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The Contribution of Milk Trade to the Livelihoods of Households:Evidence from Jigjiga City Somali Region, Ethiopia

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A B S T R A C T

Although milk trade is essential for sustaining urban livelihoods in pastoral areas, its socio-economic contribution in the evolving urban centres is less examined. The state of milk trade in Jigjiga City, Somali Region, Ethiopia, takes place largely through the informal markets and also acts as an important source of income for various households, especially women. As a sector, the problem of the contribution of the milk trade on household livelihood in Jigjiga City is presented by studied which assesses the source of milk supply, income generation, and the problem and opportunity experienced in the trade. The present study has cross sectional survey design collected primary data from 150 households milk traders through structured questionnaire. Descriptive statistical tools were applied for the analysis of socio-demographic characteristics, trading practices, income levels and sectoral constraints. Results show that the milk trade in Jigjiga City is largely informal and dominated by females (71.3% who are females). On average, traders sell 16.51 liters of milk and earn a monthly mean income of 4,863 Ethiopian Birr, most of which goes to food, health care, education and reinvestment back into business. Most milk is sourced from local rural producers indicating weak value chain integration. The sector faces some challenges namely poor hygiene and quality control practices, insufficient transportation and storage facilities, price volatility and low cooperative membership. The study indicates that milk marketing is an important livelihood strategy adopted by urban households of Jigjiga City, mostly women. Strengthening the sector would require suitable training, improved infrastructure, enhanced institutional support, and promoting cooperative development to ensure market efficiency to benefit households.

Key Words: Milk trade, Urban livelihoods, Informal market, Dairy value chain, Income generation

1. Introduction

In many low- and middle-income countries, livestock farming plays an important role to rural livelihoods and national economies and contributes to food security, income generation and jobs. Milk is a very important livestock product because of its high nutritional value, regular demand, and selling potential. The (FAO, 2020) holds dairy production as a driver of rural development, household nutrition and women's economic empowerment in Sub-Saharan Africa (SSA). Across the African continent, an estimated 240 million men, women and children depend on livestock as a source of livelihood. The trade in milk has been recognised as a pathway to reducing poverty and diversifying livelihoods (IFAD, 2021). In sub-Saharan Africa, milk is an important part of diets and is a crucial part of rural and pastoral economies. The dairy sector is a significant contributor and it plays an important role in household income, nutrition and gender equity. It is a woman's industry in terms of processing and marketing milk. According to AU-IBAR (2019), more than 80 percent of milk is sold through the informal market in Africa. Having supported millions of livelihoods along the dairy value chain, these informal markets continue to suffer from several issues including an inadequate infrastructure, poor access to veterinary and extension services, weak market integration, and lack of policy support. The changes in production systems due to these barriers are further aggravated by climate change and repeated droughts, especially in arid and semi-arid areas where livestock production is the major livelihood system. However, if supported properly, milk can become a strategic commodity with considerable potential to advance household resilience and inclusive growth.

In Ethiopia, the livestock sector contributes about 40 percent of agricultural gross domestic product and is a means of livelihood for more than 80 percent of the rural community (Tegegne et al., 2013). The Somali Regional State and other pastoral areas have an underdeveloped dairy sector. In these regions, pastoralism serves as the backbone of lo-

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cal livelihoods. Milk is both their main source of food as well as a traded commodity. Informal markets of milk connect rural producers to urban consumers and support pastoral household income (Ayele et al., 2012; Sadler et al., 2012). Jigjiga City, the town serving as the administrative capital of the Somali Regional State, has witnessed a rapid increase in population and urbanization. As a result, the demand for milk and other dairy products has also risen quickly.

Milk trade in Jigjiga is constrained by poor infrastructure and limited cold-chain facilities due to weak market organization and unstable supply chains despite the growing demand (Desta et al., 2011; ILRI, 2015). Simultaneously, the trade of milk provides significant livelihood opportunities for women and small traders in the urban informal economy.

