ADDIS ABABA UNIVERSITY
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CHARACTERISTICS AND DETERMINANTS OF RURAL ENTREPRENEURSHIP AND ITS CONTRIBUTION TO POVERTY ALLEVIATION: THE CASE OF HARAMAYA DISTRICT, OROMIA REGIONAL STATE, ETHIOPIA

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Characteristics and Determinants of Rural Entrepreneurship and its Contribution to Poverty Alleviation: The Case of Haramaya District, Oromia Regional State, Ethiopia

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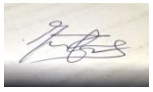
Alemseged Gerzgiher (PhD)		26 June 2024
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In our evaluation as members of the examining board for an open defense of Abdibeshir Said's dissertation, "Characteristics and Determinants of Rural Entrepreneurship and its Contribution to Poverty Alleviation: The Case of Haramaya District, Oromia Regional State, Ethiopia", we testify that it was submitted in fulfillment for the requirements for the Degree of Doctor of Philosophy in Development Studies (Rural Development) and complies with the University's standards.

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I, the undersigned, declare that this is my original work, has never been presented in this or any other University, and that all the resources and materials used for the dissertation, have been fully acknowledged.

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Abbreviations and Acronyms

Abbreviations	Definition
AGP	Agricultural Growth Project
AKFCU	Afran Kelo Farmers' Cooperative Union
ALRT	Agrarian Labor Relocation Theory
ANOVA	Analysis of Variance
ARIHUB	Agricultural and Rural Innovation Hub
ATE	Average Treatment Effect
ATET	Average Treatment Effect on the Treated
BoP	Bottom of the Pyramid
CEEDD	Community Engagement and Entrepreneurship Development Directorate
CSO	Civic Society Organizations
EDC	Entrepreneurship Development Center
EDI	Entrepreneurship Development Institute
EDP	Entrepreneurship Development Program
ETB	Ethiopian Birr
EU	European Union
FAO	Food and Agriculture Organization
FDI	Foreign Direct Investment
FGD	Focus Group Discussion
FTC	Farmers' Training Centers
HABP	Household Assets Building Program
HDAO	Haramaya District Administration Office
HFCU	Haramaya Farmers' Cooperative Union
ICRAF	World Agroforestry Centre
IGA	Income Generating Activities
KII	Key Informant Interview
MPI	Multidimensional Poverty Index
MTI	Mistry of Trade and Industry

NGO	Non-governmental Organization
OECD	Organization for Economic Co-operation and Development
OPHI	Oxford Poverty and Human Development Index
PA	Peasants' Association
SM	Propensity Score Matching
SNV	Stichting Nederlandse Vrijwilligers (Netherlands Development Organization)
SPSS	Statistical Products and Services Solutions
UNCTAD	United Nations Conference on trade and Development
UNDP	United Nations Development Program
UNESCO	United Nations Educational Social and Cultural Organization
UNIDO	United Nations Industrial Development Organization
VIF	Variance Inflation Factor
WEDP	Women Entrepreneurship Development Program

General Abstract

Rural entrepreneurship is a growing trend that is getting an increasing attention from rural households, academia, and development actors as a key instrument to generate employment, raise income, and reduce poverty, food insecurity and migration of the working force. However, there are less studies divulging the characteristics and factors affecting rural entrepreneurship as well as its socioeconomic outcomes, especially in the least developed countries. Therefore, this research explores the pattern, dynamics, determinants, and multidimensional-poverty alleviation impact of rural entrepreneurship based on a cross-sectional survey data from Haramaya district, Ethiopia. The research was conducted through the analysis of both quantitative data. The quantitative data were obtained from a survey of 381 rural households, and qualitative data were gathered from a total of 13 entrepreneurs and 11 key stake holders through in-depth interviews (IDI), key informant interviews (KII), focus group discussions (FGD), and field observations. Generally, descriptive statistics (such as frequency, percentage, mean, Standard Deviation) and econometrics (i.e. Probit, Tobit, PSM and ANOVA) were used to analyze the quantitative data, whereas the qualitative data were analyzed using the hybrid thematic analysis method. The findings of the research show that around 25 % of rural household in Haramaya districts are rural entrepreneurs operating businesses in either or both farm and nonfarm sectors. The entrepreneurial works are dominantly characterized by business diversification, inter and intra-sector mobility, and value-centeredness. Rural households' entrepreneurial participation and the intensity of their engagement are highly influenced by necessity-factors that are associated to households' socioeconomic needs and inaccessibility of basic economic items in remote rural settings. Specifically, household size, possession of farmland and residence house, distance from market, childhood experience of growing as orphan, and access to contract employment are found to be major determinants of both entrepreneurial participation and intensity simultaneously. As far as variables that separately affect participation or intensity of entrepreneurial works are concerned, age of the household head strongly sways participation whereas the intensity of entrepreneurial work is strongly influenced by the climatic condition of the residence area, number of siblings supported by the household head, the motive of starting the business and ownership of the business site. The finding also reveals the prevalence of profound multidimensional poverty in the district with headcount ratio of 85.5% and it also shows that rural entrepreneurship is serving as a

remedy for reduction of multidimensional poverty by significantly boosting the entrepreneurs' capacity to acquire improved nutritional status and access to better life-standard facilities (i.e. transportation and communication facilities as well as decent housing. Yet, lack of strong support structure for rural entrepreneurship, narrow land access options, poor access to credit and long bureaucratic procedures have remained the bottle-necks for entrepreneurship development. Therefore, the government should multiply its efforts supporting entrepreneurial development in rural settings by expanding and creating awareness about land access and use options. The federal and regional offices of Road Authority, Electric Light and Power Authority and Water and Energy should focus on rural electrification pure drinking water, transport infrastructures development for addressing both entrepreneurial development and multidimensional poverty alleviation goals simultaneously. Higher educational institutions, including Harmaya university should extend their entrepreneurship training, advisory and incubation services wider and remote villages. NGOs, CSOs and farmers cooperatives should join hands and give due focus on the expansion of agricultural and non-farm business since both sectors are indifferently important for poverty reduction. Financial institutions should also work on creating the awareness about the available credit options and increase the accessibility social compatibility of their services.

