
Determinants of Youth Unemployment in the Gurage Zone, Ethiopia: A Socio-Economic Analysis

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Abstract:

Purpose: *The objective of the study is to identify key determinants such as gender, age, migration status, education level, household size, and access to credit, and how these factors influence youth employment outcomes.*

Design/Methodology/Approach: *A mixed-methods approach was employed, combining quantitative surveys with 400 youth participants and qualitative interviews with 48 participants, along with 24 participants in focus group discussions (FGDs).*

Findings: *The findings reveal several socio-economic factors that significantly affect youth unemployment in the region. Gender disparities were apparent, with females experiencing higher unemployment rates than males. Additionally, younger youth (ages 15–19) had higher unemployment rates compared to older youth (ages 20–24). Youth with lower educational attainment were more likely to remain unemployed. Migration status, family size, and access to credit were also identified as crucial factors influencing employment outcomes. Migrants, youth from larger households, and those without access to credit faced greater barriers to employment. Furthermore, access to training and skill development programs emerged as a key factor in improving youth employability.*

Practical Implications: *The study recommends policy interventions focused on educational reforms, expansion of vocational training, and enhancing access to financial resources for youth entrepreneurs. These measures are essential in addressing youth unemployment in Ethiopia and promoting long-term economic growth in the region.*

Originality/Value: *Youth unemployment poses a significant socio-economic challenge in developing countries, and Ethiopia faces particularly high levels of unemployment among its youth. This study investigates the demographic and socio-economic factors influencing youth unemployment in the Gurage Zone, Central Ethiopia.*

Keywords: *Determinants, youth unemployment, Gurage Zone, Central Ethiopia, socio-economic factors.*

JEL Classification: *J64, J13, O15, R23, C21.*

Paper type: *Research article.*

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1. Introduction

Youth is crucial to the development of any country. Their creativity, energy, and innovation are fundamental to driving economic growth and ensuring social stability. As the future workforce, young people play a pivotal role in shaping national economies, industries, and social structures. Their active participation in the workforce and integration into economic activities are essential for long-term development. As such, addressing youth unemployment has become a priority, particularly in developing countries, where young people face significant challenges in securing stable employment (United Nations, 2018).

Globally, youth unemployment has emerged as a critical issue. The United Nations (UN) and the World Health Organization (WHO) define youth as individuals aged 15 to 24 years, while the African Youth Charter extends this to those aged 15 to 35 years, reflecting the socio-economic realities of the African continent. In Ethiopia, the National Youth Policy (2004) defines youth as individuals aged 15 to 29 years.

This definition aligns with national development strategies aimed at improving education, employment, and overall empowerment for young people. This study adheres to Ethiopia's classification, focusing on youth aged 15 to 29, who are most affected by employment challenges (Ethiopian Ministry of Youth and Sports, 2004).

Youth unemployment, defined as young people aged 15 to 24 who are actively seeking but unable to find employment, is a widespread issue. This problem arises due to a combination of factors such as mismatches between education and labor market needs, limited job opportunities, and socio-economic barriers, including migration and lack of work experience.

In Ethiopia, these issues are compounded by economic instability, inadequate vocational training, and a lack of formal job options (International Labour Organization (ILO), 2020). Structural challenges, such as an outdated education system and insufficient job creation, further exacerbate the problem (Organisation for Economic Co-operation and Development (OECD), 2021).

In Ethiopia, the situation is particularly dire. With a population exceeding 120 million, 29.9% of whom are aged 15 to 29 (World Bank, 2023), the country has a large and growing youth labor force but insufficient employment opportunities. Contributing factors include rapid population growth, rural-urban migration, and socio-cultural barriers that hinder youth from accessing jobs. Additionally, economic shocks, such as the COVID-19 pandemic, civil war, inflation, and recurring droughts, have exacerbated the unemployment crisis, putting more strain on an already fragile labor market (World Bank, 2023).

In the Gurage Zone, located in central Ethiopia, youth unemployment persists despite the region's strong entrepreneurial culture and historical migration traditions.

Several socio-economic factors, including skill mismatches, limited access to training, and barriers to entrepreneurship, contribute to high levels of youth unemployment. Rural-urban migration has particularly complicated the labor market dynamics, as many young migrants struggle to secure formal employment in urban centers. A gap between educational qualifications and the skills demanded by employers exacerbates the issue. According to the United Nations (2020), youth unemployment remains disproportionately high in developing countries, and regions like the Gurage Zone face unique challenges in addressing this issue (UN, 2020).

Existing literature on youth unemployment in Ethiopia highlights several contributing factors, such as gender, education, regional disparities, migration patterns, financial constraints, and institutional inefficiencies (Alhawarin and Kreishan, 2010; Echebiri, 2005). However, there is a gap in understanding how these factors interact in rural areas like the Gurage Zone, where labor market conditions differ from those of urban centers. Traditional measures of unemployment fail to capture the full scope of youth unemployment, as they overlook those who have dropped out of the job market due to discouragement or ongoing education (ILO, 2018).

One of the most significant factors contributing to youth unemployment in Ethiopia is low educational attainment (Haile, 2008). A lack of relevant skills makes it difficult for young people to transition from education to the workforce. Educational reforms that align more closely with labor market needs are essential to improving employability. Research has shown that employed youth often display higher levels of practical knowledge and innovation than their unemployed peers (Zundi and Etikariena, 2020), emphasizing the importance of vocational education and skills development.

In addition to education, financial constraints also play a role in youth unemployment. Many young Ethiopians lack the capital to start businesses or engage in income-generating activities. Providing access to credit and financial literacy programs is essential for fostering entrepreneurship among youth. International actors like the European Union have supported programs aimed at improving financial access for young entrepreneurs, helping to overcome some of these barriers (Olayinka, 2020).

To address the socio-economic challenges contributing to youth unemployment, a comprehensive and integrated approach is needed. Effective interventions should consider the interplay between demographic factors, educational reforms, economic shocks, and institutional support mechanisms (Al-Abri and Kooli, 2018; Kooli and Al Muftah, 2020).

This study aims to investigate the demographic and socio-economic factors influencing youth unemployment in the Gurage Zone. By focusing on factors such as skill mismatches, migration patterns, family size, and job search effectiveness, the

research seeks to provide a comprehensive understanding of the determinants of youth unemployment in this region. The study will employ multiple logistic regressions to analyze how these factors interact and affect youth employment outcomes. The goal is to offer evidence-based recommendations that can inform policy and actions at both local and national levels, enhancing the ability of youth to participate in productive economic activities.

The findings of this research will contribute to efforts to improve youth employment in Ethiopia, particularly in rural and zonal areas like the Gurage Zone, and support the development of policies that will create sustainable job opportunities, promote economic growth, and improve the well-being of youth in Ethiopia.

The main objective of this study is to identify the determinants of youth unemployment in the Gurage Zone, Ethiopia.

What are the demographic and socio-economic factors affecting youth unemployment in the Gurage Zone?

1.1 Definition of Key Terms

In this section, important concepts and terms related to the study are defined to ensure a clear understanding for readers.

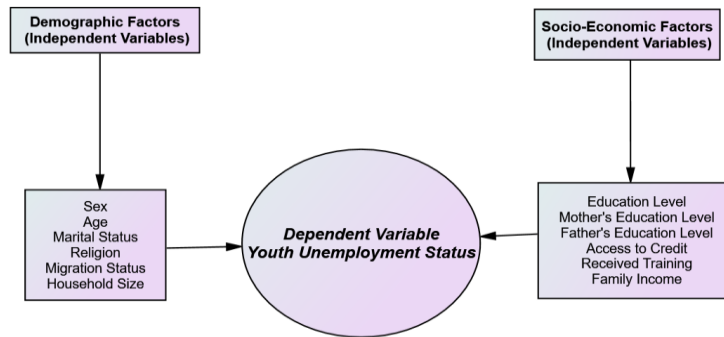
- Youth: A person aged between 15 and 29 years, as defined by Ethiopia's Ministry of Youth, Sports, and Culture (MOYSC, 2004). This category includes individuals between the ages of 15 and 29 in this study.
- Youth Unemployment: Refers to the percentage of young people (aged 15-29) who are unemployed as part of the total labor force, where the labor force includes both the unemployed and the employed.
- Economically Active Youths: Individuals aged 15 to 29 years who are either employed or actively seeking employment.
- Unemployment: Defined as individuals aged 15 to 29 who, during the reference period, were "without work," but are "currently available for work" and actively "seeking work." These individuals have taken specific steps to seek paid employment or self-employment (CSA, 2018).

1.2 Conceptual Framework

This study examines the demographic and socio-economic factors contributing to youth unemployment in the Gurage Zone, Central Ethiopia. The conceptual framework includes various explanatory variables, such as Sex (GEN), age group (AGE), marital status (MST), religion (REL), migration status (MGST), household size (HSIZE), education level (EDU), mother's education level (MOEDU), father's education level (FAEDU), access to credit (ACREDIT), received training (RT), and family income (FI).

