOs

#### 4.4.3 Better marketing systems

Better marketing systems are vital for the success of FOs as this is the ultimate goal of every coffee farmer. It is through marketing of farm produces that farmers generate income for the household and when markets are not favorable, production increase targets will be defeated. Access to financial services, as discussed under the Isuto case, is cardinal in contributing to yield increase and members' wellbeing. Without this linkage, farm investments will not be possible and CFOs will have a challenging avenue to success.

#### 4.5 Leadership Type in FOs

The success and importance of leadership in any organisation is felt when their followers less need their presence. This however, depends on how followers perceive the nature and characteristic of the leader. A well performing leader is generally associated with better descriptions than the opposite. The Table 1 depicts producers' opinions of their leaders.

Table 1. Leadership types in FOs

	Frequency	Percent
Democratic	53	85.5
Autocratic	6	9.7
Dictatorship	3	4.8
Total	62	100.0

The findings in Table 1 revealed that producers have different perceptions and opinions on the type of leaders they have in their groups. The findings showed a higher percentage on democratic leadership with 85.5%, followed by autocratic type of leadership at 9.7%. The lowest was for the dictatorship at 4.8%.

It was noted that some FO leaders performing and executing their own decisions with minimum public involvements hence were said to be having dictatorship related approaches. Some of them were mentioned to have exceeded their terms of office and were unwilling to relinquish power. Leadership contributes to saving on internal transaction and coordination costs and thus is expected to have a positive impact on the likelihood of the formation of successful FO. It plays a significant role in influencing the direction of FOs. Leaders are meant to initiate, promote and defend the policies, by which the organisation operates [11]. It is the drive in motivating members to act towards achieving a common goal [11,12]. It involves a process of reaching consensus and following through with the group's decisions. It is crucial in the implementation of policies and activities, which continuously enhance the operations of the FO. The success of FOs in West and Central Africa had been greatly contributed by strong leadership [13].

During the study it was revealed that the predominant type of leadership is the democratic type, which involves the redistribution of power and authority between followers and leaders to provide them ample involvement in decision-making. This type creates a culture that influences the group and its performance. However, leaders reserve the right to make final decisions but encourage feedback, ideas, and suggestions from all members. Participative leaders generally have a more content workforce, since each individual has input into the decision-making.

Leadership problems occur when the group fails to select the leader that has proposed the most efficient policy for the FO [14]. Competent leadership will encourage members to make decisions, based on their values and it should be able to balance the internal and external tensions, in order to create enduring groups. This calls for empowerment of members, in order to maintain the transparency and accountability of their leaders. Creation of strong FOs can be developed through the building of interpersonal relationships, as a source of strength [15]. Members will participate in creating if they are involved and motivated through efficient communication skills [16]. Competent leadership engages the group in an efficient communication process to ensure members expresses their views. Strong dominance of leaders reduces the likelihood of FO success.

#### 4.6 Process of Decision-making

If one works under instructions will always give credit to the instructor and never develops a sense of ownership but when the instructor involves the same person, ownership is established. A sense of ownership is vital in sustaining FO structures and interventions.

Table 2 shows that decisions made by the general meeting were highly rated at 69.4% followed by those made by a selected committee at 16.1% while those that are made by the executive members only are less considered with a low rate of 14.5%. The study discovered that FOs uses various methods in coming up with

various types of decisions such as management, marketing, operations, governance, financial and production. Based on the data presented in Table 2 the following methods were found as discussed below.

Table 2. Process of decision-making

	Frequency	Percent
By the general meeting	43	69.4
By the executive	9	14.5
members only		
By a selected committee	10	16.1
Total	62	100.0

#### 4.6.1 General meetings

The highest ranked method was through general meetings in which, respondents revealed that they have been attending decision meetings according to their constitutions to settle or decide on various matters of the FO. They disclosed that, FOs have been using mostly general meetings to decide on yearly financial budgets, membership fees and discussions on acceptance of new members and elections of board executive leaders. According to Carney, 1996, decision making at a lower level is easier to coordinate hence general meetings becomes a better public platform for relatively none complicated decisions. For instances, during FGDs in KVN, respondents noted that there are debates during meetings regarding the possible misuse of member funds by union leaders. While some debts accrued through crop purchases advances, more accusations of corruption were raised in respect to the staggered coffee sales payments that were not paid, and many questions remain unanswered to date.