Although the milk trade has been recognized to be important to the livelihood of households, not much evidence is there on contribution of the milk trade to the livelihood of households in Jigjiga City. Prior research predominantly emphasizes the production systems of rural areas and national dairy policies. In contrast, urban informal milk markets in pastoral areas remain insufficiently studied. With the goal to fill the gap, the paper studies the sources of milk supply, the contribution of milk trade to household income and food security, and the challenges and opportunities of milk traders in Jigjiga City. By doing so, the literature on informal food markets and urban livelihoods is enriched. By providing an evidence-based account, the study can inform policymakers and development practitioners to strengthen the dairy value chain and improve household livelihoods in pastoral urban contexts.

2. Materials and Methods

2.1. Description of the study area

Jigjiga City, Ethiopia's Somali Regional States capital; is situated at an altitude of 1,600 meters above sea level approximately. Lately, the city acts as a market place for livestock and livestock products for the milk from the rural pastoralist areas. The surrounding Fafan Zone is semi-arid and experiences bimodal rainfall: the short rains from April–June and the long rains from July–September. Livelihoods in the area depend on pastoralism and agro-pastoralism. Households keep a number of cattle, goats, and camels mainly for their milk, meat and hides. The channels through which milk is traded are formal (small processor, cooperative) and informal (roadside vendor, weekly market) as seen in figure 1.

2.1.1. Source of Income

The main income generating activities of households in Jigjiga are livestock rearing, petty trade, civil service, and small-scale dairy farming. Dairy production and milk trading have increasingly become important livelihood strategies for different households, particularly agro-pastoralist and urban households. The growth of milk cooperatives and more informal milk markets and road access has made more milk trade feasible.

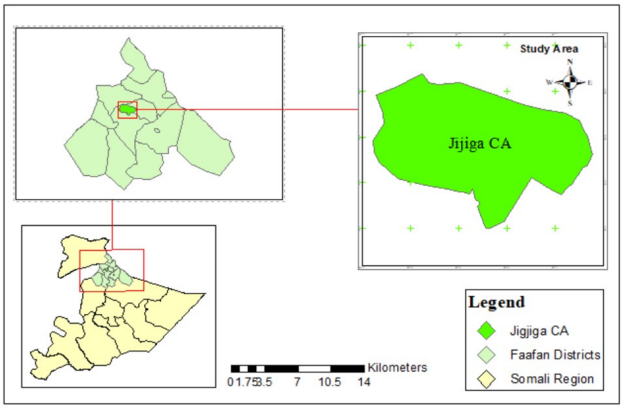

Figure 1: The Map of the study area

2.2. Study design

The researchers used a mixed research design, both quantitative and qualitative. Using a combination of various methodologies allows for more robust findings, as ground-up evidence is investigated. The quantitative part involves structured survey to elicit measurable variables related to the income of household, milk production, trade volume, etc. The qualitative part includes an in-depth interview and discussion with key informants for socio-economic, policy and marketing backgrounders.

2.3. Data type

Both quantitative and qualitative data were used in this study. The numerical data encompasses income levels, quantity of milk, frequency of milk trade and household expenditure. Qualitative data consists of descriptive narratives, perceptions, and lived experiences related to the milk trade, challenges, and opportunities of respondents and stakeholders.

2.4. Sources of data

Data were collected from both primary and secondary sources. The data was collected through household surveys as well as by conducting semi-structured interviews with milk producers, milk traders, and members of the Cooperatives. This is also collected from dairy extension agents, district livestock officers and NGO staff. The data provided an insight into the contribution of the milk trade to household income and food security and others. This is sourced government policy documents, research papers, reports of development organization, statistical bulletins. The documents provided wider perspectives on dairy value chains and mechanisms of institutional support as well as regional development trends of milk production and trade.