Keywords: Rural entrepreneurship, Characteristics, Determinants, participation, intensity Poverty

CHAPTER ONE

1. GENERAL INTRODUCTION

1.1. Background and Justification of the Study

Modern form of development has long centered on industrial and urban development which eventually led to significant rural-urban divide in terms of income, labor force and overall development (Chen *et al*., 2018; Van der Ploeg *et al.* 2000). This divide triggered diverse sociopolitical debates and struggles which led to the emergence of the notion rural development in the academic and development arena (Van der Ploeg *et al.* 2000). Even under the rural development discourse, rural areas were considered as mere farming areas that supply cheap food for cities and raw materials for their industries (Bosworth & Atterton, 2012; Van der Ploeg *et al.* 2000; Santiago & Thorbecke, 1988).

Starting from the late 1980s, rural entrepreneurship emerged in the development discourse as a shift from mere expansion of foreign based large-scale farming to promotion of endogenous and bottom-up growth. The growing demand of rural households for additional food, sources of income and surplus labor, due to increased population, led for quest for productivity in agriculture and labor mobility non-farm works (Van der Ploeg et al. 2000; Hymer and Resnick 1969). The occupational mobility of rural labor between sectors and the change in the modes of production (Folkman & Cowhig 1963; Hill & Christensen 1942) form important basis for rural entrepreneurship (Petit et al. 2015; Bespalyy 2020; Reardon et al., 1992). Rural areas offer context specific advantages for entrepreneurial development in physical, social and cultural terms (Müller, 2013). Subsequently, rural entrepreneurship became among the priority agenda of different development actors, academic disciplines and scholars (Pato & Teixeira 2016; Ansari *et al* 2013).

Rural entrepreneurship refers to transition from traditional subsistence-based livelihoods to increasing innovative and market oriented agricultural business (Arafat et al. 2020; Naminse & Zhuang 2018) as well as self- employment in nonfarm enterprises (Nagler & Naude 2017; Owoo & Naude 2014) in order to generate more and diverse socioeconomic benefits. The transition is mostly driven and enhanced by individuals' behavior risk taking (Macko & Tyszka 2009) and the

skill of opportunity discovery, evaluation, and exploitation to start a business or create market values (Brünjes 2012; Ireland & Webb 2007).

Entrepreneurial growth is not static or unidirectional phenomenon (Braunerhjelm *et al*. 2015). Rather, it is dynamic process that manifests divergent modes, paths and degree of operation based on temporal/seasonal (Nagler and Naudé, 2014) and spatial/locational (Blanchard, 2013) and the formal/license status Wangwe and Mmari (2013). The dynamics is largely influenced by the policy and institutional factors (Braunerhjelm *et al*. 2015; Congregado *et al.* 2012).

In the realm of development, rural entrepreneurship is given emphasis due to its socioeconomic outcomes. It is taken as a vital endogenous remedy to reduce unemployment, generate incomes, minimize economic migration, eradicate poverty and foster economic empowerment of women and youth in rural settings (Pato & Teixeira 2016; Kushalakshi & Raghurama 2014; Ansari *et al* 2013). The pro-poor growth models take rural entrepreneurship as the major tool of development due to its focus on micro and small-scale undertakings and its potential of valorizing farmers skills (Sonne 2010). It also serves as the pathway to escape dependence on agriculture (Loening *et al*. 2008); makes rural areas to utilize their resources to a valuable level; and reduces the forced migration of working forces to urban areas (Kushalakshi1& Raghurama 2014). The presence of healthy entrepreneurial business creates a competitive market environment which would lead to discount in the products price (competition for customers) and increase the wage (competition for employees) and contribute for household's poverty reduction (Wilmoth 2017).

In line to this, increasing number of rural households in the developing countries are shifting their traditional livelihood and joining rural entrepreneurship (Petit *et al.* 2015; Nagler & Naudé 2014; Owoo & Naudé 2014). The presence of large and increasing rural population with high prevalence of unemployment, poverty and economic underdevelopment urges for the need to develop entrepreneurship in the Subsaharan Africa (Abebe and Gebremariam 2021; Jones et al. 2018). On the other hand, there is lack of policies strategies clearly entrepreneurship in the region (Herrington & Kelly, 2012) and the entrepreneurial operations are characterized by variations across the countries and sub-national contexts (Olawale & Garwe, 2010).

Ethiopia is a country with more than 80% of its population are rural residents and characterized by very high unemployment and poverty rate (Kelley et al., 2012). Entrepreneurship is considered as one of the remedies to overcome these problems and plans to create tens of millions of jobs (UNIDO, 2019). In the last decade, different governmental and non-governmental entities have started to pay attention to entrepreneurial development in the nation. One among those actors is the Entrepreneurship Development Program (EDP). Since its inception in 2013, EDP has been working on training and facilitating small funds for entrepreneurs, with the support of United Nations Development Program (UNDP), through its organ named Entrepreneurship Development Center (recently renamed as Entrepreneurship Development Institute) (Gebremeskel 2018). Meanwhile, the World Banks Group aided Women Entrepreneurship Development Program (WEDP) has been providing training, technical and financial supports for women entrepreneurs (EDI 2023). But, much of the attention of the above institutions in their strategies, plans and their implementation have gone entrepreneurial development among the youths and women in cities and small towns whereas rural villages and other segment of the society have minimal emphasis.

Recently, the first national entrepreneurship strategy was developed for Ethiopia by United Nations Industrial Development Organization (UNIDO) in collaboration with United Nations Conference on trade and Development (UNCTAD) and endorsed by Mistry of Trade and Industry in 2019 (UNIDO 2019). Ethiopia's recent 10 years (2020 to 2030) strategic development plan (NPC, 2019) also emphasizes creating strong rural-urban linkage an employment opportunity. The strategy associates its rural development objective with raising agricultural production through cluster based large scale farming and increasing market linkage for the yields more than self-employment in small scale businesses (NPC, 2019)[1].

