ajfand SCHOLARLY, PEER REVIEWED
AFRICAN JOURNAL OF FOOD, AGRICULTURE, NUTRITION AND DEVELOPMENT
Volume 17 No. 1
March 2017
PUBLISHED BY AFRICAN SCHOLARLY SCIENCE COMMUNICATIONS TRUST
ISSN 1684 5374

Afr. J. Food Agric. Nutr. Dev. 2017; **17(1):** 11691-11708 **DOI: 10.18697/ajfand.77.16175**

SMALLHOLDER GOAT FARMERS' MARKET PARTICIPATION IN CHOMA DISTRICT, ZAMBIA

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ABSTRACT

With recent increases in demand for animal products smallholder goat producers have an opportunity to improve their livelihoods by increased market access and market participation. Thus this study was carried out to identify the live goat chain actors, their role, linkages, power relations and practices in the supply chain; to establish the institutional support services and the enabling environment under which the smallholder goat farmers operate in Choma district. To accomplish these tasks both qualitative and quantitative data were collected through use of semi-structured interviews, focus group discussions and a household survey of 105 smallholder household goat farmers selected randomly. Based on this information, goat market channels were mapped and profit margins calculated. Descriptive statistics were used to analyse the household data. The study outcomes indicate that live goats from Choma district are marketed through three major channels, namely the urban trader, rural trader and trader Choma market channel which are all indirect marketing channels. The market actors in these channels were producers, traders (urban and rural), wholesalers, retailers and input service providers, with a significant amount of goats channelled through the urban trader channel. To analyse the performance of the goat market, costs, profit and market margins were calculated for each market channel. The majority of the respondents were male standing at 65.4% while the females were 34.6%, the mean family size was nine and meanwhile, 51.9% of the respondents had attained primary level of education. Respondents were involved in goat production for an average of 9.2 years with 49% producing an average of 12 goats annually. Farmers identified high disease prevalence, lack of production skills, lack of access to market information, high cost of transportation, lack of access to credit, and lack of market infrastructure as the constraints in the goat chain. Results of the Kruskal – Wallis nonparametric test of independence ($P = 0.05$) revealed that there is no statistical difference between the three market outlets with regard to experience of the farmer, farm size, herd size, annual household income and family size while cost of production was significant across the groups. Study findings highlighted that there is need to enhance production through improved provision of veterinary services, access to credit, and extension services. The study recommends fostering of partnerships among the chain actors to ensure that there is creation of an enabling environment for easy flow of market information and infrastructure development to improve the goat marketing system.

Key words: Chain dynamics, constraints, market chain, market participation, transaction cost

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INTRODUCTION

The livestock industry plays a significant role within the sub-Saharan African (SSA) region. On average, the livestock sector contributes around 35% to the agricultural gross domestic product (GDP) in the region [1]. It provides direct livelihood opportunities to 10% of the population of SSA while a further 58% depends, indirectly, on livestock. Similarly, the livestock sector in Zambia contributes 28% to the agricultural GDP [2] and supplies raw materials to agricultural industries, which account for 35% of manufacturing value-added in the country [3,4,5].

The livestock production system in Zambia follows a dual structure, comprising a large traditional sector and a small commercial sector [6]. Smallholder livestock producers own 70% of the livestock in the country, predominantly cattle and goats [7]. This translates into a total of 253,539 households raising goats, which constitutes 38.7% of all livestock-raising households [8]. Goats play a critical economic and social role in the lives of smallholder producers, as a source of wealth in the absence of formal financial institutions and other missing markets [9].

Rapid urbanisation coupled with diet diversification, increased household income and population growth has enhanced the demand for livestock products including goat meat in Zambia [10, 11]. Thus it is crucial to harness these emerging market opportunities by enhanced market participation of the smallholder goat producers. This participation has been identified as a potential pathway out of poverty for millions of smallholder goat producing households in Zambia [12, 13].

Despite the potential opportunities that the livestock sector offers in enhancing economic growth and poverty reduction, the livestock sector in Zambia is yet to capture these emerging benefits due to its poor marketing infrastructure and information, high and uncoordinated regulatory charges, limited access to livestock services and lack of credit facilities [14,15]. Thus it has been argued that Zambian smallholder livestock sector is characterised by low levels of market participation [7]. Therefore, by adopting a value chain approach this study aims to understand the factors that influence the level of smallholder goat farmers' market participation in Zambia. Thereby, it is intended to identify appropriate development intervention programs and policies that could support pro-poor market participation.

