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Market Institutions and Transaction Costs Influencing Trader Performance in Live Animal Marketing in Rural Ethiopian Markets

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In this paper, the hypothesis that performance of trading firms depends on their assets (physical, financial, human capital and social capital) and trading practices is tested with data from a sample of 131 live animal traders in 38 rural Ethiopian highland markets. Most traders used own capital as access to credit, especially formal credit, was limited. The livestock market was characterised by non-standardised products and lack of information in the public domain about supply, demand and prices. Consequently, livestock trading was largely a personalised business though brokers and regular buyers and sellers, a form of social capital, were sometimes used for gathering information, searching buyers/sellers, price negotiation and contract enforcement. Business relationships with these intermediaries were principally based on trust, without strong ethnic, religious or family ties. Although most transactions were conducted in the physical presence of parties, contract violations were common, which were settled mainly through informal means as formal legal systems were either absent or time-consuming. Estimated costs and margins of most recent transactions showed low returns, and losses in some cases. Market levies, transport, travel and feeds were major items of variable cost, with some variation between cattle and small ruminants. Multiple regression analysis showed that traders' financial and human capital and trading practices such as use of brokers and regular suppliers

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and customers had varying effects on margins and costs of cattle and small ruminant trade. Unstable price, multiple taxes, non-transparent tax system, limited access to credit and weak demand for the quality of the products traded were perceived by traders as major problems of marketing. All the problems were amenable to public policy to improve the market environment and marketing efficiency.

1. Introduction

Well-functioning markets facilitate easy conversion of products to cash, which further facilitate other exchanges of goods and services required for increased production and consumption. Markets promote specialisation and increases productivity and growth through realisation of comparative advantage and accessing regional and global markets. Commercialisation and market expansion are essential for exploiting the potential of any commodity in the economic development process. Commercialisation implies greater demand for inputs, information, credit and other services including rules and norms for arranging contracts and their monitoring and enforcement to facilitate exchanges. Where one or more of these supporting institutions are either absent or costly, exchanges either do not take place or are very limited (Nabil and Jeffrey, 1989; North, 1990). However, any particular institution, rule or practice, if narrowly defined, may not be indispensable for market development and growth; rather very different institutional structures may reasonably substitute for each other, both in dissimilar as well as similar contexts (Engerman and Sokoloff, 2003). The problem then is to identify the appropriate institutional form(s) for market development for a specific commodity in a given social, economic and political setting.

Ethiopia has a large livestock population performing multiple functions in the economy, but the potential contribution of the sector to the economy is not fully exploited due to problems related to both domestic and export markets. Some studies have described the structure of livestock marketing as consisting of four tiers or layers from producers to consumers (Kebede

and Lambourne, 1985; Kebede *et al.*, 1988); others have shown that price differences between markets could be explained by transfer costs (Andargachew and Brokken, 1993), but a recent study shows that prices differ significantly between seasons and markets, and intermarket price differences are significantly influenced by the presence or absence of export buyers and processors, among other things (Ayele *et al.*, 2005). But little is known about how the different layers actually function, how market actors at different layers gather and exchange information, interact, negotiate and effect transactions, settle disputes, how costly and effective the transactions are, how effectively consumer prices are transmitted to producers and who benefits how much from market transactions, what kind of organisational and institutional arrangements support or hinder these transactions. Once trade linkages expand beyond local level across space and time, transaction costs related to monitoring and enforcement increase sharply, and the local social network or relationship needs to be replaced and complemented by formal organisations and institutions enforced by the state (North, 1989).

Traders perform a key role in the Ethiopian livestock markets linking rural producers with rural and urban consumers. In this paper, performance of a sample of traders in terms of their trading margins was assessed, how these were influenced by their assets and trading practices were analysed, and the implications of the findings for policy were outlined.

2. Traders' Performance: A Conceptual Framework

It is well known that in a competitive market, a trading firm's temporal or spatial arbitrage performance depends on its financial, physical and human capital as well as its ability to minimise costs. There are physical marketing costs, e.g., transport and storage, and transaction costs that arise from the coordination of the exchange among relevant market agents and include the costs of obtaining and processing market information, negotiating contracts, monitoring agents and enforcing contracts. Transaction costs are unique and specific to individual market agent, so each agent in the market conducts transactions on the basis of his/her own costs. When transaction costs are very high, market become

thin or even fail (Williamson, 1985; North, 1989; Hoff and Stiglitz, 1990; Gabre-Madhin, 2001).

