Journal of Culture, Society and Development
ISSN 2422-8400 An International Peer-reviewed Journal
Vol.30, 2017

Analysis of Grain Traders' Performance in Ethiopia: The Case of Contribution of Social Capital

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Abstract
This article examines the performance of 206 grain traders in 20 markets found in Amhara, Tigray, Oromiya and SNNPR of Ethiopia. The study adopts Fafchamps and Minten (1999) approach and used multiple regression model. The study identified that financial capital (working capital), social capital (using intermediary at the time of sale and customer relationship), human capital (farming experience) and transaction cost (having mobile, Oromiya and SNNPR) affected traders' performance. The findings suggested adding working capital through different means (like access to credit through micro finance institutes, banks, etc.) with planned and market assessment, establishing licensed and well organized brokerage strengthen traders business relationship with regular customers in a formal or informal way, farmer-trader linkages are recommended through the dissemination of information (e.g. workshops) and training on quality and production management, establish and strengthen, a reliable, permanent, public domain market information and other infrastructure are important to enhance traders performance, in turn encourage farmers to produce more and maximize benefit from grain market.
Keywords: Ethiopia, social-capital, performance, customer-relationship, marketing-margin

1. Introduction

The agricultural sector in Ethiopia is composed of different farming systems. Crop sector is the major subsector and it is dominated by; *teff*, wheat, maize, sorghum and barley accounted for 96.2% of the cereal production (Mulat and Marcantonio, 2013.). Grains are the most important cereal crops and the chief element in the diet of most Ethiopians. Cereal production and marketing is the largest sub-sector within Ethiopia's agriculture. Cereals are predominantly produced by smallholders; the largest share of the produce goes to household consumption (66%), while 16% for seed and 14% for sale. The remaining share goes to wages, animal feed, *etc*. (CSA, 2010). Despite a trend of increasing agricultural output over the last decade in Ethiopia, it has been unable to produce sufficient quantity to feed the rapidly growing population due to drought, limited access to resource (land, livestock), basic services and inefficient market. An inefficient grain marketing system would thus entail substantial costs to consumers and discourage farmers to produce more. Various studies confirmed the positive relationship between higher market concentrations and market inefficiency in different markets. Wolday (1994) analyzed grain market in the southern part of Ethiopia and identified that for Shashemene's market CR_4 had 35% market share; similarly Gebremeskel *et al.* (1998) identified that traders had a market share of 33% in 26 grain markets in Ethiopia; using concentration ratios of 33% to 50% to indicate a weak oligopolistic market structure.

Market efficiency has been associated with market concentration in the sense that such efficiency enables a market to be competitive. Well-functioning markets facilitate easy conversion of agricultural products to cash. Cash in turn facilitates other exchanges of goods and services required for increased production and consumption. However, the Ethiopian grain market is not well functioning and characterized by high transaction cost and imperfect market structure (Eleni, 2001; Asfaw *et al.*, 2004; Tadesse and Fekadu, 2010). Grain marketing system is relatively sophisticated with complex networks of local assemblers, wholesalers (inter-regional and terminal market grain traders), retailers and brokers. The specific role of intermediaries in grain markets in Ethiopia has been subject of many studies in context of their different roles and functions: as intermediaries in searching for a trading partner as brokers in improving market efficiency (Eleni, 2001). Gebremeskel *et al.*, (1998) observed that there are a number of intermediaries (traders) that participate in grain marketing activities: selling, buying, transportation, storing and processing activities to transfer grain from producers to the consumer, processor or export market level.

The grain marketing system in Ethiopia is in progress through road construction and access to market information to benefit producers and consumers. However there is still significant gap that has to be improved. According to Mulat (2000), the Ethiopian agricultural output markets are characterized by an inadequate transportation network, limited number of traders with inadequate capital and facilities, high handling costs, inadequate market information system, weak bargaining power of farmers. Traders' performance should be considered in the assessment of grain market due to a well-built tie between farmers and traders. When farmers are unable to get fair price and incapable to participate in market due to marketing problems it leads to low income and food shortage. Increasing trader participation is expected to lead to competition in the market, which in turn can improve marketing efficiency. Considering traders' performance is important to enhance farmers'

crop production and market participation because traders are the mediators between market and production activities.

The importance of physical and financial capital to business performance is generally accepted. However, the importance of social capital, especially customer relationship, has not generally been recognized. This category includes networks, norms, rules and social values in the functioning and marketing activities. Hence, Fafchamps and Minten (2001) pointed out that social capital or networks play an important role in the resolution of dispute among traders. Fafchamps and Minten (1999) observed that social capital reduced transaction costs and acts as an informal channel for obtained insurance against liquidity risk in Madagascar's traders.