These kinds of decisions may require a certain committee and not the public due to their weight. Discussing such matters in public may substitute intelligence thinking to muscle application and fail to reach an agreement. FOs are advised to take such issues to special member representative committees. Discussing such issues in public may lower the credibility of the FO and discourage ordinary members.

### 4.6.2 Executive members and selected committees

Executive members were mentioned as involved in closed doors decision-making. Although respondents who mentioned this occupied some low percent (14.5%) among the responses, the experts supported this fact by revealing some

incidences where executive committees were taking decisions without involving members. These include total borrowing amounts (bank loans), when and where to sale their coffee and when to share the sales returns. In other cases, results show that selected committees among the FO members and leaders made decisions. For example Isuto DC, the Monitoring Committee can decide on whether to summon a non trusted member or leader to the ward councilor or village council for further disciplinary actions, such powers were vested through all PGs who are members of the DC. Members' perception of participating in the decision-making process influences their active involvement and their confidence in the board. The positive side is that the board can count on support from members in their decisions, as long as members feel that they have had a good chance to influence the decisions through their democratic control.

## 4.7 Process of Governing Tools Establishment

Part of the success factors for FOs is the process of governing tools establishment. When producers are given opportunities to decide for them selves, decisions are respected and plans implemented.

Table 3. Process of decision making in FOs

	Frequency	Percent
Imposed by the	16	25.8
government		
Established by coffee	5	8.1
traders		
Established by members	39	62.9
Others (please explain)	2	3.2
Total	62	100.0

Findings in Table 3 revealed that governing tools that are established by members are highly valued with a rate of 62.9% followed by those imposed by the government at 25.8% while those established by coffee traders are at 8.1% and the least being those from different sources at 3.2%. These results revealed a mixed perception on the establishment of governing tools.

#### 4.7.1 Imposed by government

Through this study it has been noted that FOs have been using management tools imposed by government in controlling and running FO and PG activities. KVN for example was given a generic constitution copy from which they were supposed to adapt one for their own use.

Similarly Isuto DC PGs acknowledged to have been getting various trainings and guidelines from both the private (HRNS) and government tools guiding and directing on how they could deal with issues pertaining to development of their FOs such as cropping calendar, constitution formulation, legal registration and board of trustees' formulation requirements.

These findings show that sources of governing tools include Government, private sector, coffee traders and FO members. The higher rate mentioned on the side of the Government implies that it has a great chance of establishing generic governing tools for FOs and their PGs to use in order to condition all groups within the country to abide by set rules. Therefore, the Government has to enforce its policies to enable all FOs to abide by, as is the case with the Cooperative movement. FOs use most of the government established governing tools simply because they have no alternatives for legal support in their business. However, according to [17] the functions of the government so far include issues of business license to coffee traders, hiring and setting procedures for using extension officers, coffee business policies, determination and distribution of subsidies and controlling import and export of coffee related items/commodities.

#### 4.7.2 Coffee traders

In some cases coffee traders were mentioned to be using own independent governing tools in managing FOs marketing systems such as pricing and payment modalities making famers price takers a situation that discourages coffee production.

#### 4.7.3 Established by members and others

62.9% of the respondents revealed to have been using tools established by members such as constitutions and member regulations (Codes of Conducts), group financial regulations, meetings and trainings procedures, Internal Control Systems (ICS). In support of these tools it is vital to note that, routine activities of the PG activities include such as weekly group meetings; harvesting schedules; collection from individual farms, pooling, and delivery to markets, should be scheduled and be followed by all members.

Information is power. The higher the frequency of empowering producers, the better they become in comprehending vital FO sustainability aspects. This is further expressed in the following Fig. 2.

### 4.8 Access and Frequency of Information Sharing in FOs

The results in Fig. 2 shows that the accessibility and frequency of information sharing such as marketing and financial reports is vital for FOs Success. Monthly dissemination was given a higher rate at 44%, followed by quarterly at 34%, while annual reporting was at 16% and the least was a weekly report system at 6%. This research has discovered that the number and accessibility of FO information varies with respect to respective FO.