In some recent studies, the role of social capital in reducing transaction costs has been emphasised under the conditions of imperfect markets, weak property rights and contract enforcement conditions. It is argued that social capital creates trust among economic agents which helps to reduce transaction costs and improve profit margins (Landa, 1994; Fafchamps and Minten, 1999). To these, Gabre-Madhin and Negassa (2005) have added the role of trading practices in trading performance. They define trading practices or the way exchanges are conducted as observable market behavioural outcomes of underlying market institutions. Market institutions encompass 'rules of the game'—rules and laws, informal norms, formal and informal organisations, and associations. These institutions may determine trading practices with respect to, among others, mode of purchase and payment, inspection of goods, negotiation and enforcement of contracts, contract violations and means of settlement. Some examples of trading practices include use of regular suppliers and customers, and brokers and agents for purchase and sale, volume of purchase and sale through regulars and agents, cash or credit purchase and sales, etc. Trading practices may also be determined by type and composition of assets as different sizes of firms operating under the same set of underlying market institutions may not follow similar trading practices. In turn, trading practices may impact traders' performance through their influence on transaction costs. However, most trading practices are observable and measurable in some form, but some transaction costs may not be observable and measurable.

Thus, the relationships between trading performance, assets, trading practices and transaction costs outlined by Gabre-Madhin and Negassa (2005) may be described in the following way: a trading firm's performance (measured by volume of business, margin or profit) depends on assets (physical, financial, human and social capital), trading practices and transaction costs. However, some trading practices may facilitate transactions taking place as well as reduce transaction cost, e.g., payment after sale without extra charge in long-standing trust-based regular exchange relationship may allow exchange to take place and increase volume of business in a cash-constrained situation, when exchange may be absent or limited in the absence of such

relationship. Also some transaction costs may arise because of the absence of appropriate practices to address certain problems, e.g., contract violations may be common especially in case of credit transactions and where there is no established institutional mechanism to easily resolve conflicts arising out of contract violations in the case of credit transactions in a short time, risk of default may be considered by traders a factor in price negotiations.

Therefore, in empirical specification of any model to estimate parameters of the variables explaining performance, two aspects need to be considered. First, if the performance is influenced by assets and if assets have any influence on trading practices or vice versa, then inclusion of both assets and trading practices in an equation may lead to multicollinearity among the regressors. Second, it is also plausible that the direction of causality between trading practices and trading performance is the other way round: the higher the volume of business, the more sophisticated market institutions a trader has access to. Given the nature and limitations of the data set, it is unfortunately not possible to address this issue. Third, trading practices primarily influence performance through facilitating exchange, enhancing volume of business and reducing transaction costs, so appropriate trading practices may be used as explanatory variables.

3. Data Source

A sample consisting of 26 primary and 12 secondary rural livestock markets in the Tigray, Amhara and Oromiya highlands was surveyed in 2002. Primary markets were defined as those serving local communities and an assembly point for supplying animals to secondary markets. Tertiary or terminal markets were not present in any of the districts surveyed. Each livestock market was located on one side of the larger multipurpose market. In some secondary markets, there could be some fence or other demarcation mechanism to separate the livestock section from other commodity sections. Some primary markets met once a week, whereas other primary markets and all the secondary markets met twice a week on designated days.

From the 38 livestock markets, 131 traders were selected: 63 (48%) were mainly or exclusively cattle traders and 68 (52%) were mainly or exclusively sheep and/or goat (henceforth called small

ruminant) traders. Most of the traders operated in more than one market. Data were collected using structured questionnaires on general characteristics of the traders, their assets and business practices and detailed information on their arbitrage behaviour, costs and margins with respect to the most recent completed purchase and sale transactions for cattle and/or small ruminant.

4. Some General Characteristics of the Samples

Some general characteristics of the sample traders and their trading practices are summarised in Table 1. The sample traders were generally young and they came from varied occupational backgrounds with only a few with either own or family background in trading. Most traders started business themselves with own capital as access to credit, especially formal credit, was limited. The livestock market was characterised by non-standardised products, and traders generally lack clear perception about product definition and standards. For example, when traders were asked to specify the qualities they normally used in differentiating animals, they mentioned *adal, dega, tuka, yabesa, yeferang* and good quality for cattle, and *yabesa* and good quality for shoats; it appears that

Table 1: *Some Profiles of Sample Livestock Traders*

	Cattle traders	Small ruminant traders
Age (years)	38 (11)	35(13)
Schooling (years)	5.8 (4.5)	5.7(4.1)
Average working capital (Birr) during the year preceding the survey	11,023 (9,919)	5,490 (4,063)
% traders borrowed	23	30
% used regulars in purchase/sale	38	56
% used brokers	20	8
% traded in secondary markets	80	67
% trader have other occupations	45	37

Note: 1 US dollar was equal to 8.45 Birr at the time of the survey.