METHODOLOGY

Choma district is the provincial headquarters of the Southern Province of Zambia which is surrounded by five districts, namely Pemba, Kalomo, Sinazongwe, Monze and Gwembe. Eighty-four per cent of the farmers in Choma district are smallholders while only 0.4% is considered to be large scale farmers [16]. A majority of the rural households in Choma district are involved in livestock rearing with 54% of them keeping goats, 49% cattle and 7% pigs [17]. The district, therefore, has a high potential for livestock production which is one of the main farming activities undertaken by smallholder subsistence producers.

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This study adopted a mix of both quantitative and qualitative research methodology. Secondary data collection involved reviewing of documents and publications from different institutions, organisations and offices that covered issues pertaining to the study. Primary data were collected from the actors in the goat market chain who were involved in production, marketing, consumption and those providing support services. The household surveys of goat producing farmers focused on production, marketing and constraints encountered therein. Apart from surveys, key informant interviews and personal observation methods were employed to understand how the goat chain functions in Choma district.

A questionnaire was designed to gather in-depth information on socio-economic characteristics of individual households, the production and marketing of their goats, as well as constraints encountered in each of these stages. Interview guides were designed to source information related to actors in the goat market chain, their relationships as well as constraints encountered in the goat market chain. Upon obtaining the required ethical clearance from the School of Agriculture and Food Sciences at the University of Queensland, the questionnaire was pre-tested with ten households that were not included in the survey. Amendments were made to the instruments based on the results of the pre-test.

A two-stage sampling procedure was adopted in selecting the sample from the Choma district. Moyo and Muzoka camps were chosen based on their accessibility – with regards to road network and and goat population. On average the two agricultural camps had nine villages with an average of 380 households and of which four villages from each of the camps were chosen randomly. Using the farmer register maintained by the Ministry of Agriculture and Livestock, 20% of the total number of households of each village was selected randomly and the remainder of the households were identified with the aid of the Camp Extension Officers. In total, 110 smallholder household surveys were completed with the assistance of trained enumerators.

In addition to the smallholder household survey, two focus group discussions with smallholder goat farmers were conducted with a view to understanding the chains' input suppliers, traders (buyers), providers of supporting services, constraints in production and marketing of goats, enabling environment and potential solutions to identified constraints. The discussions were carried out with seven participants in two sessions (four in session one and three in session two). Based on the discussions with goat producers, follow up contacts were made with relevant buyers. By adopting a snowball approach nine goat traders were identified and interviewed. Functions and negotiations of one major wholesaler in Chibolya (Lusaka) were not observed due to his reluctance in participating in the research. In addition, providers of government and non-government support services were interviewed so as to get a detailed understanding of the goat chain. Consumer insights were gathered at the point of purchase by talking to consumers at Choma market. Primary data collection was carried out between November 2013 and January 2014 in Choma district of Southern Zambia.

Qualitative data originated from focus group discussions, key informant interviews, and personal observations were used to map the goat value chains in Choma district and to identify the functions of each actor and then the chain dynamics. Thematic analysis was

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employed in this process. Primary data from the questionnaire survey were analysed by using descriptive statistics and non-parametric statistical techniques. Based on the following formula, market margins were calculated for each of the chains identified.

Π_{UT} = PUT – PC,
Π_{RT} = PRT – PC, and
Π_{TCM} = PTCM – PC - TCSMF

Where;

π = respective market margin,
PUT = average price paid by an urban trader at farm gate,
PRT = average price paid by a rural trader at farm gate,
PTCM = average price paid by traders in Choma market,
PC = average cost of production of goats (calculated based on the survey), and
TCSMF = transaction costs incurred by smallholder farmers.

RESULTS

Sample characteristics

The study revealed that 35.0% of the respondents were female, 49.0% of the respondents were within the age range 36 - 50 years, 57.7% had attained primary school education or had no formal education, and 63.5% had a family size of 6 - 11 members. With regards to land tenure 99.0% of the sample revealed that they own the land, where 51.4% owned between 6 - 10Ha, 49.0 % produce 10 goats annually, and 39.4% own on average between 5 - 9 goats. The majority (40.4%) of the respondents had been rearing goats for nine years (Table 1).