These factors are considered for their potential influence on youth employment status. The dependent variable in this framework is youth employment status, categorized as employed or unemployed. By analyzing these variables, the study seeks to identify the primary drivers of youth unemployment and offer insights for effective policy interventions (Figure 1).

Figure 1. Conceptual Framework of the Study



Source: Authors' design, 2025.

2. Research Method and Data

2.1 Study Area and Contextual Setting

This study was conducted in Gurage Zone, located in central Ethiopia. The zone is bordered by Hadiya, Yem Zones, Kebena Special Woreda, Oromia Region, and Silt'e Zone. Its administrative center is Wolkite, while Butajira, the largest urban center, plays a key role in trade, commerce, and employment.

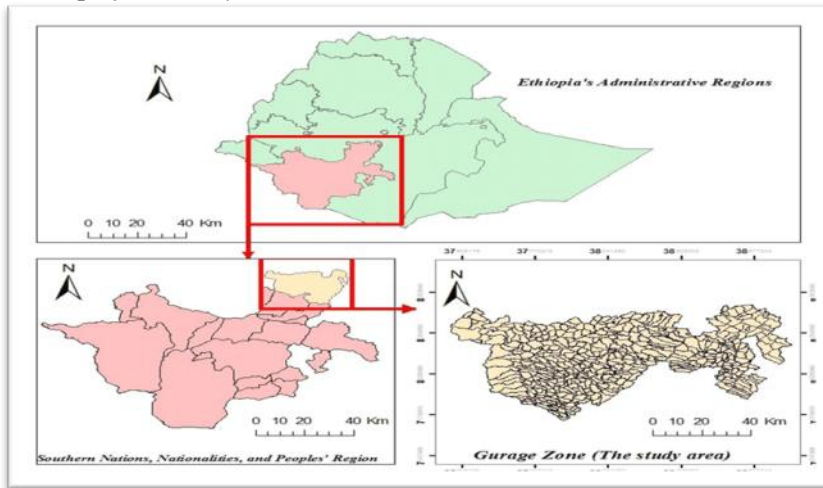
Gurage Zone faces significant socio-economic challenges, including high youth unemployment, poverty, and limited access to services. The region exhibits uneven unemployment rates, with Wolkite reporting 1,188 unemployed individuals, and Butajira having 9,359 unemployed. This highlights disparities in job opportunities across the zone (GZA, 2024).

The zone is located between latitudes 7°30'N and 8°30'N and longitudes 37°00'E and 38°00'E, with elevations ranging from 1,500 meters to 3,000 meters above sea level, offering fertile land for agriculture. The zone is known for producing enset (false banana), coffee, and various vegetables and has experienced growth in Small and

Micro Enterprises (SMEs), particularly in the agricultural and non-agricultural sectors (Kidane, 2022).

The population of Gurage Zone is around 1.5 million, with 400,000 youth (ages 15-29), and approximately 85% of the population lives in rural areas (Gurage Zone Youth and Sports Office, 2024). This study explores the demographic and socio-economic factors influencing youth unemployment in the region, aiming to offer recommendations for improving youth employment prospects (Gurage Zone Youth and Sports Office, 2024) (Figure 2).

Figure 2. Map of the Study Area



Source: Google Maps.

2.2 Research Philosophy

This study adopts a pragmatic philosophy, which integrates both positivist and interpretivist approaches. Pragmatism provides a flexible framework for analyzing youth unemployment in the Gurage Zone, as it enables the use of both quantitative methods, such as surveys, and qualitative methods, including interviews, focus group discussions (FGDs), and document analysis. The concurrent triangulation strategy, employed in this study, enhances the validity of the findings by cross-validating data from multiple sources, ensuring a comprehensive understanding of the issue.

2.3 Research Approach

A mixed-methods approach with a concurrent triangulation design is employed in this study, where both quantitative and qualitative data are collected simultaneously to facilitate cross-validation. The quantitative analysis identifies key factors influencing youth unemployment, while the qualitative analysis explores deeper

determinants and personal experiences. This combination strengthens the reliability and validity of the study's findings by providing a comprehensive understanding of the issue from multiple perspectives.

2.4 Study Design

The study follows an explanatory research design with a cross-sectional method. This approach was chosen to capture a snapshot of youth unemployment and analyze its causal relationships within the Gurage Zone. The data collection period is between 01/10/2024 and 15/08/2025, during which participants will be recruited to identify key patterns and determinants of youth unemployment.

The cross-sectional design is appropriate for gathering data at one specific point in time, making it cost-effective and relatively simple to perform (Reaves, 1992; Kirkwood, 1988). This design is particularly useful for studying measurable conditions and establishing foundational insights into the scope of youth unemployment.

2.5 Target Population

The focus of this research was on the youth population aged 15 to 29 years who are economically active in the Gurage Zone, specifically from the towns of Buee, Butajira, Gubre, and Wolkite. These towns were selected due to their significant youth populations and the high rates of youth migration from surrounding rural areas.

One town was selected from each Woreda for the study: Buee (from Sodo), Butajira (from Meskan), Wolkite (from Kebena), and Gubre (from Sebat Bet). The total youth population in these towns is 28,355, all of whom are economically active. Both employed and unemployed youth were considered as respondents for the study, and the sample size was determined using proportional allocation based on the youth populations in each town.

2.6 Sampling Techniques

This study used a multistage sampling technique to efficiently collect data from a large and diverse population. Rather than sampling the entire population, which would be resource-intensive, a representative sample was drawn. Multistage sampling allows the researcher to select units in multiple phases, starting with larger units like towns or Woredas and narrowing down to smaller units such as kebeles.

This approach ensures that the sample remains representative of the population while being cost-effective and manageable. Hence, representative samples were drawn from the entire population. In light of this, Leary (2004) emphasized that researchers must carefully choose samples that best support their findings (Table 1).

Table 1. Sampling Technique Use

Stage of Sampling Technique	Sample Selected	Sampling Technique Used	Reason
Stage I	Gurage Zone	Purposive	Due to their research gap
Stage II	Four Woredas	Purposive	Due to their high youth population
Stage III	One Town from each Woreda	Simple Random Sampling	It reduces bias and gives every member of the population an equal chance to participate in the study
Stage IV	Respondents	Simple Random Sampling	It reduces bias and provides each individual in the population a fair opportunity to take part in the study

Source: Self-developed (2025).

2.7 Sample Size Determination

The sample size for this study was determined using Kothari’s (2004) formula for finite populations, with a 95% confidence level and a 5% margin of error. Given a target population of 28,355 economically active youth in the Gurage Zone, this approach ensured statistical reliability and allowed for accurate generalizations, enabling valid inferences about youth unemployment.

The formula is:
$$n = \frac{Z^2 \cdot p \cdot q \cdot N}{e^2 (N-1) + Z^2 \cdot P \cdot Q}$$

Where:

- n = required sample size
- Z = z-value (1.96 for 95% confidence)
- p = estimated proportion (0.5)
- q = 1 - p (0.5)
- e = margin of error (0.05)
- N = population size (28,355)