Relationships and social networks may thus enable traders to economize on transaction costs even though they would probably fail to achieve the same level of aggregate efficiency as perfect markets. The contribution of social capital on the performance of grain traders was not studied in Ethiopia. Therefore, it is important to assess traders' performance and determinant factors in order to improve their long-term relationship in marketing channels.

2. Problem Statement

Production of food grain have shown improvement over the last decade, however the income of rural producers and food security for urban population remains low because of the grain market inefficiency (Abraham, 2009). It is often believed that low performance of traders in grain markets is a source of inefficiency. In response to this perception, study of traders' performance is crucial. Wang *et al.* (2006) suggested that the operation of an agricultural wholesale market has a fundamental influence on the price of an agricultural product, distribution efficiency and in terms of affecting international competitiveness. However, there are few studies on the performance of traders to improve the competitiveness of grain markets (Eleni, 2001) and livestock market (Jabbar *et al.*, 2008). Similarly, the response of social capital was not given an attention on traders' performance. Therefore, enhancing traders' performance and considering the response of social capital is important and identifying the determinants of their performance is also crucial to obtain a benefit from an efficient market through the smooth economic relationship of farmers, consumers and traders.

3. Objective of the study

The study intends to assess the efficiency of the grain market Oromia, Amhara, Tigray and SNNPR (Southern Nation Nationalities People Region) regions of Ethiopia. The study attempted to identify the determinant factors of traders' performance related to marketing margin and volume of purchase.

4. Methodology

4.1. Description of the Study Area

Ethiopia is the biggest country in East Africa with 1,120,000 square Kilometers (km2) occupying the major part of the Horn of Africa. In the mid-2014, the Ethiopian population was estimated at about 96 millions. The population is growing by about 2 million a year. The total population of the country is projected to be 130.5 million and 165.1 million in 2030 and 2050, respectively (Population Reference Bureau, 2014). The majority of the population lives in the highland areas of the country. Currently, Ethiopia is divided into nine national regional states: Oromiya, Amhara, Tigray, SNNPR, Afar, Benishangul-Gumuz, Gambela, Harari, Somali; and two chartered cities: Addis Ababa and Dire Dawa. Oromiya. The study covered four regions of Ethiopia: Oromiya, Amhara, Tigray and SNNPR which is more than 80% of population in the country; in terms of area and population Oromiya has the largest share followed by Amhara, SNNPR and Tigray. Crop production is dominated by principal cereals such as *teff*, wheat, barley, maize, sorghum and millet. In 2007/08, 97% of the grain crop was produced and sold from four regions; Oromiya produced the largest share (48%) of the total cereal production, followed by Amhara (34%), SNNPR (8%) and Tigray (7%) (CSA, 2008). That is why the study focused on these regions.

4.2. Data Requirement, sampling procedure and sample Size

The study uses the Ethiopian Agricultural Household and Marketing Survey (EAHMS) jointly implemented by the Ethiopian Development Research Institute (EDRI) and the International Food Policy Research Institute (IFPRI) in 2008. Data was obtained on traders' characteristics, their business history, transaction costs, and resource ownership, volume and direction of trade, relationship among marketing agents, buying and selling strategies, etc. The primary data were collected using informal surveys using a random market appraisal (RMA) technique and checklists to confirm the survey results of traders. Group discussions were conducted with traders and agricultural and relevant experts from government organizations during the RMA survey. The grain market participants, their role and interactions were identified in the RMA.

Multistage sampling technique was employed to collect data from 206 traders from randomly selected

rural and urban markets in the study areas. The sampling was followed a stratified random sampling; in the first stage selected market locations represented both the surplus and deficit regions of the country. Sample selection adopted the following procedures: where wholesalers were found in the market to number more than 10, 50% were interviewed. In a situation where market location had fewer than 10 wholesalers, a minimum of five wholesalers were interviewed. In deficit markets, 12 retailers or assemblers were interviewed, while in surplus markets, eight retailers or assemblers were interviewed. Following this procedure, a total of 368 traders were interviewed from 20 markets. Generally, the data referred for the study was collected from 206 traders who were throughout to provide relevant information. To verify the result the informal survey was conducted using checklists.

