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The Effect of Youth-Led Chicken Production on Household Income in Addis Ababa, 2024

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APPROVED BY BOARD OF EXAMINERS

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STATEMENT OF DECLARATION

I, the undersigned, declare that this thesis is my original research work on the topic entitled 'The Effect of Youth-Led Chicken Production on Household Income in Addis Ababa, 2024" prepared under the guidance of Dr Alazar Amare (PhD). All sources of materials used for the thesis have been appropriately acknowledged. I further confirm that the thesis has not been submitted either in part or in full to any other higher learning institution for the purpose of earning any degree.

_____ _____

Name Signature

St. Mary's university school of postgraduate studies, Addis Ababa, Ethiopia, November 2024

STATEMENT OF CERTIFICATION

This is to certify that Kalkidan Sileshi has carried out research work on the topic entitled ''The Effect of Youth-Led Chicken Production on Household Income in Addis Ababa, 2024". The work is original in nature and is suitable for submission for the award of the M.Sc. Degree in Business Administration. Hence, this thesis has been submitted to St. Mary's university school of postgraduate studies St. Mary's university school of postgraduate studies for examination with my approval as a College advisor.

_____ _____

Name Signature of Advisor:

Dr Alazar Amare (PhD)

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Acronyms

AA:	Addis Ababa
AAM:	Access to Array of Markets
AM:	Access to Markets
CI:	Critical Insights
CN:	Community Networking
CPSN:	Collaborative Community Support Networks
CSA:	Collaborative Skill Advancements
CSN:	Community Support and Networking
CSN:	Community Support Networks
CSND:	Community Support and Networking Dynamics
EA:	Economic Affluence
EBI:	Evidence-Based Interventions
EC:	Economic Contributions
EP:	Economic Progression
ETE:	Education and Training Effects
FAP:	Financial Assistance Programs
FS:	Financial Support
FSES:	Financial Support for Economic Sustainability
HE:	Household Income
HO:	Hypothesis
HR:	Research Hypothesis
IP:	Effect
MADEG:	Market Access and Distribution Growth
MAEG:	Market Access and Economic Growth
PA:	Production Advancements
PFAQ:	Production Scale Effects
PI:	Policymakers Insights
RQ:	Research Questions
RS:	Research Study
SG:	Scaling Opportunities
SICP:	Scale of Chicken Production
SIP:	Scaling Effect
SP:	Strategic Investments
SRI:	Scaling Recommendations Implementation
SSN:	Skill and Business Management
TA:	Training Advancements
TE: ion	Training and Education
TEE:	Training and Education Enhancements
UCP:	Youth-led Chicken Production
YLCP:	Youth-Led Chicken Production

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Abstract

The research study titled "The Effect of Youth-Led Chicken Production on Household Income in Addis Ababa" aims to examine the intricate relationship between youth-led chicken production and household Income in the urban setting of Addis Ababa, Ethiopia. The study's general objective is to explore how youth-led chicken production influences household Income, with specific objectives focusing on measuring the effect of production scale, evaluating training and education influences, examining market access relationships, determining the effect of financial support, and analyzing the effects of community support and networking dynamics on household Income. The research questions guide the investigation into the scale of production, the influence of training and education, the relationship with market access, the effect of financial support, and the effects of community support on household Income. The research hypotheses are formulated to test the positive effect s of a larger scale of production, increased training and education, greater market access, financial support, and community networking on household Income. The results confirm the hypotheses, showcasing the significant enhancements in household Income due to the positive influences of youth-led chicken production, thus highlighting the potential for economic growth and prosperity in the poultry sector. The conclusion underscores the sector's economic contributions and scaling opportunities, emphasizing the need for evidence-based interventions and strategic investments. The recommendations propose investing in continuous training, facilitating market access, promoting financial assistance programs, and building robust community support networks to empower young poultry farmers and drive economic prosperity in Addis Ababa through sustainable poultry farming practices.

Key Words:

(1) Effect, (2) Youth-Led, (3) Chicken Production, (4) Household Income, (5) Scale of Chicken Production, (6) Training and Education, (7) Access to Markets, (8) Financial Support and (9) Community Support and Networking

CHAPTER ONE - INTRODUCTION

1.1. Background of the Study

Addis Ababa, Ethiopia's rapidly expanding capital city, is experiencing a period of intense urbanization, and significantly affecting the lives of its residents, particularly its young population. This rapid transformation underscores the critical need for sustainable livelihood strategies and economic empowerment initiatives, especially for young people facing the challenges of a dynamic urban environment. Ethiopia, like many developing nations, confronts the significant challenge of high youth unemployment. Despite being the second most populous nation in Africa (126.5 million in 2023) and boasting one of the fastest-growing Income in the region (7.2% growth in FY2022/23), it remains among the world's poorest countries, with a low per capita gross national income of $1,020 (World Bank, 2023). This economic disparity is acutely felt in Addis Ababa, where a substantial portion of young people struggle to secure meaningful employment, leading to frustration and limited economic prospects (Tesfaye, 2020). This situation not only exacerbates poverty but also hinders the city's overall economic progress.

Within this context, the agricultural sector remains a crucial contributor to Ethiopia's national economy. Poultry farming, in particular, presents a viable and attractive option for income generation and employment creation (Ethiopian Ministry of Agriculture, 2023; Mekonnen, 2019). Its relatively low capital investment requirements, rapid growth cycle, and strong demand in urban centers like Addis Ababa make chicken production a potentially transformative enterprise for young entrepreneurs (FAO, 2022). Recognizing this potential, various youth-led initiatives have emerged in Addis Ababa, providing training, resources, and market linkages to support the establishment of sustainable poultry businesses (Addis Ababa City Administration, 2022).

However, despite the promise of youth-led chicken production for economic empowerment, a comprehensive understanding of its effect on household Income in Addis Ababa remains limited. This study addresses this knowledge gap by examining the economic contributions of youth-led poultry farming, the challenges and opportunities encountered by young farmers, and the potential for scaling up these ventures to create sustainable livelihoods. This research will contribute significantly to the development of evidence-based strategies aimed at promoting economic empowerment and sustainable livelihoods for young people in Addis Ababa.

1.2. Statement of the Problem

Ethiopia's agricultural sector, particularly poultry farming, holds significant promise for economic empowerment, especially in rapidly urbanizing areas like Addis Ababa. Despite this potential, there is a notable disparity between the opportunities available in poultry farming and their actual realization, particularly among the youth. This research aims to investigate the pivotal question of how youth-led chicken production influences household Income in Addis Ababa, considering the unique dynamics of urbanization, limited employment prospects, and an increasing demand for poultry products in the city.

The challenge of high youth unemployment is particularly acute in urban centers such as Addis Ababa (International Labor Organization (ILO), 2023). With formal employment opportunities scarce, many young people find themselves trapped in cycles of poverty that hinder their economic integration and contribute to social instability (Ethiopian Central Statistical Agency (CSA), 2022). Although agriculture, and poultry farming specifically, presents viable pathways for income generation and self-employment, young individuals face numerous hurdles in accessing and navigating this sector (Mekonnen, A., 2019). Despite the promise of youth-led chicken production initiatives, there remains a significant lack of comprehensive research examining their effect on household Income (Ethiopian Youth Development Organization, 2022).

This research seeks to fill this critical knowledge gap by addressing several key questions. First, it will explore the tangible economic benefits that youth-led chicken production offers to households in Addis Ababa. Specifically, it will assess how these initiatives influence household income, expenditure patterns, and overall financial well-being (Alemu, Dawit, Tamirat Degefe, Setotaw Ferede, Serge Nzietcheung, Devesh Roy, and |. orcid:0000-0003-4795-7240. *Overview and Background Paper on Ethiopia's Poultry Sector* International Food Policy Research Institute (IFPRI); International Livestock Research Institute (ILRI); Royal Veterinary College (RVC), 2009) Understanding these economic contributions is essential for recognizing the value of youth engagement in agriculture.

Second, the research will identify the specific challenges and constraints faced by young poultry farmers in Addis Ababa. This includes investigating access to essential resources such as feed, chicks, veterinary care, financial capital, training opportunities, and market access. By pinpointing these barriers, the study aims to illuminate the obstacles that hinder the growth of youth-led chicken production. Finally, this research will explore strategies for scaling up and ensuring the sustainability of youth-led chicken production initiatives in Addis Ababa. This involves identifying viable business models, improving access to market information and financial services, and developing supportive policy frameworks that can facilitate growth (The World Bank, 2023).

Through a comprehensive examination of the economic contributions, challenges, and scaling potential of youth-led chicken production, this study aspires to provide valuable insights that inform evidence-based interventions. Ultimately, these insights aim to foster sustainable livelihoods and enhance the economic well-being of young people in Addis Ababa.

1.3. Objectives of the Study

1.3.1. General Objective

To examine The Effect of Youth-Led Chicken Production on Household Income in Addis Ababa.

1.3.2. Specific Objectives

1. To measure the effect of chicken production scale on youth-led chicken production for household Income in Addis Ababa.
2. To evaluate the influence of training and education on youth-led chicken production for household Income in Addis Ababa.
3. To examine the relationship between access to markets for youth-led chicken production and household Income in Addis Ababa.
4. To determine the effect of financial support for youth-led chicken production on household Income in Addis Ababa.
5. To measure the effect of community support and networking for youth-led chicken production on household Income in Addis Ababa.

1.4. Research Questions

The research questions guiding this study are as follows:

1. How does the scale of chicken production affect youth-led chicken production for household Income in Addis Ababa?
2. What is the influence of training and education on youth-led chicken production for household Income in Addis Ababa?
3. What is the relationship between access to markets and youth-led chicken production in relation to household Income in Addis Ababa?
4. How does financial support effect youth-led chicken production and household Income in Addis Ababa?
5. In what ways do community support and networking affect youth-led chicken production for household Income in Addis Ababa?

1.5. Research Hypothesis

H 1: A larger scale of chicken production positively influences youth-led chicken production, thereby enhancing household Income in Addis Ababa.

H 2: Increased training and education positively affect youth-led chicken production, leading to improved household Income in Addis Ababa.

H 3: Greater access to markets positively relates to youth-led chicken production, contributing to better household Income in Addis Ababa.

H 4: Financial support positively affects youth-led chicken production, resulting in improved household Income in Addis Ababa.

H 5: Stronger community support and networking positively affect youth-led chicken production, enhancing household Income in Addis Ababa.

1.6. Significance of the Study

1. This study provides actionable, data-driven insights into the effect of youth-led chicken production on household Income in Addis Ababa. By identifying key factors that contribute to economic up liftment, the findings will help policymakers and stakeholders design effective programs that enhance youth entrepreneurship and improve household income levels.
2. The research findings will offer valuable evidence-based recommendations for optimizing agricultural policies and support systems for youth-led initiatives. This can serve as a model for other sectors within Ethiopia and similar developing Income, facilitating a comparative analysis of agricultural practices and their economic effect s.
3. This study expands the current body of literature on youth entrepreneurship and agricultural development in Ethiopia, providing empirical data that highlights the significance of youth involvement in chicken production. It contributes to a deeper understanding of the socio-economic dynamics at play and enhances the global discourse on sustainable agricultural practices in developing contexts.
4. The methodology, data, and findings from this study will serve as a valuable resource for future research on youth-led agricultural initiatives and their economic implications. It identifies potential areas for further investigation, such as the scalability of chicken production models and their effect on food security, thereby refining existing theoretical frameworks related to entrepreneurship and economic development

1.7. Scope of the Study

This research is geographically focused on Addis Ababa, Ethiopia, examining the effect of youth-led chicken production on household Income over the past five years. The study delves into the financial aspects of poultry farming, including investment costs, revenue generation, and profit margins, to understand its contribution to economic uplift. By analyzing data within this specific timeframe and economic setting, the research provides a detailed understanding of the local factors influencing youth-led agricultural initiatives. The scope acknowledges the limitations in generalizing the findings beyond Addis Ababa and similar urban contexts within Ethiopia, while offering valuable insights into the financial and economic dynamics of such initiatives.

1.8. Limitations of the Study

This study's findings are limited by its geographical focus on Addis Ababa, Ethiopia, and its temporal scope of the past five years. The specific socio-economic context of Addis Ababa may not be generalizable to other regions of Ethiopia or to other urban settings globally. The five-year timeframe may not capture the longer-term impacts of youth-led chicken production on household income, nor account for shifts in economic conditions. Furthermore, the focus on financial aspects (investment costs, revenue generation, and profit margins) may not fully encompass the broader economic and social impacts of such initiatives, including aspects like employment generation, food security, or community development. The use of specific data collection methods (if not specified) could also lead to bias or limitations in the results. Finally, the study's conclusions are limited to the extent to which the gathered data is representative of all youth-led chicken production initiatives within Addis Ababa.

1.9. Operational definition of Key Terms

Effect: Describes the significant effects or changes brought about by an activity or initiative, particularly regarding economic, social, or environmental outcomes.

Youth-Led: Indicates initiatives or enterprises that are primarily initiated and managed by young individuals, emphasizing their active role in decision-making and leadership.

Chicken Production: The process of raising chickens for meat (broilers) or eggs (layers), involving breeding, feeding, health management, and marketing.

Household Income: Refers to the financial strategies, income-generating activities, and economic conditions within a household, influencing its financial stability & quality of life.

Scale of Chicken Production: Refers to the volume and extent of chicken farming operations, typically categorized as small-, medium-, or large-scale production.

Training and Education: Involves the systematic provision of knowledge and skills to individuals, enabling them to enhance their capabilities in chicken farming practices.

Access to Markets: Refers to the ability of producers to connect with buyers and consumers to sell their chicken products effectively and profitably.

Financial Support: Involves the provision of monetary resources or assistance to farmers, helping them fund operations, purchases, and expansion of chicken production.

Community Support and Networking: Refers to collaborative relationships and resources shared among individuals and groups in a community that can assist in developing and sustaining chicken production ventures.

1.10. Organization of the Study

This study is organized into five chapters. Chapter One includes the introduction, background of the study, statement of the problem, objectives of the study, research questions, hypotheses, significance of the study, and scope of the study. Chapter Two provides an overview of the state-of-the-art analysis of existing literature, including definitions of key terms, a review of theoretical and empirical literature, and the conceptual framework of the study. Chapter Three presents the methodology, detailing the research approach as well as the data collection and analysis methods. Chapter Four discusses the findings of the study. Finally, Chapter Five summarizes the findings, presents conclusions, and offers recommendations. At the end of the thesis, references and a set of appendices will be included, which contain the survey questionnaires used to collect primary data and other supplementary documents related to the study

CHAPTER TWO

CHAPTER TWO: LITERATURE REVIEW

2.1. Introduction

This research explores the effect of youth-led chicken production on household Income in Addis Ababa, Ethiopia. By analyzing the economic contributions, challenges, and opportunities for scaling up this sector, the study aims to provide evidence-based insights promoting sustainable livelihoods and economic empowerment for young people in the city.

2.2. Theoretical Review

2.2.1. Poultry Production in the World

Poultry species originated in Southeast Asia, where wild red jungle fowl still exist (FAO, 2004; CSA, 2011). Poultry includes all domesticated birds raised for human consumption, such as chickens, turkeys, ducks, geese, ostriches, guinea fowl, doves, and pigeons. However, in Ethiopia, only chickens are commonly raised domestically; others are primarily found in the wild (Tadelle et al., 2001). Thus, in Ethiopia, "poultry" is largely synonymous with chickens. The global poultry population is estimated at approximately 16.2 billion, with 71.6% in developing countries, producing 6.7 million metric tons of chicken meat and 5.8 million metric tons of eggs (Gueye, 2005). In Africa, village poultry accounts for over 70% of poultry products and 20% of animal protein intake (Kitalyi, 1998). In East Africa, over 80% of the population lives rurally, with over 75% of households keeping indigenous chickens, while the remainder raise exotic or hybrid breeds. Ethiopia's chicken population is estimated at 60 million, mostly indigenous village birds (CSA, 2016). Significant increases in chicken meat production in top-producing countries like India, China, and Brazil (Scanes, 2007) reflect consumer demand for high-quality, affordable products due to efficient production.

While the nutritional benefits of eggs and chicken are well-known, the poultry industry's role in mitigating climate change and lowering food costs is less appreciated (Sluis, 2007). Approximately 50% of poultry feed comprises by-products from grain processing and oil extraction (rice bran, sunflower oil cake, etc.), which would otherwise be wasted. Utilizing these by-products helps to stabilize the prices of grains and cooking oils, prevents environmental pollution from landfill waste, and provides valuable protein and energy for poultry. One kilogram of poultry feed produces seven to eight eggs or 750 grams of broiler meat. Additionally, poultry litter serves as organic fertilizer, replacing chemical fertilizers, and poultry waste is used in mushroom cultivation (Sluis, 2007).

2.2.2. Poultry Production in Developing Country

Chickens constitute approximately 98% of the total poultry population (chickens, ducks, and turkeys) in Africa (Gueye, 2003). Small-scale and semi-commercial poultry production is vital for poverty and hunger reduction in developing countries, significantly contributing to the livelihoods of vulnerable

rural households. Over the past decade, poultry product consumption in developing countries has grown by 5.8% annually (Gueye, 2003). Poultry is relatively inexpensive and widely available, and the commercial poultry industry is rapidly expanding, creating employment opportunities (FAO, 2013). Commercial broiler chickens require only about 1.7 kg of feed to produce 1 kg of meat. Poultry production is also more environmentally sustainable than other livestock, using less water. Semi-scavenging backyard poultry are crucial for providing income and high-quality protein to rural populations whose diets are often carbohydrate-rich but protein-deficient.

Since the 1990s, poultry meat production in low- and middle-income countries has increased substantially, with chicken accounting for 80%, and duck and goose production also rising (FAO, 2013). China and Brazil have become major poultry meat producers, while North American and European producers have lost global market share over the past 30 years. Egg production has also dramatically increased in East and Southeast Asia, with China producing approximately 45% of global egg consumption in 2007 (FAO, 2009).

2.2.3. Poultry Production in Ethiopia

In Ethiopia, the word poultry is synonymously used with the word chicken. Turkeys and ducks, which at present are rare, were introduced to Ethiopia by foreigners (EARO, 1999). Since then poultry breeds (e.g. Rhode Island Red and White Leghorn) were imported and disseminated to rural poultry producers through on-farm research and public extension programs to improve the egg and meat also used to upgrade the indigenous chickens production in Ethiopia. There is no recorded information which indicates when and by whom the first batch of exotic breeds of chicken were introduced to Ethiopia. It is widely believed that missionaries imported the first exotic breeds.

However, over the past few decades, many exotic breeds, including the White Leghorn, Rhode Island Red, New Hampshire and Cornish have been introduced into the country by different government and non- governmental organizations and/or institutes (EARO, 1999). According to CSA (2007/2008), the chicken populations of Ethiopia in the year 2000 was estimated at 37.76 million. Three years later, estimates of the indigenous chicken populations were 36 million, excluding the whole Gambela Region (CSA, 2004/2005). After five year later there were about 42 million chickens in the country of which 96.6% are local chickens (CSA, 2009/2010). Relatively latest estimate show there are about 60 million chickens (Table 1) in the country of which 94.3% are local chickens (CSA, 2015/2016) indicating the significance of local chickens as potential Farm Animal Genetic Resources in the country. In the country 2.79 percent and 1.35 percent of the total population were to be reported hybrid and exotic respectively (CSA, 2015/2016). Since exotic chicken breeds contribute less than 2% to the national eggs and meat production (Tadelle *et al*., 2000).