The reasons for rearing goats were for income generation (98.1%), meat (80.0%), traditional ceremonies (79.0%) and milk (56.0%). When respondents were asked to prioritise these reasons according to the level of importance, they ranked income generation (98.1%) as the first priority while production for manure and provision of meat for home consumption were ranked as the second and third, respectively.

Live goat market chains in Choma district

Typically, goats in Zambia are sold as live animals due to religious and cultural practices of end consumers. It was evident that almost all farmers sell their live goats to final consumers in Choma and Lusaka districts through middlemen. Live goat marketing is characterised by traders (urban and rural) who move from one village to another to buy goats. Smallholder farmers in Choma district predominantly use three different market outlets – urban traders (61.5%), rural traders (20.2%) and traders in Choma town central business district (18.1%), these are typically town dwellers found at markets who function by buying goats from farmers that transport goats from the farms steads to Choma town. Both urban and rural traders are itinerant local buyers. Although rural traders live within the village, urban traders travel to the villages from Choma or Lusaka town. They then buy goats directly from the local farmers and sell directly to consumers or urban wholesalers.

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Nine interviews with key informants and two focus group discussions with farmers revealed that goat chain is characterised by input suppliers, producers (goat farmers), rural traders, urban traders, urban wholesalers and rural and urban consumers. The chains are supported by service providers in the form of transporters, district councils, Department of Livestock, and the Zambian Police. Through a process of snowballing, the product flow was traced to rural traders, urban traders and traders in Choma district.

Input suppliers: These actors are based in the central business district (CBD) of Choma town which is 76 kilometres from where the smallholder farmers are based. The inputs that are procured by farmers are limited to drugs such as de-wormers or drugs related to disease prevention and treatment.

Goat producers: Production of goats is carried out as mixed farming where goats are reared alongside crops. Farmers provide shelter, herd goats during feed times and treat them when they are sick.
Rural and Urban traders: The traders' functions are limited to procuring, storage and transportation to urban wholesaler at the Chibolya market, Lusaka.

Urban wholesaler: The largest traders of goats in the chain consolidate goats from all small traders. They sell goats to retailers and final consumers. They provide storage facilities, and feed goats prior to offloading and sale to final consumers and retailers.

Support Services: Goats are transported from village to Choma CBD by individuals who own light trucks which carry 10 - 15 goats per load. Goats are then offloaded at Choma CBD and transported in relatively bigger trucks to Lusaka where the urban wholesaler is located. Veterinary services such as disease prevention and curative services are provided by the veterinary officers from the Department of Veterinary and Livestock Services. In addition, the department also provides certificates to indicate that goats are not carrying any form of diseases. The Choma district council provides the certificate of consent to transport goats across district boundaries, while the Zambia Police provides the certificate to indicate that goats are legally owned by the person transporting them. Figure 1 illustrates the functions of all the players in the goat value chain.

Chain dynamics
One of the key reasons for conducting a value chain analysis is to establish how information is shared in the chain, as well as to understand the types of linkages and relationships between players/actors therein (Figure 2). Access to market information such as prevailing prices, supply and demand for goats would provide chain actors with leverage to negotiate for better prices for their goats. Thus in-depth discussions were held with chain participants to understand their level of access to market related information. It was clearly evident that information flow across the chain is weak. The following responses highlight the inadequacy of information received by farmers related to prices and consumer preferences.

> *"I do not receive any form of market information of any type" (Farmer from Muzoka agricultural camp).*

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"It would help me a lot if I were provided with information regarding the market price of goats at a specific period in time" (Rural trader from Muzoka agricultural camp).

"I have no idea what those that eat goat meat want, all I get is the trader wants goats that are fat" (Farmer from Moyo agricultural camp).

Information availability across urban and rural traders was significantly different. Urban traders had more current and accurate information flow through their business partners who are based near the urban wholesaler. They were aware of the demand and supply situation as well as the price at a given point in time. However, the access to information by rural traders was relatively weak and they were not aware of the prevailing market price of goats at the wholesale market. They said that;

"*I usually rely on prices that were prevailing during my last trading, this is because I' am not provided with accurate and real prevailing price for a goat at a particular point in time" (Rural trader).*

"The only information I get is that of what the wholesaler wants, is a big he or she goat that has undamaged skin, as it is a sign of healthiness" (Urban trader).