Source: Field survey.

some of the quality descriptions are actually local-breed names or a composite local description of a particular animal type or quality. There is lack of information in the public domain about supply, demand and prices. These are major factors that determine how the market is organised and how traders operate.

Because of the above reasons, livestock trading was largely a personalised business though intermediaries, especially brokers were used by about 28% traders for trading in distant markets and they conducted about 48% of volume of transactions through brokers. This means high cost of search for all kinds of market information, contract negotiation and enforcement. Traders also used a network of intermediaries, especially regular buyers and sellers, a form of social capital, with whom they had business relationships principally based on trust and without strong ethnic, religious or family ties. About 27% of the traders had regular suppliers and 37% had regular customers. Personal observation through physical presence was the dominant mechanism to gather information on price, supply and demand in local markets: about 85 and 57% of traders obtained price information in local and distant markets in this manner. Formal sources (radio, television and newspapers) were used by a few for national and export-market-related information. Some of these characteristics were observed by Barrett *et al.* (2003) and Barrett and Luseno (2004) in Northern Kenya, across the southern border of Ethiopia.

Even though most transactions were conducted in the physical presence of parties, contract violations were common, especially in case of credit transactions: sample traders experienced on average 23 contract violations per trader in 12 months preceding the survey. About 20–57% of the traders experienced contract violations of one form or another including delivery of poorer quality than originally agreed, attempt to renegotiate price, attempt by sellers to steal purchased animals, delivery received after agreed date or received partial or no delivery, payment received after agreed date or received no or partial payment. Violations with respect to delivery and payment delays were more frequent in secondary markets. Most of these were resolved through informal negotiations as formal courts or other formal organisations were not easily accessible for quick resolution of disputes. Theft of animals either from stocking yards or en route to market was a major problem of property rights: 40% of the sample traders

suffered from theft of animals during 12 months preceding the survey and they lost on average 1,345 Birr (\$157) per cattle trader and 523 Birr (\$61) per small ruminant trader. Traders adopted various non-conventional means to avoid losses from this problem.

In case of most recent transactions, 56.5% of the traders traded small ruminants and 43.5% traded cattle (29% traded ordinary local-breed cattle and 14.5% traded *yeferang*, a local expression used to refer to fattened and/or crossbred/exotic animals). Average gross margin (gross revenue – variable costs) was 14 and 4% for cattle and small ruminant traders, respectively. Forty-six percent of cattle traders and 42% of small ruminant traders earned negative gross margin of different magnitude, whereas others earned positive margin (Table 2). While some traders could always undergo losses in any transaction, overall negative margin for the entire sample appears puzzling. Unstable price was mentioned by traders as a major problem in livestock trading (see below), and some transactions might have suffered from this problem as well. Since only most recent transactions

Table 2: *Characteristics of Recently Completed Cattle and Small Ruminant Transactions*

	Cattle trade	Small ruminant trade
Number of traders involved	57	74
Number of animals purchased/trader	8 (7)	20 (16)
Number of animals sold/trader	6 (5)	17 (14)
Distance between purchase and sale markets (km)	90 (79)	69 (54)
Number of days between purchase and sale	9 (7)	14 (8)
Number of people from whom purchased	6 (5)	14 (12)
Number of people to whom sold	4 (3)	13 (7)
Purchase price/animal (Birr)	580 (372)	101 (63)
Variable cost/animal (Birr)	79 (73)	15 (11)
Sale price/animal (Birr)	563 (413)	111 (67)
Gross margin/animal (Birr)	-96 (256)	-5 (33)
% traders incurred losses	46	42

Source: Field survey.

were recorded for purposes of estimating costs and margins rather than transactions over a longer period, say 6 months or a year, there was a possibility that the reported transactions took place when the market price was down. Also, even though a lot of care was taken in collecting data, reporting error especially over-reporting of costs or under-reporting of prices or reporting transactions on which margins were low could not be fully ruled out.