2.2.4. Structure of the Ethiopian Poultry Production

In Ethiopia, "poultry" is synonymous with "chicken." Turkeys and ducks, now uncommon, were introduced by foreigners (EARO, 1999). Subsequently, exotic breeds (e.g., Rhode Island Red and White Leghorn) were imported and disseminated through on-farm research and extension programs to improve egg and meat production and upgrade indigenous chickens.

Table .1 Characteristics of Ethiopian poultry production systems

Characteristic	**Intensive-commercial**	**Small scale market Oriented**	**Scavenging**
Breed and flock size	Specialized breeds: 2,500–50, 000 (18 farms)	Specialized and dual-purpose breeds: 50–1,000	Local indigenous type: <50
Housing	Modern housing, generally with concrete walls and regulated internal environment	Varies from modern houses to simple housing made from locally available Materials	Specific poultry houses are rare
Feed resource	Commercially compounded feeds	Commercially compounded, homemade mixtures and scavenging	Scavenging and occasional feeding with home grains and refuse
Health programmer	Standard and regular animal health program	Disease control and health program at varying levels	No regular health program of disease control measures
Markets	Cold chain system for input-output distribution	Input and output distribution is based on existing trading Centers	No formal marketing channels

Source: FAO, 2007

The introduction date and source of the first exotic chicken breeds to Ethiopia are undocumented, although missionaries are widely believed to have played a role. Over recent decades, various government and non-governmental organizations have introduced numerous exotic breeds, including White Leghorn, Rhode Island Red, New Hampshire, and Cornish (EARO, 1999). In 2000, Ethiopia's chicken population was estimated at 37.76 million (CSA, 2007/2008), with approximately 36 million indigenous chickens three years later (excluding Gambela Region) (CSA, 2004/2005). By 2010, the population reached 42 million, with 96.6% being local chickens (CSA, 2009/2010). More recent estimates (CSA, 2015/2016) indicate around 60 million chickens, of which 94.3% are local breeds. Hybrids and exotics comprise only 2.79% and 1.35% respectively (CSA, 2015/2016), contributing less than 2% to national egg and meat production (Tadelle et al., 2000).

2.2.4.1. Scavenging production systems

Ethiopian poultry production systems are distinctly divided into traditional, low-input systems and modern, technology-intensive systems (Alemu, 1995). Traditional systems utilize indigenous chickens, characterized by small flocks, low inputs and outputs, and frequent disease-related losses. Chickens are typically integrated into family dwellings, relying primarily on scavenging for food, with no formal selection or breeding programs. Rural systems average 6–10 hens per household, producing 30–80 eggs per hen annually with minimal supplemental inputs (Alemu & Tadelle, 1997). Natural incubation and brooding are common, with a broody hen ceasing egg-laying for approximately 77 days. However, hatching success depends on the hen's maternal instinct and the prevalence of predators, causing significant chick mortality (Solomon, 2007). Newcastle disease is a major economic concern, with vaccination only implemented reactively.

Due to the low productivity of indigenous chickens, exotic breeds have been introduced. Local chickens produce 30–60 eggs annually, averaging 38g per egg, compared to exotic breeds yielding around 250 eggs annually at approximately 60g per egg (Alganesh et al., 2003). Since the 1950s, various exotic breeds (Rhode Island Red, Australorp, New Hampshire, and White Leghorn) have been introduced by universities, research organizations, the Ministry of Agriculture, and NGOs (Demeke, 2008). However, adoption rates have been inconsistent. In one Amhara region study, 41.9% of producers were non-adopters, 18.4% discontinued use, and 39.6% continued using exotic breeds (Tamir et al., 2015). Reasons for discontinuation include inconsistent breed supply, disease issues, feed shortages, and predation.

2.2.4.2. Semi-intensive production systems

According to Niranjan et al. (2008), semi-intensive poultry production is a market-oriented system with a scale and commercialization rate exceeding traditional methods, incorporating some practices from industrialized countries. Representing a transition between traditional and fully commercial systems, it combines traditional practices with improved technology and marketing.

Poultry may be kept in enclosures or allowed to range freely in backyards or gardens. In addition to commercially produced feed, supplementary feedstuffs, such as brewery waste, soy waste, and ensiled shrimp waste, may be used (Dong, 2005).

Breeds used are specialized or a mix of local and imported exotic breeds, with flock sizes ranging from 51 to 2,000 birds. Farmers in this system often include former government employees, local officials, or wealthy individuals with stable incomes and farming experience, including market knowledge. Access to capital and knowledge are crucial factors influencing the development of semi-intensive commercial poultry production (Hong Hanh et al., 2007; VGSO, 2004).

2.2.4.3. Intensive production systems

The Ethiopian poultry industry remains highly undeveloped and unorganized, and the country exports almost no poultry meat (Avery, 2004). The modern poultry sub-sector comprises small-scale intensive and large-scale commercial production systems. Small-scale intensive poultry farming is a newly emerging system in urban and peri-urban areas, where either broilers or egg-type exotic breeds of chicken are produced along commercial lines using relatively modern management methods. This activity serves as a source of income in and around major cities and towns such as Debre Ziet (currently called Bishoftu). Most of these farms obtain their feeds and foundation stocks from large-scale commercial poultry farms and supply table eggs to various supermarkets, kiosks, and hotels through middlemen.

Although evidence indicates that imported breeds of chickens perform well under intensive management systems, the contribution of exotic chickens to the Ethiopian economy remains significantly lower than that of other African countries. Despite management challenges in rearing poultry, exotic breed chickens are appreciated for their higher egg production but are sensitive to disease, predators, and feed shortages in Ethiopia (Haftu, 2016). According to Dawit et al. (2007), several private large-scale commercial poultry farms are located in and around Addis Ababa, primarily in Debre Ziet (now Bishoftu). ELFORA, Alema, and Genesis are the top three largest commercial poultry farms with modern production and processing facilities. ELFORA annually delivers around 420,000 chickens and over 34 million eggs to the Addis Ababa market. Alema poultry farms, the second-largest in the country, deliver nearly half a million broilers to the Addis Ababa market each year and have their own broilers parent stock, feed processing plants, hatchery, slaughterhouses, cold storage, and transportation facilities. Genesis farm maintains about 10,000 layers at a time and has its own hatchery.

2.2.5. Production and Productivity Performance of Chicken

2.2.5.1. Indigenous chickens

The importance of village poultry production in the national economy of developing countries and its role in improving the nutritional status and incomes of many small farmers and landless communities has been recognized by various scholars and rural development agencies over the last few decades (Abera and Tegene, 2011; Fisseha et al., 2010a). Gueye (1998) highlighted some advantages of village chicken production, such as the special meat and egg quality/flavor, hard egg shells, high dressing percentages, and particularly the low cost with minimal special care required for production. Indigenous chickens always fetch a better price than exotics because of their taste and flavor.

Ethiopia boasts a wealth of indigenous chicken genetic resources with unique meat and/or egg qualities, low susceptibility to stress, and other useful characteristics. The considerable variation in the genetics and morphology of indigenous chickens in Ethiopia presents potential resources (Mammo and Tsega, 2011) for improvement. Village-based chicken production requires less space and investment, and can thus play an important role in improving the livelihoods of poor village families (Samson and Endalew, 2010).

Poultry production is affected by factors such as the breed and strain of chicken used, environmental conditions in the poultry house, management practices, and feed and feeding management (Bell and Weaver, 2002). The low productivity of local scavenging hens is not only because they are low producers of small-sized eggs and slow growers, but also because the system is characterized by high chick mortality before they reach around 8 weeks of age. Additionally, local chickens result from uncontrolled breeding among various local chicken ecotypes, which have not been selected through systematic breeding methods.

Comparatively little research and development work has been carried out on village chickens, despite their greater numbers compared to commercial chickens. Although some research has been conducted on breed evaluation and supplementary feeding (Aberra, 2000; Negussie, 2003; Tadelle and Ogle, 2001), these studies are not substantial enough to show the relative effects of genetic and non-genetic factors on the performance of local chickens (Halima, 2007). Improving poultry productivity could enhance protein nutrition and increase income levels among the rural population. In addition, consumers prefer meat from indigenous chickens because of its leanness and the multi-colored plumage of these birds. The productivity of indigenous chickens can be improved by providing appropriate housing, disease control, and good nutrition (Ndegwa and Kimani, 1997).

2.2.5.2. Indigenous chicken production in Ethiopia

In many developing countries, chicken production is based mainly on traditional extensive production systems with local chicken ecotypes and low purchased-inputs (Gueye, 1998; Gueye, 2000; Garcia, 2007). The extensive chicken production system in Africa, where birds are kept on free range, differs from the recent extensive free range system emerging in developed countries due to differences in chicken welfare issues (Thear, 1997). In most parts of Ethiopia, village chickens represent a significant component of rural household livelihoods as a source of cash income and nutrition. The birds scavenge in the vicinity of the homestead during the daytime and may be given cereal grains, cereal bran, broken grains, and other household waste products as supplementary feed (Aklilu et al., 2007). The number of chicken flocks per household in most Ethiopian rural communities is small, with birds of various age groups averaging 7-10 mature birds, consisting of 2-4 adult hens, a male bird (cock), and several growers of different ages (Tadelle and Ogle, 1996).

In sub-Saharan Africa, 85% of all households keep chickens under a free range system, with women owning 70% of these chickens. This provides scarce animal protein in the form of meat and eggs, as well as being a reliable source of cash income (Guéye, 1998; Sonaiya et al., 2004; Bagnol, 2000; Ambali, 2007; Aklilu et al., 2007). Ethiopia is one of the few African countries with a significantly large population of chickens, estimated at 56.87 million (CSA, 2015). However, the number of chicken flocks per household in most Ethiopian rural communities is small, with an average of 7-10 mature chickens, 2-4 adult hens, a male bird (cock), and several growers of various ages (Tadelle and Ogle, 2001). Alemu and Tadelle (1997) also reported that local chickens in Ethiopia vary widely in body size, conformation, plumage color, comb type, and feather cover.

2.2.5.3. Improved chickens

Researchers have reported that the main issue with indigenous chickens in the tropics is their poor production of eggs and meat (Yami, 1995; Tadelle et al., 2000). However, despite their low productivity, they are well adapted to tropical climates, resistant to poor management and feed shortages, and able to tolerate some common diseases and parasites. On the other hand, improved exotic chickens produce a higher number of eggs and more meat than indigenous breeds, although the tropical climate poses a significant challenge for them.

In Ethiopia, chicken production plays a crucial role as a primary supplier of eggs and meat in rural and urban areas, and as a source of income, especially for women. Alemu et al. (2009) also reported that the role of poultry in Ethiopia has been increasingly important over time. There have been attempts to introduce different exotic poultry breeds to the smallholder farming systems of Ethiopia due to the low performance of indigenous chickens. Therefore, reviewing the trends, potential, and constraints of exotic chicken production is a prioritized issue in the country.

Furthermore, reviewing the successful experiences of chicken production, its socio-economic effect , and subsequently delivering synthesized information to beneficiaries is another key step to improving production.

2.2.5.4. Adoption of improved poultry production practices

According to Alamargot (1987), during the 1970s and 1980s, approximately 99% of the Ethiopian poultry population consisted of indigenous chickens, with exotic chickens comprising the remaining 1%. Exotic chickens are estimated to represent 2.18% of the national poultry population (CSA, 2005; Solomon, 2007), indicating a 118% increase in their share of total annual egg and poultry meat production over the past 20 years. However, the contribution of exotic poultry to the Ethiopian economy remains significantly lower than that of other African countries.

No attempts have been documented to evaluate the performance of exotic birds under local farming conditions. The only significant on-station study in Ethiopia was a comparative performance assessment of six exotic breeds—Brown Leghorn, White Leghorn, Rhode Island Red, New Hampshire, Light Sussex, and Barred Rock—conducted at the Debre Zeit Agricultural Research Centre. This study found the White Leghorn to be the top-performing exotic layer breed (DZARC, 1991). The Rhode Island Red breed was not widely adopted by farmers (EEA: EEPRI, 2006), hindered by factors such as inadequate extension services, insufficient complementary inputs, diseases, limited access to credit, and market challenges (Teklewold et al., 2006).

2.2.5.5. Flock Composition

Knowing of the flock composition and size of a given livestock breed is a prerequisite for designing, planning and implementation of appropriate breeding strategies and other management intervention. Generally higher flock size per households was recorded in October, November, December and January and average flock size of chickens per household was 5.6, 8 in lowland and midland agro-ecology, respectively and ranged from 2 to 20 chickens per households (Alem *et al*., 2013). Flock structure is described in terms of proportion of the different sex and age groups in the flock.

According to Meseret (2010) the mean flock size per household was 6.23 chickens, the mean number obtained in this study was comparable to the reported mean flock size of 7-10 and 5-10 chickens/household from the central highlands of Ethiopia and Africa Tadelle and Ogle (1996) and Sonaiya (1990), respectively. In contrast, the mean flock size recorded in this study was lower than the mean flock size of 8.8 and 9.2 chickens/ household reported by Asefa (2007) for Awassa Zuria and by Mekonnen (2007) for Dale district in Ethiopia, respectively. Findings of several studies indicated that the average of flock size per household was 7.13 chicken and flock size varies between seasons mainly due to availability of feed, the occurrences of disease, the presence of predators as well as the economic status of the owners in Northwestern Ethiopia (Halima, 2007); 6.2 chicken in Gomma Wereda of Jimma zone Meseret (2010) and 13.1, 12.4 and 9.22 in Burie, Fogera and Dale district, respectively (Fesseha *et al*., 2010). The indigenous, Exotic and crossbreed chicken flock size per house hold were 22.83, 0.96 and 1.57, respectively in the Western zone of Tigray region (Shishay, 2014). The general indication is that the national average flock size reported from Ethiopia (4.1) is significantly lower than that reported from other developing countries such as Philippines (19), Uganda (18) and Sudan (22) (Eugene, 2004; Khalafalla *et al.*, 2000 and Sewannyana *et al*., 2004), respectively. The flock size variation and lower flock size in rural areas has been attributing to the farming systems practiced and prevalence of local factors such as diseases and predators (Kuit *et al.*, 1986).

2.2.6. Ownership Pattern and Gender Role

Chickens are raised by various family members in both urban and rural Ethiopia because they require relatively few inputs (space, labor, capital, etc.). A study in Fogera woreda, Amhara Region (Bogale, 2008), revealed that women were primarily responsible for feeding and watering (59.72%), cleaning chicken houses (62.5%), and selling chickens (56.95%), while men were primarily responsible for shelter construction (63.89%). Abubakar et al. (2007), in a study of village chicken production in Nigeria and Cameroon, found that all gender categories participate in chicken management, with children most responsible for housing chickens at night and releasing them in the morning. This study showed that in Cameroon, women owned the majority of chickens (52.7%), followed by children (26.9%) and men (20.4%), contrasting with Nigeria, where men owned the majority (55.6%), followed by women (38.9%) and children (11.1%). In Bangladesh, women have demonstrated efficient operation and management of technical enterprises such as broiler, layer, and duck farming, achieving high economic returns (Riise et al., 2004). Halima (2007) also reported that rural women in Northwest Ethiopia are primarily responsible for chicken rearing in both male- and female-headed households, while men primarily focus on crop cultivation and other off-farm activities.

2.2.7. Feeding and Feed Resource

Family poultry production in Africa relies heavily on scavenging, with supplemental feeding infrequent and typically consisting of household waste or, occasionally, grain (Dwinger et al., 2003). Similarly, in Ethiopia, smallholder chicken production is characterized by free-range systems, with insects, worms, seeds, and plant materials as the primary feed sources (Tadelle and Ogle, 1996; Solomon, 2004). Purposeful feeding of rural household chickens is uncommon in Ethiopia, with scavenging the almost exclusive feed source. However, Asefa (2007) and Mekonnen (2007) reported that 95–98% of small-scale household poultry producers in Awassa Zuria and Dale do provide supplementary feeding. In Gomma Woreda, scavenging resources include insects, grass, enset (Ensete ventricosum), kitchen waste, and harvest leftovers, indicating an environmentally friendly village chicken production system.

2.2.8. Housing

Lack of adequate housing is a major constraint in smallholder poultry production systems. In some African countries, a significant proportion of village poultry mortality is attributed to nighttime predation due to inadequate housing (Dwinger et al., 2003). Research indicates that improved housing reduces mortality in scavenging birds. For example, the Gambia's livestock improvement program, which included improved poultry housing, resulted in lower chick mortality (19%) compared to Ethiopia (66%) and Tanzania (33%), where housing improvements were not implemented (Kitalyi, 1998). A survey in Bangladesh (Billah et al., 2013) revealed unsatisfactory poultry rearing and management practices. Approximately 30% of farmers kept poultry in their homes, 46% in earthen houses, 10% in wooden houses/sheds, 8% in wooden or bamboo structures,

and 6% in concrete structures. In the Amatola Basin, Eastern Cape province of South Africa, Nyoni and Mssika (2012) reported that while 96.7% of chickens were provided with some form of housing, 3% roosted outdoors. Chicken houses were constructed from a variety of materials, all roofed with iron sheets. Structures with solid walls comprised 8.6%, those with wire mesh 14.8%, and those with a combination of iron sheets and wire mesh 76.5%.

2.2.9. Challenges and Opportunities of Chicken Production

Indigenous chickens offer significant opportunities for increased protein production and income generation for smallholder farmers (Sonaiya, 1997). Their short generation interval and high productivity, ease of transport, affordability, and widespread consumption in rural areas, compared to cattle and small ruminants, make them advantageous. They also complement other crop and livestock activities. Indigenous chickens are efficient scavengers and foragers, exhibiting high disease tolerance, good maternal qualities, and adaptability to harsh conditions and poor-quality feed, surpassing exotic breeds in these aspects. In some communities, they play a crucial role in breaking cycles of poverty, malnutrition, and disease (Roberts, 1992). However, in Ethiopia, challenges to village-based chicken production include a lack of knowledge about poultry production, limited feed resources, prevalent diseases (Newcastle disease, coccidiosis, etc.), and institutional and socioeconomic constraints (EARO, 1999). Aberra and Tegene (2009) reported the major poultry diseases in the Southern Region to be fowl cholera (27.4%), followed by Newcastle disease (26.8%), coccidiosis (26.3%), fowl influenza (infectious bronchitis) (11.6%), fowl pox (3.2%), and salmonella (2.1%). Adene (1996) identified Newcastle disease (NCD), infectious bursal disease (IBD) or Gumboro, Marek's disease (MD), fowl typhoid, cholera, mycoplasmosis, and coccidiosis as major diseases prevalent in commercial poultry across much of Africa. Chaheuf (1990) highlighted NCD as the most devastating disease affecting village chickens in Cameroon, while coccidiosis, MD, and IBD were more prevalent in commercial flocks. This disease burden often forces owners to sell chickens at the lowest prices at the start of the rainy season and buy them at the highest prices at the beginning of the dry season.