Transactions were primarily driven by opportunistic behaviour where each transaction was driven by open market negotiations. For instance, the wholesaler provides the traders with little to no knowledge on the pricing information and hence they are not in a position to fetch good prices for their goats. Thus, the chain relationships between chain actors were weak. One farmer pointed out that;

"I have no relationship with the traders: the moment I sell my goat I forget about him" (Farmer from Muzoka agricultural camp).

While a trader pointed out that;

"The relationship that I have with the farmer and wholesaler is a simple one, which has no contracts whatsoever be it informal type of contract or the formal type".

The discussions with both rural and urban traders revealed that the most powerful actor in the goat chain is the wholesaler based at Chibolya market in Lusaka. The ability to control much of the market information and knowledge as well the high degree of dependence on this wholesaler has enabled this actor to dominate in the chain. The discussions with traders revealed that the level of trust between the trader and wholesaler is weak. This is clearly proven by some of these statements;

"I do not trust them, because they usually cheat us on the price" (Rural trader).

"*Wholesalers determine the price at which I sell my goats to them" (Rural trader).*

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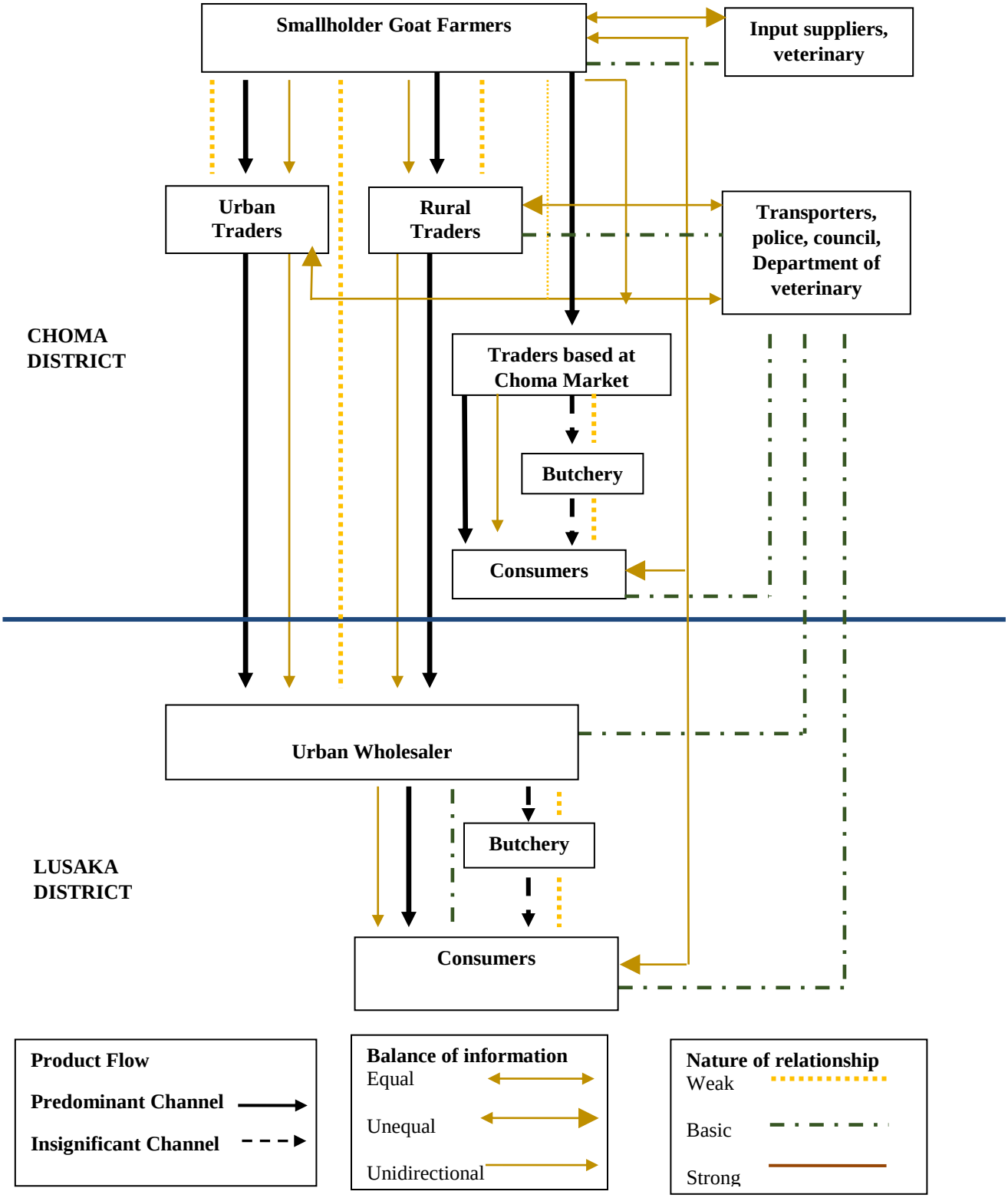