The structure of variable costs showed that transport (22%), travel (18.2%), market levies (15.9%) and feeds and water (14.9%) were major items of cost for cattle traders, and these items accounted for 11.9, 20.5, 16.1 and 30% of cost for small ruminant traders. Net profit was not calculated because adding fixed cost, especially capital cost for the search period of holding stock, would further reduce the gain or increase the losses as the case might be.

Sample traders were asked to mention three marketing problems, in descending order of importance, separately for cattle and small ruminant marketing. Taking all the responses together, major problems mentioned by cattle traders are unstable price (52% of respondents), weak demand for the type of animal traded or low quality of the product (39%), multiple taxes (38%), non-transparent taxation system (32%), limited access to credit (26%). On the other hand, major problems mentioned by small ruminant traders are unstable price (61%), weak demand for the type of animal traded or low quality of the product (40%), multiple taxes (24%), non-transparent taxation system (28%) and limited access to credit (24%). Prices in rural markets generally depend on supply and demand, which are heavily influenced by season, occurrence of drought or other weather shocks and the occurrence of religious and cultural festivals, e.g., in Northern Ethiopia severity of the dry season heavily influence supply which peaks after the October–January rainy season then drops rapidly; in the South, low sales occur during July–September main rainy season, and the Lent fasting period (February–April), but trade peaks immediately following these periods (Tilahun, 1983; Andargachew and Brokken, 1993; Ehui *et al.*, 2000).

Other issues that are amenable to public policy, e.g., inadequate market information, inadequate market infrastructure, inadequate government support, existence of unlicensed traders and weak legal system, were mentioned as problems by fewer traders. Although a high proportion of traders mentioned that they did

not get any price information from public service providers to aid their business decisions, few apparently considered this as a major marketing problem perhaps because these were rural-level local markets and most transactions were conducted through physical presence with information collected through personal observation and trade networks.

5. Explaining Traders' Performance: Empirical Model

Profit is the ultimate objective of a firm though performance may also be assessed by volume of business or cost per unit. In the present study, net profit was not calculated as explained above. However, gross margin is a measure of return on own labour and capital, so can be a good indicator of business performance as minimisation of variable costs will lead to increased gross margin. Even though average gross margin was slightly negative, there was wide variation in actual magnitude of margin across the samples, so an understanding of the reasons for that variation would be useful. Therefore, gross margin per traded animal was considered as an indicator of performance and a model of the following form was used to identify its determinants: $\text{Gross margin per animal} = f(X, C, e)$, where X is a set of qualitative (discrete or dummy) variables each with more than one category, C is a set of quantitative variables (covariates) and e is an error term. X and C include asset variables (human, financial and social capital), variables representing trading practices and other general variables. Asset variables include years of schooling of the trader, his/her business age or experience, occupation other than livestock, number of workers engaged in livestock trading including family and hired hands, working capital during the year preceding the survey, capital borrowed for livestock business, and number of other traders and brokers in purchase and sale markets known who could be relied up on for information, advice or credit. Trading practices variables include use or non-use of brokers for buying and/or selling livestock, whether conducted purchase and/or sale transactions with regular suppliers and buyers, distance between purchase and sale markets where transactions were made which indicated spatial arbitrage behaviour, and number of days between purchase and sale transactions which included travel time between markets as well as temporal arbitrage behaviour. Other variables include

type of market (primary or secondary) where transactions took place, regional dummies, and in case of cattle trade a dummy for type of cattle (local or cross/exotic breeds) traded.

Double-log formulation would give direct estimates of elasticities but could not be used in this study as gross margin was negative in a good number of cases. So, simple linear regressions were used and both OLS and GLM procedures in SPSS V.13 were used to estimate parameters separately for cattle and small ruminant. Existence of possible multicollinearity between independent variables, especially between asset and trading practices variables, was tested. High correlation was found between volume of working capital and number of animals traded during the most recent transactions in both the equations for cattle and small ruminants, so the number of animals traded was dropped from the function. Animals could be of different sizes and values, but total working capital subsumed these differences, so inclusion of working capital gave a better fit of the equations.