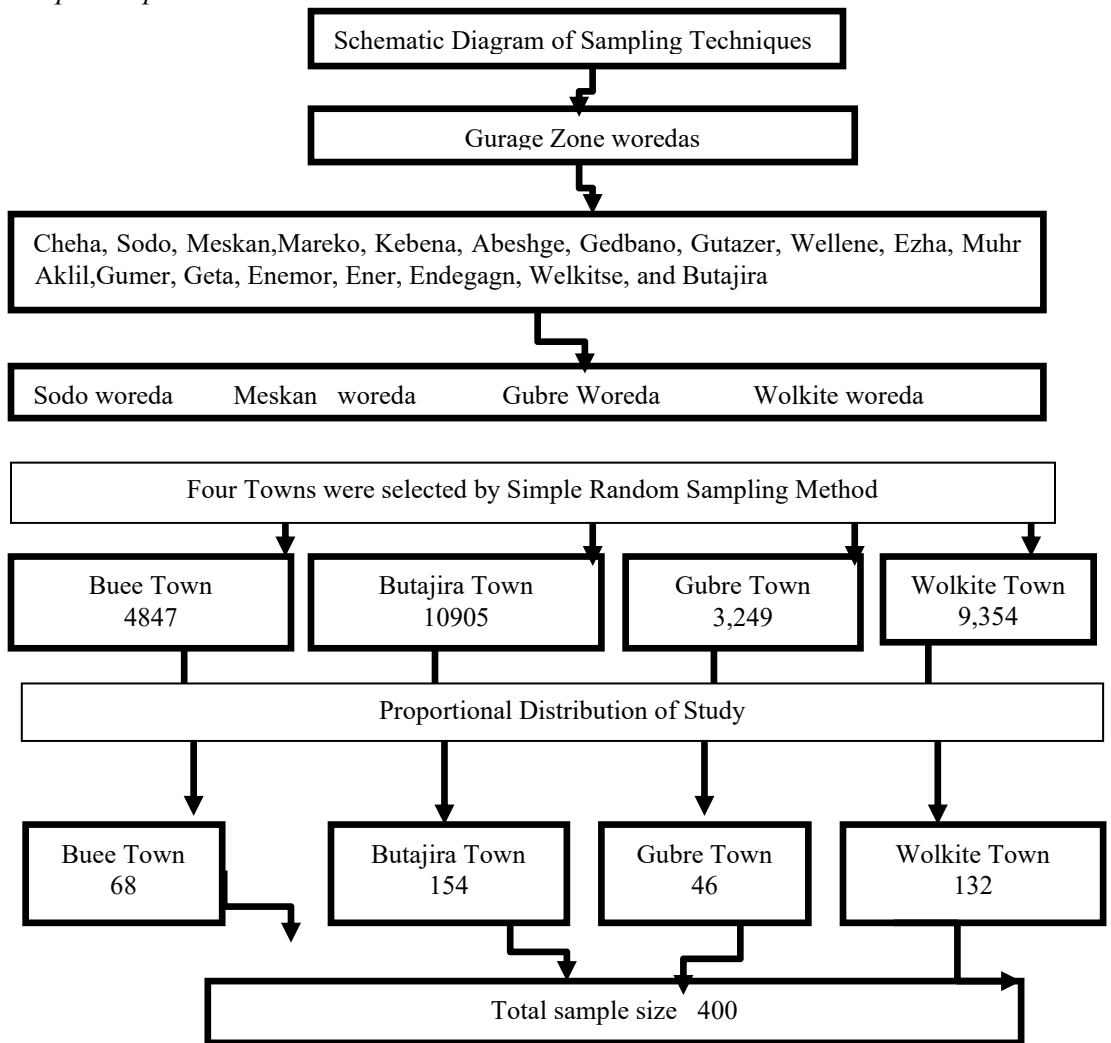
Plugging in the values:
$$n = \frac{1.96^2 \cdot 0.5 \cdot 0.5 \cdot 28355}{0.5^2 (28355 - 1) + 1.96^2 \cdot 0.5 \cdot 0.5}$$

$$n = \frac{27,232.1426}{71.8454}$$

$n \approx 379$

The initial sample size of 379 was adjusted for a 10% non-response rate, raising the target to 417 respondents. However, due to practical constraints, the final sample size was set at 400, slightly below the target but still statistically acceptable. This ensures the reliability, statistical power, and generalizability of the findings.

Figure 3. List of Gurage Zone Towns, Sampling Procedure, and Determining Sample Proportion



Source: Authors' design (2025).

Figure 3 outlines the towns selected for the study in the Gurage Zone, along with the sampling procedure and the methodology used to determine the sample proportion for each town.

The Gurage Zone consists of several towns, each contributing to the study based on specific criteria.

The sampling procedure ensures that each town's population is adequately represented in the sample, based on their size and other relevant factors.

2.8 Source of Data, Data Collection Methods, and Procedures

This study utilized both primary and secondary data to provide a comprehensive analysis of youth unemployment in the Gurage Zone. The combination of data sources strengthens the study by offering both statistical and contextual depth.

The study integrated primary data obtained through questionnaires, interviews, and Focus Group Discussions (FGDs), with secondary data gathered from government reports, published studies, and academic journals. This integration enhances both the statistical rigor and contextual insights of the study.

A structured questionnaire was developed and administered to 400 respondents. The questionnaire primarily consisted of closed-ended and open-ended questions, focusing on demographic and socio-economic factors influencing youth unemployment. The standardized format allowed for robust statistical analysis and identification of key trends related to the issue.

Semi-structured interviews were conducted with purposively selected key informants, including graduates, kebele leaders, parents, civil servants, town experts, microfinance representatives, and small-scale entrepreneurs.

These interviews aimed to capture diverse perspectives on youth unemployment, providing qualitative insights that complemented the quantitative survey findings (Table 2).

Table 2. *Key Informants and Sampling Technique for Qualitative Data Collection*

Name of the Areas	Key Information	Sample Technique
Buee	4 students, 1 Kebele leader, 2 parents, 1 civil servant, 2 town experts, 1 microfinance, 1 entrepreneur	Purposively selected for in-depth information on youth unemployment
Gubra	4 students, 1 Kebele leader, 2 parents, 1 civil servant, 2 town experts, 1 microfinance, 1 entrepreneur	Purposively selected
Butajira	4 students, 1 Kebele leader, 2 parents, 1 civil servant, 2 town experts, 1 microfinance, 1 entrepreneur	Purposively selected
Wolkite	4 students, 1 Kebele leader, 2 parents, 1 civil servant, 2 town experts, 1 microfinance, 1 entrepreneur	Purposively selected
Total	16 students, 4 Kebele leaders, 8 parents, 4 civil servants, 8 town experts, 4 microfinance reps, 4 entrepreneurs	

Source: Own study.

2.9 Focus Group Discussions (FGDs)

Four FGDs, each lasting between 45 minutes to one hour, were conducted with a total of 24 purposively selected participants. The participants were chosen based on factors such as age, gender, education, and socio-economic status. The FGDs provided qualitative data on community perceptions, social dynamics, and deeper insights into the causes and consequences of youth unemployment in the region.

2.10 Data Collection Procedures

The research was conducted at the personal level from the sampling frame, which included economically active youth in the specified kebeles of the Gurage Zone.

Primary data was gathered through semi-structured interviews and questionnaires. Secondary data was obtained from the Woreda Labour and Social Affairs Office, Woreda Youth and Sports Office, and Kebele Administration heads.

This data included details on the number, gender, educational status, and unemployment rates among youth in the region. Additionally, published sources and online resources were used to support the findings. In each data collection session, a maximum of five respondents were interviewed per day, with each interview lasting approximately 30 minutes.

Key data collected included gender, age, youth education status, work experience, marital status, access to credit, education status of the family head, attitudes toward self-employment, consequences of unemployment, possible solutions and opportunities for employment, reasons for lack of self-employment, and strategies for managing youth unemployment.

3. Research Methods

This study utilized binary logistic regression and multivariable logistic regression models to analyze the factors influencing youth unemployment in the Gurage Zone.

The dependent variable, employment status (ES), is binary, where:

- 0 represents unemployment, and
- 1 represents employment.

3.1 Binary Logistic Regression

The binary logistic regression model was used to examine the relationship between youth unemployment and various independent variables. The formula for binary logistic regression is expressed as follows:

$$\frac{p_i}{1-p_i} = \frac{1}{1+e^{-(\alpha+\beta_i x_i)}}$$

Where:

- p_i is the probability of being unemployed ($Y_i = 0$),
- e is the base of the natural logarithm (approximately 2.718),
- p_i represents the explanatory variables (e.g., age, gender, education level),
- α and β_i are the estimated constants.

This model calculates the odds ratio, which represents the odds of an individual being unemployed relative to being employed, based on the explanatory variables. The coefficients (β_i) are used to determine the influence of each independent variable on the likelihood of youth unemployment.

3.2 Multivariable Logistic Regression

To explore the combined effects of multiple independent variables on youth unemployment, multivariable logistic regression was employed. This method accounts for the influence of several factors simultaneously, providing a more comprehensive understanding of the contributions of each variable. The multivariable logistic regression model is expressed as:

$$z_i = \alpha + \sum_{k=1}^n \beta_k x_k + \epsilon_i$$

Where:

- z_i is the log of the odds ratio for youth unemployment ($Y_i = 0$),
- α is the intercept,
- β_i represents the coefficients of the independent variables,
- x_i represents the explanatory variables (e.g., age, gender, education level),
- ϵ_i is the error term.

This model estimates the log odds of being unemployed ($Y_i = 0$) based on the values of various explanatory variables, such as age, gender, education, and other demography and socio-economic factors.

To evaluate the fit of the regression models, the Pearson chi-square test was used. The test statistic is calculated as:

$$\chi^2 = \sum \left(\frac{(O - E)^2}{E} \right)$$

Where:

- O is the observed frequency,
- E is the expected frequency.

A higher chi-square value indicates a stronger relationship between the independent variables and the dependent variable, suggesting that the model fits the data well.

Table 3 provides an overview of the independent variables used in this study, including their categories, types, and expected relationships with youth unemployment in the Gurage Zone. Each variable is categorized as categorical, with distinct groups or ranges. The expected sign indicates the anticipated relationship between the variable and youth unemployment, where negative signs (−) suggest a reduction in the likelihood of unemployment, while positive signs (+) suggest an increase.