Figure 1: Product and communication flows and the nature of relationships

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Chain constraints

Twelve chain-wide constraints were identified and measured by using a Likert scale of 1 to 5, where 1 = strongly disagree to 5 = strongly agree. Findings revealed that the majority of the smallholders have a number of production related constraints such as lack of veterinary services, high input prices, lack of goat production skills, and lack of knowledge on quality standards for goats. Respondents named distances to the market and high cost of transportation as the most crucial marketing constraints for them. When asked to list the top three constraints, 71.6% of the farmers indicated that they lacked access to reliable markets for their goats, 54.9% mentioned high incidences of diseases while 50.0% indicated lack of goat production skills.

Support services for goat production and marketing

Study findings revealed that 88.6% of the smallholder goat farmers had no access to credit. The 5.7% that had accessed credit obtained it from friends or relatives. Most of the respondents (68.0 %) have not received any form of training on goat production or marketing, while 32.0 % have received training from either non-governmental (14.3%) or government organisations (8.6%). According to those who have received training, the majority of the trainings sessions were on goat production while the focus on marketing, business and entrepreneurial skills was minimal.

Using a 5 - point Likert scale where 1 = strongly disagree to 5 = strongly agree, farmers' access to market information through extension officers and media were measured. Results indicated that smallholder farmer access to information with regard to price, availability of market or issues related to production from both extension officers and media are weak. In terms of the availability of extension services, Moyo camp was at a more disadvantageous position than the Muzoka camp. Results revealed that media has played a significant role in disseminating production and market related information compared to extension services. On average, 81.0% disagreed with the statement that they '*obtain price information from the extension officer*'.

Transactions costs

Figure 3 gives an overview of the live goat market channels used by smallholder goat producers. These channels attract transaction costs as illustrated thus impacting on their profitability. Transaction costs associated with each respective market outlet as incurred by individual actors in the chain during the marketing of live goats vary and it was revealed that urban traders have the highest transaction cost (Table 2).