Haramaya district is a compelling case for rural entrepreneurship study due to its immense potential and need for rural entrepreneurship development. It is a cash-crop area that is engaged in producing and exporting large quantities of khat[2] and vegetables to the neighboring countries (Somaliland and Djibouti). Its proximity to the major tourism sites of Eastern Ethiopia, such as UNESCO registered walled city of Harar, prehistoric sites of Laga-Oda and Kulubi Gebriel

[1] The 10 years strategic development plan and the National Entrepreneurship strategy were ratified and publicized after the data for this research were collected. Hence. this research will not be able deal with the policy practice gaps in relation to these documents.

[2] A stimulant leaf which said to be chewed for excitement.

church attracts many residents to join entrepreneurship. Besides, the district has much advantage of enterprising due to its location closer Dire Dawa, to a federal administrative city which is the hub of road, rail and air transport infrastructures that connect Ethiopia with the neighboring countries and its position on the honeypot of cross border trade between Ethiopia-Djibouti and Somaliland.

On the other hand, the district is characterized by population pressure and vulnerability to poverty and food insecurity ((Sileshi et al., 2019). It is challenged by land degradation, depletion of natural resources and malnutrition (Beyene et al., 2020; Sileshi et al., 2019). Organizations such as Agricultural Growth Project (AGP) and the Household Assets Building Program (HABP) (Sawada and Harishchandra 2011) as well as local self-help associations have also been working on provision of micro-credit for rural households as a partial support system for entrepreneurial development and economic growth (Abiche 2012).

Haramaya University also established institutional structures such as Directorate of Community Engagement and Entrepreneurship Development (CEEDD), later renamed Entrepreneurship and Technology Promotion Directorate, to support productivity and diversification of rural economy. It has also been providing entrepreneurship trainings, and technology incubation works, recently, through Agricultural and Rural Innovation Hub (ARIHUB). In addition to this, Haramaya Technical and Vocational Training Center, Afran Qallo Farmers Union and Haramaya Agricultural Farmers' Cooperative Union (HAFCU) are enhancing new business development and agricultural productivity by providing trainings and supplying improved agricultural inputs and technologies (Debela Diriba & Beke 2018) Some of the rural households in the district are embarking on economic diversification and joining entrepreneurship as a means of mitigating such hurdles (Teshome, et al., 2015.).

Therefore, it is important to uncover the characteristics of rural entrepreneurship, the factors that influence their operation, examine whether the existing explanations are fully compatible to inform decisions and actions of rural entrepreneurship in cash-crop based areas such as Haramaya district.

1.2. Review of Literature

1.2.1. Defining Rural Entrepreneurship

The term entrepreneurship dates back to the seventeenth century and it is derived from a French terminology ‘entre-prendre’ which directly means ‘to undertake’ (Landström, 2005). Later on, the idea developed to academic and management areas and took the name entrepreneurship. Pato & Teixeira (2016) contend that the remarkable contribution of Austrian-American economist Joseph Schumpeter for the development of entrepreneurship to academic and policy areas was remarkable. His first work “The Theory of Economic Development” published in 1934, where he explains entrepreneurship as the primary engine of economic development has brought a paradigm shifts on the subject (Pato & Teixeira 2016; Dasai 2009). Its expansion to the wider globe, according to Casson (2010) was largely influenced by the post-world wars economic shock that caused another new image.

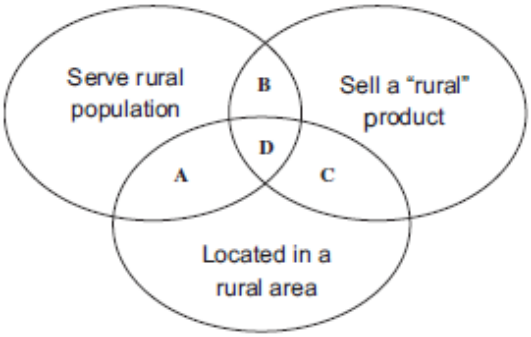
Rural entrepreneurship began to have a place in the literature in the 1980s (Pato & Teixeira 2016). Since then, it is conceptualized and approached in diverse ways by different scholars. It has been defined based on the place it operates in, i.e. placed-based (Pato & Teixeira 2018), the person who runs them, i.e. actor-based (Henry and McElwee, 2014) and the type of businesses activities, i.e. function-based (Arafat et al. 2020; Ayambila 2014)

The place-based view of Pato & Teixeira (2018) and Kosgaard et al (2015) defines rural entrepreneurship as ventures that operate in rural settings whereas the actor-based definition designates rural entrepreneurs as persons who manage enterprises in rural areas (Henry and McElwee, 2014). The functional perspectives describes rural entrepreneurship as the act of maximizing on the innovative and market-oriented production (Arafat et al. 2020; Naminse & Zhuang 2018; Sancho 2010) or as self-employment in rural non-farm economy (Nagler & Naude 2017; Ayambila 2014; Pramanik et al 2014; Ansari et al., 2013). Other scholars like Bosworth & Turner (2018); and Hernández & Luna (2012) have also defied rural entrepreneurship in terms of the capitals (skills, resources and support systems) required to run rural ventures. basis.

Bosworth (2012) makes attempt to include three dimensions, namely location, products and consumers of the enterprises, in defining rural entrepreneurship. In this regard, rural

entrepreneurship refers to owning and running enterprises that are (1) primarily located in rural areas and (2) selling rural products for (3) rural population (customers) as depicted in figure 1.1.

Figure 1.1: Categorizing Rural Businesses



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Source: Bosworth's (2012)

In the interplay of the three dimensions, Bosworth (2012) claims that four rural business categories (A, B, C and D) are possible. McElwee and Smith (2014) and Henry and McElwee (2014) also indicate operation in rural location, employing rural labor and value addition in rural items to be the three basic attributes defining rural entrepreneurship.