Only the estimated parameters of the models run with the GLM procedure are reported here because in case of categorical variables, GLM procedure not only gives the direction of influence of an independent variable on the dependent variable, but also gives the magnitude of the influence for direct comparison. The estimated parameters for cattle and small ruminant functions are shown in Table 3. The set of variables significantly influencing gross margin, and in some cases the nature of influence, varied between cattle and small ruminant trade. In case of cattle, other things being equal, number of workers engaged in trade significantly increased unit gross margin and livestock traders who had additional occupations(s) earned significantly larger gross margin per cattle than those who had livestock trade as the only occupation. On the other hand, unit gross margin significantly decreased as size of working capital increased, as the period between purchase and sale transactions increased, and traders who used brokers in buying and/or selling operations earned significantly lower margin than those who did not.

The significant positive effect of number of workers on margin rate indicated the relative importance of labour in the highly personalised business and the need for personal involvement in collection of information, searching buyers and sellers, making negotiations, ensuring contract enforcement, as discussed earlier.

Table 3: *Estimated Coefficients and Related Statistics for Determinants of Gross Margin (GM) per Cattle and per Small Ruminant for a Sample of Traders in Ethiopia*

Independent variables	GM per cattle	GM per small ruminant
Intercept	-18.927 (194.687)	8.462 (24.402)
Asset variables		
Schooling of trader (years)	4.446 (6.668)	-0.721 (0.636)
Business age/experience (years)	3.619 (5.890)	-0.066 (0.576)
Occupation other than livestock trade (yes = 1)	229.168*** (77.67)	-10.226 (7.981)
Number of workers	108.072* (65.771)	1.787 (3.199)
Working capital (Birr)	-0.009*** (0.003)	0.001*** (0.000)
Borrowing (yes = 1)	33.898 (101.322)	-2.207 (8.658)
Number of traders/brokers known	-0.471 (0.533)	-0.228*** (0.07)
Trading practices variables		
Purchase/sale to regulars (yes = 1)	-92.844 (84.364)	15.472** (7.790)
Used broker in purchase/sale transactions (yes = 1)	-236.819** (118.53)	-2.011 (13.586)
Distance between purchase and sale markets (km)	0.073 (0.494)	-0.142*** (0.04)
Days between purchase and sale	-16.213*** (3.87)	-0.101 (0.186)
Other variables		
Cattle type (<i>yeferang</i> = 0, local = 1)	29.586 (100.505)	NA
Market traded (primary = 0, secondary = 1)	-87.050 (114.504)	-9.448 (9.351)
Oromia region ^a	180.673 (111.681)	-12.155 (14.146)
Amhara region ^a	68.041 (145.646)	-0.684 (14.583)
R ²	0.56	0.41

Figures in the parentheses are standard errors.

^aTigray region is the base.

*Significant at 10% level using Bonferroni confidence interval.

**Significant at 5% level using Bonferroni confidence interval.

***Significant at 1% level using Bonferroni confidence interval.

Source: Field survey and authors' estimates.

Specialisation in livestock trade would be expected to generate better profits due to better knowledge and skills in trade negotiations, therefore the coefficients of this variable could be

considered counter-intuitive. However, small rural traders depending only on livestock trade for livelihood may need quicker turnover of transactions and be less able to cope with market uncertainties and use trading practices that will reduce transaction costs hence settle with lower profit margins compared to traders coming from families with a diversified income sources.

Although margin rate decreased as the size of working capital increased, absolute volume of margin could be significantly higher for such businesses compared to smaller traders. In fact, larger working capital may permit larger volume of business and cost economy, so such traders may earn lower profit per animal but larger amount of total profit, hence they may be more competitive in the market. Depending on circumstances, larger traders may push smaller traders out of the market if they use price and profit war as a business strategy. This is quite common in other businesses such as small groceries against the larger supermarkets.

Decreased margin rate with increase in the period between purchase and sale transactions would be normally expected, as longer temporal arbitrage involves extra costs of feeding, watering and keeping the animals and if price gains from such arbitrage is small, marginal profit rate may decline.

The lower margin of traders who used brokers in buying and/or selling operations than those who did not could be counter-intuitive. Normally broker-use as a trading practice would be expected to increase margin by reducing transaction costs by providing better information, better price and lesser time for contract negotiation and enforcement. However, it is unclear what exact services and benefits the broker using traders in the sample in this study derived from brokers. Also broker users might have used services in varying degrees for different expected benefits, so this variable might not fully capture the true extent of variation in transaction costs saved due to broker-use. In Ethiopia, brokerage as an informal institution in live animal trading is normally used more often by traders who operate in relatively distant less known markets and have inadequate supply of own labour to undertake all business-related operations such as search for information, buyers and sellers, making contacts and negotiations and enforcing the contract and negotiate solutions for any contract violations. Brokers provide a useful service at certain cost. Brokers earn a living through this profession by helping to link buyers and sellers but the negotiation terms

are exchanged separately and privately rather than openly in a transparent manner in the presence of the parties involved. And brokers take a commission from either the buyer or the seller or both depending on the market and the local practice, the amount or rate charged to each party remains unknown to the other party. The positive impact of larger own labour on margin rate mentioned earlier and the lower margin level for broker-users indicate that it is sometimes possible for the brokers to facilitate transactions at prices which might be higher than if the buyers and sellers could directly negotiate prices and transactions.