2.5. Sampling techniques

In this research, purposeful sampling technique was used to select the study sites and respondents. This means, the study purpose was considered while selecting the households participating in milk trading activities. To identify kebeles with an active milk market, initial consultations were held with livestock experts in the district and reviewed other

secondary data. This study screened a total of 22 kebeles in Jigjiga using this assessment. From this total, four kebeles were purposively selected for this study because of their significance in milk production and marketing. In the selected kebeles, households were purposively chosen based on their direct participation in activities involving the production, sale, and consumption of milk. Households who were actively selling raw milk, managing milk kiosks, or carrying on other types of milk business formed the inclusion criteria. The total sample size was determined based on standard sample size determination principles. We calculated the needed sample size with Cochran's formula.

$$n = \frac{Z^2 p(1-p)}{d^2} \quad (1)$$

The sample size, or n, is computed using the formula $n = \frac{Z^2 p(1-p)}{d^2}$, where Z is the standard normal deviate corresponding to the desired confidence level, p is the estimated proportion of the population, and d is the margin of error. 150 households took part in the study as per requirement. The sample was almost equally distributed among four selected kebeles. To this end, 37 households were selected from each kebele (totaling 148 households). Furthermore, to arrive at the intended sample size, 2 more households were included. This sample size helps in adequately representing milk-trading households in the selected study areas.

2.6. Methods of data collection

The device used to collect data was any combination of surveys, interviews, focus groups, and observational studies. The tools were designed to obtain specific information including the use of survey with close and open-ended questions to obtain qualitative and quantitative data, whereas the interview aimed to obtain in-depth information. Participants were able to share their viewpoints in a focus group setting. The observational studies conducted also occurred in real time, so the data collected were richer in nature. All these tools combined together formed a solid understanding of the subject matter in question.

2.7. Data analysis

Quantitative data were analyzed using descriptive statistics (means, percentages and frequencies) using the Statistical Package for the Social Sciences (SPSS Version 27) software. Tables and charts were used to summarize important findings. Thematic content analysis was used to analyse qualitative interview and discussions data. They were coded and grouped under themes that emerged from the data which were aligned with the study objectives. Combining both datasets gave us a comprehensive picture of the dairy trade's contribution to household livelihoods.

3. Results and Discussion

3.1. Socio-demographic characteristics of the households

As shown in Table 1 the demographic profile of the 150 surveyed households provides important context for understanding the dynamics of the milk trade and its role in household livelihoods in Jigjiga City. A significant majority of the respondents (71.3%) are female-headed households; whereas male-headed households are only 28.7%. Gender distribution impact milk trade sector. As women in pastoral and urban Somali communities are key actors in informal and small-scale milk trade and processing, the prevalence of female-headed households would suggest that women may play a central role in both milk production and commercialization. It highlights the need for engaging women in dairy production and the marketing chain through gender-sensitive interventions and policies.

The educational achievement of respondents does not reveal a clear pattern. Around one out of four of the heads of household are illiterate, while 26.0 percent have primary education and 14.7 percent secondary education. 6.7% of the respondents obtained higher educational qualifications. It is interesting to note that 27.3 percent have had informal education in the Quran. The overall low levels of formal education may limit household capacity to get information on the market, price mechanisms, and engage with the formal milk market system. Yet, informal literacy and numeracy skills obtained through traditional or religious forms of schooling could still enable participation in localised networks related to the trade of milk. A married person has more workforce capacity in the house for animal husbandry, milk processing, or trade-related activities. Hence, most of the people in the study (67.3%) are married. Household heads who are single (16.7%), divorced (9.3%) and widowed (6.7%) may struggle with household chores and market work. These dynamics are relevant to analyzing how household structure enables households to access the milk trade and benefit from its cash income.

A large percentage of the respondents 82.7% report owning their homes. It indicates economic stability and an accumulation of assets. The relative stability of these prices may make home-based processing or selling of milk attractive, e.g. selling of milk from the household as is the case in the informal urban markets. On the contrary, 17.3% of respondents without owning a house may face difficulties in setting up a permanent milk trade operation due to lack of space, storage or market access.