The intersections of the aforementioned definitions are used and rural entrepreneurship is defined, in this research, as participation of rural households in different farm and nonfarm rural businesses which includes innovative and market-oriented operation of agriculture and/or self-employment in non-farm activities to generate more income and ensure multidimensional well-being of the households.

1.2.2. Rural Entrepreneurship: A Theoretical Review

Multi-sector development framework (Santiago & Thorbecke, 1988) makes its base in the economic dualism notion of Lewis (1954); peasants labor mobility (Sen 1966) and Agricultural labor relocation theory (ALRT) of Hymer and Resnick (1969). The framework is further developed in late 1990s (Santiago & Thorbecke, 1988) and early 2000s (Van der Ploeg et al. 2000) as a counter explanation to the modernization theory that associates development with expansion of industries and decline of agriculture.

The focal point of the multisectoral framework is economic dualism between sectors and the dynamics related to the interdependence and labor mobility between them (Santiago & Thorbecke, 1988). The theory generally classifies the sectors in to six categories. These are urban (formal & informal), rural farm (formal and informal) and rural non-farm (formal and informal). In other word, this can be summarized as classification of two sectors (i.e. farm and non-farm) based on their location and formality status. Since the focus of this research is the rural segment both farm and non-farm operated both formally and informally are the main points of focus.

In line to this, the Agrarians Labor Reallocation Theory (ALRT) of Hymer and Resnick (1969) explains the nature of mobility of rural labor between the farm and non-farm sectors. The theory identifies three major areas of labor engagement namely, agriculture, non-farm works and leisure activities (Hymer and Resnick 1969). Accordingly, surplus household labor, after the attainment of households' food needs, join the non-farm sector in different forms. Ranis and Stewart (1993) add that the increase of rural labor in the non-farm sector is supported by the growth of technology in farm and non-farm sectors and increased productivity following the integration of rural areas into the world's economy. The involvement of surplus agricultural labor into the non-farm sector in turn contributes for the overall betterment of rural life (Hoang et al., 2014). The theory also shows the presence of bi-directional movement of rural labor from farm to non-farm sector. As the local areas get integrated in the global food market, entrepreneurs from non-farm sector may join the agriculture to produce exportable food (Hymer and Resnick 1969).

The labor mobility is also associated with entrepreneurial development which shows change in traits, ownership and operational patterns (Nagler and Naude 2014; Ayambla, 2014). The endogenous growth model of Greis & Naude (2008) identified three important factors for entrepreneurship as an engine for the growth of rural modern sectors. These are (1) entrepreneurial ability (2) financial institutions' role and (3) productivity in the agricultural sector. Accordingly, the development due to entrepreneurship goes through five ladders, i.e. (establishing new firm outside of the household, (2) absorbing surplus labor, (3) subsidizing or supplying innovative intermediate output final-goods producing firms, (4) tailoring specialization in manufacturing, and (5) increasing productivity and job in both the modern and traditional sectors.

However, the model focused on production sectors leaving narrow room for service sector development and it understands development as unidirectional (Alcouffe & Kuhn 2004). To address the theoretical gap Gibson et al. (2010) have come up with rural dynamics as a new perspective. Accordingly, rural dynamics assumes rural transformation as multi-directional processes taking place in the diverse economies of rural areas.

Furthermore, the occupational choice theory of Lucas (1978) makes efforts to address the question whether the stated sectoral and entrepreneurial mobility are spontaneous developments or whether there is some forcing factor behind such decisions. It asserts that individuals make analysis on the occupations available in their area and choose either entrepreneurship or paid employment based on their tastes and abilities (Lucas1978). The choice is determined by the individuals' risk attitudes and market oriented productive capabilities (Parker 2018). Later, the household theory of Sadoulet et al. (1998) came out with the proposition that households play the central role in rural business decisions more than individuals, at micro level and in rural dominated areas. Accordingly, households have dual role as units of production and consumption and they make the decisions on the basis of maximization of profit and utility. Social and cultural elements such as family and neighborhood relationships; spatial elements; policies and practices of formal and informal institutions; and the tradition of working in private farm are also much vital in shaping the occupational choice (Muñoz and Kimmitt 2019; Gaddefors and Anderson 2019; Michalewska-Pawlak 2012).

In addition to this the effective undertaking of the entrepreneurial work is highly related to the time devoted for the entrepreneurial activities. Becker's (1965) Theory of Time Allocation asserts human time as one of the fundamental economic resources and explains how and why people allocate this resource to different activities. It denotes the importance of technologies used for labor productivity, transportation issues and consumption patterns in shaping work-hour. Accordingly human beings' time allocation is divided as work-time and leisure/consumption time. Ferrante (2005) asserts that allocation of working time for entrepreneurial, organizational and learning activities determine the technical and economic growth of a society. At enterprise level, it shows the behavioral pattern, human capital, firm size and performance (Ferrante, 2005). This in turn sways the socioeconomic outcome of the

entrepreneurial work. Yet, the theories insufficiently address the nature, derivers and paths of mobility of rural labor between ventures in one sector or between farm non-farm sectors especially in the context developing countries.

Poverty alleviation is one of the decisive reasons why rural entrepreneurship has got attention from practitioners and decision makers. Despite the limited theoretical explanations and empirical evidences on the interaction between rural entrepreneurship and poverty alleviation, governments and different development actors are inviting entrepreneurship in their poverty alleviation plans (Dzingirai 2021) and some scholarly attempts have been made to fill the gap. For example, Prahalad's (2012) Bottom of the Pyramid (BoP) approach considers rural entrepreneurs as people at the bottom of the economic pyramid that are both producers and consumers of local products (Si *et al*. 2015; Bruton *et al*., 2013) and the sector gives the economic capacity to produce, purchase and utilize the necessary resources. Entrepreneurship in this regard is defined as a step towards self- employment through creating new or expanding the existing businesses with the aim of moving out of poverty trap and ensuring economic development (Naminse *et al*., 2018). It is an activity that entails creation of different means, ends, or means-ends relationships between the production and consumption lines and hence positively influencing the economic development and well-being of individuals and communities (Sutter *et al.*, 2019). It is typified by self-employment based improved operation of farm and/or non-farm activities for better earning and living (Naminse *et al*., 2018). But, explanations on the nature of relationship between rural entrepreneurship and multidimensional poverty; and which specific dimension or indicators and areas of poverty that are highly hit by rural entrepreneurship are missing.