In case of small ruminants, other things being equal, margin rate per animal significantly increased as the volume of working capital increased and margin per animal was significantly higher for those traders who made all or most transactions with regular buyers and/or sellers compared to those who did not do so. On the other hand, margin rate significantly decreased as number of brokers/other traders in the markets known to a trader (representing social capital) increased, and the distance between purchase and sale markets increased (Table 3).

Increased unit margin as working capital in business increased was contrary to the situation in case of cattle trading. Also in case of small ruminants, number of workers did not have any significant effect on margin but it had a positive effect in case of cattle trade. The insignificance of labour and significance of working capital in case of small ruminant trade may be partly explained by the fact that while most often cattle transactions involve one animal at a time, small ruminant transactions may some times involve several animals at a time, and in case of movements from purchase to sale markets one person can handle a larger number of small ruminants than cattle. So labour and other transaction costs per animal may decrease as working capital and number of animals traded increase. Economy of labour in small ruminant trade may not show until a fairly large number of animals are handled in a batch or cycle of trade.

Higher margin per animal for those traders who made all or most transactions with regular buyers and/or sellers compared to those who did not do so would be normally expected as long-term business relations based on trust, reliable information on price and supply, and assured delivery of products in a timely manner usually reduce transaction costs and increase unit margin.

Lower unit margin with increase in the number of brokers/other traders in the markets known to a trader (representing social capital) may be due to the fact that knowledge about a larger network of traders/brokers was not conveniently and strategically used. The fact that dealing with regulars increased unit margin but knowing a large network of traders did not indicate that in informal markets, size of the social network is less important than the strategic use of such network for conducting business. Decrease in unit margin, as the distance between purchase and sale markets increased, would be expected where price gains from longer spatial arbitrage may be slower as distance becomes longer.

Among other variables, years of schooling, business age/experience, cattle type (in case of cattle function), whether transaction took place in primary or secondary market, borrowing or not borrowing for livestock trade had no significant effect on unit margin although in some cases the sign of the coefficient was as would be expected. For example, years of schooling had a positive but non-significant effect in both the equations, and business age/experience had a positive impact in the cattle equation. Among the traders, especially among small ruminant traders requiring less working capital, there were a good number people including students who were better educated by standard of rural education. However, these people might have been engaged in livestock trade mainly due to lack of alternative job opportunities, but perhaps in the rural market environment, formal education did not confer any particular advantage at least in case of the transactions analysed in this study.

6. Summary and Conclusions

A survey on 131 livestock traders in 38 rural primary and secondary markets in the highlands of Ethiopia in 2002 provided data for testing the hypothesis that trader performance was a function of assets, trading practices and transaction cost. Estimated costs and margins of recently completed transactions showed low returns and losses on investment in about 40–45% cases. Analysis of the structure of variable costs showed that most costs were physical marketing costs. Multiple regression analyses using gross margin per animal traded as an indicator of performance showed that traders' financial and human capital, especially labour, and

trading practices like use of brokers and regular suppliers and customers had significant effects on margins with some differences between cattle and small ruminant trade.

Unstable price, multiple taxes, non-transparent tax system, limited access to credit and weak demand for the products traded were perceived by traders as major problems of marketing, all of which are amenable to public policy for improving the market environment and marketing efficiency. Inadequate market information, infrastructure, government support and existence of unlicensed traders and weak legal system were mentioned as problems by very few traders. Alleviating these constraints along with improving market information and upgrading marketing infrastructures will potentially increase the welfare of smallholder producers and urban consumers. Rationalising taxes will improve traders' income and that will allow them to offer better prices to producers. Also more trader awareness about market demand for quality of product and related price will increase their ability to transmit information to producers to improve production, both in terms of quantity and quality, thereby benefiting consumers.

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