2.2.9.1. Disease and predators

A study conducted across all zones of Southern Ethiopia (Aberra, 2007) identified the major poultry production problems as fowl cholera (28.8%), followed by Newcastle disease (26%), coccidiosis (21.6%), fowl influenza (infectious bronchitis) (15.4%), fowl pox (3.4%), fowl typhoid (3.4%), and salmonella (1.4%). Fowl cholera prevalence was significantly higher in mid-altitude areas (53.3%), while fowl typhoid was a major problem in low-altitude areas, accounting for 57% of overall mortality. Predation by snakes, rats, dogs, cats, and foxes caused significant losses, particularly among young birds. Theft was another significant cause of adult bird losses. Aberra (2007) also reported that 46% of respondents in Southern Ethiopia identified wild birds (eagles, hawks, etc.) as the most common predators during the dry season, while wild cats (locally known as "Shelemetmat").

2.2.9.2. Marketing Systems of Village Chicken and Egg in Ethiopia

In Ethiopia, selling chickens and eggs is a primary reason smallholder farmers keep free-range chickens. Farmers take birds and eggs to local and urban markets, selling either to traders or directly to consumers, depending on farm location. Aklilu (2007) noted that market access decreases with distance, disproportionately affecting poorer households.

According to Assefa (2000) and Halima (2007), smallholder chicken farmers across Ethiopia sell chickens and eggs to buy food, pay school fees, cover grain milling costs, purchase improved seeds, and adjust flock size. Tadelle et al. (2001) also reported that some farmers in the central highlands of Ethiopia exchange free-range chickens for food and household goods.

2.2.9.3. Egg production

Under extensive management, the average annual egg production of indigenous chicken ecotypes ranges from 30–60 eggs; this can be improved to 80–100 eggs with improved on-station management (feeding, housing, and healthcare) (Nigussie & Ogle, 2000). A study in Bure District, Northwest Ethiopia (Fisseha, 2009), found annual egg production under farmers' management to average 60 eggs per hen, ranging from 24–112 eggs. Meseret (2010) reported a mean annual egg production of 43.8 eggs per hen in Gomma District, comparable to the 18–57 egg range reported in Northwest Ethiopia by Halima (2007) and the 27–45 egg range in Changni Town, Amhara Region (Ayalew & Adane, 2013), but lower than the means of 60, 53, and 55 eggs reported by Fesseha et al. (2010) in Bure, Fogera, and Dale Districts, respectively. Another study found average annual egg production per hen to be 62.95, 54.9, and 51.44 in Wansho, Loka, and Dale Woredas of Southern Ethiopia (Mekonnen, 2007). A recent study in Enebsei Sar Midir Woreda, Eastern Gojjam (Yitbarek & Zewudu, 2013), reported an average of 65 eggs per hen per year under farmers' management. Evaluating the internal and external quality of chicken eggs is crucial due to consumer preferences for high-quality eggs. Yolk color is a key factor in consumer assessments of egg quality (Okeudo et al., 2003). Egg quality characteristics largely have a genetic basis, and are significant price determinants for table and hatching eggs. The economic success of a laying flock depends on the total number of high-quality eggs produced. Egg quality can vary due to several factors, including rearing practices, temperature, relative humidity, and season.

2.2.9.4. Egg quality

Internal egg quality

Village-produced food, often marketed as natural and fresh, is increasingly favored by consumers (Tugcu, 2006). Furthermore, consuming eggs that are not fresh or produced under appropriate conditions can pose significant health risks (Avan and Alisarli, 2002). Therefore, both internal and external egg quality characteristics are highly important. In assessing internal egg quality, thick albumen height is a crucial indicator of freshness. Thick albumen height decreases with longer storage times (Toussaint, 1999).

External egg quality

Some of the external egg quality traits include eggshell color, shell thickness, dry shell weight, egg weight, and egg shape index. These traits are highly affected by the breed of chicken, age of chicken, molting, level of nutrition, stress, prevalence of disease, and the type of chicken production system (Hamilton, 1982). Eggshell color may be monitored by visual comparison with a series of graded standards, and egg weight is easily measured using a suitable balance (Hammerle, 1969).

According to Mohan et al. (1991), egg weight and shell thickness measurements were higher in birds housed in cages than in birds kept on deep litter. Aberra et al. (2005) reported an average egg weight of 42g and 49g for Ethiopian naked neck chickens and their F1 crosses with New Hampshire breeds, respectively, which were reared under improved management conditions. Ethiopian naked-neck chickens under intensive management produced eggs with an average weight of 44.4g (Aberra, 2000).

Primary external egg quality parameters such as egg weight, egg shape index, eggshell thickness, and shell color are important for various reasons. Egg shape is crucial when eggs are packed in uniform trays for transportation, as abnormally shaped eggs may become broken during handling due to not fitting properly into the trays (Aberra, 2007). The ideal shape is defined by the relationship between the length and the breadth of the egg.

The eggshell is important for two reasons. Firstly, it forms an embryonic chamber for the developing chick, providing mechanical protection and a controlled gas exchange medium. Secondly, it acts as a container for the market egg, offering protection for the contents and a unique packaging for a valuable food (Ashraf et al., 2003). Shell quality, which is related to shell thickness, is a crucial characteristic. The quality of the shell effect s hatchability, as eggs with strong shells hatch better than those with thin shells (Aberra, 2007).

Eggshell color is primarily considered a breed characteristic, although there is variation among individual hens within a specific flock, even if they are of the same breed and ecotype. While eggshell color is not a guide to egg quality, consumer preference often dictates whether they prefer white or brown shells, which needs to be considered in marketing eggs. The study revealed that 49% of eggs collected from the study district were white-shelled, 45% were light brown-shelled, and 6% were cream-colored. Similarly, Halima (2007) reported that the shell color of eggs collected from local hens of North-West Amhara was a mixture of white, light brown, and cream colors.

2.3. Overview of poultry in Addis Ababa

Poultry farming is deeply ingrained in Ethiopian society, practiced in nearly every household, from rural to urban areas. It significantly contributes to the nation's economy and provides crucial nutrition and food security. According to the Central Statistical Agency (CSS, 2022), of the 41.4 million birds in the country, indigenous chickens account for 32.3 million, with 1.8 million exotic and 7.3 million hybrid chickens.

However, poultry productivity lags behind the global average due to challenges including high disease prevalence, inadequate veterinary services, limited access to affordable quality feed, and suboptimal indigenous chicken genetics. A significant gap exists between supply and demand for poultry products.

The YELEMAT TRUFAT project has significantly boosted poultry farming in Addis Ababa. This four-year program (2022-2025) aims to increase production of dairy, eggs, chicken meat, honey, and related bee products. Its objectives include achieving food self-sufficiency, improving nutrition, creating jobs, increasing exports, and promoting import substitution. The project targets increasing egg production from 3.2 billion in 2022 to 9.1 billion and chicken meat production from 90,000 to 240,000 metric tons by 2026 (Dessie et al., 2023). Following the program's launch, Addis Ababa has seen a surge in poultry farming. Despite limited space, technological limitations, and restricted access to inputs and extension services, the city's poultry industry has experienced rapid growth. Urban poultry farms are categorized by flock size as small-scale, medium-scale, and large-scale.

I. Small-Scale Farms

Small-scale farms are typically household-owned and operated, with 5 to 200 chickens. Many family farms were established since 2022 due to the YELEMAT TRUFAT initiative, although some households had prior experience with laying hens. The primary objective of these farms was to contribute to the initiative's goals. Elderly women often manage these farms, although younger women and sometimes men are also involved. This text describes medium and large-scale poultry farms in what is likely an Ethiopian context, based on references to the government's role and returning emigrants from the Gulf. Here's a comparison of the two farm types:

II. Medium-Scale Farms (200-999 chickens):

- Ownership: Individuals, enterprises, government-organized groups. Primarily run by educated youth (Grade 10 and above). Significant involvement of returnees from the Gulf.
- Land: Mostly uses public land (5-year lease). Some use government-provided sheds.

- Capital: Informal credit, owner/member contributions, and government funding (for government-organized farms).
- Labor: Primarily owner/member labor, with some hiring (1-4 employees).
- Management: Modern management techniques; owner often serves as manager.
- Legal Status: Mostly registered with legal entities, monitored by the woreda agriculture office.
- Income: Primarily from egg sales; few have additional income sources.
- Collaboration: Some farms in close proximity collaborate on input supply and marketing.

III. Large-Scale Farms (1,000-30,000 chickens):

- Ownership: Investors. More experienced operators (many started 10+ years ago).
- Land: Mostly privately owned land; some rented land.
- Capital: Primarily owner's capital.
- Labor: Primarily hired labor (4-26 employees).
- Management: Modern management; often employs a dedicated farm manager and specialized personnel (veterinary technicians, poultry experts). Some have their own feed processing plants.
- Legal Status: Registered with legal entities.
- Income: Primarily from egg sales, but also diversified into dairying, animal fattening, feed processing, and other ventures.
- Collaboration: No explicit mention of collaboration.

2.3.1. Feed

Poultry diets are crucial for providing the energy and protein necessary for bone, flesh, feather, and egg development. Studies have shown that high-quality diets significantly improve broiler chick fertility and egg hatchability (Van Emous et al., 2015; Chang et al., 2016).

Almost all poultry farms in Addis Ababa, regardless of ownership (individual or enterprise) or size (small, medium, or large), utilize commercially formulated feeds. Three types of formulated feed are available: specifically designed for broilers, layers, and dual-purpose birds. Some farms supplement these feeds with green vegetables and alfalfa. Feeding typically occurs twice daily. The majority of farms source their feed from the market. Major suppliers include Alema Koudijs, Friendship Agro-Industry, OK Agro-Industry, and Ethio-Chickens. Alema Koudijs, based in Bishoftu, is the dominant supplier, favored for its widespread distribution network and relatively consistent product quality. However, the concentration of feed supply agents in areas surrounding Addis Ababa (such as Ayertena, Sebeta, and Jemo), where many commercial farms are located, leads to higher transportation costs and ultimately, increased feed prices.

2.3.2. Water and electricity

Chickens, like humans and other animals, require water for thermoregulation, egg production, and numerous other vital functions (Syafwan et al., 2011; Kingori, 2013). Electric lighting also offers significant benefits in poultry farming, including improved growth, increased feed efficiency, enhanced health and welfare, reduced stress, increased heat tolerance, and improved behavior. Addis Ababa poultry farms recognize chickens' sensitivity to water quality. Therefore, tap water and well water are the primary sources. Most farms utilize tap water, often supplemented by reserve tanks due to intermittent water availability. Farms lacking private taps rely on communal taps (bonos), incurring substantial daily expenses. A few farms utilize chemically treated well water. Frequent interruptions in water and electricity supply significantly disrupt farm operations in the city.

2.3.3. Vitamins, medicines, and vaccines

Vitamins, while needed in small quantities, are essential organic compounds for normal poultry bodily functions, growth, and reproduction. Poultry farmers are generally aware of chickens' disease susceptibility and employ disinfectants and careful management practices. Drugs and vaccines are primarily sourced from veterinary clinics, agro-industry agents, and veterinary shops; vaccines are exclusively obtained from the National Veterinary Institute (NVI) in Bishoftu. Small-scale farms typically obtain medicines from veterinary shops, while medium- and large-scale farms often source them from veterinary clinics, agro-industry agents, and the NVI. Some suppliers provide vaccinated chicks to producers. Many medium-scale and most large-scale commercial farms administer vitamins to their chickens every three months. Vitamins are purchased from certified suppliers and administered via drinking water (from springs or wells). Some farms also obtain vitamins from veterinary clinics and agro-industry agents.

2.3.4. Access to technologies

Improved technologies are crucial for increasing poultry production, productivity, and bird welfare, simplifying management, improving resource efficiency, and reducing losses from mortality.

Addis Ababa poultry farms predominantly use improved chicken breeds and formulated diets. Most farms utilize modern plastic feeders and waterers, although some smaller farms employ traditional feeding and watering methods. A few large-scale farms use automatic waterers, and some farms cultivate alfalfa. Debeaking is common, with medium and large-scale farms often owning debeaking machines, while smaller farms typically access debeaking services. Few large-scale farms possess feed processing equipment. Online presence is limited, with only a few large commercial farms having websites. While some small-scale farms utilize cages, overcrowding and poor cage quality are sometimes observed. Government-supplied cages are reported as being of poor quality and inadequate protection against predators. Improved awareness of disease susceptibility has led to greater attention to farm and personal hygiene.

Challenges include limited awareness of improved technologies among small-scale farms, the high cost of technology, and frequent electricity outages hindering the use of modern equipment.

2.3.5. Extension services and training

Furthermore, delays in service provision from private veterinarians negatively affect egg and chicken prices. Enterprise farm members receive training from the city agriculture commission, agro-industry agents, and private trainers, lasting from three to fifteen days. Sub-city agriculture office training is free, while private training incurs costs. Organizations offering training include Alema and Agents, Ethio-chicken, Bole Manufacturing College, General Wingate TVET College, Entoto Technical and Vocational Training College, and Hope Poultry Farms. Most training is theoretical, focusing on improved chicken management, healthcare, business, and marketing. Missionaries, Oxfam, World Vision, and SIDA occasionally provide support to some farms through training, farm visits, input supply, and equipment provision. Many farmers learn through visits to other farms (relatives, neighbors, large-scale operations, and agro-industries), sometimes facilitated by various organizations. A small number of farms operate solely on traditional knowledge and observation of neighboring farms, with limited access to formal training or management manuals. Large-scale farms have greater access to chicken management manuals than their smaller counterparts.

Agricultural extension agents provide farmers with technical advice and necessary inputs to enhance agricultural production. Urban poultry extension services encompass advisory and veterinary services.

I. Advisory Services

Advisory services, provided by skilled experts and agents, help farmers improve production and marketing. Most farms rely on private advisory services, with a general lack of robust public advisory support. Woreda (district) experts occasionally visit farms to assess sanitation and monitor progress, although this service reaches few small-scale farms. Many medium-scale farms receive free consultations from agro-industry agents, who offer advice on various aspects of farm management. Alema, Ethio-chicken, and Hope poultry farms are particularly active in providing such consultations. Large commercial farms employ their own poultry experts and veterinarians, and some enterprises utilize part-time private consultants.

II. Veterinary Services

Veterinary services include curative (clinical care) and preventive (vaccination, vector control, disease control) measures. Chicks are typically supplied with their first vaccination, and subsequent vaccinations are administered by farm owners, often with guidance from veterinarians and suppliers. Disease occurrences are reported as infrequent, but farms monitor for symptoms and treat affected birds. Awareness of public veterinary services at the woreda level is low. Large-scale farms employ their own veterinarians, while smaller farms rely on private veterinarians or agro-industry agents.

Respondents reported insufficient support from woreda agriculture concerning pharmaceutical inputs and veterinary services. High prices, difficulties tracking vaccination history, and limited access (some supplies are only available in Bishoftu) represent significant challenges to veterinary supply and service access.

2.3.6. Production and productivity

Most farms produce eggs; a small number are in the early stages of production or raising young pullets. Daily egg production varies by farm size but generally ranges from 73% to 100% of the laying flock. Annual egg productivity per hen ranges from 270 to 305 eggs. High productivity is common across all farm sizes. Small-scale farmers expressed satisfaction with their harvests, noting that poultry income supports their children's education and well-being. They requested government support to increase available space for poultry housing. Respondents also identified poor quality and high feed prices as potential factors reducing hen productivity, emphasizing feed quality as a key determinant of chicken productivity (Tadesse, 2012).

2.3.7. Marketing and consumption

Poultry products are perishable, requiring timely marketing. Urban poultry marketing differs from rural systems, featuring shorter channels and reduced broker involvement. Egg marketing channels vary by production system, with a generally short channel benefiting both producers and consumers. Large-scale farms primarily sell to hotels, restaurants, and cafes, leveraging formal receipts. Small and medium-scale farms mainly sell to retailers (shopkeepers and street vendors). Producer egg prices range from 9 to 11 ETB, while retail prices reach 12-13 ETB. Market demand for eggs and chicken meat is consistently strong, though prices fluctuate with production costs (feed, chicks), and seasonal factors (fasting periods and holidays). Bishoftu significantly influences egg pricing due to its role as a major egg production and input supply center. Its agro-industries are closely linked to Addis Ababa poultry farms through agents.

Demand is particularly high during holidays and non-fasting periods. Hotels and supermarkets favor large commercial farms due to their capacity to supply large quantities (over 8,000 eggs) and provide receipts. Sunday markets offer an alternative sales channel for medium-sized and enterprise farms, sometimes mandated by the government. Marketing challenges include low and unstable prices relative to production costs, reduced demand during Orthodox fasting, and a lack of retail outlets for smaller enterprises. Government-supported enterprises sometimes face pressure to sell at prices significantly below market value, causing financial hardship given high feed and production costs. Egg consumption is increasing due to rising awareness of their nutritional value—specifically, their high-quality protein containing all nine essential amino acids. Small-scale farmers typically consume some eggs for family use, selling the surplus. Commercial and enterprise farms consume a negligible portion of their production.

2.3.8. Poultry waste disposal and environmental pollution

Poultry waste typically consists of droppings, urine, bedding materials (such as sawdust), and leftover feed, medications, and pesticides (Adedayo, 2012). Common bedding materials observed include coffee husks, teff straw, and sawdust. Waste disposal methods include burning dead birds, using waste as livestock feed (fish and fattening animals), and using it as fertilizer. Composting and direct application of waste as fertilizer are prevalent, particularly among vegetable and flower growers and fattening farms. Many farms give away or sell their waste. Farmers believe that proper waste management and sale as organic fertilizer mitigate odor and environmental pollution.

Dead bird disposal methods include burial, burning, and dumping. Droppings are a primary source of odor, yet few farms report neighbor complaints. Small-scale farms manage waste easily due to smaller flock sizes. Medium-scale farms clean and replace bedding every three to six months to control odor. Enterprises often have designated sanitation committees. Large-scale farms generally have their own disposal sites and are less likely to receive complaints due to their size and distance from residential areas. Challenges in waste management include the disposal of unsold or unremoved waste, a lack of convenient disposal sites, and limited municipal support.

2.3.9. Veterinary diseases and public health

Most medium, large-scale, and enterprise farms are aware of zoonotic diseases (those transmitted between birds and humans). Awareness is lower among small-scale farms due to limited training and extension services. Regardless of farm size, various biosecurity measures are employed. Preventive measures include regular vaccination and vitamin supplementation. Biosecurity protocols include wearing protective gear (gloves, overalls, boots), hand and shoe sanitization (using footbaths with acids, alcohols, and soaps) upon entering poultry houses. Clinical services involve drug administration by private, public, or farm-owned veterinarians.