Table 3. Independent Variables and Expected Sign

Independent Variables	Categories	Type	Measurement	Expected Sign
AGE	15-19 years, 20-24 years, 24-29 years	Categorical	Age group	-
MST	Never Married, Currently Married, Divorced, Widowed, Separated	Categorical	Marital status	+/-
REL	Orthodox, Muslim, Protestants, Catholic, Other	Categorical	Religion	+/-
MGST	Migrant, Non-Migrant	Categorical	Migration status	+/-
HSIZE	Less than 4, 4 to 7, Greater than 8	Categorical	Household size	+
EDU	Can't read and write, Can read but not write, Primary (1-8), Secondary (9-12), TVET, First Degree and above	Categorical	Education level of youth	-
MOEDU	Can't read and write, Can read but not write, Primary (1-8), Secondary (9-12), TVET, First Degree and above	Categorical	Mother's education level	-
FAEDU	Can't read and write, Can read but not write, Primary (1-8), Secondary (9-12), TVET, First Degree and above	Categorical	Father's education level	-
ACREDIT	Has access to credit, No access to credit	Categorical	Access to credit	+
RT	Not received, Received once	Categorical	Training received	-
FI	Less than 500, 501-1000, 1001-1500, Above 1500	Categorical	Family income	-

Source: Self-developed (2024).

4. Results and Discussion

4.1 Introduction

This part presents the research findings, organized into three sections. The first section details the demographic and socio-economic characteristics of the respondents. The second section discusses the bivariate analysis, exploring the relationship between various factors and unemployment status. The third section focuses on the multivariate analysis, identifying key determinants of youth unemployment. Data were collected through 69 questionnaires across four Woredas and towns in the Gurage Zone.

A binary logistic regression and multiple regression models were employed to identify the main determinants of youth unemployment, while Pearson Chi-square statistics were used to assess the relationship between independent and dependent variables at a 95% confidence level. The study examined variables such as gender, age, marital status, religion, migration status, household size, education level, parental education levels, access to credit, received training, and family income. The findings highlight the significant factors influencing youth unemployment in the region.

4.2 Demographic and Socio-Economic Characteristics of Respondents

The data in Table 4 provides a detailed comparison of employed and unemployed youth in the Gurage Zone. In terms of youth unemployment in the Gurage Zone is a significant issue, with 240 unemployed youth compared to 160 employed, highlighting a high unemployment rate and its consequences, such as poverty, reduced productivity, and social instability.

The gender distribution showed that both male (46.3%) and female (53.8%) youth are equally affected by the crisis, despite the higher proportion of females in the study. Age-wise, youth aged 24–29 years (44.8%) are most likely to face unemployment, potentially due to limited educational and job opportunities, while younger youth (15–19 years) and those in their early twenties (20–24 years) experience different challenges in entering the job market.

In terms of marital status, 73.3% of youth were never married, suggesting that many are at an early stage of entering the workforce, though married youth may face additional pressures that could affect their employment prospects. Religious affiliation was another factor, with Orthodox youth making up the majority (67.8%), followed by Protestants (13.3%) and Muslims (13.3%), which may influence access to employment through social networks.

Migration status also plays a role, with 56.8% of youth being migrants, potentially facing challenges like fewer local connections, lower skills, and discrimination.

Household size was significant as well, with larger households potentially imposing greater economic pressures on youth, limiting resources available for education and job-seeking efforts. Education levels were strongly linked to employment prospects, as 47.0% of youth had a First Degree or higher, while 6.0% were illiterate, with those lacking formal education being particularly vulnerable to unemployment.

Parental education levels also had an impact, as 46.3% of mothers and 26.5% of fathers were illiterate, suggesting intergenerational effects that further limit youth employment opportunities. Access to credit was another key factor, with 42.5% of youth reporting access, which is important for starting businesses or pursuing further education, but many youth face barriers due to a lack of financial resources.

Additionally, 70.5% of youth had not received formal training, highlighting the need for increased vocational and technical education to improve employability. Finally, family income distribution showed that 48.8% of youth came from families earning below 500, which limits their access to education, networks, and entrepreneurial opportunities, making them more vulnerable to unemployment. These findings underscore the need for targeted interventions to address the socio-economic challenges contributing to youth unemployment in the Gurage Zone.

Table 4. Demographic and Socio-Economic Characteristics of the Respondents

Variable	Categories	Frequency (%)
Sex (Sex)	Male	185 (46.3)
	Female	215 (53.8)
Age Group (Age)	15-19 years	81 (20.3)
	20-24 years	140 (35.0)
	24-29 years	179 (44.8)
Marital Status (MST)	Never Married	293 (73.3)
	Currently Married	75 (18.8)
	Divorced	12 (3.0)
	Widowed	9 (2.3)
	Separated	11 (2.8)
Religion (REL)	Orthodox	271 (67.8)
	Muslim	53 (13.3)
	Protestants	53 (13.3)
	Catholic	13 (3.3)
	Other	10 (2.5)
Migration Status (MGS)	Migrant	227 (56.8)
	Non-Migrant	173 (43.3)
Household Size (HHS)	Less than 4	125 (31.3)
	4 to 7	174 (43.5)
	Greater than 8	101 (25.3)
Education Level (EDU)	Can't read and write	24 (6.0)
	Can read but not write	10 (2.5)
	Primary (1-8)	34 (8.5)

	Secondary (9-12)	105 (26.3)
	TVET	39 (9.8)
	First Degree and above	188 (47.0)
Medical Literacy (MOEDU)	Can't read and write	185 (46.3)
	Can read but not write	55 (13.8)
	Primary (1-8)	112 (28.0)
	Secondary (9-12)	16 (4.0)
	TVET	19 (4.8)
	First Degree and above	13 (3.3)
	Father's Education Level (FAEDU)	Can't read and write
Can read but not write		69 (17.3)
Primary (1-8)		181 (45.3)
Secondary (9-12)		24 (6.0)
TVET		4 (1.0)
First Degree and above		16 (4.0)
Access to Credit (AC)	Has access to credit	170 (42.5)
	No access to credit	230 (57.5)
Received Training (RT)	Not received	282 (70.5)
	Received once	118 (29.5)
Family Income (FI)	Less than 500	195 (48.8)
	501-1000	119 (29.8)
	1001-1500	39 (9.8)
	Above 1500	47 (11.8)

Source: Survey Data, 2024.

4.3 Demographic and Socio-Economic Characteristics, Bivariate Analysis, and Their Association with Youth Unemployment

Table 5 presents the bivariate analysis of various socio-demographic factors and their association with unemployment status among youth in the Gurage Zone. The analysis, based on chi-square tests, highlights several key demographic and socio-economic factors that significantly influence employment status.

Gender was found to be a significant predictor of employment status (Chi-Square = 7.082, $p = 0.008$), with females exhibiting a higher unemployment rate compared to males. This finding reflects ongoing gender-based barriers in the labor market, as indicated by previous studies (Tadesse and Gebre, 2016; UN Women, 2020).

Interviews with female youth participants revealed that despite having similar qualifications to their male counterparts, women often face discrimination and are overlooked for job opportunities (Mekonnen and Melaku, 2015). *One female participant shared, "Even with the same qualifications as men, we are often passed over for job opportunities. It's frustrating."* These results emphasize the structural and cultural challenges that impact youth employment in the region (Klasen and Lamanna, 2009).

Age was also identified as a significant factor influencing employment status (Chi-Square = 12.264, $p = 0.002$), with younger youth, particularly those aged 15–19, experiencing higher unemployment rates compared to older youth (25–29 years). This underscores the difficulties younger individuals face in securing employment, particularly due to limited work experience and fewer job opportunities. *Qualitative interviews supported this finding, with younger participants citing the challenge of gaining experience when employers typically demand prior work history. One participant shared, "No one wants to hire someone without experience, but how can I gain experience if no one hires me?"* This reflects the well-documented barriers to entry that young people face when entering the labor market (ILO, 2019; Tadesse and Gebre, 2016).

Marital Status, however, did not show a significant relationship with employment status (Chi-Square = 1.904, $p = 0.753$). This suggests that whether youth are married or unmarried does not significantly affect their likelihood of being employed in the Gurage Zone.

This finding aligns with studies indicating that marital status often has a minimal impact on employment outcomes, especially in regions where education, skills, and socio-economic factors are more influential (Kraus *et al.*, 2017; ILO, 2019). *Interviews with youth in the Gurage Zone further supported this, with many noting that skills, education, and social networks played a more critical role than marital status. One participant explained, "Whether you're married or single, what matters most is if you have the skills and who you know to get a job."*

Religion was similarly found to have no significant impact on employment status (Chi-Square = 0.483, $p = 0.975$). This suggests that religious affiliation does not play a major role in shaping employment opportunities for youth in the region. *Qualitative data from youth participants indicated that religion was not a significant factor in their employment prospects. One respondent noted, "Religion doesn't matter in finding a job; what matters is what you know and who you know."*

In contrast, *Migration Status* exhibited a significant association with employment status (Chi-Square = 13.447, $p = 0.000$), with migrants facing higher unemployment rates compared to non-migrants.