1.2.3. Empirical Review on Rural Entrepreneurship

The empirical researches conducted on rural entrepreneurship are diverse and multifaceted. To begin with, Nagler & Naude (2014) studied the profile of rural non-farm entrepreneurship in Africa in terms of prevalence, motives for joining the sector and the types of non-farm businesses run by rural households. They analyzed World Bank's LSMS-ISA survey data of six countries and their findings shows that rural businesses in Africa are predominantly small scale and swayed by push (necessity) and pull (opportunity) factors. Accordingly, the types of businesses operated in rural areas are different based on their individual, household and localization characteristics

(Nagler & Naude 2014). The study of Meera (2017) in Banglore, India describes rural entrepreneurship to be dominantly operated by the less educated and middle-aged males that are supported by their family level resources.

As far as the determinants of rural entrepreneurship are concerned, Shehu & Abubakar (2015) studied the determinants of agricultural households' participation in non-farm enterprises in rural areas of Nigeria. The finding shows that household heads' literacy, the household size and market distance as significant determinants of the households' involvement in non-farm enterprises. In Ghana, economic factors such as the size of landholding, access to credit, electricity and mobile phones are discovered to be the major determinants in addition individual and household variables (Ayambila 2014). In addition to this livestock and finance are also identified by Owoo and Naudé (2014) to be key determinants of rural entrepreneurship. Kharga *et al*. (2021) examined the determinants of profitability of rural entrepreneurship in West Bangal using correlation test on 220 respondents. Their result shows the importance of age, land holding, marital status, management and risk orientation and exposure to training in determining the net profit of the entrepreneurs. Similarly, the study of Owoo & Naude (2014) shows that the performance of rural entrepreneurship is significantly determined by education, age, household size; religious affiliation and community infrastructure.

Referring to the poverty reduction role of rural entrepreneurship, Kacher & Weiler (2018) examined poverty reduction role of entrepreneurship in rural America and they came up with mixed findings on the poverty reduction impacts vary across sectors. Lin *et al.* (2020) also analyzed the correlation between entrepreneurship and poverty in China using panel data of 2000 to 2017. Their finding shows that poverty alleviation role of entrepreneurship is higher in the developed region and urban areas than less developed and rural areas.

Coming to the rural and agricultural community, Saxena's (2012) research in rural India shows that entrepreneurship is a promising sector to improve farmer household's well-being. In Africa, Mensah and Benedict (2010) shows that, entrepreneurship could not bear a tangible poverty reduction impact in Eastern Freetown of South Africa because of poor communication and linkage between the government and entrepreneurs. On the other hand, Fiseha et al (2019) examined the case in rural Cape Town (South African) and reports that entrepreneurship has an

immense poverty reduction impact contribution. Similarly, the research of Shehu & Sidique (2014) on poverty reduction role of non-farm enterprises in rural Nigeria reveals that non-farm enterprises can serve as a pathway for improving the well-being of rural households.

The above researches have focused on the poverty in terms of monetary aspect. Coming to the non-monetary dimension, Naminse et al., (2018) and Li et al. (2016) studied agricultural entrepreneurship and the capability aspect of wellbeing (education, economic and sociocultural capitals) in China. Similarly, Ping and Zong (2021) also analyzed the impact of tourism-based entrepreneurship on multidimensional poverty (expressed by income, education and health indicators) and the finding shows a weak link between the two.

In Ethiopia, empirical studies on rural entrepreneurship have started to gain momentum in 2010s. The earlier works focused on assessing the potentials, prospects and challenges of rural entrepreneurship in general and non-farm micro and small enterprises in particular (Freeman 2012; Zhang et al., 2011; Singh & Belwal, 2008; Loening et al., 2008; Gobezie, 2008). Such studies gave emphasis to profiling rural entrepreneurship and assessing the role of institutions in fostering them. Later studies emphasized on examining the determinants of participation in non-farm entrepreneurship (Nagler & Naude, 2014), the gender role in the sector (Rijkers & Costa, 2012; Belete, 2011), and rural firms' spatial attributes and performances (Owoo & Naude 2014; Owoo Naude 2014).

The study of Loening et al. (2008) in four regions of Ethiopia shows that women are the major participants of non-farm micro-enterprises and the sector serves as alternative source of labor market and income during the low crop performance. Owoo & Naude's (2014) analysis on Ethiopian Rural Household Survey shows that the performance of rural entrepreneurship is shaped by spatial factors. Alemu & Adesina (2017) also have conducted a study on rural entrepreneurship in Ethiopia based on the data from 415 dairy farmers in Tigray region. Their finding reveals the importance of social capitals (cooperatives), access to transportation and communication means and institutional settings, i.e., Farmers Training Centers, (FTC) as drivers of non-farm entrepreneurship.

Researches that examined the outcomes of rural entrepreneurship in Ethiopia are very few. The notable one among them is Kimhi's (2009) study on the role of rural entrepreneurship for addressing income inequality in *enset* (false-banana) producing areas of southern Ethiopia. The study concludes that rural entrepreneurship has immense contribution for improvement in both growth and distribution of income.

1.2.5. Conceptual Framework of the Study

Rural households run their livelihood in either traditional or entrepreneurial forms. The entrepreneur households engage in either or both of agricultural and non-farm entrepreneurial activities with varying intensity. Their participation and intensity of entrepreneurial engagement are shaped by several factors that could be generally categorized as individual level, household level, community and institutional factors, and enterprise characteristics. The first three categories are presumed to influence both participation and intensity of entrepreneurial engagement while the fourth one (enterprise characteristics) is considered to sway the intensity alone.