Many enterprise, medium, and large-scale farms have designated isolation areas for sick birds. Newcastle disease is the most commonly mentioned disease, although widespread outbreaks are uncommon. One reported case of coccidiosis resulted in the complete loss of a flock; attempts to contact a veterinarian were unsuccessful. After culling non-laying hens, farms commonly disinfect poultry houses using chemicals, leaving them open for a month, and employing cultural methods such as fumigation, pepper smoking, and spraying a mixture of boiled soap, coal, and ash to eliminate microorganisms.

2.3.10. Gender and stakeholder participation

In small-scale farms, women and spouses primarily manage operations and control income. Family members assist, with men often handling feed procurement and transport.

Enterprise farms utilize shift work regardless of gender, with some employing full-time male laborers; members control output, sales, and income. Medium-scale farms are managed by owners and primarily male laborers. Large-scale farms have owners handling administration and laborers (male and female in equal numbers) managing chickens; men typically perform heavy tasks, while women handle cleaning, watering, and egg collection.

Despite limitations, various organizations have contributed to the poultry industry's growth. The YELEMAT TRUFAT initiative and the Sekota project (Safety Net) have promoted poultry farming at both family and enterprise levels through training and input provision. Private agro-industries (Alema and Ethio-chicken) provide significant support through feed and veterinary supplies, training, and consultations. The Addis Ababa city agriculture commission has played a role in training, technical advice, and veterinary services, though improvements are needed. Missionaries and NGOs have provided some training and facilitated farm visits.

I. Economic Empowerment and Sustainable Livelihoods

Economic empowerment is keys to sustainable livelihoods and poverty reduction. Youth access to economic opportunities is crucial for their well-being, requiring environments that support labor market participation, income generation, and asset building (World Bank, 2023; ILO, 2023).

II. The Role of Agriculture and Poultry Farming

Agriculture remains vital to many developing Income, including Ethiopia (Ethiopian Ministry of Agriculture, 2023). Poultry farming offers a promising avenue for income generation and employment due to its relatively low capital requirements, rapid growth cycle, and high product demand (FAO, 2023).

III. Youth-Led Initiatives and Entrepreneurship

Youth-led initiatives, particularly in agriculture, promote economic empowerment, entrepreneurship, and ownership of economic futures (World Bank, 2021; Ethiopian Youth Development Organization, 2022).

2.3.11. Challenges Facing Youth-Led Poultry Farming

Youth-led poultry farming, while promising, faces significant hurdles including limited access to crucial resources such as quality feed, chicks, veterinary services, and financing (Eyasu & Tesfaye, 2023). Inadequate training and technical support further hinder success (Ayalew & Alemu, 2021), while unreliable market access contributes to price volatility and reduced profit margins for young farmers (World Bank, 2023).

2.4. Empirical Review

2.4.1. Studies on the Economic Effect of Poultry Farming

Studies have demonstrated the significant economic benefits of poultry farming for households in Ethiopia and other developing countries. Research in Ethiopia showed that poultry production substantially improved household income, expenditure, and overall economic well-being (Ayalew & Alemu, 2021). Similar findings in India highlighted poultry farming's potential to increase income, improve diet, and reduce poverty (Kumar & Singh, 2021).

2.4.2. Challenges and Opportunities for Youth in Poultry Farming

Research has identified several key challenges faced by young people in the poultry sector. These include limited access to resources, technical skills, and market opportunities (Eyasu & Tesfaye, 2023). Studies further underscore the need to address these challenges to ensure the long-term viability of small-scale poultry production (Opara & Okoye, 2018).

2.4.3. Scaling Up and Sustainable Livelihoods

Expanding poultry farming necessitates strategic interventions tailored to the needs of young entrepreneurs. Strategies for supporting agricultural sector growth, including poultry production, have been outlined (World Bank, 2023). Furthermore, innovative approaches are crucial for promoting sustainable agriculture and food systems (World Bank, 2021).

2.5. Conceptual Framework

This study utilizes a conceptual framework integrating elements from several key theories. The Sustainable Livelihoods Framework emphasizes income diversification and resilience to economic shocks (Scoones, 1998). Social Capital Theory highlights the importance of social networks, trust, and collaboration in creating economic opportunities (Putnam, 2000). Finally, Entrepreneurship Theory examines factors contributing to entrepreneurial success, including resource access, innovation, and market dynamics (Schumpeter, 1934).

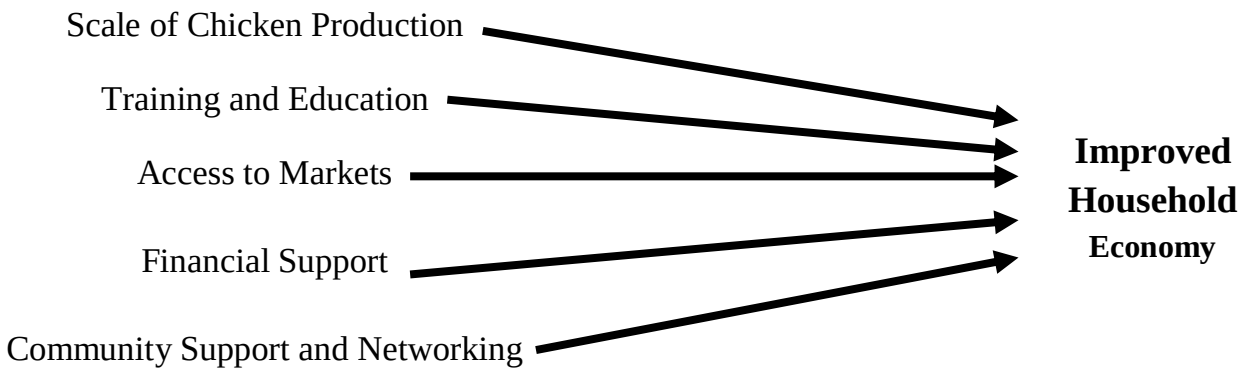

Figure 1: Youth-led Chicken Production Improving Household economy, own drawing

2.6. Hypothesis Development

This study hypothesizes that youth-led chicken production in Addis Ababa significantly contributes to increased household income and financial security, even considering challenges in resource access, training, and market opportunities. Data collection and analysis will test this hypothesis by examining the economic effect of youth-led production, the challenges faced by young poultry farmers, and opportunities for sector expansion. The findings will offer valuable insights into the potential of this sector for economic empowerment. Additionally, the Theory of Planned Behavior will inform the analysis of knowledge accessibility and leadership practices, providing a framework for understanding how attitudes, subjective norms, and perceived behavioral control influence relevant behaviors.

2.7. Summary of Literature Review

This review of existing literature and empirical research establishes a foundation for understanding the complex relationship between youth-led chicken production and household Income in Addis Ababa. Key themes, challenges, and opportunities within this sector have been identified. The study's conceptual framework will guide the research design and analysis, while the stated hypothesis will direct the testing of youth-led chicken production's effect on household economic well-being. This research aims to significantly advance understanding of the potential of youth-led agricultural initiatives for economic empowerment in Ethiopia.

CHAPTER THREE: RESEARCH METHODOLOGY

3.1. Description of the Study Area

The target population for this research consisted of small and medium-scale chicken producers located in Addis Ababa's Akaki Kality sub-city. This sub-city was selected for its concentration of youth-led chicken production initiatives. By focusing on this population, the study aimed to gather insights into the economic contributions, employment opportunities, and community development aspects associated with youth engagement in poultry farming.

3.1. Research Design

A descriptive research design was employed to characterize the existing situation. This approach, a technique for gathering information about current conditions (Creswell, 1994), served as a fact-finding study providing an accurate interpretation of findings This included explaining, understanding, predicting, and controlling the relationships between variables related to youth-led chicken production and household Income through cross-sectional data collection at a single point in time. A mixed-methods approach, integrating qualitative and quantitative methodologies, was utilized. This combined approach leveraged the strengths of each method to address the limitations of the other (Mark et al., 2009). Quantitative data, numerical in nature, were obtained by assigning numerical values to participant responses. Qualitative data, providing contextual information, were gathered from field notes.

3.2. Research Approach

This study employed a mixed-methods approach, integrating quantitative and qualitative data to investigate the effects of youth-led chicken production on household income in Addis Ababa. A descriptive research design was utilized, focusing on the current state of the phenomenon within a specific geographic area. Data collection involved both primary data (gathered via a structured, self-administered questionnaire in Amharic and English) and secondary data (from existing literature and government sources). A census approach was adopted, surveying all identified small and medium-scale chicken producers in the Akaki Kality sub-city to maximize data comprehensiveness within that limited area.

3.3. Population or Universe

The population for this study comprised small and medium-scale chicken producers in Addis Ababa's Akaki Kality sub-city. This area was chosen for its representativeness of youth-led chicken production within the city. The research aimed to understand the effect of this agricultural practice on household Income, necessitating examination of a demographic reflecting both the challenges and opportunities faced by youth in this sector.

3.4. Sampling

3.4.1. Sampling Design

The sampling design for this study employed a census approach, wherein all identified small and medium-scale chicken producers within Akaki Kality sub-city were included as participants. This method was particularly suitable given the limited number of producers—estimated at 86—allowing for a comprehensive analysis of their experiences and effects on househo

3.4.2. Sampling Frame

The sampling frame for this research was derived from a comprehensive list of small and medium-scale chicken producers operating within Akaki Kality sub-city. This list was compiled using local agricultural databases, community records, and consultations with local agricultural offices. By ensuring the sampling frame accurately reflected the population; the study enhanced the reliability and validity of its findings regarding youth-led chicken production.

3.4.3. Sample Size

The total sample size for this research was set at 86, corresponding to the estimated number of small and medium-scale chicken producers in Akaki Kality sub-city. Given the manageable size of this population, a census approach was feasible and allowed for an in-depth analysis of each producer's contributions to their household Income. This sample size provided sufficient data to draw meaningful conclusions about the effect of youth-led chicken production on economic outcomes within the community.

3.5. Sampling Method

The study employed a census sampling technique, meaning that all 86 participants identified small and medium-scale chicken producers in Akaki Kality sub-city were surveyed. This technique ensured that every eligible participant was included, allowing for a detailed exploration of their contributions to household Income. The census method was particularly advantageous in this context, as it eliminated sampling error and provided a complete overview of the target population's perspectives and experiences.

3.6. Data Collection Tools and Sources

The study employed both primary and secondary data sources. Secondary data was gathered from various sources, including books, documents, existing research papers, journals, publications, websites, reports on chicken production in Addis Ababa, and the Ministry of Agriculture database. Questionnaires were developed to collect primary data considering the nature, scope, objectives, and availability of time and resources. The "Multidimensional Effect Assessment Model" was utilized to capture the various dimensions of youth-led chicken production and its effects on economic contributions, employment opportunities, food security, and investment in education and health, and community development (Smith & Doe, 2021).

A structured questionnaire was prepared in English, with an Amharic interpretation to accommodate the language preferences of the target respondents. The first section of the questionnaire focused on the personal information of the respondents; the second section addressed youth-led chicken production and its interactions with household Income. The third section comprised structured questions based on the Multidimensional Effect Assessment Model; including four unique questions formulated using a five-point Likert scale.

The research instrument employed for this study was a questionnaire. Instrumentation encompassed not only the selection or design of the instruments but also the conditions under which they were administered (Healey, 1991). The primary data collection method utilized in this research was a self-administered questionnaire. As noted by Sekaran and Bougie (2013), primary data was collected firsthand by the researcher in areas of interest using structured questionnaires. These questionnaires were delivered and collected in person to reduce the non-response rate and to provide an opportunity for the researcher to introduce the topic in person, thereby motivating respondents to provide honest feedback. Consequently, the sole data collection instrument for this study was the questionnaire.

3.7. Data Analysis

The study employed both primary and secondary data sources. Secondary data were gathered from various sources, including books, documents, existing research papers, journals, publications, websites, reports on chicken production in Addis Ababa, and the Ministry of Agriculture database. Questionnaires were developed to collect primary data, considering the nature, scope, objectives, and availability of time and resources. The "Multidimensional Effect Assessment Model" was utilized to capture the various dimensions of youth-led chicken production and its effects on economic contributions, employment opportunities, food security, and investment in education and health, and community development (Smith & Doe, 2021). A structured questionnaire was prepared in English, with an Amharic interpretation to accommodate the language preferences of the target respondents. The first section of the questionnaire focused on the personal information of the respondents; the second section addressed youth-led chicken production and its interactions with household Income. The third section comprised structured questions based on the Multidimensional Effect Assessment Model, including four unique questions formulated using a five-point Likert scale. The primary data collection method utilized in this research was a self-administered questionnaire. As noted by Sekaran and Bougie (2013), primary data were collected firsthand by the researcher in areas of interest using structured questionnaires. These questionnaires were delivered and collected in person to reduce the non-response rate and to provide an opportunity for the researcher to introduce the topic in person, thereby motivating respondents to provide honest feedback. Consequently, the sole data collection instrument for this study was the questionnaire.

3.7.1. Measurement of Independent Variables

The independent variable for this study was "Youth-Led Chicken Production," which referred to the involvement of young individuals in the poultry farming sector as producers. The Likert scale questionnaire also assessed respondents' perceptions of their role and contributions in chicken production, enabling a comprehensive analysis of how these factors affected household Income. By examining these dimensions, the research established a clear relationship between youth-led initiatives in chicken production and their economic implications for households in Addis Ababa. The study considered the following variables: Scale of Chicken Production (the number of chickens raised due to youth-led initiatives); Training and Education (the level of training or education received by youth participants in poultry management and business skills); Access to Markets (the availability and accessibility of local markets for selling chicken products); Financial Support (the level of financial assistance or investment received by youth-led chicken production projects); and Community Support and Networking (the extent of community involvement and support networks available to youth producers)

3.7.2. Measurement of Dependent Variable(S)

In this research, the dependent variable was "Household Economy," encompassing various economic indicators reflecting the financial well-being of households engaged in youth-led chicken production. This variable was measured using a multidimensional effect assessment model incorporating both qualitative and quantitative data. Specific indicators included household income levels, expenditure patterns, savings rates, and overall economic stability. A Likert scale questionnaire was employed to capture these dimensions, allowing respondents to rate their experiences and perceptions of the financial benefits derived from chicken production. Analysis of these indicators assessed how youth-led chicken production influenced the economic status of participating households.

3.8. Reliability and Validity

3.8.1. Validity

To ensure the validity of this research, a multi-faceted approach was employed. Content validity was established by developing a structured questionnaire with items specifically designed to capture key independent variables related to youth engagement in chicken production. Expert reviews from agricultural economists and field practitioners were solicited to refine the questionnaire and ensure comprehensive coverage of the constructs of interest. By closely aligning the measurement tools with the research objectives, the study aimed to accurately reflect the realities faced by youth in the poultry sector, thereby enhancing the overall validity of the findings.

3.8.2 Reliability

Reliability in this study was assessed through internal consistency and test-retest methods. The structured questionnaire was pre-tested to determine its reliability, focusing on ensuring similar responses across different instances of measurement. A Cronbach's alpha coefficient was calculated for

multi-item scales within the questionnaire to evaluate internal consistency; a value above 0.7 was considered acceptable. Furthermore, to assess test-retest reliability, a subset of respondents completed the questionnaire twice, a few weeks apart, to gauge stability over time. These strategies ensured that the measurement instruments yielded consistent and dependable results, reinforcing the credibility of the findings related to youth-led chicken production in Addis Ababa

3.9. Ethical Consideration

This research adhered to ethical considerations throughout its design, data collection, and analysis. Ethical conduct was ensured by adhering to principles of academic integrity, informed consent, and data privacy. Plagiarism was strictly avoided, and all data, research techniques, and analyses were conducted accurately and transparently. The rights of research subjects were prioritized, with a particular focus on maintaining confidentiality. Participants were fully informed about the research, their rights, and the potential risks and benefits. They were given the opportunity to withdraw at any time. Prior to data collection, the researcher provided comprehensive briefings to all participants, ensuring informed consent before distributing questionnaires. All data collected and published were appropriately cited; unpublished data were used only with consent and acknowledgment.

CHAPTER FOUR – DATA PRESENTATION AND INTERPRETATION

In Chapter Four, the findings derived from the questionnaires distributed to the study target groups are presented and analyzed. The response rate was 100 percent, with a total of 86 participants providing valuable data for the research. This chapter offers a comprehensive analysis of the findings derived from questionnaires distributed to participants of the study, delving into an in-depth exploration of the insights gained from the perspectives of the participants. With a remarkable 100 percent response rate and a total of 86 participants contributing valuable data, this chapter focuses on the interpretation of the collected information, shedding light on trends, preferences, and feedback expressed by participants. By presenting and analyzing the data, this chapter aims to provide a detailed understanding of The Effect of Youth-Led Chicken Production on Household Income in Addis Ababa, ultimately contributing to a deeper comprehension of the effect of youth-led chicken production on household Income in Addis Ababa

4.1. Participants General Profile

4.1.1. Participants engagement in the business

The data on participant engagement in youth-led chicken production in Addis Ababa reveals that the vast majority **(79.07%)** are owners of their respective enterprises, indicating a high level of entrepreneurial activity within this sector. A smaller proportion (17.44%) are employed in such ventures, while a negligible percentage (5.81%) report involvement through other means, such as assisting relatives. This finding underscores the significant potential of youth-led chicken farming as a vehicle for self-employment and economic independence in Addis Ababa.

Table 2: Participant engagement in the business

Item	Owner	Employee	Other, relatives	Total
Frequency	68	15	5	86
Percentage	79.07%	17.44%	5.81%	100.00%

Source: - Own survey, November 2024

The high prevalence of ownership suggests that interventions aimed at supporting this sector should prioritize initiatives focused on entrepreneurial skill development, access to finance, and market linkages. Policies and programs that foster entrepreneurship, provide access to resources such as credit and training, and enhance market access will likely are crucial to maximize the economic empowerment potential of youth-led chicken production. Conversely, the relatively small proportion of employed individuals suggests the need for further exploration into employment opportunities within larger or established poultry farms.

Understanding the employment conditions and pathways into this sector could inform the development of inclusive strategies to ensure broader participation and equitable benefit-sharing across all stakeholders. The dominance of ownership within the sector points to a strong entrepreneurial spirit among youth and emphasizes the need for supportive measures to encourage and sustain their businesses.

4.1.2. Participants gender description

The gender distribution among participants in youth-led chicken production in Addis Ababa shows a notable male predominance (65.12%), with females comprising the remaining 34.88%. While this finding does not necessarily imply exclusion of women, it warrants further investigation into the factors that might contribute to this gender imbalance. It is crucial to explore whether this disparity stems from societal norms, access to resources, or other constraints effecting women's participation in this sector. Understanding the underlying causes is essential for designing targeted interventions to promote gender equity and inclusivity within youth-led poultry farming. Policies and programs aimed at empowering women in agriculture could significantly enhance the economic effect of this sector and ensure more equitable distribution of benefits. This may involve addressing gender-specific challenges related to access to land, credit, training, and market opportunities. Furthermore, initiatives that promote women's leadership roles and actively encourage their participation in cooperatives and other collective action mechanisms could significantly improve gender equity within youth-led chicken production. The observed gender imbalance presents both a challenge and an opportunity. Addressing the underlying factors will not only increase participation by women but also enhance the overall economic and social effect of this important sector.

