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## FACTORS AFFECTING COFFEE MARKETING COOPERATIVES PERFORMANCE IN ETHIOPIA, HORN OF AFRICA

**Tigist Shiferaw**

Master Degree Research Scholar, Department of Management  
College of Business and Economics, Bule Hora University  
Ethiopia

### ABSTRACT

The study was conducted to access factors affecting performance of coffee marketing cooperatives in case of Guji zone, Adola woreda, Ethiopia. The data were collected from both primary and secondary sources. The primary data were generated from concerned bodies using questionnaires. Descriptive statistics, correlation and regression analysis were used for analyzing the data. Descriptive and explanatory research design was used. Probability sampling was used with simple random technique to collect the desired responses. Correlation analysis and regression with ANOVA and unstandardized beta was used as inferential statistical methods were employed to analyze the data. Result from correlation analysis using indicates that all four variables like Information Access, Infrastructure, Training and development, and Customer relationship play a significant role and are significantly affecting performance of coffee marketing cooperatives. As per the regression analysis Infrastructure Management is the most dominating factor that influences the coffee marketing in the study area. Therefore, the government and concerned bodies have to encourage their performance of coffee marketing cooperatives through providing different incentives mechanisms for the performance of coffee marketing cooperatives in the study area.

**Keywords:** Coffee Marketing, Regional Conflict, Access to Market Information, Infrastructure Management, and Socioeconomic Characteristics.

### 1.1 Introductions

Agriculture remains the backbone of the economy of most developing countries. Typically, it is the largest source of employment; often two-thirds or more of the population are dependent for its livelihood on farming in Ethiopia (Bali, N., Moroda, M. K., & Kumar, S., 2021). Ethiopia is an agrarian country and agriculture accounts for 54 percent of the domestic product (GDP) and agriculture employs about 80 percent of the population and accounts for about 90 percent of the exports (CSA, 2020).

At present, there are 19147 organized primary and 124 secondary cooperatives, of which 206 primary and 6 secondary cooperatives are coffee marketing cooperatives and the total number of members in primary cooperatives reached 3,903,683 (11.55% female) owning birr 1, 475,256,047 capitals (Gurmessa, N. E., Ndinda, C., Agwanda, C., & Akiri, M.,2021). It is evident that the cooperatives are playing a great role in the local and international trade of the country. Smallholder farmers in particular face uncertain production environment and enormous constraints and higher cost in accessing markets. The farmers also exchange with actors who have more resources, information, and options and more economically powerful organizations, including markets. Moreover, there is a high level of uncertainty surrounding the activities of peasants in developing countries especially in Ethiopia (Wakjira, G. G., 2021).

### 1.2. Statement of the Problem

It is believed that the characteristics of modern cooperative businesses have mostly been developed in the past 160 years. People form cooperatives do something better than they could do individually or through a non-cooperative form of business. Acting together, say, in bringing agricultural produce coffee collectively, members can develop bargaining power, enjoy the benefits of a larger business and can access information, which has important impact in the process of marketing. Sometimes people believe that forming a cooperative automatically will solve business problems faced by individual farm households. In reality, cooperatives are subject to the same economic forces, legal restrictions and international relations that other businesses face (Adane, A., & Bewket, W., 2021).

In connection to coffee marketing activities, various forms and extent of problems could be identified, and prioritized, to decide upon them by the decision makers. In addition, the cooperatives decision-making procedures purchase capacity, sales volume, profitability, and other marketing performance parameter needs to be assessed. This may also be true for cooperatives. To bring maximum profits to all institutions concerned, a channel of distribution should be treated as a unit- a total system of action (Kassanga, G. A., & Jovin, J.,2021.). But some members of cooperatives have an experience of selling their produce to other marketing channels. In addition, there may be various problems in collecting coffee from members. This might be caused by the dissatisfaction of members



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with services rendered to them by their cooperatives. There may be various problems in collecting and exporting coffee through cooperatives.

Based on the principles of cooperatives, coffee farmers’ marketing cooperatives are expected to genuinely perform their marketing activities and provide adequate services to their members. According to BEKELE, E. T. (2021), customer expectations about the types and quality of services that should be offered and their criteria for performance of these services have a major impact on the level of satisfaction or dissatisfaction felt with the total purchase and sale experience. This can be represented as  $Customer\ Satisfaction = Service\ expectations - perceived\ service\ performance$ . So, cooperatives performance should be continuously checked against the level of members ‘satisfaction.