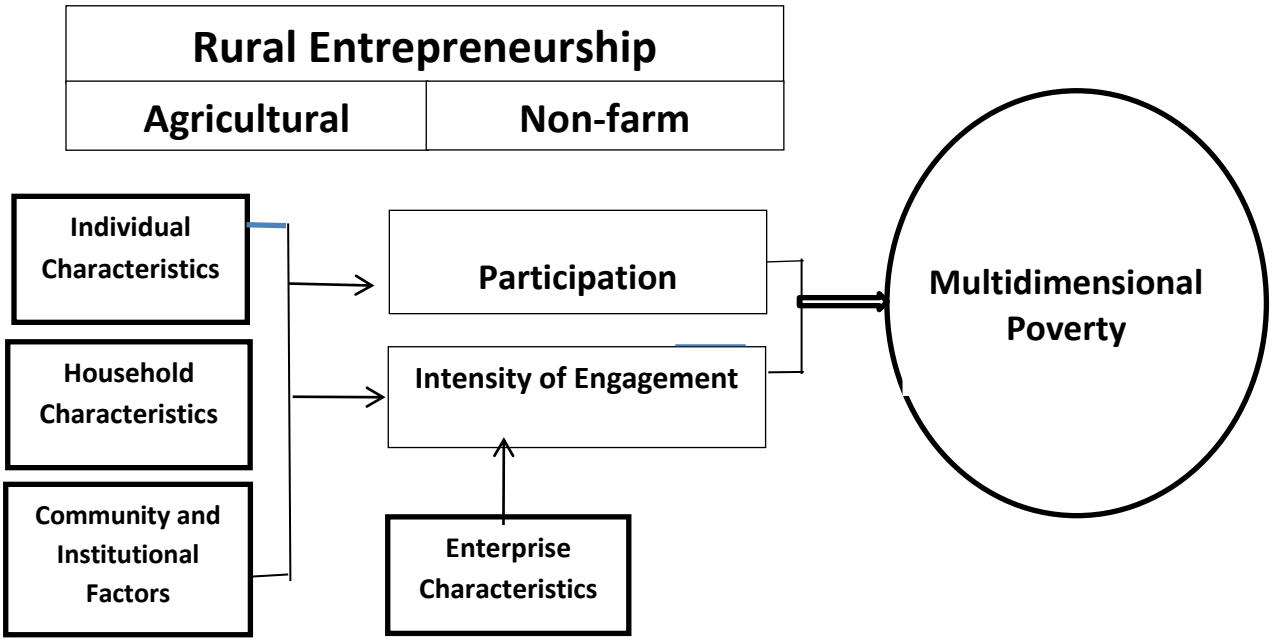
Individual level characteristics include age, sex, education, marital status, and previous work; whereas household level characters are those like household size, position of the entrepreneur in the household, their access to electricity, possession of mobile phone, landholding, and distance from market center and main road (Meera's 2017; Loening *et al*. 2008). Community level attributes such as presence of cooperatives, entrepreneurship promoting culture and trust from the community; as well as enterprise related factors which include firm size (Capital), location of the firm, number of workers, nature of customers and formal registration also wedge remarkable influence in shaping rural entrepreneurship. In addition to these, institutional factors like credit from banks and microfinance licensing procedure training & support and taxing have important position with regards to determining entrepreneurship (Ansari *et al* 2013; Owoo & Naudé 2014).

The characteristics the business enterprises manifest are also important factors that affect the intensity of entrepreneurial engagement. The firms' age, location, sector, access to labor and formal registration to be among the major enterprise characteristics influencing entrepreneurial (Ayambila 2014).

Rural entrepreneurship is taken as an important tool to eradicate rural poverty (Ayambila 2014; Jayadatta 2017; Kushalakshi1& Raghurama 2014). Participation in entrepreneurial activities and poverty alleviation are believed to have significant relationship (Rohwerder 2016). In this research poverty is defined as multidimensional deprivation of households in 10 indicators categorized under 3 dimensions (i.e. health, education and living standard dimensions) based on Alikire-Foster method.

Entrepreneurs require having greater ability to set visions and work accordingly to run expansionist orientated businesses as opposed to survivalist ones. When the entrepreneurial activities fall in to expansion sets the entrepreneurs seek further education and training or at least educated man power to sustain and further expand their business. The same stands true for life standard dimension indicators of poverty such as electricity, water, modern communication devises and energy sources (Alikire & Jahan 2018). Better access to these elements enhance the performance and operation scale of entrepreneurial businesses and the increase in benefit from entrepreneurship gives better ability and willingness to purchase them in large quantity and quality. Poverty in rural areas make the working power to migrate urban areas this in turn reduces the expansion of self-employment in the villages (Wilmoth 2017) and households that experienced food shortage are more likely to participate in entrepreneurship (Nagler & Naude 2014).

Figure 1.2: Conceptual Framework of the Research



Source: Developed by the author

1.3. Statement of the Problem

Recently, rural areas have been undergoing significant changes in their population profile, perception, and resources (Naminse et al. 2019; Arif & Farooq 2014; McAreavey 2009). They are dominantly characterized by high rate of poverty, unemployment, out-migration lower income and less diversity of livelihood basis (Newbery *et al*. 2017; Kushalakshi1& Raghurama 2014). They have much more types and degree of deprivation than the urban areas (Naminse & Zhuang, 2018). Rural poverty in multidimensional aspect is much higher (85%) in rural areas especially in the Sub-Saharan Africa (Fiseha et al. 2019; Alkire et al. 2014). Rural entrepreneurship is recognized by development stakeholders, academics, and researchers as an effective tool for reducing unemployment, generating income, curbing economic migration, eliminating poverty, and promoting economic innovation and empowerment (Sutter *et al*., 2019; Newbery *et al*., 2017; Kushalakshi & Raghurama 2014; Ansari et al 2013; Fritsch, 2013).