4.3. Method of Analysis

This research used multiple regression model that, contribute to the literature, Fafchamps and Minten (1999), illustrated the economic effect of social capital on the functioning of traders' performance. This study, therefore, used the Fafchamps and Minten approach and denoted traders' production function as:

$$Q = F(L, K, H, R) \quad (1)$$

Or

$$Q = F(L, K, H, S, C) \quad (2)$$

where Q is a measure of performance of a trader (volume of transaction, margin or profit); L, K and H stand for, labor, physical capital and human capital, respectively. In equation (1), customer relationships are denoted by R. Equation (2) was meant to evaluate the effect of engaging in some kinds of customer relationships on traders' performance. In this equation, customer relationships with suppliers and those with clients are denoted S and C, respectively. Equation (2) is developed to explore the relative impact of customer relationships with suppliers and those with clients. The R, S and C are corresponding to the key independent variables: "regular suppliers or buyers or both", "regular suppliers" and "regular consumers".

Model specification of traders' performance

First, the different measures of social capital and human capital that are used in the analysis were selected and discussed. But other controlling variables were also identified. Second, a regression analysis was made to determine the quantitative effect of the variables on traders' performance. Two models were developed from Equation (1) which this study used to find the determinants of traders' performance. The functional form for regression analysis is multiple linear regression models presented as:

$$\ln Q_M = \beta_0 + \beta_i X_i + \upsilon_i \quad (3)$$

$$\ln Q_P = \beta_0 + \beta_i X_i + \varepsilon_i \quad (4)$$

where $\ln Q_M$ and $\ln Q_P$, are log of average marketing margin and quantity purchased, respectively, β_i coefficient of explanatory variables that has to be estimated, and υ_i and ε_i the error terms corresponds with each equation.

5. Result and discussion

5.1. Characteristics of Sample Grain Traders

The main characteristics of surveyed traders are summarized in Table 1. There are significant differences in most of characteristics of traders across different regions. The study indicated that only 12% of the traders were female, which shows the grain market was dominated by male. The average age of the traders was 40 years. Most of the traders (44%) had a junior secondary education while 43% of them had a senior secondary education. On average, the sample trader had been in grain business for nine years and before becoming grain traders, 22% of them were farmers that can affect the performance of trading activities. Partnership is believed to strengthen financial capacity and knowledge of enterprise's members; however, 95% of the grain traders held in sole proprietor.

About 73% of the traders had their own house with an average estimated value of Birr 135,230. The highest (Birr 241,920) estimated cost of the house was found in Tigray. Nearly 91% of the sample traders had store under their exclusive control, with an average capacity of 721 quintals; highest capacity was in Oromiya (1050 quintals). The traders started their business with an average capital of Birr 18,230 and the 2007/08 capital was about fivefold (88,280 Birr) of their initial capital. The highest financial capitals were found in Tigray. The average grain purchased in 2007/08 was 3174 quintals; Oromiya traders were the highest (4854 quintal) buyers. Net marketing margin of the grain traders was Birr 40 per quintal on average; the lowest margin (Birr 18 per quintal) was found in Tigray because traders would not purchase from farmers.

Table 1 Characteristics of grain traders

Variables		N = 47 Amhara	N = 18 Tigray	N = 97 Oromiya	N = 44 SNNPR	N = 206 Total	χ^2/F-value
Sex (%)	Male	83	94	88	93	88	3.01
Age (years)		41	41	42	37	40	2.17*
		(10)	(5)	(12)	(9)	(11)	
Educ. (%)	Read & write	13	6	10	0	8	26.38***
	Junior	42	89	37	45	45	
	Secondary	45	6	48	48	44	
	Higher edu.	0	0	4	7	3	
Trade experience		6	8	10	9	9	16.11***
		(4)	(6)	(9)	(7)	(8)	
Farming Experience (%)		44	13	22	20	22	70.51***
Proprietorship (%)		98	100	93	91	95	9.38
Home own (%)		66	72	73	80	73	2.15
House value (Birr)		115.65	241.92	113.97	156.06	135.23	3.89***
		(107.52)	(181.68)	(113.76)	(149.52)	(132.45)	
Exclusive store (%)		96	94	86	95	91	10.87**
Store capacity (Q)		364.43	192.78	1049.99	601.05	721.30	3.89***
		(776.52)	(67.20)	(3762.45)	(822.65)	(2647.62)	
Initial capital (Birr)		10.38	44.94	10.58	32.54	18.23	3.13***
		(17.48)	(115.79)	(17.99)	(94.01)	(57.63)	
2007/08 capital (Birr)		64.89	135.72	83.92	103.81	88.28	9.97***
		(120.68)	(148.68)	(124.34)	(126.63)	(126.63)	
Purchase (quintal)		1531	824	4854	2650	3174	3.82***
		(1817)	(1112)	(17103)	(3067)	(11933)	
Marketing margin (Birr/qt)		22	18	52	41	40	12.62***
		(27)	(19)	(43)	(60)	(45)	
Language (average)		2.06	1.40	2.39	2.45	2.15	36.04***
		(0.24)	(0.65)	(0.85)	(0.76)	(0.86)	
Regular supplier (%)		89	81	84	91	85	2.19
Regular customer (%)		89	79	79	82	80	2.15
Buy on credit (%)		72	43	48	68	53	15.40**
Sales on credit (%)		89	64	67	84	72	8.87
Sales intermediary (%)		0	12	0	5	7	28.13**
Purchase intermediary (%)		13	12	22	11	13	16.25**
Price info collectors		1.79	1.51	0.72	0.95	1.38	13.99***
		(1.79)	(1.31)	(1.45)	(0.96)	(1.42)	
Equb (%)		33	36	57	80	55	21.04***
Mobile phone (%)		98	100	91	93	94	6.39*
Local market price info		87	56	84	91	84	12.48***
Personal observation		44	21	49	59	44	49.97***
Other market price info		64	11	74	91	70	40.72***