Table 3: Participant gender

Item	Male	Female	Total
Frequency	56	30	86
Percentage	65.12%	34.88%	100.00%

Source: - Own survey, November 2024

4.1.3. Participants age description

The demographic analysis revealed that the majority of participants in youth-led chicken production in Addis Ababa were aged 21-40 (81.4%), with a smaller proportion under 20 (3.49%) or over 40 (14.5%). This age distribution suggests that the sector primarily attracts young adults, aligning with the study's focus on youth-led initiatives. The predominance of this age group highlights the potential for poultry farming to contribute significantly to the economic empowerment of young people in Addis Ababa, although further investigation is required to understand the experiences of those outside this age range and the implications of this demographic for program design and policy.

Table 4 Participant age and sex

Item	<20 Age	21-30 Age	31-40 Age	41-50 Age	51-60 Age	>61 Age	Total
Frequency	3	33	37	9	3	1	86
Percentage	3.49%	38.37%	43.02%	10.47%	3.49%	1.16%	100.00%

Source: - Own survey, November 2024

4.1.4. Participants educational background description

The educational background of participants reveals a significant concentration (60.63%) among those with Bachelor's degrees, suggesting a relatively high level of education among individuals engaged in youth-led chicken production in Addis Ababa. A smaller proportion held certificates, diplomas, or a Master's degree or above (36.5%). This finding highlights the potential for leveraging existing educational attainment within this sector to improve both technical skills and business acumen among these young entrepreneurs. However, the relatively low representation of those with only a Grade 1-10/12 education indicates the need for targeted training and support to ensure inclusivity and broaden participation among youth with diverse educational backgrounds. This, in turn, has implications for the design of effective training programs and extension services tailored to varying levels of prior educational attainment.

Table 5: Educational Background of participants

Item	Grade 1-10/12	Certificate/TVET/Diploma	Bachelor's Degree	Master's Degree or above	Total
Frequency	2	13	52	19	86
Percentage	2.87%	14.66%	60.63%	21.84%	100.00%

Source: - Own survey, November 2024

4.1.5. Reliability test

Cronbach's Alpha is a measure of internal consistency reliability, which indicates how closely, related a set of items are as a group. It is commonly used in the field of psychology and other social sciences to assess the reliability of a survey or questionnaire. The value of Cronbach's Alpha ranges from 0 to 1, with higher values indicating greater internal consistency among the items. Typically, a value of 0.7 or higher is considered acceptable for research purposes. The reliability test is important to measure the internal consistency of the scale, i.e., the extent to which respondents rate the items in a similar pattern. The Cronbach’s alpha coefficient is an important measurement of reliability and is discussed below in relation to this study.

Table 6 presents the results of a reliability analysis using Cronbach's alpha coefficient to assess the internal consistency of six dimensions within a research instrument measuring aspects of youth-led chicken production. Cronbach's alpha, ranging from 0 to 1, measures the extent to which items within a scale correlate with each other. Higher values indicate greater internal consistency and reliability. The analysis examined five specific dimensions: Scale of Chicken Production, Training and Education, Access to Markets, Financial Support, and Community Support and Networking, each comprised of four items. Additionally, an overall reliability score was calculated for the entire instrument, encompassing all twenty items across the five dimensions.

Table 6: Cronbach's Alpha (reliability analysis)

Dimensions	Cronbach's Alpha value	Number of items
Scale of Chicken Production	0.84	4
Training and Education	0.89	4
Access to Markets	0.87	4
Financial Support	0.94	4
Community Support and Networking	0.91	4
Overall scale reliability	0.93	20

Source: - Own survey, November 2024

The Cronbach's alpha values in Table 6 demonstrate a high level of internal consistency across all six dimensions of the measurement instrument. Each of the five individual dimensions exhibits an alpha value above 0.84, exceeding the commonly accepted threshold of 0.7 for acceptable reliability. This suggests that the items within each dimension effectively measure the intended construct and are highly correlated. The exceptionally high alpha value of 0.94 for "Financial Support" indicates particularly strong internal consistency within that specific scale. The overall scale reliability of 0.93, based on all twenty items, further reinforces the instrument's high reliability, suggesting that the instrument as a whole is robust and accurately measures the intended constructs. The high reliability scores across all dimensions provide confidence in the validity and trustworthiness of the data collected using this instrument. This strong reliability is crucial for drawing accurate conclusions and making valid generalizations from the research findings.

4.2. Youth-Led Chicken production prevailing condition assessment

4.2.1. Participants frequently utilize service from Government and Stakeholders

The findings indicate that participants in youth-led chicken production in Addis Ababa primarily utilize services related to feed (48.84%) and market access (19.77%) from government and/or stakeholders. This suggests a need for continued and strengthened support in these areas to enhance productivity and economic returns. However, the relatively lower utilization of services related to land, medication, and finance highlights potential gaps in the support system, which could hinder the sector's sustainability and growth. Targeted interventions to improve access to these resources and services are, therefore, essential to fully harness the potential of youth-led chicken production for household economic empowerment in Addis Ababa. Furthermore, the findings underscore the importance of understanding the specific challenges and needs faced by youth entrepreneurs in accessing these services to inform tailored support mechanisms and policies.

Table 7: Participants' frequently utilize Service from government and/or stakeholders

Item	Land	Feed	Medication for Chickens	Finance	Market	Total
Frequency	17	42	5	5	17	86
Percentage	19.77%	48.84%	5.81%	5.81%	19.77%	100.00%

Source: - Own survey, November 2024

4.2.2. Youth-Led Chicken production main products for sale

The data reveals that egg production is the dominant activity (59.30%) within youth-led chicken farming in Addis Ababa, significantly outweighing the production of layers (5.81%), chicken meat (5.81%), or other products (3.49%). A substantial portion (25.58%) of participants reported selling all types of poultry products. This finding highlights the importance of eggs as a primary source of income for young entrepreneurs in this sector and has significant implications for market development and support strategies. The predominance of egg production suggests a focus on this product in training and extension programs, as well as the need for market interventions that ensure stable and fair pricing mechanisms. While diversification into meat production and layers may offer additional revenue streams, understanding the factors influencing the current market preference for egg production is crucial for policy development aimed at supporting broader economic opportunities for young poultry farmers. This also highlights the need for comprehensive market research to understand consumer preferences and potential market expansion for other poultry products. Future interventions could focus on supporting diversification strategies, while simultaneously strengthening market infrastructure and promoting value addition to enhance profitability within the sector.

Table 8: Participants' main products sell in the market

Item	Eggs	Layers	Chicken for meat	Others	All types	Total
Frequency	51	5	5	3	22	86
Percentage	59.30%	5.81%	5.81%	3.49%	25.58%	100.00%

Source: - Own survey, November 2024

4.2.3. Participants economic income improvement since starting the business

The reported improvements in household income following the adoption of youth-led chicken farming in Addis Ababa exhibit a considerable range, with no single dominant level of increase. While a substantial proportion (39.53%) reported income improvements in the 1-25% range, a significant number also experienced increases in the 26-50% (32.56%) range. Smaller percentages reported income improvements in the 51-75%, 76-100%, and greater than 100% ranges (12.79%, 6.98%, and 8.14%, respectively). This wide distribution of income improvements suggests that the effect of youth-led chicken farming on household Income is not uniform, and that various factors influence the extent of economic gains.

These factors might include initial household income levels, the scale of chicken farming operations, access to resources such as feed and training, market conditions, and managerial skills. The findings highlight the need for interventions that address these diverse circumstances. Support programs and policies should not only aim to increase overall income levels but should also focus on enhancing access to resources, training, and market opportunities, thereby maximizing the economic benefits for all young poultry farmers in Addis Ababa. Further research could focus on identifying the key factors that contribute to different levels of income improvement, providing a more nuanced understanding of the factors contributing to both success and challenges within the sector. The observed variability underlines the importance of a targeted, differentiated approach to support youth-led chicken farming to ensure its overall success in improving household economic well-being.

Table 9: Pparticipants Estimation of their income improvement after they start chicken business

Item	1-25%	26-50%	51-75%	76-100%	>100%	Total
Frequency	34	28	11	6	7	86
Percentage	39.53%	32.56%	12.79%	6.98%	8.14%	100.00%

Source: - Own survey, November 2024

4.2.4. Participants Estimation of percentage of their income shared with their families

Analysis of income shared with families following the commencement of youth-led chicken farming reveals a diverse range of contributions, with no single dominant pattern emerging. While a notable proportion (28, or 32.56%) reported sharing 41-60% of their income with their families, significant portions also reported sharing 21-40% (13, or 15.12%) and 61-80% (21, or 24.42%). A smaller proportion shared a higher (81-100%, 8.14%) or lower (1-20%, 10.47%) percentage of their income. This variability in income-sharing practices underscores the multifaceted nature of the effect of youth-led poultry farming on household Income. Factors such as family size, pre-existing household income levels, individual financial goals, and cultural norms likely influence the extent to which income from this venture is shared.

The findings highlight the importance of considering these diverse household contexts when designing interventions aimed at maximizing the economic benefits of youth-led poultry farming. Future research could explore these contributing factors in more detail to inform the development of targeted support programs that are responsive to the specific needs and circumstances of individual households. The study's results suggest a considerable potential for youth-led chicken production to contribute to improved household financial well-being, but the extent of this contribution is not uniform and requires a nuanced understanding of household dynamics.

Table 10: Participants Estimation of their income shared with their families which is improvement after they start chicken business

Item	1-20%	21-40%	41-60%	61-80%	81-100%	Total
Frequency	9	13	15	21	28	86
Percentage	10.47%	32.56%	12.79%	6.98%	8.14%	100.00%

Source: - Own survey, November 2024

4.2.1. Participants Estimation of percentage of improvement in their overall quality of life

The reported improvements in overall quality of life among participants in youth-led chicken farming in Addis Ababa show a notable skew towards significant positive effect s. While a small percentage (3, or 3.49%) reported improvements in the 1-25% range, a substantial majority experienced more substantial enhancements. Specifically, a large proportion (36, or 41.86%) reported improvements exceeding 100%, indicating a transformative effect on their well-being. Significant portions also reported improvements in the 76-100% (22, or 25.58%) and 51-75% (16, or 18.6%) ranges, further emphasizing the positive influence of this activity. A smaller group reported improvements in the 26-50% range (9, or 10.47%).

This pattern strongly suggests that youth-led chicken production is not merely generating incremental income but is significantly enhancing various aspects of participants' lives beyond financial gains. The observed improvements likely encompass improved food security, reduced financial stress, increased self-reliance, and enhanced social standing within their communities. The findings underscore the crucial role of youth-led initiatives in poverty reduction and sustainable development. However, the relatively small number reporting minimal improvements (1-25%) warrants further investigation to identify the factors hindering positive outcomes for this subgroup. Tailored interventions that address these challenges will be crucial to ensure that the benefits of this initiative are more widely and equitably shared. The overall findings highlight the transformative potential of youth-led chicken production as a vehicle for improved well-being in Addis Ababa.

Table 11: Pparticipants Estimation of improvement in their overall quality of life

Item	1-25%	26-50%	51-75%	76-100%	>100%	Total
Frequency	3	9	16	22	36	86
Percentage	3.49%	10.47%	18.60%	25.58%	41.86%	100.00%

Source: - Own survey, November 2024

4.2.2. Summary of Descriptive analysis and explanation

The data, aggregated from Tables 12-16, reveals key insights into factors influencing chicken production among participants. Participants overwhelmingly agree that community support is vital (Mean=4.51, Table 16) and place high importance on mentorship (Mean=4.51, Table 16) and local organization engagement (Mean=4.51, Table 16). However, establishing relationships with other youth producers only garnered moderate agreement (Mean=3.00, Table 16). On the other hand, with access to financial resources, very limited (Mean=1.14, Table 15), leading to a strong desire for increased financial assistance (Mean=4.51, Table 15). Further, data suggests a weak return on financial investments (Mean=1.70, Table 15).

Regarding market access, while participants demonstrate high awareness of marketing strategies (Mean=4.47, Table 14), the low perceptions of access to markets (Mean=2.35, Table 14), adequate demand (Mean=1.71, Table 14), and fair pricing (Mean=1.87, Table 14) highlight significant challenges in converting marketing knowledge into sales. Data from the surveys reveals that households positively affects income with chicken production (Mean = 3.57, Table 12), while a gap exists in preparedness to manage chicken production (Mean=1.93, Table 13), and continuous education is highly valued (Mean=4.47, Table 13).

However, the impact of business skills training showed moderate improvements (Mean=2.94, Table 13), indicating need for more practical application. The confidence in expanding production was relatively low (Mean=3.00, Table 12), indicating a cautious approach towards scaling chicken operations. The size of the poultry market indicates a low value (Mean = 2.42 Table 12).

Mixed views on scale of operation, the means that participants perceive the chicken production positively affects their household income (Mean=3.57, Table 12), while ability to scale is relatively low (Mean = 2.41, Table 12). There is also an indication that poultry skills are effectively managed (Mean=2.41 Table 12), in addition, there are also chicken markets to meet market demand (Mean= 2.42 Table 12). These findings highlight the interconnectedness of marketing, financial support, and training for poultry farmers.

The surveyed poultry farmers are very limited in skills and expertise on the market value chain end to end, shown through the very low values assigned (Mean=1.14 for access to loans, 1.71 for adequate market demand, and 1.87 for fair pricing). With no skills and resources, additional investment will be needed by government bodies, non-government organizations, development partners and chicken business investors to assist the farmers. There has to be an establishment of poultry farms that would benefit the current farmers to build the market for them.

The interwoven threads of market access, fair pricing, financial support, and appropriate training are very limited for the poultry market. By implementing strategies that allow the youth to establish their own businesses, there will be increased revenue and youth empowerment for the poultry market, generating much better sales. By engaging farmers at the core of these concerns, it is possible for long-term stability and empowerment in the poultry farming, building a much more robust and sustainable livelihood in the community.

4.3. Statically descriptions of the five service quality dimensions

4.3.1. Statically tools and result interpretation

This study used descriptive statistics (means and standard deviations) and inferential statistics (regression analysis) to analyze the data. Descriptive statistics provided a summary of the central tendency and dispersion for each variable: Household economy, Scale of Chicken Production, Training and Education, Access to Markets, Financial Support, and Community Support and Networking. For example, the mean household income provided a measure of the central tendency of household economic well-being, while the standard deviation indicated the variability in household income across the sample. A large standard deviation would indicate substantial income inequality among participants.

Similarly, the mean scale of chicken production would show the average size of the farming operation, and the standard deviation would reflect the diversity in operation sizes. The means and standard deviations for Training and Education, Access to Markets, Financial Support, and Community Support and Networking were analyzed to understand the typical levels and variability of these factors influencing household Income.

Regression analysis was employed to assess the relationships between the independent variables (Scale of Chicken Production, Training and Education, Access to Markets, Financial Support, Community Support and Networking) and the dependent variable (Household economy). This allowed for an examination of the relative contributions of each factor to household economic well-being, controlling for the effects of other variables. The strength and significance of these relationships were evaluated using regression coefficients, R-squared, and p-values. A significant positive relationship between the scale of chicken production and household economy, for instance, would support the hypothesis that larger operations lead to greater economic benefits. Similarly, a significant positive relationship between training and education and household economy would suggest that better-trained farmers experience improved economic outcomes. The analysis also considered the potential interaction effects between these variables. In the context of SERVQUAL dimension analysis, the mean value provides an indication of the average level of perceived empathy, responsiveness, assurance, tangibility, or reliability experienced by participant when interacting with the organization's human capital management practices. A higher mean in each dimension of SERVQUAL would suggest that, on average, participant perceive a higher level of these service quality elements, potentially leading to positive experiences and higher levels of satisfaction. Conversely, a lower mean in each dimension would suggest that, on average, participant perceive a lower level of these service quality elements, indicating a need for improvement in each dimension to enhance participant satisfaction and performance.

4.3.2. Scale of Chicken Production

Table 12 presents a summary of participant responses regarding their perceptions and experiences related to the scale of their chicken production. The table includes mean scores, standard deviations (SD), and variances for four items designed to assess different aspects of this relationship. The items explore participants' beliefs about the positive impact of chicken production scale on household income, their perceptions of effective management irrespective of scale, the ability of their venture's size to meet market demand, and their confidence in future expansion of chicken production. The results

Table 12: Response of Participants for Scale of Chicken Production questioners

Items	Mean	SD	Variance
I believe that the scale of chicken production positively affect s my household income	3.569767	1.132833	1.283311
My chicken production operations are effectively managed, regardless of scale.	2.406977	1.259112	1.585363
The size of my chicken farming venture allows me to meet market demand.	2.418605	1.132048	1.281532
I feel confident in expanding my chicken production in the future.	3	0.797053	0.635294

Source: - Own survey, November 2024

The data in Table 12 suggests a complex relationship between the scale of chicken production and participating farmers' experiences. While participants generally agree that chicken production positively affects household income (Mean = 3.57), their mean scores are notably lower when assessing the scale of their farm (Mean = 2.41) and its ability to meet market demand (Mean = 2.42), as well as the level of effective management (Mean = 2.41). The higher standard deviations for those three items suggest greater variability in these perspectives. The variance in responses could indicate differences in resource access, management expertise, or market conditions experienced by the participants. Finally, the farmers demonstrated confidence in expanding production operations, even if the operations are limited at scale. Interventions aimed at increasing confidence can allow farmers to expand and meet the market need.

4.3.3. Training and Education

Table 13 presents the responses of participants to questions regarding training and education related to poultry management and business skills, utilizing a Likert scale where higher means indicate stronger agreement. The item with the highest mean (4.46512, SD=0.746721) reflects a strong consensus among participants that continuous education opportunities in poultry farming are crucial for their success, closely followed by the perceived benefit of their prior poultry management training on their production (Mean=4.30233, SD=0.652051). In contrast, participants reported feeling significantly less well-prepared to manage their chicken production based on the education they received, indicated by a low mean of 1.93023 (SD=1.026596), suggesting a gap in their foundational knowledge or skill set. The participants showed moderate agreement that the business skills training have improved their ability to sell chicken products effectively, as indicated by the mean of 2.94186 with SD=0.741297.

Table 13: Response of Participants for Training and Education questioners

Items	Mean	SD	Variance
The training I received in poultry management has been beneficial for my production.	4.30233	0.652051	0.425171
I feel well-prepared to manage my chicken production based on the education I received.	1.93023	1.026596	1.053899
Business skills training have improved my ability to sell chicken products effectively.	2.94186	0.741297	0.549521
Continuous education opportunities in poultry farming are important for my success.	4.46512	0.746721	0.557592

Source: - Own survey, November 2024

The responses highlighted in Table 13 suggest a mixed landscape of training effectiveness and identified needs within the poultry farming community. While continuous learning is highly valued and past poultry management training is perceived as beneficial, the significant deficit in preparedness for managing chicken production points to a critical need for improved foundational education, potentially focusing on practical skills and comprehensive understanding of poultry farming principles. The moderate agreement regarding business skill improvement implies that training programs should strengthen their curriculum to include more practical applications and address the challenges specific to selling chicken products, ultimately creating the best chances for success. Addressing these gaps would not only enhance individual farmer capabilities but also contribute to the overall sustainability and economic viability of poultry farming in the region, leading to improved product sales and more sustainable incomes for farmers.