This suggests that migration may present additional barriers to employment, such as a lack of local networks, skill mismatches, or difficulties in having qualifications recognized. *Interviews with migrant youth participants in the Gurage Zone highlighted these challenges, with one participant explaining, "When you move to a new area, you don't know anyone, and it's hard to find a job without connections or local experience."* This reinforces the view that migration can complicate access to employment (Oucho, 2007; ILO, 2019).

Household Size was another significant factor influencing employment outcomes (Chi-Square = 15.750, $p = 0.000$). Youth from larger households, particularly those with more than five members, were more likely to experience unemployment.

This suggests that larger households may experience resource constraints, limiting individual access to education, job training, and employment opportunities. *One participant shared, "In a big family, you're competing for everything—food, money, even the chance to get a good education or job."* This reflects the challenges youth from larger households face in securing employment (Wright, 2006; ILO, 2019).

Education Level emerged as one of the strongest determinants of employment status (Chi-Square = 28.402, $p = 0.000$), with youth holding higher educational qualifications, particularly those with tertiary education, being significantly more likely to be employed.

This underscores the importance of education in enhancing employability. *Many youth participants reinforced this point, with one stating, "I got this job because I have a degree. Without it, I wouldn't have been considered."* These findings are consistent with studies that highlight the positive relationship between education and employment outcomes (Psacharopoulos and Patrinos, 2018; ILO, 2019).

The *Education Level of the Mother* was also found to significantly influence youth employment status (Chi-Square = 13.121, $p = 0.022$). Youth with more educated mothers were more likely to be employed, suggesting that maternal education may indirectly impact employment prospects by improving access to resources and social networks.

This finding aligns with previous research that highlights the influence of parental education, especially maternal education, on youth employment outcomes (Schultz, 2004; ILO, 2019).

In terms of *Access to Credit*, a significant association was found with employment status (Chi-Square = 8.355, $p = 0.004$). Youth who had access to credit were more likely to be employed, indicating that financial resources play a crucial role in facilitating employment opportunities. *Access to credit allows youth to invest in skill development or start their own businesses, thereby improving their employability. One respondent explained, "If I had the money to pay for extra courses or a job search program, I think I'd have a better chance of getting a job, but it's hard without any support."* These findings support other studies that highlight the importance of financial resources in youth employment (Field, 2017; ILO, 2019).

Training was another key factor influencing employment outcomes (Chi-Square = 10.971, $p = 0.001$). Youth who received vocational or job-related training were more likely to secure employment, emphasizing the value of skill development in the job market. *One participant noted, "I didn't know how to use a computer before the*

training, but now I can work in an office, and it has made a huge difference." This is consistent with research indicating that vocational training significantly enhances youth employability (Almeida and Bassi, 2015).

Finally, *Family Income* was found to be a strong determinant of employment status (Chi-Square = 13.839, $p = 0.003$). Youth from higher-income families were more likely to be employed, reflecting the role of socio-economic background in shaping employment opportunities. *Youth from wealthier families tend to have better access to education, networks, and job opportunities. One participant explained, "If I had the money to pay for extra courses or a job search program, I think I'd have a better chance of getting a job, but it's hard without any support."*

Table 5. *Bivariate Analysis of the Determinants of Unemployment Status among Youth in the Garage Zone*

Variable	Categories Levels	Unemployed (%)	Employed (%)	Chi-Square	Df	P-Value
Sex	Male	124 (51.7%)	61 (38.1%)	7.082	1	0.008
	Female	116 (48.3%)	99 (61.9%)			
Age Group	15-19 years	58 (24.2%)	23 (14.4%)	12.264	2	0.002
	20-24 years	91 (37.9%)	49 (30.6%)			
	24-29 years	91 (37.9%)	88 (55.0%)			
Marital Status	Never Married	178 (74.2%)	115 (71.9%)	1.904	4	0.753
	Currently Married	42 (17.5%)	33 (20.6%)			
	Divorced	7 (2.9%)	5 (3.1%)			
	Widowed	7 (2.9%)	2 (1.3%)			
	Separated	6 (2.5%)	5 (3.1%)			
Religion	Orthodox	161 (67.1%)	110 (68.8%)	0.483	4	0.975
	Muslim	34 (14.2%)	19 (11.9%)			
	Protestants	31 (12.9%)	22 (13.8%)			
	Catholic	8 (3.3%)	5 (3.1%)			
	Other	6 (2.5%)	4 (2.5%)			
Migration Status	Migrant	154 (64.2%)	73 (45.6%)	13.447	1	<0.001
	Non-Migrant	86 (35.8%)	87 (54.4%)			
Household Size	Less than 4	57 (23.8%)	68 (42.5%)	15.750	2	<0.001
	4 to 7	115 (47.9%)	59 (36.9%)			
	Greater than 8	68 (28.3%)	33 (20.6%)			
Education Level	Can't read and write	13 (5.4%)	11 (6.9%)	28.402	5	<0.001
	Can read but not write	9 (3.8%)	1 (0.6%)			
	Primary (1-8)	25 (10.4%)	9 (5.6%)			
	Secondary (9-12)	79 (32.9%)	26 (16.3%)			
	TVET	24 (10.0%)	15 (9.4%)			
	First Degree and above	90 (37.5%)	98 (61.3%)			
Father's Education	Can't read and write	63 (26.2%)	43 (26.9%)	8.325	5	0.139

Level	Can read but not write	41 (17.1%)	28 (17.5%)			
	Primary (1-8)	117 (48.8%)	64 (40.0%)			
	Secondary (9-12)	12 (5.0%)	12 (7.5%)			
	TVET	2 (0.8%)	2 (1.3%)			
	First Degree and above	5 (2.1%)	11 (6.9%)			
Access to Credit	Has access to credit	116 (48.3%)	54 (33.8%)	8.355	1	0.004
	No access to credit	124 (51.7%)	106 (66.3%)			
Training Received	Not received	184 (76.7%)	98 (61.3%)	10.971	1	0.001
	Received once	56 (23.3%)	62 (38.8%)			
Family Income	Less than 500	107 (44.6%)	88 (55.0%)	13.839	3	0.003
	501-1000	81 (33.8%)	38 (23.8%)			
	1001-1500	17 (7.1%)	22 (13.8%)			
	Above 1500	35 (14.6%)	12 (7.5%)			

Note: The Chi-Square test significance levels are as follows: p -value < 0.001: Highly significant, p -value < 0.01: Moderately significant; p -value < 0.05: Statistically significant

Source: Survey Data, 2024.

4.4 Determinants of Youth Unemployment in the Gurage Zone: Results from Multivariable Binary Logistic Regression Analysis

Table 6 presents the results of a multivariable binary logistic regression analysis on the determinants of unemployment status among youth in Gurage Zone. This analysis explores various socio-demographic factors to identify those most strongly associated with youth unemployment. The following interpretations are based on the findings in the table, which include factors such as sex, age, migration status, household size, education level, mother's education, received training, and family income.

In terms of sex, the analysis reveals that males have significantly lower odds of being unemployed compared to females. Specifically, males have 51% lower odds of being unemployed than females (AOR = 0.489, 95% CI: 0.299 – 0.798, p = 0.004). This finding is consistent with broader labor market trends, where females often face higher unemployment rates due to factors such as limited access to education, social norms, and gender discrimination in the labor market.

Qualitative interviews with youth in the Gurage Zone supported this, with many female participants expressing that they face greater difficulties in finding employment despite having similar qualifications as their male counterparts. One respondent shared, "Even though I have the same qualifications, I feel like I'm overlooked for jobs just because I'm a woman." These experiences align with recent

studies that highlight gender disparities in employment, emphasizing the impact of gender norms, biases, and unequal access to opportunities (Charmes, 2021; ILO, 2021).

When comparing different age groups, no significant difference was observed between youth aged 15–19 years (reference group) and youth aged 20–29 years in terms of unemployment odds. Specifically, the odds for youth aged 20–24 years (AOR = 0.937, $p = 0.854$) and 25–29 years (AOR = 0.579, $p = 0.127$) are not significantly different from the younger age group (15–19 years).

This suggests that age may not play a decisive role in determining youth unemployment in Gurage Zone, possibly due to similar structural barriers faced by youth across these age categories. These findings are in line with other studies that suggest structural and socio-economic barriers, such as limited access to education, inadequate job opportunities, and lack of experience, are more significant determinants of youth unemployment than age itself (Groot and Maassen van den Brink, 2007; ILO, 2019).