Majority of the studies on rural entrepreneurship have been conducted in high-income countries (74%) and upper-middle income countries (13%) in Europe and America (Pato& Teixeira 2016)

leaving narrow room for the low-income countries which are predominantly rural. For instance, the Sub-Saharan Africa, where there is large share (63%) of rural population (OECD-FAO 2015), urgent need for rural entrepreneurship (Legas 2015; Abebe & Gebremariam 2021; Jones et al. 2018) the attention given is less. Even within the Sub-Saharan Africa, the Anglophone countries such as Kenya, Uganda, Nigeria, Ghana and South Africa have got relatively better focus compared to the Francophone ones and the others (Boohene & Agyapong 2017).

The earliest studies in the line of rural entrepreneurship emphasized on livelihood diversification manifested by rural households' participation in diverse income generating activities as owners or as employees (Ellis 2000; Reardon, Delgado & Matlon 1992). But the contemporary definition of rural entrepreneurship is divergent from mere livelihood diversification. While livelihood diversification includes both wage and self-employment, rural entrepreneurship refers to self-employment in rural business that operationally entails the act of converting agriculture from livelihood to business by undertaking market oriented and innovative operation (Arafat et al. 2020; Naminse & Zhuang 2018). The other group of scholars, including Nagler and Naudé 2017; and Nagler and Naudé 2014 associate rural entrepreneurship with self-employment in non-farm activities. This study is based on multi-sector rural development view of Santiago & Thorbecke, (1988) to define rural entrepreneurship and treats both sectors. Rural entrepreneurship, in this research is operationally defined as rural households' participation in innovative and market oriented agricultural business and/or self-employment in nonfarm enterprises in order to generate more and diverse socioeconomic benefits.

Several studies have worked on profiling and characterizing rural entrepreneurship in terms of the reason of starting entrepreneurial works, modes and scale of their operation and their future orientations (Pato& Teixeira 2016; Dasai 2009; Short et al 2009. The study by Pato& Teixeira (2016) and Short et al 2009) show that rural households involve in entrepreneurship either due to necessity (such as loss of job) or to utilize opportunities (like demand and supply gaps, price differences and technology substitution). With reference to mode of operation, Dasai (2009) classifies rural entrepreneurs as formal and informal, and small and medium scale. In line to this, Nagler & Naudé (2014) describes rural entrepreneurship in the SSA as small, informal and seasonally operating household enterprises. Their finding also shows that rural firms are mostly

run for survival and risk diversion rather than profit generation or growth. But the profiling work in the above researches have focused on either farm or non-farm entrepreneurship, exclusively. This research incorporated rural entrepreneurship in both sectors in its analysis because the two sectors mostly tend to operate as compatible than mutually exclusive works in the case of rural Ethiopia.

Rural entrepreneurship is divergent and dynamic process that manifests changes on contextual and temporal basis context to context and from time to time (Kuratko & Morris 2015; Braunerhjelme *et al.*, 2015; Wangwe & Mmari 2013; Naturwissenschaften 2012). In line to this, Congregado et al. (2012) analyzed the macro-dynamics of entrepreneurship in Spain and the USA to check the hysteria in the businesses and the influence of policies in the hysteric dynamics. Their study underscores that policies play an important role in shaping the entrepreneurial hysteresis. Braunerhjelm et al. (2015) also assessed the relationship between the economic regulation and firm dynamics in entrepreneurship based on review of literature. When it comes to the developing countries, Wangwe and Mmari (2013) show the presence of dynamics in the transition of entrepreneurial operation from informal to formal modes. However, these studies have hanged their work on analyzing policy related macro-level, quantitative secondary data. This reduces the opportunity to uncover context-based and unquantified realities in the occupational mobility and entrepreneurial work dynamics. In addition to this, there is lack of frameworks and full-fledged literatures describing the facet and relationship of sector-based rural occupational mobility and entrepreneurial dynamics. Hence, this research employs mixed method to provide elaborate and context-based explanation on the state of affair.

Researches examining the relationship between rural entrepreneurship and poverty are scarce in number and they are characterized by fragmented focus and diverging perspectives, methods and results (Lee & Rodríguez-Pose 2021; Sutter *et al.* 2019; Kacher & Weiler 2018; Alemu & Adesina 2017). Entrepreneurship is described as the panacea for poverty alleviation (Fritsch, 2013) on one continuum and labeled as insufficient tool on the other (Lee & Rodríguez-Pose 2021; Ping & Zong (2021). While the studies by Naminse et al., (2018) and Li et al. (2016) in rural China show weak link between the two, Saxena's (2012) research in rural India shows that entrepreneurship is a promising sector to improve farmer household's well-being. As far as the case of Africa is concerned, Mensah and Benedict (2010) show that, entrepreneurship could not

bear a tangible poverty reduction impact in Eastern Freetown of South Africa because of poor communication and linkage between the government and entrepreneurs. On the other hand, Fiseha *et al.* (2019) examined the case in rural Cape Town (South African) and reports that entrepreneurship has an immense poverty reduction contribution.

With regards to methodology wider body of literature have examined the relationship of rural entrepreneurship with poverty based on one-dimension poverty analysis such as income based analysis (Fiseha *et al.*, 2019; Alemu & Adesina, 2017; Shehu & Sidique, 2014) and consumption based analysis (Seng, 2015; Hoang *et al*., 2014). However there are growing agreements among scholars (specially by the proponents of the Capability Approach) that poverty is multidimensional in its nature and measuring poverty based on one-dimension has got limitations due to three major reasons (Naminse & Zhuang, 2018; Abbott et al., 2012; Asselin, 2009). In the first place, income or consumption expenditure is not an end in itself rather it is used to build multidimensional well-being. Hence, quantitatively analyzing the monetary values in terms of income or expenditure alone cannot give clear picture about poverty and well-being. It is also less likely that that all people with equal income or consumption experience similar status of well-being. Secondly, applying monetary approach in rural areas is difficult owing to poor income and consumption recording culture. Thirdly, there is a possibility that people may hide or false-report their income and expenditures due to tax and related issues. Therefore, to overcome these problems, scholars have devised multidimensional approach that measures poverty using both quantity (eg: number of assets) and quality indicators (eg: toilet types).