From time to time, it is essential to check whether they are on the right track or not. It was then contributed to the understanding of factors hindering improvement and modernization of the coffee farmers’ marketing cooperatives. To accomplish such an important task, empirical investigations have paramount importance in areas of cooperatives performance and level of member's satisfaction (SOLOMON, E., 2021). As any other enterprises do, cooperatives need to also periodically control and evaluate their marketing activities. There are basically four types of marketing controls, namely annual-plan control, profitability control, efficiency control, and strategic control. However, in spite of a serious need to monitor and control marketing activities, many companies including cooperatives have inadequate control procedures (Bukuru, E., & Tabitha, N. (2021)). Asmare (2009) concluded that, the factors of production employed in producer’s cooperatives were inefficiently used.

Inefficiency includes underutilization of labor, fertilizer and capital expense and size groups. However, positive marginal value products of input indicated that the potential for the improvement of the efficiency level and for maximizing the growth of income of the producer’s cooperatives was high. Korsa, D. H. (2021), examined how proper record keeping and audit reports will help the farmer in analyzing the management performance of his enterprise efficiency, and concluded; cash and non-cash inflows and outflows should be distinguished. The gross return should be broken down by major products, expense should be allocated to different sub-headings avoiding rather large amount of “miscellaneous” expenses.

Admasu (2008) analyzed the performance of coffee marketing system with the aim of evaluating the overall performance of coffee marketing and concluded that there was marketing inefficiencies prevailing in the system. He has also summarized that the pricing inefficiencies, lack of standardizations at rural market centers, lack of appropriate price information system, abnormal profit in marketing, lack of short run integration between central and local prices. Mulat and Bekele (2005) analyzed market integration using secondary and primary data and indicated that food grain marketing efficiency need to be improved through a combination of several policy measures; improving infrastructure, like road, providing price information, checking the activity of unlicensed intermediaries Tesfaye (2015) analyzed the role of producer’s cooperatives for agricultural development, and concluded that, the existence of authentic and effective rural peasant organizations is indispensable to ameliorate the problems that have been identified as major obstacles to Ethiopia’s agricultural development, such as limited access to agricultural credit, inefficient input delivery system, low price of agricultural produce, poor infrastructure and weak research-extension linkage. So, organizing farmers is not of the past. Peasants still exist in different forms though they are being used by the traditional government for political purposes and peasant cooperatives are reviving. Actually, there is no empirical information supported with scientific research that shows the performance of primary cooperative societies and/or their unions, the magnitude of members benefit from these cooperative organizations and the degree of satisfaction. This research will, therefore, attempt to empirically investigate the above issues and bridge information, empirical, and knowledge gaps.

### 1.3. The specific objectives

1. To identify major factors affecting performance of coffee marketing cooperatives in the study area.
2. To analyze the relationship between the identified factors on the performance of coffee marketing cooperatives in the study area.
3. To examine the impact of identified factors on the performance of coffee marketing cooperatives in the study area.

## 2.1 RELATED LITERATURE REVIEW

According to Demeke, (2017) coffee marketing cooperative were inefficient in reference to both computed efficiency ratios, income ratios and creditworthiness ratios. Basically, farmers should be owners, user and controllers of their cooperatives. But, Methodological gap in the study area, it was observed that some farmers were using other marketing channels (traders) to sell their coffee. On the other hand, cooperatives in the study area use collectors to purchase coffee from farmers. However, no research has been conducted in the study area, Asmare (2019) concluded that, the factors of production employed in producer’s cooperatives were inefficiently used. Inefficiency includes underutilization of labor, fertilizer and capital expense and size groups. However, positive