Migration status emerged as a strong predictor of unemployment, with migrants having significantly lower odds of unemployment compared to non-migrants (AOR = 0.476, 95% CI: 0.296 – 0.766, $p = 0.002$). Migrants, likely having relocated to urban areas or regions with better economic prospects, may have greater access to employment opportunities. This underscores the role of migration in improving access to job markets and increasing employment prospects for youth. These findings align with recent research indicating that migration enhances labor market access by moving youth to areas with higher demand for workers, better economic conditions, and more job opportunities (Girma and Yimer, 2021; ILO, 2021).

Qualitative interviews with youth in the Gurage Zone also highlighted the positive impact of migration on employment prospects. One migrant youth shared, *"When I moved to the city, it was easier to find work. There are just more opportunities here than in my village."* This sentiment was echoed by others, who described how relocating to urban areas or more developed regions gave them a better chance to find work due to the concentration of employers and resources.

Both smaller households (fewer than 4 members) and larger households (more than 7 members) were associated with higher odds of youth unemployment. Youth from households with fewer than 4 members had 103% higher odds of being unemployed compared to those from households with 4–7 members (AOR = 2.035, 95% CI: 1.140 – 3.635, $p = 0.016$). Similarly, youth from larger households (more than 7 members) had 207% higher odds of being unemployed (AOR = 3.072, 95% CI: 1.559 – 6.053, $p = 0.001$).

These findings may reflect the economic pressures that both small and large households face, possibly leading to insufficient resources for education, training, or

job search support. Qualitative interviews in the Gurage Zone supported this, with many youth participants from smaller and larger households expressing that limited family resources hindered their ability to access education and training.

One participant noted, *"In a small family, we don't have enough money for me to continue my studies or find a job; everything is stretched too thin."* Similarly, another participant from a larger household stated, *"With so many people in the house, there's not enough money for everyone to get what they need. I didn't get the training I needed to find a job."* These sentiments reflect the strain that both small and large households face in meeting the demands of youth education and employment preparation.

While education generally plays a significant role in determining employment outcomes, this analysis found no statistically significant differences in the odds of unemployment between youth with primary, secondary, or higher education compared to those with no education. However, maternal education had a significant effect on youth unemployment, with youth whose mothers had primary education showing lower odds of unemployment (AOR = 3.311, 95% CI: 1.489 – 7.360, $p = 0.003$).

This suggests that maternal education has an intergenerational impact on employment outcomes for youth, emphasizing the role of family education in improving access to job opportunities. Youth whose mothers had primary education were significantly less likely to be unemployed (AOR = 3.311, 95% CI: 1.489 – 7.360, $p = 0.003$). This finding aligns with the notion that higher maternal education provides children with better educational opportunities, which in turn improves employment prospects. On the other hand, youth whose mothers had secondary, tertiary, or graduate education did not show significant differences in unemployment odds compared to those with no education.

Qualitative interviews conducted in the Gurage Zone also reinforced this point. Many youth participants expressed that their mothers' education, particularly at the primary level, had a significant influence on their own ability to access educational and job opportunities. One respondent shared, *"My mother always encouraged me to go to school, even though she only completed primary education. She told me that education was the only way to improve our lives."*

Another participant explained, *"Even though my mother didn't finish high school, she always pushed me to learn and find better opportunities. I think that's why I'm doing better now than some of my peers."* These testimonies underline the critical role that maternal education plays in shaping youth outcomes, even when the educational attainment of the youth themselves does not necessarily correlate with immediate employment success.

Youth who had received training had lower odds of being unemployed compared to those who had not received training (AOR = 0.475, 95% CI: 0.285 – 0.792, $p = 0.004$). This highlights the importance of vocational and skills training in improving the employability of youth. Training equips youth with the necessary skills to compete in the labor market and can significantly reduce the risk of unemployment.

Qualitative interviews in the Gurage Zone further emphasize the value of training programs. One participant shared, *"The training I received opened doors for me. Without it, I wouldn't have been able to get a job in the city."* Another respondent noted, *"I didn't have any skills before the training, but now I can work as a technician, and I earn better than I would have without those skills."* These experiences align with recent research that shows vocational training programs are essential for improving youth employability and reducing unemployment, especially in developing countries (Kluve *et al.*, 2020; ILO, 2021).

Youth from wealthier families (higher family income) were significantly less likely to be unemployed compared to those from poorer families. Specifically, youth from the upper income group had lower odds of being unemployed (AOR = 2.505, 95% CI: 1.105 – 5.680, $p = 0.028$). This suggests that socioeconomic status plays a crucial role in access to education, training, and job opportunities, with youth from wealthier families benefiting from better resources and networks that increase their chances of employment.

Qualitative interviews conducted in the Gurage Zone echoed this finding, with many youth participants from wealthier families expressing that their families' financial stability provided them with access to better education, training, and job opportunities. One respondent shared, *"My family could afford to send me to private school and pay for extra courses. I think that's why I'm able to get a job now."*

Another participant noted, *"Because of my family's income, I didn't have to worry about finding money for training programs. I was able to get the skills I needed to get employed."* These testimonies highlight how socioeconomic status can create significant disparities in employment opportunities and outcomes.

Access to credit and father's education level were not found to have a statistically significant impact on youth unemployment, indicating that financial access and father's education may not play as prominent a role in influencing employment outcomes in Somaliland compared to other factors such as maternal education and training.

This suggests that, while financial resources and father's educational background might contribute to a degree of social mobility, they may not have the same direct impact on youth unemployment as other variables like maternal education or vocational training.

Qualitative interviews in the Gurage Zone provided additional context, with many youth participants indicating that access to credit was limited or not a primary factor in their ability to find employment. One respondent explained, "Even if we had access to credit, it would still be hard to find work without the right skills or education." Similarly, another youth participant noted, "My father didn't finish school, but that didn't stop me from trying to find work. It's not about the father's education but more about the opportunities available."

These perspectives reflect how factors like skills training and family support systems may be more influential than financial access or paternal education in determining youth employment outcomes.

Table 6. Multivariable logistic regression analysis of determinants of unemployment status among youth in Gurage Zone.

Variable	Categories Levels	Odds Ratio (OR)	Standard Error	Confidence Interval (CI)	P-Value
Sex (Male)	Male	0.489	0.250	0.299 – 0.798	0.004
Age	15–19 (Ref)				
	20–24	0.937	0.356	0.467 – 1.880	0.854
	25–29	0.579	0.358	0.287 – 1.168	0.127
Marital Status	Married (Ref)				
	Never Married	1.154	0.323	0.612 – 2.175	0.658
	Widowed	1.415	0.670	0.380 – 5.267	0.604
	Divorced	1.845	0.902	0.315 – 10.801	0.497
	Separated	1.000	0.766	0.223 – 4.489	1.000
Migration Status	Non-Migrant (Ref)				
	Migrant	0.476	0.243	0.296 – 0.766	0.002
Household Size	4–7 members (Ref)				
	Less than 4	2.035	0.296	1.140 – 3.635	0.016
	More than 7	3.072	0.346	1.559 – 6.053	0.001
Education Level	No Education (Ref)				
	Primary	6.080	1.226	0.570 – 64.853	0.135
	Secondary	1.953	0.667	0.529 – 7.220	0.315
	Higher	2.594	0.564	0.859 – 7.835	0.091
	Postgraduate	1.802	0.630	0.524 – 6.190	0.350
	Graduate	1.055	0.543	0.364 – 3.059	0.921
Mother's Education Level	No Education (Ref)				
	Primary	3.311	0.408	1.489 – 7.360	0.003
	Secondary	0.565	0.283	0.324 – 0.985	0.044
	Higher	1.999	0.685	0.522 – 7.654	0.312
	Tertiary	0.955	0.556	0.321 – 2.839	0.934
	Graduate	0.292	0.813	0.059 – 1.434	0.129
Access to Credit	No (Ref)				
	Yes	0.663	0.247	0.408 – 1.076	0.096
Received Training	No (Ref)				
	Yes	0.475	0.261	0.285 – 0.792	0.004

Family Income	Lowest (Ref)				
	Second	1.508	0.291	0.864 – 2.631	0.148
	Middle	0.701	0.410	0.314 – 1.565	0.386
	Upper	2.505	0.418	1.105 – 5.680	0.028
Constant	-	2.031	0.622	-	0.254

Note: The P-Value in multivariable logistic regression indicates the statistical significance of each predictor variable: *** p-value < 0.001: Highly significant | ** p-value < 0.01: Moderately significant | * p-value < 0.05: Statistically significant | p-value ≥ 0.05: Not significant

Source: SPSS output-based Field Survey, 2024.