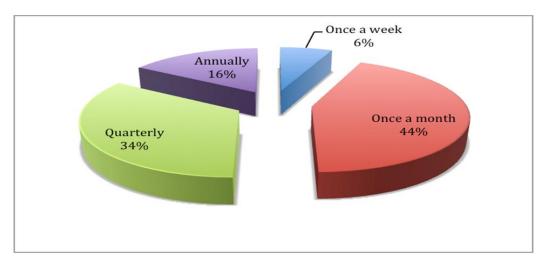


Fig. 2. Access and frequency of information sharing in FOs

Taking reference of the above statistics, it is evidence that access to and frequency of information sharing has been done through meetings, which are conducted in varying schedules such as weekly, monthly, quarterly and annually. FOs being spread over a vast area of land makes it difficult to provide services to the scattered communities, which means that rural people often have insufficient access to public services, electricity and information. If a person cannot access information because of a disability, they are being denied their right to access hence a conducive meeting schedule for everyone is appropriate and should be agreed upon by the members to suit their farm activity schedule well.

Coffee producers constitute a particular group of information users whose information needs are very specific. It was revealed that 41% of farmers require daily information for various agriculture works including the need for yield increase and quality improvement plus avoiding costly decisions [18]. As such, FOs' members expect to be informed adequately on FO matters related but not limited to production, marketing and organizational leadership. Traditionally. information access and sharing was geared at ensuring members believe in the ethical values of honesty, openness, social responsibility and caring for others. It was also vital for quaranteeing their adherence to codes of conduct enshrined in their constitutions. It facilitates FO leadership trust building, objective achievements and success.

#### 4.8.1 Information access points

Frequency of information sharing is vital but accessibility for all producers is cardinal hence central points should be considered when information dissemination is to be effective.

Table 4. FOs information access points

	Frequency	Percent
Very accessible anytime at the office	14	22.6
Through FO notice board	16	25.8
Through meetings	31	50.0
Other	1	1.6
Total	62	100.0

Results in Table 4 shows a variety of FO suitable information access point that were preferred by respondents. These include meetings at 50%

followed by FO notice board at 25.8% while accessing information through FO office was rated at 22.6% and the least accessed point was through other sources at 1.6%.

### 4.8.2 Meetings, public notice boards and FO office

Producers have a year round calendar occupied with their field and farm activities hence they feel meetings are a better option for accessing updated information. This was picked because they combine trainings and sharing of information in one meeting in order to save on time and frequency of meetings. Public notice boards such as those in schools and dispensaries are easily accessible by farmers, their children and wives hence they play a vital role in disseminating information. The FO office was rated third since farmers do not usually frequent their offices hence it is cardinal to use places such as hospital, dispensaries and village offices for urgent information. In this way, not only producers but also all residents will be able to see and diffuse the information to intended targets in time. Teachers help to disseminate the same through farmers' children to their parents in a swift manner.

#### 4.8.3 Others

In agriculture timely information is vital for farmers to make appropriate and less cost decisions hence further media were identified including use of fliers and brochures; Need for farmer information points and; and the use of information technology such as mobile phones. The majority of respondents pointed out the need for information points such as local village offices, DC offices, local community development offices, local secondary schools which could be stocked up with production, marketing, financial, organisation development and climate change materials that producers can access at any given time.

### 4.8.4 Coffee production as a factor of FO success: A case study result

Most of KVN members have an average of quarter of an acre of coffee fields, which is affecting coffee production to a larger extent. A few productive villages identified in KVN are Marua and Nduoni. KVN members used to deliver coffee for marketing to KVN for sale via KNCU while production has been going down for the past 5 seasons i.e. 27,000 MTs in 2011/2012

season to 7,000 MTs in 2014/2015 season. Isuto DC members have an average of 2 acres with an average yield of 160 to 580 kilograms per acre. According to the Lead Farmer Promoter, the DC prepared a total of 13, 000 seedlings during the 2014/15 seasons for field expansion and rejuvenation of old fields which will enhance production in the next two years. Although members produce below the average production per acre, production has been gradually increasing for the past 5 seasons i.e. 10,812 MTs in 2011/2012 season to 46,667 MTs in 2014/2015 season. The financial and input linkages that the DCs solicit for its member PGs have influenced the gradual increase in coffee yields. The DC solicits inputs in bulk for members from Yara and financial credit loans from CRDB bank. These essential services play vital roles in increasing coffee production by giving incentive to producers. These production incentives that are lacking in the north, are vital for maintaining and increasing membership in FOs. They have worked as an attraction factor in FOs such as Isuto DC and its member PGs.