These demographic characteristics,including the high proportion of women, low levels of formal education, and high prevalence of home ownership are important for understanding how households in Jigjiga engage with and benefit from the milk trade. By knowing these features. As mentioned above, analysing the milk trade's impact on livelihoods, income diversification strategies and socioeconomic opportunities and challenges in the city.The analysis of the age distribution and household size of the respondents provides important socio-demographic insights that can influence participation in the milk trade and its contribution to household livelihoods in Jigjiga City

Table 1: Socio-demographic characteristics of the households

Variable	Category	Frequency	Percent	Cumulative Percent
Sex of HH	Male	43	28.7	28.7
	Female	107	71.3	100.0
	Total	150	100.0	
Education of HH	Cannot Read and Write	38	25.3	25.3
	Primary	39	26.0	51.3
	Secondary	22	14.7	66.0
	College and University	10	6.7	72.7
	Informal Quranic	41	27.3	100.0
	Total	150	100.0	
Marital Status	Single	25	16.7	16.7
	Married	101	67.3	84.0
	Widowed	10	6.7	90.7
	Divorced	14	9.3	100.0
	Total	150	100.0	
House Ownership	Yes	124	82.7	82.7
	No	26	17.3	100.0
	Total	150	100.0	

HH = Household head. Data are presented as frequency, percent, and cumulative percent.

3.2. Age and household size distribution for household heads

as indicated in Table 2 the household head was aged between 22 years and 50 years with age having a mean value of 37.44 years and standard deviation of 7.42. It shows that most household heads are in their economically active stages, which is commonly regarded as age having high labour force engagement and income-generating activities. The presence of a relatively young age profile suggests considerable potential for engagement in labor-intensive livelihood activities like milk collection, processing and marketing. Moreover, both older youth and adult participants are likely to adopt innovations and respond to market opportunities which has a positive influence on the performance of milk trade. The sampled household size were included 1 to 11 members. The average size of the household is 4.68 with a deviation of 2.72. This implies that family labour is reasonably available, which is essential for informal and semi-formal milk trade. Households with large sizes can distribute internal labor for various activities pertaining to milk whereas smaller households will suffer a labor limit which affects their involvement in the milk value chain. Participation in milk trade is influenced by factors such as age and household size. It is often younger heads who have family labor at their disposal that participate in milk production and trade. The organization of farm production and efficiency of milk trade should influence support programmes.

Table 2: Age and household size distribution for household heads

Variable	N	Minimum	Maximum	Mean $\pm$ SD
Age of HH	150	22.00	50.00	37.44 $\pm$ 7.42
Household size	150	1.00	11.00	4.68 $\pm$ 2.72
Valid N (listwise)	150			

HH = Household head; SD = Standard deviation.

3.3. Primary source of the milk trade in Jigjiga city

As seen from Table 3 the data illustrates the main sources through which households involved in the milk trade obtain milk in Jigjiga city. Understanding these sources is essential for identifying the structure of the milk supply chain and informing interventions aimed at improving milk availability and livelihoods. A majority of respondents (54.0%) obtain their milk directly from the farmers, showing how significant rural milk producers are as a source for urban milk. The flow of milk from rural to urban area is strong.

This normally happens in cases where peri-urban and rural livestock holders are closely linked to the urban cause. Improving the contractual and logistical connection between a local farmer and an urban trader may lead to better milk quality. Of the respondents, 26.7% gets milk from wholesaler while 13.3% gets it from retailer. These actors act as intermediaries, playing a key role in collecting and distributing milk to small traders or consumers. It implies that we have some kind of organized supply chain where value is added, goods are transported and prices are marked up. Reorienting these stakeholders, especially actors, through capacity building, cold chain development and hygienic handling practices may enhance the overall performance of the milk sector. A mere 4.0 percent of respondent's source milk from their own dairy cows, indicating limited vertical integration. Only 2.0% depend on cooperatives indicating their weak presence in Jigjiga. Strengthening cooperatives can help improve access to milk and bargaining power. A large bulk of trade in milk is from informal avenues like local farmers, wholesalers, retailers. This shows that structural development possibilities exist, including cooperative supply system promotion and smallholder-owned dairy support. Gaining insights into these dynamics can guide the formulation of policies that will ensure stable supply of milk, better quality control measures, and improved livelihoods within the milk value chain.