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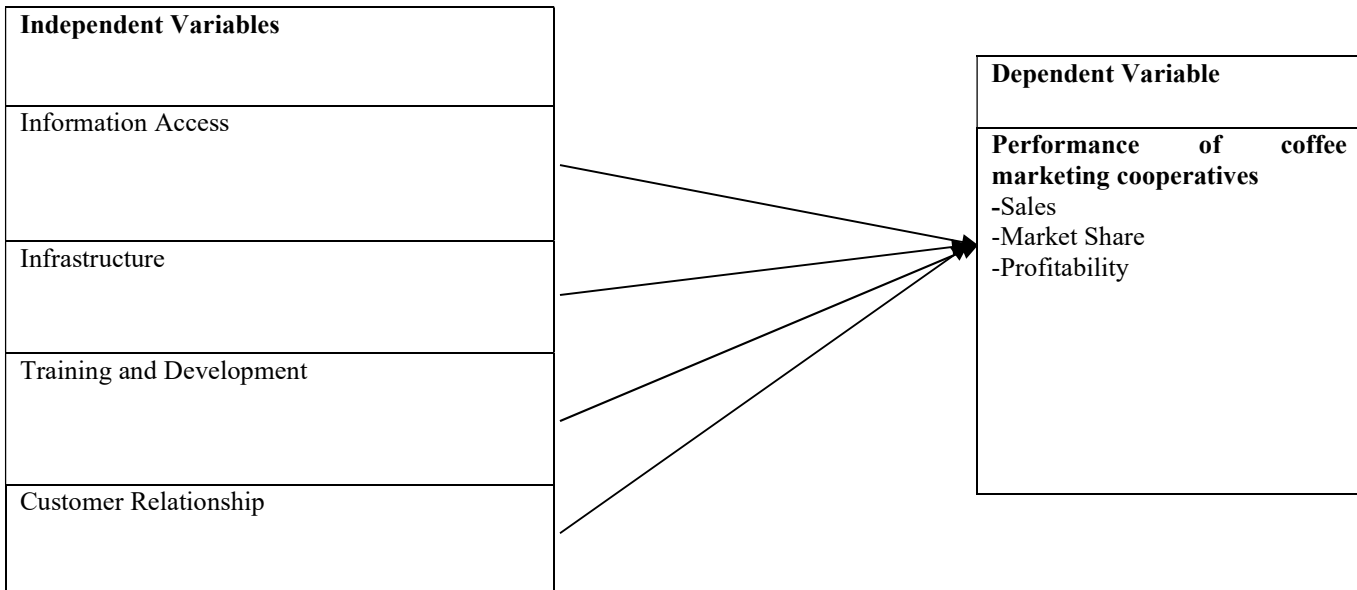


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marginal value products of input indicated that the potential for the improvement of the efficiency level and for maximizing the growth of income of the producer’s cooperatives was high. However, the researcher did not incorporate other factors affecting performance of coffee marketing cooperatives such as family size, training, information, transportation, coffee farm size which motivates the researcher as setting or conceptual gap.

Zewide, I. (2021), analyzed the role of producer’s cooperatives for agricultural development, and concluded that, the existence of authentic and effective rural peasant organizations is indispensable to ameliorate the problems that have been identified as major obstacles to Ethiopia’s agricultural development; such as limited access to agricultural credit, inefficient input delivery system, low price of agricultural produce, poor infrastructure and weak research-extension linkage. However, this study was not included family size, training, information, transportation, coffee farm size. Therefore, this study focusses on analyzing factors affecting performance of coffee marketing cooperatives which motivates the researcher as gap to show the inefficient performance of coffee marketing cooperatives.

### 2.2 Conceptual Framework



Source: Researcher own framework, (2022)

### 3.1. RESEARCH DESIGN AND METHODOLOGY

This research consists of both descriptive and explanatory natures. According to Chopra et al. (2012), a research design is the program that guides the researchers in the process of collecting, analyzing and interpreting the data. In the study, the researcher was used both quantitative and qualitative research approach to give answer for the research question. Close-ended questionnaire was used for collecting quantitative data. Then certain individuals were selected from the coffee marketing co-operatives by the convenience sampling technique.

### 3.2. Target Population

For this study, the target population was selected from Coffee marketing cooperatives of Adola Woreda, Guji Zone, Oromia Region. In Adola Woreda there are five coffee cooperatives. From Five coffee cooperatives the researcher was purposively focus on four coffee cooperatives. Their total population was 1269.

### 3.3. Sampling Techniques and sample size

Non- probability sampling techniques will be used to select the participants for this study. Coffee marketing cooperatives was selected using purposive sampling. The reason for the selection of that sector will be because their activities are highly related to performance of coffee marketing cooperatives. Convenience sampling technique was employed to select respondents from the target population.