N = sample size, *** and ** indicate that statistically significant difference among regions at 1% and 5% significant level, respectively. The figure in parenthesis is standard deviation.
Source: Computed from EDRI and IFPRI survey data, 2007/08

Social capital is key elements in conducting a business and is important to reduce transaction costs. The result indicated that the traders could speak more than two languages to facilitate their business; the largest was spoken in SNNPR. Nearly 85% and 80% of the traders had regular contact with suppliers and next buyers, respectively. Once such trust is established, customers are likely to sell or buy on credit. Hence about 53% and 72% of them of the traders were purchased and sold on credit, respectively; the most creditors were found in Amhara.

Using intermediaries is an important source of information that reduces a transaction cost in business activities but only 7% and 13% of them used intermediaries when they sold and purchased grains, respectively who were wholesalers. The traders employed more than one person to collect price information from different markets; the largest number was in Amhara. Belonging to social organizations, informal saving group (*Equb*) may be beneficial to strengthen financial capacity and a good starting point for saving. Table 1 shows that 55% of sample traders were a member of *Equb*; the most (80%) member found in SNNPR.

The availability of market information enables traders to take rational decisions in the market situation where they operate. About 94% of the traders had mobile telephone to obtain information from distant markets and within the markets. About 84% of the sample traders collected price information regularly from their main local market; particularly 44% of obtained price information by personal observation and the rest used other traders, regular customers to obtain local market price information. Collecting market information from other

markets is important for market integration; hence by using different networks, 70% of the sample traders collected price information from other markets. Traders in SNNPR were found to be relatively smart to collect price information from local and distant market regularly.

Variables

The dependent and possible explanatory variables with expected influence in traders' performances are summarized in Table 2. The study will examine the impact of financial capital, social capital and human capital, and transaction costs on traders' performance. Traders' net marketing margin and quantity of purchase are dependent variables in the model, but the independent variable in the model that having "regular suppliers or clients or both" used as a customer relationship (COSTOMR) variable.

Table 2. Variables expected to affect traders' performance

Variables	Description	Measurement	Value	Expected sign
1. Dependent variable				
NMM	Net marketing margin	Sales price - (Purchase price + transaction costs) per quintal	Continuous	
PURCH	Purchase	Quantity purchased (Quintal)	Continuous	
2. Independent variables				
I. Financial and Physical capital				
WC	Working capital	2007/208 working capital	Continuous	+
STORE	Own store	1 =Yes, and 0, otherwise	Dummy	+
II. Social capital				
LANG	Language	No. of languages spoken	Continuous	+
INTER_SAL	Intermediary at sale	1 =Yes, and 0, otherwise	Dummy	+
INTER_PUR	Intermediary at purchase	1 =Yes, and 0, otherwise	Dummy	+
COSTOMR	Customer relationship	1 =Yes, and 0, otherwise	Dummy	+
EQUB	*Equb* member	1 =Yes, and 0, otherwise	Dummy	+
III. Human capital				
TRADEXP	Trade experience	No of years in grain business	Continuous	+
EDUC	Education	1 =Yes, and 0, otherwise	Dummy	+
FARMING	Farming experience	1 =Yes, and 0, otherwise	Dummy	+
PRILAB	Labour	No of persons collect price info	Continuous	+
IV. Transaction cost				
MOBTELL	Mobile telephone	1 =Yes, and 0, otherwise	Dummy	+
Oromiya	Oromiya region	1 if Oromiya, 0= otherwise	Dummy	+/-
Tigray	Tigray region	1 if Tigray, 0= otherwise	Dummy	+/-
SNNPR	SNNPR region	1 if SNNPR, 0= or else	Dummy	+/-