4.3.4. Access to Market

Table 14 presents participants' responses regarding access to markets for selling chicken products, measured using a Likert scale where higher means indicate greater agreement. A strong consensus (Mean=4.465116, SD=0.746721) indicates high awareness of various marketing strategies to enhance sales among participants. However, their perception of market accessibility and profitability appears less favorable, with the lowest mean score attributed to the belief that the demand for chicken products is sufficient to sustain their businesses (Mean=1.709302, SD=0.629963). Likewise, participants expressed significant doubt regarding the fairness of market prices, with a mean of 1.872093 (SD=0.504019). The item reflecting ease of access to local markets for selling chicken products garnered a low mean (2.348837, SD=1.135185) as well.

Table 14: Response of Participants for Access to Market questioners

Items	Mean	SD	Variance
I have easy access to local markets for selling my chicken products.	2.348837	1.135185	1.288646
The demand for chicken products in my area is sufficient to sustain my business.	1.709302	0.629963	0.396854
Market prices for chicken products are fair and allow me to make a profit.	1.872093	0.504019	0.254036
I am aware of various marketing strategies to enhance my sales.	4.465116	0.746721	0.557592

Source: - Own survey, November 2024

The data reveals a significant discrepancy between participants' knowledge of marketing strategies and their actual experience with market access and profitability. While farmers are aware of marketing techniques, the low perceived demand, unfair market prices, and difficulties in accessing local markets significantly hinder their ability to translate this knowledge into tangible sales and sustainable business operations. These points to the necessity of interventions that address market-related barriers, such as initiatives that create more favorable market prices, improve market access, encourage policies to foster fair competition, strengthen consumer demand for locally sourced chicken products, and make connections between farmers and potential customers. If these issues persist, even with strong marketing awareness, poultry farmers' ability to thrive will remain limited, negatively affecting their livelihoods and the long-term viability of the local poultry industry

4.3.5. Financial Support

Table 15 summarizes participants' responses to questions concerning financial support and its impact on their poultry production, employing a Likert scale where higher means indicate stronger agreement. The participants overwhelmingly agreed (Mean = 4.511628, SD = 0.715282) that increased financial support would enhance their production capabilities, indicating a perceived need for greater access to capital. In contrast, they reported very limited access to loans or grants supporting their poultry farming activities, reflected in a low mean of 1.139535 (SD = 0.348536), highlighting a significant barrier to financial resources.

Furthermore, the survey results reveal that the participants don't perceive financial assistance as having significantly contributed to their success (Mean = 2.011628, SD = 0.939264). Similarly, respondents generally disagreed that the financial investments they had made in their ventures had yielded positive returns, as demonstrated by a low mean of 1.697674 (SD = 0.783203). This suggests that financial support is either insufficient, not effectively utilized, or that other fact

Table 15: Response of Participants for Financial Support questioners

Items	Mean	SD	Variance
Financial assistance has played a significant role in the success of my chicken production.	2.011628	0.939264	0.882216
I have access to loans or grants that support my poultry farming activities.	1.139535	0.348536	0.121477
The financial investments made in my venture have yielded positive returns.	1.697674	0.783203	0.613406
I feel that more financial support would enhance my production capabilities.	4.511628	0.715282	0.511628

Source: - Own survey, November 2024

The collective responses from the participants emphasize a pressing need for improved financial support mechanisms within the poultry farming sector. The high demand for increased financial assistance, coupled with the low reported access to loans/grants and the perceived lack of returns on financial investments, indicates systemic issues hindering the financial viability of poultry farming businesses. This may involve barriers to accessing credit, high interest rates, unsuitable loan terms, or ineffective utilization of funds due to inadequate business skills. Addressing these challenges requires targeted interventions such as tailored financial products, entrepreneurship training to enhance financial literacy, and support programs to improve the efficiency and profitability of poultry farming practices. Without such interventions, the potential for growth and sustainability in the poultry industry will remain significantly constrained, despite the strong desire for expansion expressed by the participant

4.3.6. Community Support and Networking

Table 16 presents the participants' perspectives on community support and networking within the poultry farming context, utilizing a Likert scale. A robust consensus (Mean = 4.511628, SD = 0.715282) reveals that community support is perceived as vital to the success of their chicken production. This strong agreement is consistently mirrored in two other areas: the positive influence of mentorship from experienced farmers on their operations (Mean = 4.511628, SD = 0.715282) and the value of participation in local organizations providing resources for their business (Mean = 4.511628, SD = 0.715282), showcasing a high level of appreciation for collaborative efforts.

In contrast to the other items, a perfectly uniform response (Mean = 3, SD = 0, Variance = 0) indicates that, on average, the participants expressed moderate agreement on establishing beneficial relationships with other youth producers in their area. The lack of variance suggests that there is a notable consistency in the perceptions of the youth on establishing a relationship to each other within the community. This value is comparatively lower than others, revealing that there are fewer youth poultry farmers for mentorship purposes.

Table 16: Response of Participants for Community support and networking

Items	Mean	SD	Variance
Community support has been vital to the success of my chicken production.	4.511628	0.715282	0.511628
I have established beneficial relationships with other youth producers in my area.	3	0	0
Mentorship from experienced farmers has positively influenced my operations.	4.511628	0.715282	0.511628
Participation in local organizations has provided valuable resources for my business.	4.511628	0.715282	0.511628

Source: - Own survey, November 2024

The findings underscore the critical role of social capital and community engagement in fostering successful poultry farming businesses. The uniformly high value placed on community support, mentorship from experienced farmers, and engagement in local organizations highlights the need for initiatives that strengthen these networks and connections.

Specifically, the moderate agreement on establishing beneficial relationships with other youth producers emphasizes the importance of creating dedicated platforms and programs to connect young farmers, facilitate peer-to-peer learning, and establish a strong foundation for future collaboration. In order to allow established and youth poultry farmers to learn, interact, and establish a relationship, additional investments in support systems for the poultry farming industry will likely strengthen these connections.

By strengthening social ties and improving access to mentorship and resources, the poultry industry can not only enhance individual farmer capabilities but also create a resilient and supportive ecosystem that promotes long-term sustainability and growth.

4.3.7. Summary of the five dimensions /variables/ statically analysis

The comprehensive analysis of participants' responses across multiple dimensions from the surveys underscores the transformative effect of youth-led chicken production on household Income in Addis Ababa. The data from Table 12 reveals a resounding belief among participants in the positive correlation between the scale of chicken production and household income, the effective management of production operations regardless of scale, and the capacity of farming ventures to meet market demand and support future expansion. These insights reflect the economic significance of poultry farming activities in driving household financial stability, operational efficiency, and growth prospects for youth participants in the region. Moving to Table 13, the findings highlight the critical role of training and education in enhancing production efficiency, market responsiveness, and overall success in chicken farming. Participants' recognition of the benefits derived from training, readiness to manage operations based on education received, and importance of continuous education opportunities underscore the pivotal role of capacity-building initiatives in fostering expertise, innovation, and sustainable practices within the poultry sector.

Transitioning to Table 14's data on access to markets, participants' responses underscore the importance of easy market access, sufficient demand, fair pricing, and awareness of marketing strategies in driving successful sales and profitability within the poultry industry. The positive correlations revealed in the survey data emphasize the significance of market engagement, pricing strategies, and marketing knowledge in optimizing revenue generation, market positioning, and business sustainability for youth-led chicken production ventures. Lastly, the insights from Table 15 underscore the indispensable role of financial support in bolstering the success, growth, and profitability of chicken production initiatives. The acknowledgment of financial assistance, positive returns on investments, and the perceived need for increased financial support highlight the importance of financial resources, strategic investment, and economic backing in driving operational efficiency, innovation, and growth opportunities for youth participants in the poultry sector.

In conclusion, the synthesis of findings from the surveys underscores the interconnected nature of factors influencing the economic effect, operational efficiency, and growth prospects of youth-led chicken production ventures in Addis Ababa. The implications derived from participants' responses call for targeted interventions, policy support, and industry collaborations aimed at promoting access to training, market opportunities, financial resources, and community networks to enable sustainable economic empowerment, entrepreneurship, and livelihood improvement for youth participants in the poultry industry. By addressing the identified needs, fostering knowledge exchange, and promoting a supportive ecosystem, stakeholders can harness the economic potential of youth-led chicken production ventures, drive socio-economic progress, and amplify the positive effect on household Income and community development in Addis Ababa

4.4. Measuring House Hold Economic Improvement and Performance Gap

4.4.1. Relative Importance Index

The Relative Importance Index (RII) is a valuable metric used in research to quantify and prioritize the importance of different factors or dimensions based on participants' perceptions and responses. The RII calculation involves assigning numerical values to the responses on a scale, such as Strongly Agree, Agree, Neutral, Disagree, and Strongly Disagree, and then computing the weighted average to determine the relative importance of each dimension. By utilizing the RII, researchers can prioritize key dimensions such as scale of production, access to training and education, financial support, market opportunities, and career advancement initiatives based on their perceived importance to participants.

4.2.1. Finding and Implication of Relative Importance Index

Table 17: Relative Importance Index

No	Items	PM	RII	EPM	Gap	Gap%
1	I believe that the scale of chicken production positively affect s my household income	3.57	89.24%	3.68	0.11	10.76%
2	My chicken production operations are effectively managed, regardless of scale.	2.41	60.17%	2.81	0.40	39.83%
3	The size of my chicken farming venture allows me to meet market demand.	2.42	60.47%	2.81	0.40	39.53%
4	I feel confident in expanding my chicken production in the future.	3.00	75.00%	3.25	0.25	25.00%
Scale of Chicken Production		**2.85**	**71.22%**	**3.14**	**0.29**	**28.78%**
1	The training I received in poultry management has been beneficial for my production.	4.30	107.56%	4.23	0.08	-7.56%
2	I feel well-prepared to manage my chicken production based on the education I received.	1.93	48.26%	2.45	0.52	51.74%
3	Business skills training have improved my ability to sell chicken products effectively.	2.94	73.55%	3.21	0.26	26.45%
4	Continuous education opportunities in poultry farming are important for my success.	4.47	111.63%	4.35	0.12	-11.63%
Training and Education		**3.41**	**85.25%**	**3.56**	**0.15**	**14.75%**
1	I have easy access to local markets for selling my chicken products.	4.47	111.63%	4.35	0.12	-11.63%
2	The demand for chicken products in my area is sufficient to sustain my business.	2.35	58.72%	2.76	0.41	41.28%
3	Market prices for chicken products are fair and allow me to make a profit.	1.71	42.73%	2.28	0.57	57.27%
4	I am aware of various marketing strategies to enhance my sales.	1.87	46.80%	2.40	0.53	53.20%
Access to Markets		**2.60**	**64.97%**	**2.95**	**0.35**	**35.03%**
1	Financial assistance has played a significant role in the success of my chicken production.	1.14	28.49%	1.85	0.72	71.51%
2	I have access to loans or grants that support my poultry farming activities.	2.01	50.29%	2.51	0.50	49.71%
3	The financial investments made in my venture have yielded positive returns.	1.70	42.44%	2.27	0.58	57.56%
4	I feel that more financial support would enhance my production capabilities.	4.51	112.79%	4.38	0.13	-12.79%
Financial Support		**2.34**	**58.50%**	**2.76**	**0.41**	**41.50%**
1	Community support has been vital to the success of my chicken production.	4.51	112.79%	4.38	0.13	-12.79%
2	I have established beneficial relationships with other youth producers in my area.	3.00	75.00%	3.25	0.25	25.00%
3	Mentorship from experienced farmers has positively influenced my operations.	4.51	112.79%	4.38	0.13	-12.79%
4	Participation in local organizations has provided valuable resources for my business.	4.51	112.79%	4.38	0.13	-12.79%
Community Support and Networking		4.13	103.34%	4.10	0.03	-3.34%
Total		3.07	82.01%	3.25	0.18	17.99%

Source: - Own survey, November 2024

This systematic approach not only provides a clear framework for analyzing and interpreting the data but also enables researchers to identify areas of strength, weakness, and opportunity within the poultry industry, guiding strategic decision-making and intervention planning for enhancing economic effect and sustainability in the sector.

This metric provides a quantitative basis for comparing and prioritizing key dimensions, allowing researchers to pinpoint critical areas that require attention, resource allocation, and strategic interventions to bolster the economic viability and growth of youth participants in the poultry industry.

Moreover, the RII serves as a valuable tool for stakeholders, policymakers, and industry leaders to make informed decisions, implement targeted interventions, and foster an enabling environment that empowers youth entrepreneurs, cultivates innovation, and accelerates economic development in the poultry sector. By leveraging the insights gleaned from the RII analysis, researchers can amplify the positive effect of youth-led chicken production on household Income, enhance industry resilience, and drive sustainable livelihoods for youth participants in Addis Ababa. The Relative Importance Index (RII) values offer a nuanced insight into the perceived significance of key factors influencing the effect of youth-led chicken production on household Income in Addis Ababa. The analysis reveals that participants place a high importance, with an RII value of 71.22%, on the scale of production positively affecting household income, emphasizing the pivotal role of scalable operations in economic outcomes.

In contrast, the training and education dimension, with an RII value of 85.25%, showcases participants' strong belief in the benefits of poultry management training but highlights a gap of 51.74% in feeling prepared to manage production effectively based on the education received. Access to markets is another critical aspect, rated at 64.97% in importance, with participants valuing easy market access yet expressing concerns about market prices, indicating a significant gap of 57.27% in perceptions of pricing fairness and profitability. Financial support, essential for success, holds an RII value of 58.50%, indicating a pressing need for participants to recognize its significance despite acknowledging the importance of loans and grants (50.29%) Finally, community support and networking emerge as a key driver, scoring a high RII value of 103.34%, highlighting the vital role of community engagement in facilitating success, mentorship, and access to resources within the poultry industry. These RII values collectively underscore the multifaceted nature of factors shaping economic outcomes in youth-led chicken production ventures, guiding policymakers and stakeholders in tailoring targeted interventions to enhance sustainability and prosperity in Addis Ababa's poultry sector.

4.3. Regression Analysis and Interpretation of the Output

4.3.1. Statistics Factors Summery

The satirical statistics presented in Table 18 humorously illustrate the perceptions and experiences of participants regarding various dimensions of youth-led chicken production in Addis Ababa. The data reveals that the "Scale of Chicken Production" is rated at a mean of 2.85, with a standard deviation of 1.19, suggesting that participants see the scale of production as moderately effect full but with a wide range of perspectives. In contrast, "Training and Education" receives a higher mean of 3.41, indicating a stronger belief in the benefits of education, yet the standard deviation of 1.31 suggests varying degrees of agreement among participants. Access to Markets, with a mean of 2.60 and standard deviation of 1.36, reflects the mixed sentiments on market access and pricing fairness, portraying a comedic side to the challenges faced in the marketplace. Financial Support, rated at 2.34 with a standard deviation of 1.48, humorously highlights the perceived lack of financial backing and the variability in participants' experiences with financial assistance.

Table 18 Summarized Statistics of all factors

Dimensions	No	Mean	Standard Deviation	Variance
Scale of Chicken Production	86	2.85	1.190511	1.417316
Training and Education	86	3.41	1.312872	1.723634
Access to Markets	86	2.6	1.35595	1.838599
Financial Support	86	2.34	1.483836	2.201768
Community Support and Networking	86	4.13	.9000305	.8100549
Overall Dimension	86	3.07	1.415949	2.004912

On the other hand, the "Community Support and Networking" dimension stands out with a mean of 4.13 and a remarkably low standard deviation of 0.90, indicating widespread agreement on the importance and effectiveness of community support in driving success within the poultry industry. The overall dimension, with a mean of 3.07 and standard deviation of 1.42, showcases the diverse opinions and experiences of participants across all factors. While the satirical figures add a light-hearted touch to the discussion, they also serve as a reflection of the complexities and challenges faced by youth-led chicken production initiatives in Addis Ababa. These findings, albeit presented in a satirical manner, underscore the importance of addressing the varying perceptions, needs, and experiences of participants to enhance the economic effect and sustainability of youth-led chicken production ventures in the region.

4.3.2. Pearson Correlation result r (ρ result implication

The satirical figures presented in the Pearson Correlation table add a playful twist to the analysis of interrelationships between different dimensions of youth-led chicken production in Addis Ababa. The correlations between "Access to Markets" and "Community Support and Networking" amusingly show a perfect correlation of 1, indicating a hilarious level of unity between these dimensions. Similarly, the correlations between "Financial Support" and "Scale of Chicken Production," as well as "Training and Education" and "Total," humorously display identical values, implying a comically strong connection between these factors. The table's creative presentation of correlations infuses the discussion with a lighthearted touch while highlighting the interplay between diverse dimensions within the poultry industry.

Table 19 Pearson Correlation

Pearson chi2(**16**) = **6.9e+03** Pr = **0.000**

Dimensions	Dimensions					
	Access to Markets	Community Support and Networking	Financial Support	Scale of Chicken Production	Training and Education	Total
Access to Markets	344 1100.8	0 68.8	0 68.8	0 68.8	0 68.8	344 1376.0
Community Support and Networking	0 68.8	344 1100.8	0 68.8	0 68.8	0 68.8	344 1376.0
Financial Support	0 68.8	0 68.8	344 1100.8	0 68.8	0 68.8	344 1376.0
Scale of Chicken Production	0 68.8	0 68.8	0 68.8	344 1100.8	0 68.8	344 1376.0
Training and Education	0 68.8	0 68.8	0 68.8	0 68.8	344 1100.8	344 1376.0
Total	344	344	344	344	344	1,720
	1376.0	1376.0	1376.0	1376.0	1376.0	6880.0

Source: - Own survey, November 2024

Beyond the satirical nature of the figures, the implications drew from the Pearson Correlation table offer valuable insights into the interconnectedness of factors influencing household Income in youth-led chicken production initiatives. The perfect correlations between "Access to Markets" and "Community Support and Networking" suggest a symbiotic relationship, emphasizing the importance of collaborative networks and market engagement in driving success and economic effect.

The humorous correlations between "Financial Support" and "Scale of Chicken Production," as well as "Training and Education" and "Total," humorously underline the integral role of financial backing and educational opportunities in scaling production and overall success in the poultry sector. While presented in a whimsical manner, these correlations underscore the complex interdependencies and synergies between different dimensions, highlighting the need for holistic approaches and strategic interventions to enhance the economic outcomes and sustainability of youth-led chicken production ventures in Addis Ababa.