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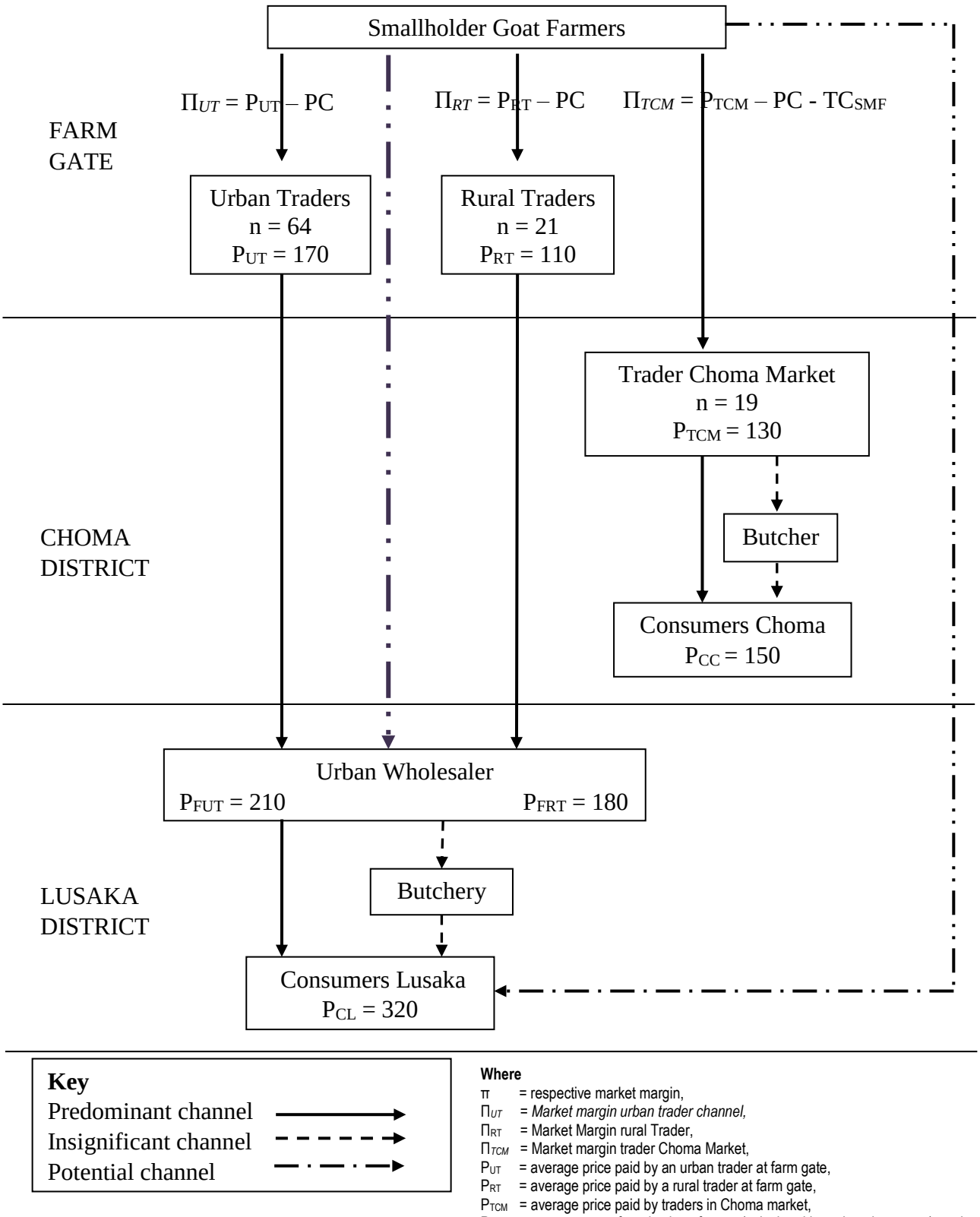

Figure 2: Market channel transaction costs

Where
π = respective market margin,
Π_{UT} = *Market margin urban trader channel,*
Π_{RT} = Market Margin rural Trader,
Π_{TCM} = Market margin trader Choma Market,
P_{UT} = average price paid by an urban trader at farm gate,
P_{RT} = average price paid by a rural trader at farm gate,
P_{TCM} = average price paid by traders in Choma market,
P_C = average cost of production of goats (calculated based on the survey), and
TC_{SMF} = transaction costs incurred by smallholder farmers,
P_{FRT} = Price farmer rural trader,
P_{FUT} = Price Farmer urban trader,
P_{CL} = Price consumer Lusaka.

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Market margins received by smallholder goat farmers who use the three existing market outlets were calculated based on their cost of production and transaction costs associated with different market outlets (Table 3). In addition, potential margins that could accrue to smallholder goat farmers in an event that a farmer decides to venture out and sell directly to the urban wholesaler in Lusaka were also calculated. This could be done via two possible market channels: one is selling directly to the urban wholesaler; the second one is to sell directly to the consumer in Lusaka for premium prices.

The most profitable outlet for smallholder goat farmers is the urban trader channel followed by the rural trader channel and lastly the Choma market channel trader. An analysis of the possible profit that can be accrued in the event that a smallholder farmer decides to transport his/her goats to the urban wholesaler in Lusaka would require him or her to incur a number of transaction costs as illustrated in Table 3 below.

Smallholder farmers incur Zambian Kwacha (ZMW) 34.51 which accounts for 20.3% of the farm gate price when they use the urban trader channel. Under the rural trader channel the farmer incurred the same amount of costs though the farm gate price was different; the costs accounted for 31.4% of the farm gate price. The total marketing costs under the trader Choma market channel was ZMW 67.51 which accounted for 51.9% of the traders' price. The results indicate that it is more lucrative for the farmer to sell his/her goats at farm gate using the urban trader channel.