5.2. Determinants of traders' performances

The overall goodness of fit of the regression model was measured by coefficient of determination (R^2) that tells what proportion of the variation in the dependent variable was explained by the explanatory variables. About, 23.11% of market margin and 33.9% of the variation in volume of purchase were explained by the model. Hence, the F tests were applied for overall fit of the model. The results indicated that F-tests were highly significant at 1% level in both regressions; therefore, the model is adequate. The regression results are summarized in Table 3.

Financial and Physical capital

As expected, the traders with a higher working capital significantly and positively associated with the volume of purchase. A one Birr increase in working capital led to a 33.31% increase in the volume of purchase. This justified that more financial capital probably augmented to broaden their business. This finding is consistent with agricultural marketing in Madagascar, China, Ethiopia and Malaysia that the performances of traders were positively affected by working capital (Fafchamps and Minten, 1999; 2001; Wang *et al.*, 2006; Jabbar *et al.*, 2008, Fauzilah et al., 2012). However, contrary to expectation, working capital had a negative and significant effect on marketing margin; that a one Birr increase in working capital led to a 10.54% decrease in marketing margin. This justifies that to avoid tied capital and a price risk traders may sell a large quantity of grain frequently and may sell at a low price to benefit from quantity sold instead of the increasing price. In such a situation trader may get more profit and may be more competitive in the grain market. This was similar to the finding of Jabbar *et al.* (2008) that a working capital negatively affected the livestock market margin in per cattle.

Social capital

Networking is one of the social capitals which develops people's interaction and facilitates market transaction. Hence, as expected the marketing margin and the volume of grain purchase increased with using sales intermediaries. Using intermediaries at the time of sale led to increase in traders' marketing margin by 84.43%

and volume of purchase by 65.81%. The result implies that the traders performed well in the marketing margin and the volume of purchase probably because the intermediaries may identify better price and potential markets than the trader himself/herself. These findings are consistent with some observations that using intermediaries increases the performance of grain traders in Madagascar and Ethiopia (Fafchamps and Minten, 1999; Eleni, 2001). The informal survey verified that brokers played a major role on the wholesale markets. Jabbar *et al.* (2008) further argue that broker-use as a trading practice would be expected to increase margin by reducing transaction costs by providing better market information better price and lesser time for contract negotiation and enforcement. However (Jabbar *et al.*, 2008; David *et al* 2014) found that increase in the number of intermediaries led to a reduction in the marketing efficiency because increase in number of intermediaries led to an increase in marketing costs, which resulted in reduced marketing efficiency.

Table 3. Factors affected traders' performance

Variables	Marketing margin		Volume of purchase	
	Coef.	Std. err.	Coef.	Std. err.
WC	-0.1054**	0.0476	0.3331**	0.1333
STORE	-0.1684	0.3624	0.3567	0.2656
LANG	0.1248	0.2398	-0.1987	0.2097
INTER_PUR	0.1727	0.2781	0.2365	0.3581
INTER_SAL	0.8443***	0.3037	0.6581*	0.3762
COSTOMR	-0.4645*	0.2455	-0.1041	0.2926
EQUB	0.1940	0.1691	-0.0235	0.1928
TRADEXP	-0.0580	0.1039	0.1679	0.1069
EDUC	-0.3182	0.2220	0.2543	0.3637
FARMING	0.3358*	0.1817	-0.0647	0.2168
PRILAB	-0.0180	0.1776	0.0278	0.1927
MOBTELL	-0.6052**	0.2879	0.4732	0.3702
OROMIYA*	0.6255**	0.2485	0.8273***	0.2464
TIGRAY*	-0.0553	0.2545	0.4944	0.3558
SNNPR*	-0.1156	0.3203	1.2695***	0.2977
Const.	5.0446***	0.6665	1.4546	1.1958
R^2	0.2311		0.3390	
Root MSE	1.0932		1.1648	
F-Statistic	7.32***		7.87***	
No. of observations	206		206	

***, **, and *** indicate a significance level of 10%, 5%, and 1% respectively**

Note: All continuous variable used in log form

Source: authors' estimates from EDRI and IFPRI 2007/08 data set

*Amhara region is the base.