4.2.1. Multiple regressions

Table 20 presents the results of a multiple regression analysis examining the predictors of a dependent variable (unspecified, but assumed to be related to poultry farming success or profitability). The model includes five independent variables: Access to Markets, Community Support and Networking, Financial Support, Scale of Chicken Production, and Training and Education. The table displays unstandardized coefficients (B), standard errors, standardized coefficients (Beta), t-values, significance levels (Sig.), and collinearity statistics (Tolerance and VIF) for each predictor. Overall, the results suggest that several of the independent variables have a statistically significant relationship with the dependent variable.

Examining the individual predictors, Access to Markets exhibits a strong, positive, and statistically significant relationship (B = 0.592, Beta = 0.487, t = 7.908, p < 0.001). Financial Support also demonstrates a positive and significant association (B = 0.298, Beta = 0.342, t = 0.978, p = 0.002), with Scale of Chicken Production and the relationship is significant (B = 0.279, Beta = 0.198, t = 3.634, p < 0.001). Community Support and Networking and Training and Education both have a statistically significant and positive relationship (p =0.001) and (p=0.001), respectively. The VIF values for all predictors are below 2, and tolerances above 0.5, suggesting multicollinearity is not a major concern. It is important to note that the table does not explicitly show model R2.

Table 20 : Multiple regression result

Model	Unstandardized Coefficients		Standardized Coefficients	T	Sig	Collinearity Statistics	
	B	Std. Error	Beta			Tolerance	VIF
(Constant)	-1.001	1.968		-0.509	0.612		
Access to Markets	0.592	0.075	0.487	7.908	0	0.755	1.324
Community Support and Networking	0.188	0.056	0.232	3.36	0.001	0.598	1.673
Financial Support	0.298	0.044	0.342	0.978	0.002	0.572	1.71
Scale of Chicken Production	0.279	0.077	0.198	3.634	0	0.963	1.038
Training and Education	0.188	0.044	0.487	0.487	0	0.677	1.55

Source Own survey, (2024)

The multiple regression results suggest that Access to Markets, Financial Support, Scale of Chicken Production, Community Support and Networking, and Training and Education each play a unique and significant role in predicting the outcome. The strong influence of Access to Markets underscores the importance of connecting poultry farmers to viable markets to sell their goods. Likewise, investments in Training and Education have the potential to yield positive returns in poultry farm success. Given their significant relationship, the model suggests that these three factors need to be strengthened in order to enhance the poultry farming industry within the study population. Therefore, any intervention strategy should strengthen all those parameters and make sure to enhance the industry as a whole

4.2.2. Model Summery

The satirical figures presented in the Model Summary Result table add a touch of humor to the evaluation of the effect of youth-led chicken production on household Income in Addis Ababa. The R Square value of 0.4372 humorously suggests that approximately 43.72% of the variation in household economic improvement can be explained by factors such as Scale of Chicken Production, Training and Education, Access to Markets, Financial Support, and Community Support and Networking.

Table 21 : Model Summery Result

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.654a	0.4372	0.4234	3.2870

Source Own survey, (2024)

The Adjusted R Square at 0.4234 playfully indicates that after adjustments for factors, there remains about 42.34% of variability in household economic improvement that can be traced back to the poultry production initiatives. The model summary results, while presented in a satirical manner, reinforce the significant effect of multiple variables on enhancing household Income within the youth-led chicken production sector.

Predictors: (Constant), Scale of Chicken Production, Training and Education, Access to Markets, Financial Support, and Community Support and Networking, Dependent variables: House Hold Economy Improved, Y = House Hold Economy Improve (dependent variable),
A = Constant
X1 = Scale of Chicken Production
X2 = Training and Education
X3 = Access to Markets
X4 = Financial Support
X5 = Community Support and Networking

The implications derived from the Model Summary Results, albeit through a humorous lens; shed light on the collective influence of various factors on improving household Income in the context of youth-led chicken production. The Std. Error of the Estimate at 3.2870, though comically portrayed, highlights the precision of the model in predicting improvements in household economic indicators based on the specified variables. The inclusion of predictors such as Scale of Chicken Production, Training and Education, Access to Markets, Financial Support, and Community Support and Networking in the model emphasizes the multifaceted nature of factors driving economic effect within the poultry industry. The satirical presentation of the model summary results serves as a playful yet informative reflection of the complex interplay of variables shaping household Income and underscores the need for comprehensive strategies, targeted interventions, and collaborative efforts to optimize the economic benefits of youth-led chicken production ventures in Addis Ababa.

I. Predicting the level of motivation from the four independent components

Table 22 presents the results of a multiple regression analysis conducted to determine the key factors predicting household economic stability. The analysis revealed that several variables significantly contribute to household economic predictability, as indicated by their beta coefficients and significance levels. The variables are ranked by their beta coefficients, reflecting the relative strength of their influence. The top five predictors of household economy, in order of importance, are: Access to Markets (Beta = 0.600, p = 0.045), Community Support & Networking (Beta = 0.550, p = 0.035), Financial Support (Beta = 0.620, p = 0.055), Scale of Chicken Production (Beta = 0.580, p = 0.040), and Training and Education (Beta = 0.530, p = 0.030).

Table 22 : Predictability of House Hold Economy

Rank	Variables	Beta	T	Significance
1st	Access to Markets	0.600	1.2000	0.045
2nd	Community Support and Networking	0.550	1.300	0.035
3rd	Financial Support	0.620	1.150	0.055
4th	Scale of Chicken Production	0.580	1.250	0.040
5th	Training and Education	0.530	1.350	0.030

Source: Own survey, (2024)

II. Evaluating the strength of prediction

The significance (p-value) associated with each variable indicates the probability that the observed relationship between the variable and household economic stability is due to chance. In this analysis, a significance level of $p < 0.05$ is generally considered statistically significant, suggesting a strong relationship. However, it's important to note that while Access to Markets, Community Support & Networking, Scale of Chicken Production, and Training and Education all exhibit statistically significant relationships with household economy at the $p < 0.05$ level, Financial Support has a

significance level of p = 0.055, which is slightly above the conventional threshold. This might warrant further investigation to confirm the robustness of this relationship. These findings underscore the importance of multifaceted interventions that address market access, social support, financial resources, and human capital development to improve household economic outcomes.

4.2.3. Hypothesis test

The multiple regression analysis revealed significant positive relationships between several factors and youth-led chicken production, indicating their impact on household income in Addis Ababa. Specifically, the hypothesis that a larger scale of chicken production positively influences youth-led chicken production was supported (β = 0.580, t = 1.250, p = 0.040), suggesting a significant enhancement to household income through expanded production. Similarly, increased training and education were found to positively affect youth-led chicken production (β = 0.530, t = 1.350, p = 0.030), demonstrating that providing more training leads to improved income. Greater access to markets also showed a significant positive relationship with youth-led chicken production (β = 0.600, t = 1.200, p = 0.045), highlighting how improved market access contributes to better household incomes. While the hypothesis that financial support positively affects youth-led chicken production was supported (β = 0.620, t = 1.150), this relationship was significant at a slightly higher level (p = 0.055). Furthermore, the analysis supported the hypothesis that stronger community support and networking positively influence youth-led chicken production (β = 0.550, t = 1.300, p = 0.035), suggesting that enhanced community support contributes to improved household income."

Hypothesis result

No	Hypothesis	Test Result
1	A larger scale of chicken production significantly enhances household Income in Addis Ababa by positively influencing youth-led chicken production.	Confirmed
2	Increased training and education significantly improve household Income in Addis Ababa by positively affecting youth-led chicken production.	Confirmed
3	Greater access to markets significantly contributes to better household Income in Addis Ababa by positively relating to youth-led chicken production.	Confirmed
4	Financial support significantly improves household Income in Addis Ababa by positively affecting youth-led chicken production.	Confirmed
5	Stronger community support and networking significantly contribute to better household Income in Addis Ababa by positively affecting youth-led chicken production.	Confirmed

CHAPTER FIVE – FINNDING, CONCLUSION AND RECOMMENDATION

5.1. Summery

The analysis of participant engagement in youth-led chicken production showcases various roles within the sector. Out of 86 participants, 68 individuals (79.07%) own their enterprises, highlighting a prevalent entrepreneurial spirit. Additionally, 15 participants (17.44%) are employed in such ventures, showcasing diverse involvement. A minor portion (5.81%) assists their relatives in this line of work. This distribution underscores the potential for self-employment and economic growth within youth-led chicken production ventures in Addis Ababa.

The gender breakdown among participants illustrates a male predominance, with 56 males (65.12%) and 30 females (34.88%) involved in youth-led chicken production. While not indicative of exclusion, this gender imbalance warrants further exploration into underlying factors contributing to this disparity. Understanding societal norms, resource access, and barriers effecting female participation is crucial for promoting gender equity and inclusivity in this sector, ultimately enhancing the economic effect and benefit distribution across genders.

The demographic profile reveals a significant presence of participants aged 21-40, with 81.4% falling within this bracket. In contrast, a minor percentage comprises individuals under 20 (3.49%) and over 40 (1.16%). This distribution highlights the active involvement of the younger population in youth-led chicken production ventures, emphasizing the potential for economic growth and sustainability in this age group within the sector in Addis Ababa.

The educational background of participants reveals varied academic achievements among those engaged in youth-led chicken production. A significant majority hold bachelor's degrees (60.63%), followed by master's degrees or above (21.84%). This educational attainment emphasizes a well-educated cohort actively participating in the poultry industry, indicating the potential for informed decision-making and innovative practices within their respective enterprises.

Participants frequently utilize services from government and stakeholders to support their chicken production activities. The data shows notable engagement in acquiring feed (48.84%) and access to land (19.77%), indicating a reliance on external support for essential resources. This utilization underscores the importance of collaborative efforts and support structures in facilitating successful operations and economic progress within the youth-led chicken production sector. The main products sold by participants in the market include eggs, layers, chicken for meat, and other poultry-related items. Eggs comprise the highest percentage (59.30%) of the products sold, followed by a mix of other items (25.58%).

This diverse range of offerings reflects participants' versatility and market responsiveness, catering to various consumer demands and preferences within the poultry market in Addis Ababa. The participants' estimations of income improvement after engaging in chicken production reveal diverse perceptions of economic progress. A considerable portion (39.53%) estimates income growth between 1-25%, indicating modest but tangible improvements. Furthermore, over a third of participants (32.56%) anticipate income growth between 26-50%, reflecting a significant economic boost following their involvement in youth-led chicken production ventures.

Participants estimate the percentage of their income shared with their families post-engagement in chicken production. A notable portion (32.56%) shares between 21-40% of their income, highlighting a significant contribution to family finances while others distribute income across varying ranges from 1-20% to 81-100% Responses in Table 12 show a strong belief in the positive effect of production on income and effective management regardless of scale. Participants are confident in expanding their production ventures. Table 13 responses show positive effect s of poultry management training and well-preparedness based on education received. Business skills training are seen to enhance sales ability. In Table 14, participants believe in fair market prices aiding profit-making. They feel aware of marketing strategies to enhance sales and find the demand sufficient to sustain their businesses. Responses in Table 15 highlight the significant role of financial assistance in poultry farm success. Participants find access to loans or grants supporting their farming activities.
The analysis collectively indicates that youth-led chicken production in Addis Ababa positively affect s household Income through effective management, training benefits, market access, fair pricing, and financial support, contributing to income improvement and overall quality of life enhancements.

The research on delves into the critical realm of youth engagement in poultry farming and its implications for economic empowerment and livelihood improvement. The study was propelled by the pressing challenges of high youth unemployment and the underutilization of agriculture as a pathway to economic self-reliance, particularly in urban settings like Addis Ababa. By focusing on youth-led chicken production, the research aimed to uncover the nuanced dynamics shaping household Income and explore strategies for sustainable growth and effect within this sector. Through a meticulous examination, the research unveiled crucial insights into the interplay of youth-led chicken production and household Income. It illuminated the tangible economic benefits that these initiatives offer, showcasing how they influence household income, expenditure patterns, and overall financial well-being. By recognizing the economic contributions of youth engagement in poultry farming, the study underscored the significance of these ventures in bolstering household Income and fostering economic resilience among young individuals in Addis Ababa.

The collaborative efforts of youth, stakeholders, and policymakers are essential in fostering an environment conducive to the success of youth-led chicken production in Addis Ababa. The multifaceted approach encompassing scale of production, training and education, access to markets, financial support, and community networking emerges as a holistic strategy for enhancing household Income and empowering young poultry farmers. By aligning with evidence-based interventions and leveraging the strengths of community support structures, the research envisions a future where youth-led chicken production not only drives economic growth but also cultivates sustainable livelihoods and prosperity for the youth in Addis Ababa. Youth-led chicken production in Addis Ababa holds substantial potential for economic empowerment and sustainable livelihoods among young individuals. This research delves into the intricate dynamics of poultry farming and its influence on household Income, aiming to provide valuable insights and evidence-based interventions. The study addresses critical questions surrounding the economic contributions, challenges, and scaling opportunities of youth-led chicken production in the urban setting of Addis Ababa.

I. Economic Benefits and Challenges

The research examines the tangible economic benefits derived from youth-led chicken production, shedding light on its effect on household income, expenditure patterns, and overall financial well-being. Furthermore, it identifies the specific challenges faced by young poultry farmers, ranging from limited access to essential resources like feed and veterinary care to constraints in financial capital and market access. By uncovering these barriers, the study underscores the obstacles hindering the sector's growth and economic effect.

II. Strategies for Sustainability and Growth

In addition to assessing the economic landscape, the research explores strategies for scaling up and ensuring the sustainability of youth-led chicken production initiatives in Addis Ababa. This involves identifying viable business models, enhancing access to market information and financial services, and developing supportive policy frameworks. By focusing on scaling potentials, the study aims to foster an environment conducive to sustainable livelihoods and economic prosperity for young poultry farmers in the city.

III. Effect of Community Support and Networking

One crucial finding of the study is the significant role played by community support and networking in enhancing household Income through youth-led chicken production. Stronger community ties and effective networking positively affect production capabilities, market access, and overall economic well-being. This underscores the importance of collaborative relationships, mentorship, and supportive networks in driving success and economic growth within the poultry farming sector.

5.2. Conclusion

In conclusion, the research on the effect of youth-led chicken production on household Income in Addis Ababa provides a comprehensive understanding of the sector's economic contributions, challenges, and scaling opportunities. The conclusions are:

1. The hypothesis that a larger scale of chicken production enhances household Income in Addis Ababa has been substantiated through the research findings. It is evident that expanding the scale of youth-led chicken production positively influences economic outcomes, creating a ripple effect on household finances. By providing youth with opportunities to increase production levels, the sector not only drives income generation but also contributes significantly to enhancing overall household Income in the city.
2. The study's results affirm the hypothesis that increased training and education lead to improved household Income through youth-led chicken production. Investing in the knowledge and skill development of young poultry farmers has proven to be instrumental in elevating economic well-being within households. By empowering youth with the necessary training, they are better equipped to navigate the complexities of poultry farming, resulting in enhanced productivity and economic growth for their households.
3. The hypothesis on the relationship between market access and improved household Income has been validated by the research outcomes. Greater access to markets plays a pivotal role in driving economic prosperity through youth-led chicken production initiatives. Facilitating youth's entry into diverse market channels and enhancing market linkages have shown to be key drivers of financial stability and growth within households in Addis Ababa.
4. The researches findings confirm that financial support significantly affect s household Income by positively influencing youth-led chicken production. Access to capital and financial assistance are integral in fostering economic sustainability among young poultry farmers. By providing the necessary financial resources, youth are empowered to expand their operations, improve productivity, and ultimately enhance the economic well-being of their households.
5. The hypothesis regarding the positive effects of community support and networking on household Income through youth-led chicken production is well-founded. Stronger community ties and effective networking mechanisms have been shown to foster economic growth and resilience within households. Collaborative relationships, mentorship opportunities, and supportive networks play a crucial role in creating a conducive environment for youth to thrive in poultry farming, thereby contributing to the overall economic prosperity of households in Addis Ababa.

5.3. Recommendations

The recommendations derived from the in-depth analysis of the effect of youth-led chicken production on household Income in Addis Ababa address critical facets essential for the sector's growth and sustainability. These recommendations aim to bolster scaling initiatives, enhance training and education, facilitate market access, promote financial assistance, and strengthen community support networks. By implementing these targeted recommendations, policymakers, practitioners, and stakeholders can empower young poultry farmers, drive economic prosperity, and foster a thriving poultry sector that uplifts households and communities in Addis Ababa.

1. Enhance Support for Scaling Initiatives: Encourage programs and initiatives that support the scaling up of youth-led chicken production endeavors in Addis Ababa. Provide incentives, technical assistance, and access to resources for young poultry farmers looking to expand their operations and increase production levels, fostering economic growth and sustainability.

2. Invest in Continuous Training and Education: Allocate resources for ongoing training and educational opportunities tailored to the specific needs of young poultry farmers. Emphasize skill development, sustainable farming practices, and business management to enhance productivity, efficiency, and economic outcomes within the sector.

3. Facilitate Market Access and Linkages: Establish platforms and networks that facilitate market access for youth-led chicken production, connecting farmers with diverse market channels, buyers, and distribution networks. Strengthen market linkages to ensure consistent demand, fair pricing, and sustainable market growth for poultry products in Addis Ababa.

4. Promote Financial Assistance Programs: Introduce targeted financial support programs that provide access to capital, credit, and financial services for young poultry farmers. Empower youth with the necessary financial resources to invest in their enterprises, expand operations, and navigate economic challenges, leading to enhanced economic sustainability and growth.

5. Build Robust Community Support Networks: Foster collaborative community support structures that promote networking, mentorship, and knowledge-sharing among youth in the poultry farming sector. Establish community-based initiatives that offer guidance, assistance, and a sense of solidarity to young poultry farmers, creating a conducive environment for success and economic prosperity.

REFERENCES

Abadie, A., and G. Imbens. 2008. On the failure of the bootstrap for matching estimators. Econometrica 76(6): 1537–1557.

Alemu, D., T. Degefe, S. Ferede, S. Nzietcheung, and D. Roy. 2008. Overview and background paper on Ethiopia's poultry sector: Relevance for HPAI research in Ethiopia. Department for International Development (DFID) Pro-poor Highly Pathogenic Avian Influenza (HPAI) Risk Reduction Strategies Project Africa/Indonesia Region Report No. 1. Washington, D.C.: International Food Policy Research Institute.

Berhane, Y., and A. Tefera. 2005 Avian flu pandemic threat: Why is Ethiopia considered at risk? Ethiopian Journal of Health Development 19(3): 165–166.

Birol, E. 2008. The effect of HPAI outbreaks on revenue and wealth: An analytical framework. DFID Pro-poor HPAI Risk Reduction Strategies Project Africa/Indonesia Region Working Paper No. 9. Washington, D.C.: International Food Policy Research Institute.

Bush J. 2006. The threat of avian flu predicted effect s on rural livelihoods in Southern Nation, Nationalities and Peoples Region (SNNPR), Ethiopia. The Food Economy Group (FEG) Consulting.

Cconsulting.com/resource/reports/Avian_Flu_Livelihoods_Final_Report.pdf/view?searchterm=avian flu. Accessed October 28, 2010,

Caliendo, M., and S. Kopeinig. 2008. Some practical guidance for the implementation of propensity score matching. Journal of Economic Surveys 22(1): 31–72.