Table 3: The primary source of the milk trade in Jigjiga City

Variable	Category	Frequency	Percent	Cumulative Percent
Source of milk trade	Own dairy cow	6	4.0	4.0
	Local farmer	81	54.0	58.0
	Wholesalers	40	26.7	84.7
	Retailers	20	13.3	98.0
	Cooperative	3	2.0	100.0
	Total	150	100.0	

3.4. The Contribution of milk trade to the livelihood of households in Jigjiga city

The data of Table 4 show the frequency at which traders sold milk in Jigjiga city. This gives an idea of the intensity of their market engagement and its contribution to the livelihood of households. A large number of the respondents (96.7%) declared themselves to be daily sellers of milk which shows that milk trading is a primary economic activity and not a one-time activity. Due to milk's high perishable nature, it requires regular transaction. This is also considered a regular source of daily income for several households. Frequent trade of milk indicates that consumers are fulfilling their immediate requirements of consumption and income. In contrast, a very small number of respondents sell sales weekly (2.0%) and occasionally (1.3%), probably as a result of limited access to the market or supply. Participation on a daily basis shows that milk trading plays a vital role in the urban livelihood of women and youth in informal markets. In turn, this dependence makes households vulnerable to supply chain disruptions. This calls for efforts to boost infrastructure, enhance market access and introduce supportive policies to improve sector resilience.

Table 4: The contribution of milk trade to the livelihood of households in Jigjiga City

Variable	Category	Frequency	Percent	Cumulative Percent
Frequency of selling milk	Daily	145	96.7	96.7
	Weekly	3	2.0	98.7
	Occasionally	2	1.3	100.0
	Total	150	100.0	

3.5. Milk volume sold and monthly income from milk trade

According to the Table 5 this part of the study presents descriptive statistics on the daily volume of milk sales and monthly income of traders in Jigjiga City which provides admissible insights on milk trade economic viability and contribution to household livelihood. The results of the study show that respondents sell on average 16.5 liters of milk per day. The volumes of milk volumes sold is between 8 liters and 25 liters. Further, the standard deviation is 4.13 liters which indicates average deviation intensity. This reflects engagement in semi-formal, midscale trading and not occasional vending activities. The difference in trader sales volumes indicates a heterogeneous profile of traders operating in these markets, comprising limited-scale operators catering to localized markets as well as larger traders with a wider footprint. The average monthly income of the respondents is 4,863 Ethiopian Birr. They earn from 1,500

to 15,000 ETB. And the high standard deviation from the mean indicates that there is a huge range in income among respondents. The differences could arise from scale, access to the market, or experience. Taken as a whole, the results confirm that milk trading is a major and stable livelihood strategy, which contributes significantly to household income and welfare. Promotion of better equitable milk trading and targeted interventions is necessary.

Table 5: Milk volume sold and monthly income from milk trade

Variable	N	Minimum	Maximum	Mean $\pm$ SD
Milk sold per day (liters)	150	8.00	25.00	16.51 $\pm$ 4.13
Monthly average income	150	1500.00	15000.00	4863.33 $\pm$ 2417.95
Valid N (listwise)	150			

3.6. Milk trade, livelihood contributions

Table 6 shows the contribution of milk trade on the livelihoods of households in Jigjiga city. As per findings, an overwhelming majority of 93.3% stated that milk trade is a significant source of livelihood for them. Similarly, only 6.7% reported that it is not important. The milk trade has become the key livelihood strategy in the study area as there is strong agreement among respondents. Besides generating income, the sector contributes to various aspects of household welfare, such as food security, nutrition, and social empowerment of women, who are actively involved in the dairy value chain. It stabilizes household resilience through the provision of a more consistent income stream. Its relevance has been recognized by many and earlier empirical studies have found it to be related to income levels and daily sales frequency. The minority dissenting opinions may be the result of limited market access, supply shortage, or low profitability. In general, it is confirmed that milk trading is a pillar of household economic security. Therefore, the need for improving productivity, inclusiveness and sustainability of milk trading.