Upon computing the margins in the three market outlets, a Kruskal - Wallis non-parametric test of independence was used to find out whether the experience in goat farming, annual herd size, farm size, number of goats sold annually, annual household income and cost of production, were significantly different across the categories of market outlets. Results indicate that there is no significant difference in experience in goat farming, annual herd size, farm size, number of goats sold annually and annual household income among the three market outlets ($P > 0.05$). However, there was a significant difference among the groups with respect to cost of production ($\chi 2 = 8.983$; *p-value*= 0.011). This shows that the higher the cost of production the less likely a farmer would use a market outlet that requires them to incur additional costs. This validated the survey findings that indicated that the majority of the farmers opted to sell their goats at farm gate where the only costs they incur are production costs.

DISCUSSION

Although it is commonly argued that livestock production is mostly associated with males [18] it is evident that in Choma district 35.0 % of those rearing goats were female. This could be attributed to the fact that small ruminants are easy to look after compared to large ruminants. The majority of the respondents who rear goats are within the age range 36 - 50 years, which is considered to be the most productive age of a farmer. Similar findings were evident on a study conducted based on a small ruminant production in southern Guinea savannah, Nigeria [19]. This highlights that farmers of this age cohort tend to manage their farming risks by venturing into other practices such as small ruminant production compared to farmers of other age cohorts. In the sample, 57.7% of

the smallholder farmers had primary school education or had no formal education. This study finding is in consonance with other study findings; for instance, it has been found that 54.3% of the respondents who rear pigs in northern Nigeria had no formal education [20]. The low levels of education of these smallholder farmers could contribute to a number of inefficiencies along the chain including their ability to select the type of market outlet and how to use the existing market information. Umunna *et al.* [19] also asserted the same based on the context of Nigeria.

The majority of the respondents had a family size of 6 - 11 family members with a mean of nine members in a family. It is, therefore, expected that most of these smallholder households who possess livestock would prefer not to sell, but to rear those animals for other purposes such as milk, meat and manure. Thus this will ensure there is adequate nutrition for their family members, through the consumption of milk and meat [20]. Manure on the other hand is used to as a cheap source of organic fertiliser for their crops.

The chain actors in the goat chain included input suppliers, smallholder goat producers, rural traders, urban traders, consumers and service providers [21]. Goats from both study areas where marketed using the shortest of the three market chains, as it is more convenient for farmers as it does not involve transportation costs, council levy and livestock movement permits. Furthermore, the traders are known to pay cash on the spot for goats thus meeting the farmers' urgent need for money. Similarly, this channel was considered to be the most preferred in the case of Nigeria [20] and Ethiopia [22]. Additionally, low transaction costs made farmers to sell at farm gate where the only costs they incurred were production costs. If smallholder goat farmers' decide to transport their goats to the urban wholesaler where the premium price is paid, each farmer has to transport nine goats to establish the breakeven sales that would ensure that the transactions are profitable.

The lack of market access can be attributed the distance to Chibolya market where their goats are being sold for a premium price. Similar studies have highlighted that some of the major constraints that affect the efficiency of livestock marketing include poor marketing infrastructure, lack of market information, high transaction costs and lack of access to formal credit sources [20, 22, 23].

The lack of access to market information clearly highlights that smallholder goat farmers are at a disadvantage as they have to make their market decisions without access to up to date market information. This exposes them to the risk of obtaining biased information from opportunistic traders (buyers). This corresponds to the findings of an earlier study who opined that the lack of a formal system aimed at provision of market information to goat trader's results in receipt of unreliable information [24].

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CONCLUSION

The study reveals that smallholder farmers rear goats for a number of reasons including household consumption (meat and milk), income generation and for traditional ceremonies such as paying for bride price. Though this been the case a number of constraints were identified by respondents as major impediments to goat production. These were: high disease prevalence, lack of goat production skills, and insufficient contact with area veterinary officers.

Smallholder goat farmers use three predominant market channels to market their goats: farmer to urban trader channel, farmer to rural trader channel and farmer to trader Choma market channel. Goats are sold at farm gate using the first two channels while the third channel requires farmers to travel to Choma and sell at the central business district's market. Apart from producers other chain actors include traders (urban and rural), urban wholesalers (located in Lusaka district) retailers and consumers. The chain receives institutional and support services from non-governmental organisations and the government through the Ministry of Agriculture and Livestock. Though present, butcheries are insignificant in the chain in that the products that pass through this channel are negligible. These channels were dotted with a number of constraints that impede the efficient functioning of the market, namely lack of market information, lack of access to formal credit sources, poor state of roads and high transport costs. These constraints result into an increase in the both market and transaction costs incurred by a smallholder farmer. Despite these aforementioned constraints live goat marketing is profitable in the study area. This is attributed to the high demand for goat meat which is currently not being met by the current production levels. It is, therefore, possible to improve smallholder goat farmers' livelihoods by improving the marketing systems.