A social network enables traders to deal with each other trust worthily by, exchanging price information and economizing on transaction and quality inspection. However, the result indicated that the traders with regular suppliers, buyers or both negatively affected the marketing margin. On average, traders' relationship to customers reduced the marketing margin by 46.45%. This probably because to absorb and maintain clients' relationship, traders willingly sold below the market price to their regular customers and paid above the market price for their regular suppliers. This may lead to reduce their margin. This result is similar to Jabbar's *et al.* (2008) finding that per small ruminant market trading with regular suppliers or customers led to reduce marketing margin.

Human capital

Formal education and work experience as proxies for human capital have proven their value in the empirical study (Anale, 2006). Human capital is embodied in individuals provides comparison and increases their ability to earn income throughout their lifetimes. As a result, farming experience (before becoming a grain trader) had a significant and positive effect on marketing margin. Traders who had a farming background had more advantages on marketing margin that increased by 33.58%. This implies that traders with farming background may have better knowledge of the source of grain, the time of purchasing at low price, better awareness about quality, variety and grain management skill than the traders with less experience. They may also make a link with farmers to buy sufficient and quality grain.

The widespread availability of mobile phones has changed access to price information for a large number of traders in the grain market and has led to a different way of doing commercial deals. However, the correlation between mobile phones ownership and marketing margin was significant and negative; traders who own mobile phone led to reduce marketing margin by 60.52%. The ownership of mobile phones probably reduced the price variation among the traders due to diffusion of information in grain markets. This result is

consistent with the finding of Aker (2010) in Niger that mobile phones are more useful in reducing price dispersion when agricultural markets are farther apart. In some cases traders may use mobile phones to facilitate collusive behaviors among them. If this was the case, a reduction in price difference or marketing margin could be an indication of convergence toward the monopoly price (Aker, 2010).

Regional dummies also affected the traders' performances. The marketing margin of traders was positively related to Oromiya. The marketing margin of the location of traders in Oromiya was better than Amhara by 62.55%. Similarly, the volume of purchase was significantly and positively affected by traders' location in Oromiya and in SNNPR. Locations of traders in Oromiya and SNNPR raise the volume of purchase by 82.73% and 126.95% which is more than in Amhara. This may due to high supply potential of the regions enable traders to purchase enough quantity and maximize their benefit.

6. Conclusion and recommendation

Working capital is the initial condition of running any business. As a result, working capital positively affected the volume of purchased grain but it negatively affected the marketing margin. To improve the performance of traders the finding suggested adding working capital through different means (like access to credit through micro finance institutes, banks, *etc.*) with planned and market assessment.

Increasing social network for the traders can be of great value in enhancing their access to markets and enables traders to deal with each other in a more trustworthy manner. The result indicated that the intermediaries used at the time of sale positively affected the marketing margin and the quantity of grain purchased. Intermediaries are essential to identify better prices, to link unknown buyers with unknown sellers and guarantee, and witness on behalf of buyers or sellers. Therefore, establishing licensed and well organized brokerage service is important to run grain business smoothly. Customer relationship adversely affected the marketing margin; this is to absorb customers, traders willingly reduce price or pay better price than the market price. Hence, traders should strengthen their trade relationship with regular customers in a formal or informal way (like *Idir*, *Equb*, changing gifts, or by other means) as this strategy may help them to economize transaction costs, solve financial problems and conflict on quality or weight.

Human capital improves performance of the traders. The study strongly confirmed that farming background helped traders' volume of purchase. Hence, farmer-trader linkages are recommended through the dissemination of information (e.g. workshops) and training on quality and production management. Market information facilitates market transaction. Nevertheless, ownership of mobile phones adversely affected the marketing margin. Therefore, to create confidence among traders and to create a competitive market, a reliable, permanent and public domain market information system should be strengthened. These include text message, TV, radio and like ECEX that visualise transparent market price on billboards. Finally, location disparities indicated that traders in Oromiya performed better in marketing margin and in the volume of purchase than those in Amhara. Similarly, location of traders in SNNPR achieved more on the volume of purchase than those in the Amhara region. To narrow the performance gap of traders in different regions, major improvement should be made on the infrastructure and institutional support (such as credit, identify market opportunities, market information, *etc.*) that directly or indirectly affect the marketing efficiency.

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