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3.3.1. Sample size

The target population of the study was coffee marketing cooperatives Adola Woreda. The total target population were 1269. Researcher used the formula developed by (ToyoraYemane, 1967).

n = N / (1 + N(e)^2) n = 1500 / (1 + 1500(0.05)^2) n = 315 Where,

N= Total population, n= sample size, e=standard error =5 % (0.05), Confidence level=95%

3.4. Response Rate

Based on simple random sampling), 315 questionnaires were distributed and 307 were returned for analysis. 300 of the questionnaires were found valid or workable. Thus, response rate is 97.71%.

3.5. Reliability Test

Table 1: Reliability Test

Table 2: Item-Total Statistics. Table with 5 columns: Item, Scale Mean if Item Deleted, Scale Variance if Item Deleted, Corrected Item-Total Correlation, Cronbach's Alpha if Item Deleted. Rows include Information access, Infrastructure, Training and Skills development, Customers Relationship, Performance of coffee marketing Cooperative.

Source: SPSS Output, 2022

In this study, all the independent variables and dependent variable, met the above requirement. The alpha value for each variable is identified and summarized in table as shown below.

3.6. Correlation result on the relationship between independent variables and coffee marketing performance (DV).

Table 2: Pearson Correlation (zero ordered matrix n=300)

Correlations

Pearson Correlation matrix table with 6 variables: Information access, Infrastructure, Training and Skills development, Customers Relationship, Performance of coffee marketing Cooperative. Shows correlation coefficients and sample sizes (N=300).



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**Correlations**

		Information access	Infrastructure	Training and Skills development	Customers Relationship	Performance of coffee marketing Cooperative
Information access	Pearson Correlation	1	.703**	.690**	.807**	.692**
	Sig. (2-tailed)		.000	.000	.000	.000
	N	300	300	300	300	300
Infrastructure	Pearson Correlation	.703**	1	.739**	.733**	.899**
	Sig. (2-tailed)	.000		.000	.000	.000
	N	300	300	300	300	300
Training and Skills development	Pearson Correlation	.690**	.739**	1	.953**	.877**
	Sig. (2-tailed)	.000	.000		.000	.000
	N	300	300	300	300	300
Customers Relationship	Pearson Correlation	.807**	.733**	.953**	1	.853**
	Sig. (2-tailed)	.000	.000	.000		.000
	N	300	300	300	300	300

\*\* . Correlation is significant at the 0.01 level (2-tailed).

Source: SPSS (20) Output, 2022

As it is clearly indicated in the above table 4.9, a positive relationship was found between Information access factors and performance of coffee marketing cooperative in the study area( $r=0.692^{**}$ ,  $p<0.001$ ), Infrastructure factors and performance of coffee marketing cooperative in the study area( $r =0.899^{**}$ ,  $p <0.001$ ), and Training and Skills development factors and performance of coffee marketing cooperative in the study area( $r=0.877^{**}$ ,  $p<0.001$ ), which are statistically significant at 99% confidence level.

Similarly, Customers Relationship factors have correlation coefficient value of 0.853, shows a significant strong positive relationship with performance of coffee marketing cooperative in the study area. This implies that at a 1% level of significance it was discovered that all independent variables factors play a significant role in determining the performance of coffee marketing cooperative in the study area.

**3.7. Multiple regression analysis**

**Table 3: Multi-Collinearity Statistics**

Model	Multi-Collinearity Statistics			
		Tolerance	VIF	Eigenvalue
1	(Constant)			
	IATOTAL	.231	4.915	1.000
	INFRATOTAL	.368	.043	10.743
	TSDTOTAL	.064	.022	15.041
	CRTOTAL	.047	.019	16.030
			.002	54.728

Source: SPSS (20) Output, 2022

All the VIF values are under the acceptable standard values of VIF.