### 4.8.5 Determining FO success: MLRA perspective

In identifying success factors for the FO, MLRA was used to model nominal outcome variables and to describe data and to explain the relationship between FO success (dependent variable) and Marketing system, transparence, FO opportunities and member commitment (independent variables). The explanatory variables (similar objectives, strong leadership, group cohesion, and service portfolio) for independent variables where used in the likelihood Ratio Test (Table 7). In this analysis, the distribution reveals that the probability of the model chi-square (33.919) was 0.001, less than the level of significance of 0.05 (i.e. p<0.05) as evidenced in Table 5. This suggested that the existence of a relationship between the FO success and Marketing system, transparence, FO opportunities and member commitment was statistically supported.

Bulking of products and services in FOs enhances efficiency in performance. This is because with increased volumes producers will be able to effectively compete with commercial enterprises. FOs member cohesion enriches its sustainability through individual member POs cooperation and improves producers' say in economic competitiveness. This facilitates cooperation competitiveness among member

producers hence FO leadership should provide level playing fields for all members in terms of essential service provision.

Table 5. Model fitting for objective

Model fitting Information				
Model	Model fitting Likelihood ratio tests criteria			
	-2 log likelihood	Chi-square	df	Sig.
Intercept only	132.673			
Final	98.753	33.919	12	.001

The variations of the variables analyzed were measured through Pseudo R-Square (Table 6), and indicated that they were 0.421, 0.457 and 0.214 variations of the factors that determine success in FO with respect to the respondent data collected. The wider the range of variables the more accuracy the results are hence out of the three (Cox and Snell, Nagelkerke and McFadden) values of the Pseudo R-Square, the range between Nagelkerke and McFadden were vital in the analysis of the information. They provided an indication of the amount of variation in the dependent variable (FO success), which are described as pseudo R-Square hence their distribution in Table 6 reveals that the values are 0.457 and 0.214 respectively, suggesting that between 21.4% percent and 45.7% percent of the variability is explained by this set of variables used in the model.

Table 6. Variables variation

Pseudo R-square	
Cox and snell	.421
Nagelkerke	.457
McFadden	.214

The likelihood ratio test (Table 7) was used to evaluate the overall relationship between explanatory variables (similar objectives, strong leadership, group cohesion, and service portfolio) for the independent variables (Marketing system, transparence, FO opportunities and member commitment) and FO success (dependent variable). The results indicated that the transparence, Marketing system, opportunities and member commitment were statistically significant in determining FO Success. Producers join because of their felt needs such seeking for a better product market hence when this certain in a FO, they are bound to stay and contribute to its success. Transparent

Table 7. Objective 3 likelihood ratio test

Likelihood ratio tests				
Effect	Model fitting criteria	Likelihood ratio tests		
	-2 log likelihood of reduced model	Chi-square	df	Sig.
Intercept	105.342	6.589	3	.086
Similar objectives	110.314	11.560	3	.009
Strong leadership	112.203	13.450	3	.004
Group cohesion	111.552	12.799	3	.005
Services	107.660	8.907	3	.031

as a suggested crosscutting sedative in organisations commands a significant effect in the success of FOs. Hence leaders and management should strive in operationalize this factor in order to open several doors for prospective FO opportunities. Members will only committee themselves when these factors are executed within the system.

These results suggests that there is a statistical significant relationship between Marketing system, transparence, FO opportunities and member commitment and FO Success given the significance of similar objectives .009, strong leadership .004, group cohesion .005, and service portfolio .031 which are all less than the recommended significance of 0.05. For each unit increase in confidence in independent variables, the likelihoods of none FO success decreases by 91.4% (0.086 - 1.0 = -0.914). This implies how vital the explanatory variables (similar objectives, strong leadership, group cohesion, and service portfolio) are in fostering FO success. The effect of similar objective will only be felt with the presence of strong leadership. This fulcrum drives the enhancement of group cohesion and service soliciting for members. These variables are not independent hence there weight is felt when leadership applies their sum significance.