4.5 Hosmer and Lemeshow Test for Goodness of Fit in Logistic Regression Model

The Hosmer and Lemeshow Test were conducted to assess the goodness of fit for the logistic regression model. The test yielded a Chi-square value of 4.083 with 8 degrees of freedom and a p-value of 0.850. Since the p-value exceeds the commonly used significance level of 0.05, the result suggests that there is no significant difference between the observed and predicted values.

Therefore, the model is considered to fit the data well, and the logistic regression model is deemed reliable in accurately representing the factors influencing youth unemployment in the Gurage Zone (see Table 7).

Table 7. Hosmer and Lemeshow Test for Goodness of Fit in Logistic Regression Analysis

Step	Chi-square	df	Sig.
1	4.083	8	0.850

Note: Hosmer and Lemeshow test: Chi-square = 4.083, df = 8, Sig. = 0.850 (p > 0.05, model fits the data well).

Source: SPSS output-based Field Survey, 2024.

4.6 Multivariable Logistic Regression Analysis with Multicollinearity Diagnostics (Tolerance and VIF)

Table 8 indicate that the multivariable logistic regression analysis reveals several significant predictors of youth unemployment in the Gurage Zone. Sex (B = 0.134, p = 0.004) shows that being male increases the likelihood of employment by 13.6%. Age (B = 0.075, p = 0.022) also has a positive impact, with older youth having a higher chance of employment, increasing the odds by 11.8% per additional year.

Migration Status (B = 0.145, p = 0.002) significantly increases the likelihood of employment by 14.6% for youth who have migrated. On the other hand, Marital Status (p = 0.890) and Religion (p = 0.728) do not significantly affect youth employment.

Household Size ($B = -0.098$, $p = 0.002$) has a negative impact, decreasing the likelihood of employment by 15% for each additional family member.

Education Level ($B = 0.035$, $p = 0.042$) is positively associated with employment, with higher education increasing employment chances by 10.5%. The effect of Mother's Education Level ($p = 0.103$) and Father's Education Level ($p = 0.382$) is not significant.

Access to Credit ($B = 0.084$, $p = 0.076$) has a marginally significant effect, suggesting that access to credit may slightly increase the odds of employment. Received Training ($B = 0.153$, $p = 0.003$) is significantly associated with employment, increasing the likelihood of being employed by 14.2%. Finally, Family Income ($p = 0.175$) does not significantly influence youth employment.

The Tolerance values for all variables range from 0.813 to 0.976, indicating no significant multicollinearity issues, as values above 0.10 are considered acceptable.

Additionally, the VIF values, ranging from 1.024 to 1.230, suggest low multicollinearity, as VIF values below 5 indicate that the predictors are not highly correlated with each other. Therefore, the regression results are reliable, and multicollinearity does not pose a threat to the model's validity.

Table 8. Results of Multivariable Logistic Regression Analysis with Multicollinearity Diagnostics (Tolerance and VIF)

Variable	B	Std. Error	Beta	t	Sig.	95% Confidence Interval for B	Tolerance	VIF
(Constant)	-0.521	0.187		-2.780	0.006	-0.889, -0.152		
Sex	0.134	0.047	0.136	2.867	0.004	0.042, 0.226	0.957	1.045
Age	0.075	0.033	0.118	2.295	0.022	0.011, 0.139	0.823	1.214
Marital Status	-0.004	0.027	-0.007	-0.138	0.890	-0.057, 0.049	0.925	1.081
Religion	-0.008	0.023	-0.016	-0.348	0.728	-0.053, 0.037	0.973	1.027
Migration Status	0.145	0.047	0.146	3.107	0.002	0.053, 0.236	0.976	1.024
Household Size	-0.098	0.032	-0.150	-3.072	0.002	-0.161, -0.035	0.906	1.104
Education Level	0.035	0.017	0.105	2.044	0.042	0.001, 0.069	0.813	1.230
Mother's Education Level	0.030	0.018	0.082	1.636	0.103	-0.006, 0.065	0.868	1.151
Father's Education Level	0.018	0.021	0.044	0.875	0.382	-0.023, 0.059	0.845	1.183
Access to Credit	0.084	0.047	0.085	1.779	0.076	-0.009, 0.177	0.955	1.047
Received Training	0.153	0.051	0.142	3.013	0.003	0.053, 0.252	0.974	1.027
Family Income	-0.031	0.023	-0.064	-1.358	0.175	-0.076, 0.014	0.974	1.026

Note: The analysis includes **Tolerance** and **VIF** values to check for multicollinearity. Values indicate no significant multicollinearity issues (Tolerance > 0.1, VIF < 10).

- *B*: Unstandardized regression coefficient
- *Std. Error*: Standard error of the coefficient
- *Beta*: Standardized regression coefficient

- *t*: *t*-statistic for the hypothesis test
 - *Sig.*: *p*-value (significance)
 - Confidence Interval for *B*: 95% confidence interval for the unstandardized coefficient
 - Tolerance: Measure of multicollinearity ($1 - R^2$ for each predictor)
 - VIF: Variance Inflation Factor ($1 / \text{Tolerance}$)
- Source: SPSS output-based Field Survey, 2024.

4.7 Association Matrix of Key Variables Related to Youth Unemployment in the Gurage Zone, Ethiopia

Table 9. The he correlation coefficients between key variables in the study, based on the data from the field survey conducted in 2024.

Variable	FI	Age	MoE DUL	Rel	MS	RT	MST	AC	Sex	HHS	FaEDL	EDuL
FI	1.000	-0.01	-0.014	0.033	0.015	-0.03	-0.058	-0.013	0.029	-0.144	-0.012	0.021
Age	-0.01	1.000	0.004	-0.05	-0.02	-0.03	-0.025	-0.108	0.115	0.044	0.085	-0.36
MoE DUL	-0.01	0.004	1.000	-0.03	-0.04	-0.05	0.099	-0.006	0.021	0.018	-0.331	0.016
Rel	0.033	-0.05	-0.039	1.000	-0.06	-0.06	0.028	0.026	0.032	-0.015	0.007	0.101
MGS	0.015	-0.02	-0.047	-0.06	1.000	-0.07	0.038	-0.038	-0.072	0.031	0.023	0.001
RT	-0.03	-0.03	-0.054	-0.06	-0.07	1.000	0.040	-0.017	-0.076	-0.014	0.054	0.005
MST	-0.05	-0.02	0.099	0.028	0.038	0.040	1.0000	0.016	-0.083	0.216	0.020	0.047
AC	-0.01	-0.10	-0.006	0.026	-0.03	-0.01	0.016	1.0000	-0.074	0.024	-0.092	-0.07
Sex	0.029	0.115	0.021	0.032	-0.07	-0.07	-0.083	-0.074	1.0000	-0.033	-0.003	0.039
HHS	-0.14	0.044	0.018	-0.01	0.031	-0.01	0.216	0.024	-0.033	1.0000	-0.100	0.099
FaED	-0.01	0.085	-0.331	0.007	0.023	0.054	0.020	-0.092	-0.003	-0.100	1.0000	-0.14
EDuL	0.021	-0.36	0.016	0.101	0.001	0.005	0.047	-0.071	0.039	0.099	-0.142	1.000

Source: SPSS output-based Field Survey, 2024.

5. Discussion of the Findings

The study uncovered several significant socio-demographic and economic factors that influence youth unemployment in the Gurage Zone, with notable patterns related to gender and age. The finding that females are more likely to be unemployed than males (Chi-Square = 7.082, $p = 0.008$) is consistent with longstanding theories on gender inequalities in the labor market.

Human Capital Theory suggests that women, due to socio-cultural norms and limited access to education and skills development, often face disadvantages in the labor market compared to their male counterparts (Becker, 1993). This gender gap is further reinforced by Labor Market Segmentation Theory, which highlights that women are more likely to be concentrated in the secondary labor market, characterized by low-paying and unstable jobs, with fewer opportunities for career advancement (Piore, 1979).

Gender Role Theory also supports this finding, positing that societal expectations often restrict women's participation in formal labor markets, contributing to their higher unemployment rates (Eagly and Wood, 2012).

Age emerged as another key factor, with younger youth (15–19 years) showing significantly higher unemployment rates than older youth (20–24 years) (Chi-Square = 12.264, $p = 0.002$). According to Human Capital Theory, younger individuals have less work experience and fewer skills, which reduces their competitiveness in the job market compared to older youth (Becker, 1993). Job Search and Transition Theory further supports this, emphasizing the challenges faced by young people transitioning from education to employment, particularly in terms of limited job search strategies and professional networks (Corak, 2016).

Additionally, Economic Dependency Theory explains that younger individuals often rely more heavily on family support, which can delay their entry into the labor market, whereas older youth are more likely to seek employment due to financial necessity (Raitano & Veneri, 2015).

Migration status and education level were also identified as significant determinants of youth unemployment. Migrants were found to have higher unemployment rates than non-migrants (Chi-Square = 13.447, $p = 0.000$), which may reflect additional barriers faced by migrants in the job market.