Based on these study findings it is recommended that: an improvement in the provision of veterinary officers in the goat producing communities to facilitate and train farmers on technical skills in goat production and management would significantly assist the health of the goats and thus quality in the market chain. Consequently, equipping goat producers with knowledge on such issues as goat health, reproduction, housing, watering and feeding which would increase productivity. Reorientation of extension officers would be ideal so that their messages do not revolve solely on production issues but also include aspects of marketing so that smallholder goat farmers gain knowledge in that regard. Improved marketing infrastructure such as the establishment of an auction market would provide a platform for smallholder goat farmers to interact with final consumers. Such a platform would ensure that farmers venture into the consumer market that offers the premium price. The use of proposed auction markets would ensure that there are regular sale of goats, standardised pricing systems and provision of prices beforehand providing smallholder farmers with an opportunity to plan ahead. Auctions would also contribute to providing a place for farmer and trader interactions which would beneficially increase knowledge across the market chain.

An enabling environment needs to be championed and created so as to foster the development of favourable regulatory frameworks and market infrastructure which would support efficient goat marketing systems thus enhancing the development of

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Volume 17 No. 1
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ISSN 1684 5374

competitive goat markets. Creating sustainable relationships among the live goat chain actors that are based on mutual trust through advocating for a change in the mind-set of the players on how they view each other during the process of marketing will also be beneficial.

ACKNOWLEDGEMENTS

This study was conducted while the first author was a Master of Agribusiness student at the University of Queensland. The authors acknowledge the financial support of the School of Agriculture and Food Sciences, The University of Queensland in conducting this study and the Australia Awards Scholarship for providing a full scholarship to study in Australia.

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Table 1: Sample characteristics of the respondents *(n = 105)*

Variables		Frequency	Percent (%)
Gender	Female	36	34.6
	Male	68	65.4
Age	20 – 35 years	14	13.5
	36 – 50 years	51	49.0
	>50 years	39	37.5
Level of Education	No formal education	6	5.8
	Primary School	54	51.9
	Secondary School	40	38.5
	Tertiary Education	4	3.8
Land Size	1 – 5 Ha	26	24.8
	6 – 10 Ha	54	51.4
	11 – 15 Ha	14	13.3
	>15 Ha	11	10.5
Land tenure	Owned	102	99
	Rented	1	1
Household Size (*Mean = 9*)	1 – 5	13	12.5
	6 – 11	66	63.5
	>11	25	24
Experience in goat production (*Mean = 9.2*)	1 – 5 years	42	40.4
	6 – 11 years	35	33.7
	>12 years	27	25.7
Herd Size (*Mean = 12*)	1 – 4 goats	12	11.5
	5 – 9 goats	41	39.4
	>10	51	48.5

Table 2: Transactions costs/goat (ZMW)

Cost Item	Urban Trader Channel	Rural Trader Channel	Smallholder Goat Farmer
Purchase price/ Goat	170.00	110.00	0.00
Veterinary permit/ consignment	2.50	2.50	2.50
Police permit/ consignment	25.00	25.00	25.00
Council levy/ goat	2.50	2.50	2.50
Transport/goat	25.00	25.00	25.00
Trading fee/ consignment	3.00	3.00	3.00
Individual transport Fare	55.00	55.00	55.00
Total Costs	**TC_{UT} = 283.00**	**TC_{RT} = 223.00**	**TC_{SMF} = 113.00**

Where;
TC_{UT} = Total cost urban trader
TC_{RT} = Total cost rural trader
TC_{SMF} = Total cost

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Table 3: Smallholder goat farmers' market margin (ZMW)

Market Channel	Average Selling Price/goat	Average Production cost/goat	Transaction Costs/goat	Market Margin/goat
Existing Market Channels				
Farmer - Urban Trader	170	34.51	0.00	135.49
Farmer - Rural Trader	110	34.51	0.00	75.49
Farmer - Trader Choma Market	130	34.51	33.00	62.49
Potential Market Channels				
Farmer - Urban Wholesaler	180	34.51	113.00	32.49
Farmer – Lusaka Consumer	250	34.51	113.00	102.49

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