



AN ANALYSIS OF THE FACTORS DETERMINE THE PERFORMANCE OF SELECTED MULTIPURPOSE AGRICULTURAL COOPERATIVES IN WEST SHEWA ZONE, OROMIA REGION, ETHIOPIA.

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Abstract

Cooperatives plays significant role in Ethiopia to improve the lives of people in rural areas. They are organized in providing social, cultural and economic needs of members. The objective of the study is to explore factors determine the performances of multipurpose agricultural cooperatives. To meet the objectives of the study, data were drawn from primary and secondary sources and follows a mixed method research approach. A two-stage stratified sampling method was employed to select the sample districts and cooperative societies. To attain the objectives of this study 236 respondents were selected through the Kothari formula, the data were analyzed with the descriptive statistics by SPSS version 20. It has been recommended that a reduction on input price for members; provide adequate, reliable and up-to-date market information; marketing and transaction costs has to be reduced; improved saving activities through diversify members' income; a conducive government policy in terms of supportive measures and frequency of the training, contact with members and cooperative learning should be strengthened for the better performance in future.

Key Words: *Multipurpose Agricultural Cooperatives, Small holder Farmers.*

Introduction

Cooperation among people has long history in the world and they are as old as human society, agricultural in many countries (Gray, 1998; Veerakumaran, 2007). Cooperatives in developing countries have proven to be largely ineffective and unsustainable (Deininger, 1995). In Africa, cooperatives were dominated by the state control and of liberalization where the majority of African cooperatives introduced legislation and policies. (Abate, 2013; Braverman, 1991).

The Ethiopian government has continued supporting cooperatives through various policies and programs aimed at enhancing cooperative performance.

The performance of agricultural cooperatives remains poor due to illegal practices such as stealing (Ergetew, 2014) and downsized due to competition from the private traders (MerihunFikru and EndriasGeta, 2017; Muthyalu, 2013). Therefore, the study aims to identify factors that determine the performance of multipurpose agricultural cooperatives. This study focuses on cooperatives in West Shewa Zone, Oromia region; where there are a high number of agricultural cooperatives are doing their performance.

Objectives of the study

To analysis the factors that determines performance of multipurpose agricultural cooperatives in West Shewa Zone, Oromia region, Ethiopia.

Description of the study area

The study was carried out in West Shewa Zone, Oromia region where three districts were selected percussively and six cooperative societies (Assgorii, Barodo, Metii, Billo, Quillimmitto and T/Gebakimissa) were identified on the bases of some selection criteria. Agriculture is the dominant economy of the area where mixed farming was practiced. The major crops grown in the area are teff, barely, sorghum, maize, lentils chickpeas and that of animals are oxen, cows, sheep, goat, etc.

Research Methodology

This research employed a mixed method approach where both qualitative and quantitative data types were used to identify factors determine performance of agricultural cooperatives. Questionnaires had been developed to collect data and it was distributed to the respondents among 236 cooperative members. To supplement data gathered from questionnaires qualitative data were gathered from key informant interview focused group discussions and personal observations to increase reliability of results.

The data collected from questionnaires were analyzed using Statistical Package for the Social Sciences (SPSS) version 20.0 software. Multivariate model with six response variables from $i= 1, 2... 6$ each of them being affected by multiple (fifteen) explanatory variables.

The model can be specified as follows:

$$y_i = \alpha_i + \sum_{j=1}^n \beta_j X_j + \epsilon_i$$

Where:

y_i = response variables

x_j^i = explanatory variables

α_i = Intercept

ϵ_i = error terms

$i= 1, 2, 3,4,5,6$

$j= 1, 2 \dots n=15$

$n=$ number of explanatory variables

The model was used to determine whether there is a significant relation between the dependent and independent variables.