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**Table 4: Regression Statics**

Table: Regression			Model Summary b							
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics					Durbin-Watson
					R Square Change	F Change	df1	df2	Sig. Change	F
1	.955 <sup>a</sup>	.911	.910	1.88570	.923	1291.458	4	295	.000	2.282

a. Predictors: (Constant), Education and entrepreneur training, Application procedure, Cost and Interest, Collateral security  
 b. Dependent Variable: Credit access

Source: SPSS (20) Output, 2022

In table above identified the R value as .955a which suggests that 95.5% is the value of multiple correlation coefficients between the predictors and the dependent variable. The squared multiple correlation coefficients, R<sup>2</sup> –value shows the percentage variance in the dependent variable that can be explained by predictors, which as per the table is 91.1%. This meets the assumption of non-zero variance based on the fact that R<sup>2</sup>-value the variance in the predictor values, which in this case is not equal to zero.

**Table 5: ANOVA**

ANOVA <sup>b</sup>					
Model		Sum of Squares	df	Mean Square	Sig.
1	Regression	10754.739	4	2688.685	.000 <sup>a</sup>
	Residual	1048.981	295	3.556	
	Total	11803.720	299		

a. Predictors: (Constant), CRTOTAL, INFRATOTAL, IATOTAL, TSDTOTAL

b. Dependent Variable: PERFORTOTAL

Source: SPSS (20) Output 2022.

**Table 6: Coefficients of the regression model**  
Coefficients<sup>a</sup>

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	Collinearity Statistics	
		B	Std. Error	Beta			Tolerance	VIF
1	(Constant)	-.155	.480		-.322	.748		
	IATOTAL	-.130	.048	-.098	-2.707	.007	.231	4.336
	INFRATOTAL	.820	.040	.584	20.439	.000	.368	2.714
	TSDTOTAL	.349	.068	.355	5.152	.000	.064	15.745
	CRTOTAL	.166	.080	.166	2.077	.039	.047	21.251

a. Dependent Variable: PERFORTOTAL

Source: SPSS (20) Output 2021

The table 5 depicts that in regression, the value of sum of squares is 11803.720, the value of degree of freedom (df) is 4, and the value of mean square is. 2688.685 The most important part of the table is the F-ratio, it is a measure of how much the model has improved the prediction of the dependent variable (coffee market performance) compared to the level of inaccuracy of the model (Field, 2009). The significant level in ANOVA table shows that the combination of the variables significantly predicts the dependent variable.

According to table 6, one unit change in training and development is predicted to result in .349 Standardized Coefficients i.e 34.9 % increase in coffee market performance by holding constant the remaining variables. One unit change in infrastructure is predicted to result in 0.820 standard i.e 34.9% increase in coffee market performance by holding constant the remaining variables. One unit change in increase information access is predicted to result in -.130 beta value leads to decrease in coffee market



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performance by -13 % by holding constant the remaining variables. One unit change in customer relation is predicted to result in 0.166 standard increases in coffee market performance i.e by 16.6 % increase by holding constant the remaining variables.

### 6.1 Conclusion

In developing country, Smallholder farmers depend largely on family labor to cultivate a mix of subsistence and commercial crops on small to medium sized farms. In many countries, increasing the incomes, output, and productivity of small farms is the cornerstone of rural development strategies. Of late however, volatile commodity prices, market liberalization and unfair trade policies threaten their already fragile livelihoods. Further, smallholder farmers’ ability to tap into more lucrative regional and international markets is hindered by poor access to markets, high transaction and transport costs and unreliable market information. Undoubtedly, smallholder farmers play a lead role in any rural development strategy. Smallholders make a contribution not only to agricultural productivity but also to overall economic growth, by providing labor, capital, food, foreign exchange, and a consumer good market. Therefore, significant roles are expected from agricultural cooperatives to provide efficient and effective marketing system that can develop strong market linkage between producer and consumer in order to capacitate producers to set the price rather than taking the price on agricultural product marketing (USAID, 2006). However, the survey has further revealed that marketing primary societies did not effectively performing their marketing services. This study therefore, was aimed at evaluating the factors affecting the performance of coffee marketing cooperatives in Adola warda. For the purpose of evaluating the factors affecting performance of coffee marketing cooperatives multiple sampling techniques was applied. The first stage involves Purposive sampling of different coffee marketing cooperatives in Adola warda from the coffee marketing primary cooperatives in which one primary cooperative. In the second stage, random sampling of individual member farm households in the peasant administration of which the sampled cooperatives are organized. The required secondary data was collected from relevant data sources. Audit reports of coffee marketing cooperatives union and related stakeholders and key informants were used as sources of information to evaluate performance of coffee marketing cooperatives union.

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