### 4.8.6 FO sustainability measures: A case studies synthesis

Both FOs are aware of the importance of maintaining their business activities in a more sustainable way. Below are some of the identified sustainability contributing factors for both FOs. KVN's 21 years existence (1994 -2015) is evidence enough for the FO to continue improving and consolidating developments given the nature and hardships incurred in managing individual producers and ahead of the new developments test (independence from the union). The FO has established infrastructures such as buildings and maintenance of coffee fields, common marketing

interest and willingness to reorganize into PGs, which are recipes of sustainability for FOs. It was notable that KVN is strategizing on increasing membership through introduction of several essential services such as input and financial linkages, improving coffee marketing by going direct to the coffee auction and increasing transparency within the system.

The gradual production and membership increase for Isuto DC within the first 8 years of existence is a credit for sustainability. Unlike in the north, DC members have vast land suitable for coffee production and expansion of coffee fields, which could contribute, to production increase and commercialization of coffee business. The use of mobile phones by the lead farmer promoters and the marketing coordinators seems to be working well in facilitating information dissemination. DC members are not exposed to the coffee marketing pre-financing, which may affect coffee deliveries in preference of cash advances like in the north. The willingness of members in establishing PGs and supporting their FOs through the establishment and strengthening of several linkages such as financial, input and market are some of the factors that hold the FO's sustainability keys.

#### 5. CONCLUSION

FO success has several contributing factors although this study narrowed them down to a) marketing systems, b) transparence, c) FO opportunities and d) member commitment. These factors are irreplaceable elements of FO success. When they are missing, at least the organisation is assured of a rocky sailing towards it success and a recipe for disintegration and in worst scenarios collapsing.

Marketing should be the result of the organizational development, which induces production increase through linkage establishments and leadership management capacity. FOs should work on improving coffee

production this is because it was noted that even with a poor market system, more volumes of coffee cushions the producer's financial risks unlike when production is low.

No matter how vital and urgent decisions may be, leaders should at least provide feedback to their members in order to minimize incidences of suspicion. This is because it was noted during the study that leaders make certain urgent decisions on behalf of their members especially when deciding on when, where and how to sale their coffee with respect to prevailing market prices. The same applies for FO facilitators, to enhance their proposals to succeed in FOs.

Producers should collectively take advantages of opportunities within their organisations and build own capital and assets. Since members contribute towards the development of their FOs. the same upward benefit should be seen on the downward gain for them to committee themselves to the success of their organisations. If FO are using the collectiveness of its members to gain assistance, members should also do like because This is well-established wise membership will support success through several means including financial contributions. production increase and coffee bulking for marketing, asset sharing and management advice.

Generally the study recommends that. academicians, NGOs and policy makers include FO development courses for CDOs and agriculture extension students in order to build well-found capacity in FO establishment and through prospective support facilitators. Facilitators should understand that FOs needs a constant hand holding support throughout their formation, consolidation and sustaining phases hence leadership skills trainings should be offered at zonal or district level for identified poor performing FOs in order to capacitate them with such skills, which will enhance their management ability and facilitate their success. Apart from building extensive leadership skills, members, who are actually the owners of the FOs/PGs, require such skills as business planning and problem solving, membership recruitment and retention, marketing skills and financial control as well as policy guidelines governing coffee production and its subsequent business processes. Such empowerment can contribute to reducing costs and improving services identified and implemented in the FO. Members' empowerment contributes

strengthen the ability of members to, monitor fellow members' production, responding rapidly to management, production and market problems as well as input provision and usage (e.g., fertilizers) all of which contribute to FO Success.

#### 6. RECOMMENDATIONS

This study highlighted FO success influencing factors in a mixed methodology research approach that involved FO members, leaders and FO facilitators from two wide coffee growing regions in Tanzania. Data collection tools were also mixed i.e. FGDs, surveys and interviews while MLRA was used due to the research need of determining significance of independent variables on FO success and descriptive analysis employed for the qualitative part of the data determine FO success factors. The findings alluded to the importance of CFOs in driving the economy through agriculture contributions, which calls for the need to intensify the search for pragmatic and participatory FO success factors. This requires new thinking that could be revealed through another research for the same topic with different approaches or similar ones in a different area. This study emphasized on volume to quality for membership (committed) in FOs compared to quantity (with full of free riders), which could be explored in another wellresearched analysis.

#### **COMPETING INTERESTS**

Authors have declared that no competing interests exist.

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Peer-review history:
The peer review history for this paper can be accessed here:
http://sciencedomain.org/review-history/15429