Sample size determinations

Sample size determination is the most important design decision problem that faced by most researcher or scholars who are engaged in research. The sample size of the study or the number of member of the respondents was determined using Kothari (2004) formula:

$$n = \frac{p * q * z^2 * N}{(N - 1)e^2 + z^2 * p * q}$$

Where:

n = is the minimum sample size required (236)

N = is number of population (Cooperative under study) 6054

P and q = are estimates of the proportion of population to be sampled (i.e. based on pilot-test conducted on some variables the proportion were determined), ($p = 0.8$ and $q = 0.2$).

Z = 95% confidence interval under normal curve (1.96),

e = acceptable error term (0.05)

$$n = \frac{0.8 * 0.2 * (1.96)^2 * 6054}{(6054 - 1)(0.05)^2 + (1.96)^2 * 0.8 * 0.2}$$

$$n = \frac{0.16 * 3.8416 * 6054}{6053 * 0.0025 + 3.8416 * 0.16}$$

$$n = \frac{3721.1274}{15.747156} = n = 236$$

From the selected district cooperatives two hundred thirty six (236) respondents were selected by using Probability Proportional to size sampling techniques (PPS).

Table 1. Sample districts and selected cooperative societies

S/N	Name of the districts	Name of selected PMAC	Year of establishment	Capital	Total No. of members			PPS		
					Male	Female	Total	Male	Female	Total
1	Ambo	Meti	1969	252, 067.15	461	74	535	18	3	21
		N/Bilo	1977	64, 318.00	248	39	287	10	3	13
2	Dendi	Asgorii	1997	102, 534.45	830	143	973	32	6	38
		Borodoo	1997	176, 567.00	474	288	762	18	11	29
3	T/kutaye	G/Kemissa	1988	789, 985.50	1403	94	1497	55	4	59
		Qiiliinxo	1994	348, 018.30	1435	565	2000	56	20	76
Total				2,191,808.7	4851	1203	6054	189	47	236

Source: Zonal Cooperative Promotion Office (2019)

Results and discussions

This section presents the descriptive and multivariate model analysis results. The descriptive statistical analysis was used to determine the demographic, institutional, marketing, socio-economic and service factors. While multivariate model was used to determine whether there is a significant relation between the dependent and independent variables.

Determinants of Membership size: The study revealed that out of 15 explanatory variables hypothesized, only two covariates have been found statistically significant while the remaining variables were not significant at =0.05. The study shows that input price and membership size has an inverse relationship.

Determinants of Members business participation: Out of 15 independent variables hypothesized, only 3 variables have found to be statistically significant covariates to affect business participation. The finding result indicates both input price and marketing cost have an inverse relationship with member's business participation, while there is a positive relationship between income and member's business participation.

Determinants of Members Savings: Out of 15 variables hypothesized, only two covariates namely (input price at p-value=0.028 and income at p-value= 0.008) have found to statistically significant variables that determines



members saving. The finding result shows that there is an inverse relationship between input price and member's savings, while there is a positive relationship between income and member's savings.

Determinants of knowledge achieved with training: Regarding determinants of members' knowledge achieved with training, out of fifteen variables assumed, only three variables namely occupation with p-value of 0.001, education with p-value of 0.000 and alternative information with p-value of 0.035 were found to be statistically significant determinants of it. All the three covariates have positive association with the dependent variable. For more justification and elaboration of analysis facts see the tables under.

Conclusion

A unit rise in input price, results in an 8.3% decline in capital growth. On the contrary, the study reveals that an improved for access and proper utilization of up-to-date market information gives rise to capital growth by 28.4 %.

The study also indicates that price of input rises by one unit, member's business participation declines by 17.8%. Similarly when marketing cost rises by one unit, member's business participation comes down by 60%. On the other hand, as income increases by one unit, member's business participation improves by 5.8%

The study shows that a better legislation/proclamation in the government policy results in an improvement of dividend payment by 11.1%. The present study shows that when access to market information improves by one unit, dividend payment improves by 98.5%. This study shows how powerful is information to determine dividend which is a function of net profit.

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