Among the 150 respondents, 93.3% believe that milk trade is vital for their livelihoods. The survey results, broken down into components, show that most (54.0%) of the respondents mainly spend their income from milk trade on food and nutrition. On top of that, 26.0% of respondents utilize the income for healthcare expenses, signifying its role in increasing access to health services and improving well-being. A smaller percentage of respondents (2.0%) reported spending on education, which is noteworthy for schooling and human capital development. Moreover, some 4.0% reinvest in other business activities, milk trade may help in livelihood diversification and entrepreneurial development. Based on the conclusion, the milk trade is a multifunctional livelihood strategy as it assists with not just earning income, but also supporting nutrition, health, education and investment. Targeted interventions are required to improve the contribution of local government in enhancing urban households' resilience and well-being.

This section outlines the major challenges faced by milk traders in Jigjiga city, as presented in Table 6. The findings reveal that a substantial majority of respondents were neutral (72.0%). Among the specific challenges, hygiene and sanitation issues were reported by 10.7% of respondents, reflecting concerns related to milk handling practices, cleanliness of containers, and overall product safety, which can undermine consumer trust and marketability. Transportation problems were identified by 9.3% of traders, highlighting difficulties associated with poor infrastructure, lack of cold-chain facilities, and delays that increase the risk of milk spoilage. Price fluctuation was cited by 5.3% of respondents, suggesting market instability that affects income predictability and business sustainability. Inadequate storage and packaging were reported by 2.7%, pointing to limited access to appropriate containers and storage facilities. Overall, the results demonstrate that milk traders face multifaceted challenges that require integrated interventions focusing on infrastructure development, hygiene improvement, storage facilities, and market stabilization mechanisms.

The research analyzed if the milk traders of Jigjiga city have any quality control measures for milk during the trade. In Table 6, among 150 respondents, only 36.7% reported engaging in any form of quality control while 63.3% mentioned they do not engage in any quality control practice. Many milk traders are likely not checking the quality and safety of the milk supplied and sold by them. Without quality control practices, the milk trade may become more susceptible to milk contamination and spoilage, health dangers for consumers, and threats to sustainability and profitability. The relatively low uptake of quality control applications represents an important area for intervention. To improve the milk quality assurance practice among traders, parties, and policymakers should focus on building capacity, training, and provision of appropriate tools and infrastructure. Improving quality control will bolster consumer confidence and public health risk mitigation while furthering the development of the milk trade industry in Jigjiga city.

The findings study indicated that the access of urban dairy production residents in Jigjiga city is only 10.0% while the 90.0% of the respondents revealed that they do not have access. The restricted participation in dairy farming in the urban area points out the fact that bulk of milk-selling households merchants rely on external sources of milk such as local farmers, wholesalers and retailers rather than producing milk in the urban area. The low involvement in dairy production in urban areas can be attributed to several constraints such as limited space, lack of capital, inadequate knowledge or skill, and urban land use policy. This study

indicates the possibility of promoting urban dairy farming to improve household milk production and income. Increasing urban agriculture initiatives could satisfy local demand for milk, reducing reliance on external suppliers. This could also enhance the livelihood resilience of urban households in Jigjiga.

Accordingly, 12.7% of the respondents are found to be members of a milk trade cooperative. However, the vast majority of 87.3% milk traders do not belong to any milk trade cooperative. The milk trading of the city is, therefore, individualistic or informal rather than collective as reflected in the low membership level. It is surprising that cooperatives were not engaged as much considering the well-documented roles of cooperatives in enabling access to markets, strengthening bargaining power, access to credit and inputs and providing training and capacity building. Despite the significant merits of cooperatives in Myanmar, their participation observed that poor involvement due to implementation, trust issue over operation system, efficiency or institutional support of cooperatives. Strengthening cooperative membership and structures can improve coordination and transaction costs, thus increasing efficiencies and sustainability as well as the profitability of the milk trade across the world. Policies and institutional interventions promoting cooperative development could help resolve sectoral problems and enhance milk value chain performance in Jigjiga city.