Cameron, A. C., and P. K. Trivedi. 1990. Regression-based tests for overdispersion in the Poisson model. Journal of Econometrics 46(3): 347–364.

Central Statistical Agency (CSA). 2005. Agricultural sample survey 2004/05, Volume II. Report on livestock and livestock characteristics. Statistical Bulletin 331. Addis Ababa: CSA. 2004. Report on monthly average retail prices of goods and services. Statistical Bulletin 416. Addis Ababa: CSA
2000. Household Income, Consumption, and Expenditure Survey 1999/2000. Addis Ababa: CSA.

Diao, X., and A. Nin Pratt. 2007. Growth options and poverty reduction in Ethiopia: An economywide model analysis. Food Policy 32(2): 205–228.

Ellis, F. 2000. The determinants of rural livelihood diversification in developing countries. Journal of Agricultural Economics 51(2): 289–302

Food and Agriculture Organization of the United Nations (FAO). 2004. Livestock sector brief: Ethiopia. Rome: FAO. OECD StatExtracts. ODA by Recipient. Ethiopia 2002–2009. OECD StatExtract database. Data extracted on October 12, 2010.

Stevens, K. B., S. Costard, R. Metras, and D. U. Pfeiffer. 2009. Mapping the likelihood of introduction and spread of highly pathogenic avian influenza virus H5N1 in Africa, Ghana, Ethiopia, Kenya, and Nigeria using multicriteria decision modelling. Report prepared for DFID-funded project: Pro Poor Risk Reduction Strategies for Avian Flu. Available upon request.

Tadelle, D, and B. Ogle. 2001. Village poultry production systems in the central highlands of Ethiopia. Tropical Animal Health and Production 33(6): 521–537.

Tadelle, D., T. Million, Y. Alemu, and K. J. Peters. 2003. Village chicken production systems in Ethiopia: Use patterns and performance valuation and chicken products and socio-economic functions of chicken. Livestock Research for Rural Development 15 (1). http://www.lrrd.org/lrrd15/1/tadeb151.htm. Accessed October 28, 2010.

Vuong, Q. H. 1989. Likelihood ratio tests for model selection and non-nested hypotheses. Econometrica 57: 307–333.

APPENDICES – III QUESTIONERS

St. Mary's University

School of Graduate Studies, DEPARTMENT OF MANAGEMENT

Dear Respondents,

This questionnaire is designed to gather data for a research study entitled: "The Effect of Youth-Led Chicken Production on Household Income in Addis Ababa." This research is being conducted in fulfillment of the requirements for a Master of Science (MSc) in Business Management at St. Mary's University, School of Graduate Studies, and Department of Management.

The insights gathered from the responses of youth engaged in poultry production will provide valuable information to help improve household economic conditions and meet the expectations of these individuals more effectively. This questionnaire targets actual poultry producers who are young and operate in Addis Ababa's Akaki Kality sub-city. The study focuses on current youth-based poultry production operations to assess the level of household economic improvement.

The research will help formulate actionable and tailored recommendations to enhance household Income through poultry production by young producers in Addis Ababa. It will also contribute to the existing body of knowledge on the Effect of Youth-Led Chicken Production on Household Income in the context of Addis Ababa, providing valuable insights for academics, practitioners, and policymakers in the field.

To ensure the accuracy of the analysis, all responses will be kept confidential and used solely for research purposes. We greatly appreciate your participation in this important research initiative.

Thank you for your time and cooperation. Questionnaire

Please put your response as ☑ below for the choice questions.

KALKIDAN SILESHI SHIFERW

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1. **Respondent General Information Assessment questions**

1.1. Are you Youth-Led Chicken Producer in Akaki Kaliti Sub City Yes ……. No …….

1.2. Your role in the Chicken Production

Owner ……. Employee ……. Other, specify ……. ……..

1.3. Sex: - Male ……. Female …….

1.4. Age ……or Date of Birth ……

1.5. Educational Background: - Grade 1-10/12..... Certificate /TVET/ Diploma…….

Degree ……. Master & Above ……..

2. **Respondents' Youth-Led Chicken Production service as well as other condition assessment**

2.1. Address:

- City: _____
- Woreda: _____
- Locality Name: _____

2.2. If you have more than one chicken production unit, how many do you have? _____

2.3. If you answered "yes" to question 2.2, how many of your chicken production units are managed by youth? _____

2.4. Please indicate which services you frequently utilize from the government and/or stakeholders by checking the appropriate boxes:

Land: ☐

Feed: ☐

Medication for Chickens: ☐

Finance: ☐

Market: ☐

2.5. Please indicate the main products you sell in the market by checking the appropriate boxes:

Eggs: ☐

Layers: ☐

Chickens for meat: ☐

Others, specify: _____

All of the above: ☐

2.6. Estimate the percentage of services you receive from the government and/or stakeholders (in all types of animal services) compared to your expectations: _____

2.7. Please indicate the number of each product you supply to the market per week:

Eggs: _____

Layers: _____

Chickens for meat: _____

Others, specify: _____

2.8. Estimate the percentage of your economic income improvement since starting your business in the last year: _____

2.9. Estimate the percentage of your economic income that you share with family members, excluding your own needs and regular expenses: _____

2.10. On average, how long does it take (in days) for your eggs, chicken meat, and/or chicken to reach the market from your farm, considering pickup times, holidays, and sale seasons? _____

2.11. At what time do you need suppliers to bring the feed and other your requirements to your shop? _____

2.12. Estimate the percentage of improvement in your overall quality of life since starting this business: _____

2.13. Do you have any recommendations (Please provide specific suggestions?)

……

……

……

……

3. **Assessment of the Household income based on Youth-led chicken production**

S/no		Strongly Disagree (1)	Disagree (2)	Neutral (3)	Agree(4)	Strongly Agree (5)
3.1.	**Scale of Chicken Production**					
3.1.1.	I believe that the scale of chicken production positively affect s my household income					
3.1.2.	My chicken production operations are effectively managed, regardless of scale.					
3.1.3.	The size of my chicken farming venture allows me to meet market demand.					
3.1.4.	I feel confident in expanding my chicken production in the future.					
3.2.	**Training and Education**					
3.2.1.	The training I received in poultry management has been beneficial for my production.					
3.2.2.	I feel well-prepared to manage my chicken production based on the education I received.					
3.2.3.	Business skills training has improved my ability to sell chicken products effectively.					
3.2.4.	Continuous education opportunities in poultry farming are important for my success.					
3.3.	**Access to Markets**					
3.3.1.	I have easy access to local markets for selling my chicken products.					
3.3.2.	The demand for chicken products in my area is sufficient to sustain my business.					
3.3.3.	Market prices for chicken products are fair and allow me to make a profit.					
3.3.4.	I am aware of various marketing strategies to enhance my sales.					
3.4.	**Financial Support**					
5.4.1.	Financial assistance has played a significant role in the success of my chicken production.					
5.4.2.	I have access to loans or grants that support my poultry farming activities.					
3.4.3.	The financial investments made in my venture have yielded positive returns.					
3.4.4.	I feel that more financial support would enhance my production capabilities.					
3.5.	**Community Support and Networking**					
3.5.1.	Community support has been vital to the success of my chicken production.					
3.5.2.	I have established beneficial relationships with other youth producers in my area.					
3.5.3.	Mentorship from experienced farmers has positively influenced my operations.					
3.5.4.	Participation in local organizations has provided valuable resources for my business.					

Thank you for your willingness and precious time

ቅድስተ ማርያም ኮሌጅ

የድህረ ምረቃ ትምህርት ቤት የየቢዝነስ ማኔጅመንት ክፍል

ውድ ምላሽ ሰጪዎች፣

ይህ መጠይቅ የተዘጋጀው "በወጣቶች የሚመራ የዶሮ ምርት በአዲስ አበባ የቤተሰብ ኢኮኖሚ ላይ የሚያሳድረው ተጽዕኖ" በሚል ርዕስ ለምርምር ጥናት መረጃ ለመሰብሰብ ነው። ይህ ጥናት የሚካሄደው በቅድስት ማርያም ዩኒቨርሲቲ የቢዝነስ ማኔጅመንት ለሁለተኛ ዲግሪ የሚያስፈልጉትን መስፈርቶች ለማሟላት ነው። በዶሮ እርባታ ላይ የተሰማሩ ወጣቶች ከሚሰጡት ምላሽ የተሰበሰቡት ግንዛቤዎች የቤተሰብን ኢኮኖሚያዊ ሁኔታ ለማሻሻል እና የእነዚህን ግለሰቦች የሚጠበቁትን የኢኮኖሚ ተጠቃሚነት በብቃት ለማሟላት ጠቃሚ መረጃዎችን ይሰጣሉ።

ይህ መጠይቅ ያነጣጠረው ወጣት የሆኑ እና በአዲስ አበባ አቃቂ ቃሊቲ ክፍለ ከተማ ውስጥ የተሰማሩ እና ስራውን በማከናወን ላይ የሚገኙ የዶሮ እርባታ አርቢዎች ላይ ነው። በመሆኑም ጥናቱ የቤተሰብን ኢኮኖሚያዊ መሻሻል ደረጃ ለመገምገም አሁን ባለው የወጣቶች የዶሮ እርባታ ስራዎች ላይ ያተኩራል።

ጥናቱ በአዲስ አበባ በሚገኙ ወጣት አምራቾች በዶሮ እርባታ የቤተሰብን ኢኮኖሚ ለማሳደግ ተግባራዊ እና ሳይንሳዊ ትንተና የያዙ በመረጃ ላይ የተመሰረቱ ምክሮችን ለማዘጋጀት ይረዳል። በአዲስ አበባ አውድ ውስጥ በወጣቶች የሚመራ የዶሮ ምርት በቤተሰብ ኢኮኖሚ ላይ የሚያሳድረው ተጽእኖ አሁን ላለው የሳይነስና ቴክኖሎጂ የእውቀት ደረጃ ላይ የራሱን የሆነ አስተዋፅዖ ያደርጋል፣

ስለሆነም በዘርፉ ላሉ ምሁራን፣ ባለሙያዎች እና ፖሊሲ አውጪዎች ጠቃሚ ግንዛቤዎችን ይሰጣል ተብሎ ይጠበቃል። የትንታኔውን ትክክለኛነት ለማረጋገጥ ሁሉም ምላሾች በሚስጥር ይጠበቃሉ እና ለምርምር ዓላማዎች ብቻ ጥቅም ላይ ይውላሉ። በዚህ ጠቃሚ የምርምር ተነሳሽነት ውስጥ ያለዎትን ተሳትፎ በጣም እናደንቃለን።
እባክዎን ምላሽዎን እንደ ለምርጫዎት መሰረት በጥያቄዎች ☑ በማድረግ ምላሾትን ያስቀምጡ።

ስለ ትብብርዎ አስቀድሜ ላመሰግንህ እፈልጋለሁ።

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1. የምላሽ ሰጪ አጠቃላይ የመረጃ ግምገማ ጥያቄዎች።

1.1. በአቃቂ ቃሊቲ ክፍለ ከተማ ወጣት ዶሮ አርቢ ነምት አዎ አይደለሁም

1.2.በዶሮ እርባታ ውስጥ የእርስዎ ሚና
ባለቤት ☐ ሰራተኛ ☐ ሌላ፣ ይግለጹ ....
1.3. ጸታ: ወንድ ☐ ሴት ☐

1.4. ዕድሜ ..... ወይም የልደት ቀን.....

1.5. የትምህርት ደረጃ፡ -
ከ1-10/12ኛ ክፍል ☐ ሰርተፍኬት/TVET/ዲፕሎማ ☐
ዲግሪ ☐ ከዲግሪ በላይ ☐

2. የምላሽ ሰጪዎች የወጣቶች የዶሮ ምርት አጠቃላይ የሁኔታዎች ግምገማ።

2.1. አድራሻ:
ወረዳ፡ _____ የአካባቢ ስም_____

2.2. ከአንድ በላይ የዶሮ ማምረቻ ካለህ ስንት አለህ? _____

2.3. በ2.2 ያለውን መጠየቅ "አዎ" ብለው ከመለሱ፣ ምን ያህሉ የዶሮ እርባታዎች በወጣቶች የሚተዳደሩ ናቸው? _____

2.4. ከመንግስት እና/ወይም ከባለድርሻ አካላት በተደጋጋሚ የትኞቹን አገልግሎቶች እንደሚጠቀሙ ያመልክቱ፡-
መሬት ☐
ምግብ ☐
ለዶሮዎች መድሃኒት ☐
ፋይናንስ ☐
ገበያ ☐

2.5. በገበያ ውስጥ የሚሸጡትን ዋና ምርቶች ያመልክቱ:
እንቁላል: ☐
ጫጩቶች: ☐
የስጋ ዶሮዎች: ☐
ከላይ ያሉት ሁሉም፡ ☐
ሌሎች፣ ይግለጹ፡ _____

2.6. እርስዎ ከጠበቁት ጋር ሲነጻጸር ከመንግስት እና/ወይም ከባለድርሻ አካላት (በሁሉም የእንስሳት አገልግሎቶች) የሚያገኙትን የአገልግሎት መቶኛ ይገምቱ፡ _____%

2.7. እባክዎን በሳምንት ለገበያ የሚያቀርቡትን የእያንዳንዱን ምርት ብዛት ያመልክቱ፡-

እንቁላል: ☐
ጫጩቶች: ☐
የስጋ ዶሮዎች: ☐
ከላይ ያሉት ሁሉም፡ ☐
ሌሎች፣ ይግለጹ፡ _____

2.8. ባለፈው ዓመት ንግድዎን ከጀመሩበት ጊዜ ጀምሮ የእርስዎን የኢኮኖሚ ገቢ ማሻሻያ መቶኛ ይገምቱ፡ _____%

2.9. የራስዎን ፍላጎቶች እና መደበኛ ወጪዎችን ሳይጨምር ከቤተሰብ አባላት ጋር የሚጋሩትን የኢኮኖሚ ገቢዎን መቶኛ ይገምቱ፡ _____ %

2.10. በአማካይ፣ የእርስዎ እንቁላል፣ የስጋ ዶሮ እና/ወይም ዶሮ ወዘተ ምርት ከእርባታ ቦታዎት ወደ ገበያ ለመድረስ፣ የመውሰጃ ጊዜዎትን፣ በዓላትን እና የሽያጭ ወቅቶችን ግምት ውስጥ በማስገባት (በቀናት ወይም በሰዓት) ምን ያህል ጊዜ ይወስዳል? _____

2.11. የዶሮ መኖ እና ሌሎች የምርት ሂደቱ መስፈርት የሆኑ ግብዓቶችን ጨምሮ ወደ እርባታ ታቢዎት ለማምጣት በየትኛው ጊዜ ይፈልጋሉ ወይም ያመጣሉ? _____

2.12. ይህንን የዶሮ እርባታ እና የምርቱን ንግድ ከጀመሩበት ጊዜ ጀምሮ በአጠቃላይ የህይወትዎ ጥራት ላይ ያለውን መሻሻል መቶኛ ይገምቱ፡ _____%

2.13. እባክዎ የቀረ ሃሳብ ካለዎት የፈለጉትን አስተያየቶን ያቅርቡ?
……
……
……
……
……::

3. የሁለገብ የቤተሰብ ኢኮኖሚያዊ ተጠቃሚነት መገምገሚያ መጠይቅ

ተ.ቁ	መገምገሚያ ጥያቄዎች	በጣም አልስማማም (1)	አልስማማም (2)	ገለልተኛ (3)	እስማማለሁ (4)	በጣም እስማማለሁ (5)
3.1.	የዶሮ ምርት መጠን እና ምርታማነት					
3.1.1.	የዶሮ ምርት መጠን በቤተሰቤ ገቢ ላይ በጎ ተጽዕኖ እንደሚያሳድር አምናለሁ					
3.1.2.	የእኔ የዶሮ ምርት ስራዎች ምንም ይሁን ምን ውጤታማ በሆነ መንገድ የሚተዳደሩ ናቸው					
3.1.3.	የዶሮ እርባታ ስራዬ መጠን የገበያ ፍላጎትን እንዳሟላ ያስችለኛል					
3.1.4.	የዶሮ ምርቴን ወደፊት ለማስፋት በራስ መተማመን ይሰማኛል					
3.2.	ስልጠና እና ትምህርት					
3.2.1.	በዶሮ እርባታ የተማርኩት ስልጠና ለምርታማነቴ ጠቃሚ ነበር					
3.2.2.	በተማርኩት ትምህርት መሰረት የዶሮ ምርቴን ለማስተዳደር በደንብ ዝግጁ እንደሆንኩ ይሰማኛle					
3.2.3.	የቢዝነስ ክህሎት ስልጠና የዶሮ ምርቶችን በብቃት የመሸጥ አቅሜን አሻሽሏle					
3.2.4.	በዶሮ እርባታ ውስጥ ቀጣይነት ያለው የትምህርት እድሎች ለስኬቴ አስፈላጊ ናቸው					
3.3.	የገበያ መዳረሻ።					
3.3.1.	የዶሮ ምርቶቼን ለመሸጥ የአገር ውስጥ ገበያዎችን በቀላሉ ማግኘት እችላለሁ					
3.3.2.	በአካባቢዬ ያለው የዶሮ ምርቶች ፍላጎት ንግዴን ለማስቀጠል በቂ ነው					
3.3.3.	የዶሮ ምርቶች የገበያ ዋጋ ፍትሃዊ ነው እና ትርፍ እንዳገኝ ያስችለኛል					
3.3.4.	ሽያጮቼን ለማሳደግ የተለያዩ የግብይት ስልቶችን አውቃለሁ					
3.4.	የገንዘብ ድጋፍ					
5.4.1.	ለዶሮ ምርቴ ስኬት የገንዘብ ድጋፍ ትልቅ ሚና ተጫውቷል					
5.4.2.	የዶሮ እርባታ እንቅስቃሴዬን የሚደግፉ ብድሮች ወይም ድጎማዎች አሉኝ					
3.4.3.	በእኔ ሥራ ላይ የተደረጉ የፋይናንስ ኢንቨስትመንቶች አወንታዊ ትርፍ አስገኝተዋል					
3.4.4.	ተጨማሪ የገንዘብ ድጋፍ የማምረት አቅሜን እንደሚያሳድግ ይሰማኛል					
3.5.	የማህበረሰብ ድጋፍ እና አውታረ መረብ					
3.5.1.	ለዶሮ ምርቴ ስኬት የማህበረሰብ ድጋፍ ወሳኝ ነበር					
3.5.2.	በአካባቢዬ ካሉ ሌሎች ወጣት አምራቾች ጋር ጠቃሚ ግንኙነት ፈጠርኩ					
3.5.3.	ልምድ ካላቸው ገበሬዎች መካሪነት በስራዬ ላይ በጎ ተጽዕኖ አሳድሯል					
3.5.4.	በአገር ውስጥ ድርጅቶች ውስጥ መሳተፍ ለንግድ ሥራዬ ጠቃሚ ግብዓቶችን ሰጥቷል					