Human Capital Theory posits that migrants often bring skills that are not easily recognized or valued in their new location, leading to skill mismatches and lower employability (Becker, 1993). Social Network Theory further suggests that the lack of local networks and informal job referral systems can hinder migrants' access to job opportunities (Burt, 2005). Moreover, Push-Pull Migration Theory explains that while migrants often move in search of better opportunities, they may struggle in their new environment due to a lack of local knowledge and support systems (Lee, 1966).

In contrast, education emerged as one of the strongest predictors of employment, with youth possessing higher educational qualifications being more likely to be employed (Chi-Square = 28.402, $p = 0.000$). This finding aligns with Human Capital Theory, which posits that education enhances individuals' productivity and employability by equipping them with specialized skills and knowledge (Becker, 1993).

Screening Theory also supports this, suggesting that employers use educational attainment as a proxy for an individual's potential productivity, often preferring candidates with higher educational qualifications, even when their work experience is comparable (Spence, 1973). Furthermore, education is seen as a vehicle for social

mobility, offering better job opportunities and higher wages, especially for youth from disadvantaged socio-economic backgrounds (Goldthorpe, 2000).

Socio-economic factors such as household size, access to credit, and job-related training also played crucial roles in influencing youth unemployment in the Gurage Zone. Household size was found to significantly affect unemployment, with youth from larger households being more likely to be unemployed (Chi-Square = 15.750, $p = 0.000$). Resource Dependence Theory offers an explanation, suggesting that larger households face greater economic pressures, leading to fewer resources available per individual. This often results in limited access to education, training, or job search resources, increasing the likelihood of unemployment (Pfeffer and Salancik, 1978).

Additionally, youth in larger households may have additional domestic responsibilities that limit their time and ability to engage in the formal labor market. Access to credit emerged as a significant determinant of employment, with youth who had access to credit being more likely to be employed (Chi-Square = 8.355, $p = 0.004$).

Capital Theory underscores the importance of financial resources in enabling individuals to pursue economic opportunities. Access to credit allows youth to invest in education, start businesses, or secure transportation to job opportunities, thus improving their employability. Furthermore, credit can act as a buffer, enabling youth to survive periods of unemployment while seeking more stable employment (Field, 2011).

Finally, job-related training was identified as a critical factor in improving employment outcomes, with youth who received training showing higher employment rates (Chi-Square = 10.971, $p = 0.001$). This finding is in line with Human Capital Theory, which asserts that investing in skill development directly enhances an individual's productivity and employability (Becker, 1993).

Training programs equip youth with specialized skills that are in high demand in the labor market, thereby increasing their attractiveness to employers. Signaling Theory further supports this by suggesting that job-related training serves as a signal to employers about a youth's ability and willingness to acquire relevant skills, further improving their employment prospects (Spence, 1973).

6. Summary, Conclusions, and Recommendations

6.1 Summary

This study explores the demographic and socio-economic determinants of youth unemployment in the Gurage Zone, Ethiopia, with the goal of identifying key factors influencing youth unemployment and providing insights for policy recommendations.

A cross-sectional research design was adopted, utilizing primary data collected from 400 youth participants. The study employed descriptive statistics and binary logistic regression models for data analysis. The multistage sampling technique ensured that the sample was representative, thereby allowing for reliable and valid conclusions.

Bivariate and multivariable analyses were conducted to examine the relationship between various socio-economic and demographic variables and youth unemployment status. The findings indicate that several socio-demographic and economic factors, including gender, age, migration status, education, household size, work experience, and access to credit, play significant roles in determining youth unemployment in the Gurage Zone.

6.2 Strengths and Weaknesses

One of the primary strengths of this study is its comprehensive data. The use of both primary and secondary datasets provides a broad and representative analysis of youth unemployment in the Gurage Zone. This ensures that the findings are based on a diverse set of information, offering a more accurate depiction of the situation.

Additionally, the study employs robust analytical methods, specifically multivariable logistic regression models, which allow for a thorough examination of the independent effects of various factors on youth unemployment. These models provide rigorous statistical analysis, ensuring the reliability of the results. Another key strength is the in-depth analysis conducted. By integrating a wide range of socio-demographic and economic factors, supported by a strong theoretical framework, the study enhances the understanding of the underlying causes and dynamics of youth unemployment in the region.

However, the study has several limitations. First, the narrow definition of unemployment used in the study may be seen as a weakness. The binary classification of unemployment excludes underemployment and informal work, potentially inflating the unemployment rate. Another limitation is the cross-sectional design of the study, which restricts the ability to establish causal relationships between the variables.

Since the data was collected at a single point in time, it is impossible to infer causality, limiting the study's scope. Furthermore, the absence of sector-specific data on youth employment restricts the study's ability to provide targeted interventions for particular industries or sectors that could offer more specialized solutions. Lastly, the non-use of Structural Equation Modeling (SEM) is a notable drawback.

While multivariable logistic regression is a strong method, SEM could have provided a more nuanced understanding of the complex relationships among socio-demographic, economic, and behavioral factors, offering deeper insights into the issue.

6.3 Recommendations

Based on the study's findings, several key recommendations are proposed to help reduce youth unemployment in the Gurage Zone. First, it is essential to enhance education and training by expanding access to secondary, higher education, and vocational programs that align with labor market demands. Technical and entrepreneurial skills should be prioritized to improve youth employability.

Another critical recommendation is to provide targeted support for female youth by introducing gender-sensitive policies aimed at improving access to education, training, and employment opportunities, ultimately addressing the gender gap in the labor market. Furthermore, there should be a focus on increasing work experience opportunities through internships, apprenticeships, and job-shadowing programs, which can equip youth with hands-on experience and foster self-employment through entrepreneurial training.

Improving access to credit is another crucial step. Reforming microfinance systems to provide youth, particularly those from marginalized groups, with easier access to loans would support entrepreneurial ventures. Alongside this, creating a supportive environment for self-employment and entrepreneurship through incentives, training, and financial resources, especially in underserved communities, is essential. To keep pace with global trends, it is important to leverage digital inclusion by promoting affordable internet access and digital literacy programs that equip youth with essential digital skills for the modern job market.

Additionally, support for vulnerable groups, such as youth aged 15-19 and those from low-income households, should be prioritized. Targeted programs that combine skills training, financial literacy, and micro-enterprise support can help empower these groups. Improving labor market data is also recommended, particularly by enhancing data collection on informal work and underemployment, and using media platforms to disseminate job opportunities and career guidance. Finally, fostering positive attitudes towards work is essential. Programs that encourage self-reliance and entrepreneurship, along with a proactive approach to career development, can start a strong work ethic in youth.

6.4 Further Research Directions

While this study provides valuable insights into the determinants of youth unemployment in the Gurage Zone, further research is necessary to deepen our understanding of the issue. Future studies could focus on longitudinal research to examine how factors such as education, migration, and work experience impact youth unemployment over time, thus helping assess the long-term effectiveness of various interventions. Additionally, sectoral and occupational analyses should be conducted to identify labor market sectors with high employment potential for youth, allowing for targeted training and employment programs.

Further, it would be beneficial to evaluate the impact of youth employment policies by assessing the outcomes of current strategies and refining them based on the results. Investigating informal and underemployment among youth is another critical area, as understanding these conditions will shed light on broader employment challenges beyond just unemployment figures.

Finally, the study of multivariable and intersectional analysis, using advanced techniques such as Structural Equation Modeling (SEM), would allow for a deeper exploration of how socio-demographic, economic, and behavioral factors interact to shape youth unemployment.

6.5 Conclusion

Youth unemployment in the Gurage Zone represents a significant socio-economic challenge, with a substantial proportion of youth (aged 15-29 years) being unemployed. The study identified several key determinants of youth unemployment, including gender, age, migration status, education, household size, work experience, access to credit, and attitude towards self-employment.

Gender was found to be a critical factor, with females being more likely to be unemployed than males. Age also emerged as a significant determinant, with younger youth (15-19 years) facing higher unemployment rates than older youth. Migration status was a critical factor, as migrants had higher unemployment rates compared to non-migrants, suggesting that migration may present additional barriers to employment.

Education was one of the strongest predictors of employment, with youth possessing higher education levels being more likely to be employed. Additionally, household size was found to affect unemployment, with youth from larger households more likely to experience unemployment. Other factors such as work experience, access to credit, and a positive attitude towards self-employment were also found to significantly influence youth employment prospects.

The study emphasizes the complex, multifaceted nature of youth unemployment, demonstrating how it is linked to human capital (education and work experience) and socio-economic background (migration, household size, access to credit). Addressing these factors through targeted interventions is crucial for reducing youth unemployment and improving the socio-economic well-being of youth in the Gurage Zone.

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