Table 6: Milk trade, livelihood contributions

Variable	Category	Sub-category	Frequency	Percent (%)	Cumulative (%)
Milk trade contribution	Contribution	Yes	140	93.3	93.3
		No	10	6.7	100.0
		Total	150	100.0	
Types of contribution	Contribution use	Food and nutrition	81	54.0	57.9
		School fee	3	2.0	60.0
		Health care	39	26.0	87.9
		Business reinvestment	6	4.0	92.1
		All	11	7.3	100.0
		Total (valid)	140	93.3	
Challenges in milk trade	Major challenges	Transportation problems	14	9.3	9.3
		Inadequate storage/packaging	4	2.7	12.0
		Price fluctuation	8	5.3	17.3
		Hygiene and sanitation issues	16	10.7	28.0
		Neutral	108	72.0	100.0
		Total	150	100.0	
Milk quality control	Practice	Yes	55	36.7	36.7
		No	95	63.3	100.0
		Total	150	100.0	
Access to urban dairy farming	Access	Yes	15	10.0	10.0
		No	135	90.0	100.0
		Total	150	100.0	
Cooperative membership	Membership	Yes	19	12.7	12.7
		No	131	87.3	100.0
		Total	150	100.0	

3.7. Opportunities of milk trade in Jigjiga city

As shown in Table 7 the findings revealed various perceived potentials that can improve the milk business and contribute to household livelihoods in Jigjiga city. The training and education were reported by 23.3% of respondents to be a common opportunity. Capacity building in milk production, quality control, hygiene, handling and marketing practices is therefore important. By building these skills, productivity will enhance while post-harvest losses will lower and household profit will raise. The institutional support from government and non-governmental organization was quoted by 21.3% of the respondents. These include provision of enabling policies, financial services, extension services, infrastructure among others which are required for the effective conducting of milk trade activities. According to the findings, 3.3% of the respondents reported improvements in transport infrastructure reflecting the efficiency of transporting milk (quality retention) and timely access to markets. Further, improving access to dairy animals were reported by 2.7% and formation of cooperatives by 2.0%. These are under-used strategies that could increase production scale, bargaining power and access to inputs and credit. Interestingly, just under half of the respondents 47.3% selected "other" options, indicating the possible presence of diverse, context-specific interventions and local innovations that warrant further qualitative work. In general, the results indicate that integrated interventions focusing on training, institutional support, and infrastructure development could strengthen the milk trade sector in Jigjiga City.

Table 7: Opportunities of milk trade in Jigjiga City

Variable	Category	Frequency	Percent (%)	Cumulative (%)
Opportunities of milk trade	Government/NGO support	32	21.3	21.3
	Training and education	35	23.3	44.6
	Improved access to dairy animals	4	2.7	47.3
	Formation of cooperatives	3	2.0	49.3
	Better transport infrastructure	5	3.3	52.7
	Other options	71	47.3	100.0
	Total	150	100.0	

4. Conclusion and Recommendation

4.1. Conclusion

This research assessed the role played by the milk trade in urban household livelihoods in Jigjiga City, Somali Region, Ethiopia based on data from milk traders. Based on the findings, the sector is an important and stable source of income. It is revealed that traders make daily sales, which generates monthly benefits that are useful in-house. At the heart of the milk trade are women. This trade activity has become very important for livelihood strategies, income generation, and household welfare. The sector not only contributes financially but also plays a big part in food security and nutrition and has access to services like health and education. The milk trade, despite its importance, is subject to various structural and operational constraints. Insufficient hygiene practices, limited storage and cooling facilities, weak transportation systems, and price volatility are all part of it.

4.2. Recommendation

As a result, limited market efficiency and weaker bargaining power of traders due to low quality control and lack of cooperative participation. The limited development of urban and pre-urban dairy production systems is further reflected in heavy reliance on rural supply chains. The milk trade is an essential urban livelihood in Jigjiga City, which is already contributing to poverty reduction and strengthening economic resilience in the city. Paying more attention to this sector through integrated interventions, gender focus, upgraded infrastructure, and improved mechanisms could increase its developmental usefulness.

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Conflict of interest

The authors declare that there is no conflict of interest in publishing this article.

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