In order to bridge the aforementioned gaps, this study endeavors to examine the patterns and dynamics of rural entrepreneurship; determinants of decision and intensity of entrepreneurial engagement; and its contribution for alleviation of multidimensional poverty. In doing so, the research incorporates both agricultural and non-farm entrepreneurship. The data for the research are gathered from Haramaya district by employing sequential explanatory strategy of mixed research approach. Haramaya district is chosen for this study because of its potential to provide wide range of data regarding the problem at hand.

1.4. Objectives of the Study

The general objective of this study is to assess the characteristics and determinants of entrepreneurship in rural areas of Haramaya district as well as its contribution for poverty alleviation.

The research specifically endeavors to

- Assess entrepreneurial characteristics and sector-based mobility in the rural areas of Haramaya district.
- Identify the determinants of rural households' participation in rural entrepreneurship
- Examine the determinants of rural households' entrepreneurial work intensity
- Evaluate the status and severity of multidimensional poverty among rural households of the district
- Analyze the contribution of rural entrepreneurship for reduction of multidimensional poverty.

1.5. Research Questions

To attain its objectives mentioned above, the study addresses the following basic questions.

1. What attributes characterize rural entrepreneurship and sector-based mobility in Haramaya district?
2. What are the determinants of rural households' participation in entrepreneurial activities?
3. What factors determine the rural households' intensity of entrepreneurial work?
4. What does the multidimensional poverty status and severity of the rural households look like?
5. Does participation in rural entrepreneurship contribute for the reduction of multidimensional poverty?

1.6. Significance of the Study

This study is will have significant importance for different bodies in diverse ways.

First, it provides empirical evidences that will help policy/decision makers for their decision and intervention works. The explanation it provides on the nature, path and derivers and occupational and entrepreneurial mobility dynamics will help the body of knowledge in setting rural entrepreneurship frameworks. Besides, the research divulges the nature of relationship between rural entrepreneurship and multidimensional poverty. It helps poverty reduction policies by revealing which specific indicators are most affected by rural entrepreneurship and what sort of entrepreneurship support interventions are required to maximize the outcomes.

Second, Studying and revealing the characteristics of the entrepreneurial activities, factors that influence such entrepreneurial activities and the contribution of the activities for poverty reduction will have a paramount importance for NGOs and CSOS to identify areas of focus and priority setting for future rural development works.

Third, it serves as the source of information for rural households, unemployed rural youth and any other person in Haramaya and related rural settings to scientifically understand the entrepreneurial activities around them and revisit their livelihood diversification and poverty reduction options accordingly

Furthermore, the research will contribute to the academic and research world that face dire shortage of literature materials characterizing and profiling rural entrepreneurship, exploring its determinants and portraying its contribution for poverty alleviation.

1.7. Scope and Delimitation

The conceptual scope of this research is delimited to studying the characteristics of rural entrepreneurship, it's determinants and its contribution for reduction of households' multidimensional poverty. The central focus of this research is exploring and unpacking the patterns and dynamics of the occupational mobility and entrepreneurship in rural settings.

Determinants of rural entrepreneurship could be classified as determinants of participation in to entrepreneurial work; determinants of survival or presence in it; determinants of performance the firms; etc. Out of all these elements, this study delimits itself to analyzing the determinants participation and intensity of participation in entrepreneurial activities.

Rural entrepreneurship has got different forms of relationship with different developmental issues such as employment creation, social capital building, poverty reduction, etc. This study delimits itself to studying the contribution of rural entrepreneurship for alleviation of poverty employing the multidimensional poverty analysis model.

1.8. Challenges and Limitations

The research work has passed through multifaceted challenges. To begin with, the data for the research could not be gathered in a complete form for almost two years because of socio-political movements that were accompanied by conflicts, recurrent boycotts, blockades and; the panic and lockdown caused by Covid-19. As a means of coping up with the problem, the researcher decided to do the field works when it is convenient and undertake data encoding, transcription and translation works at home when it was difficult to go for field work.

The on and off mode of data collection in turn led to a financial challenge due to repeated transport payment and personal expenses. Fortunately, the researcher used the money he earned by working as paid data enumerator for other research project to cover the costs of repeated mobility. In addition, considerable number of respondents wanted some money to participate in the research which the researcher could not afford. The lack of willingness from the side of some rural households due to repeated interview by researchers from diverse institutions also required more effort to convince the respondents and gather the data.

Furthermore, the methodological and conceptual limitations are discussed under subtopic Future Researches (7.4).

1.9. Methodology

1.9.1. Description of the Study Area

Location, Topography and Climatic Condition

Haramaya district is one of the districts located in East Hararghe Zone of Oromia Region, Ethiopia. The district falls between $9^0 09''$ and 9^0 $32''$ North latitude and 41^0 $50''$ and 42^0 $05''$ Eastlongitudes to the west of Harar town. It is situated in the Northern part of the zone, bordered on the south by Kurfa-Chele and Fedis, on the east by Kombolcha and on the west by Kersa districts. It is bordered by Dire Dawa City in the North and by the Harari regional state on the southeast. Its administrative center, Haramaya town, is located about 497 Km from Addis Ababa to the East direction (CSA 2008; Nuru & Mhatebu 2017). The district is, topographically, within the eastern part of Harerghe, at an altitude of 1600-2100 meter above sea level. The amount of rainfall in the area experiences seasonal variation, with the highest rainfall of 866 mm being recorded from June to September and the smallest, 118 mm, recorded in February. The mean annual rainfall recorded is 498 mm and mean annual temperature was 24^{o}C. The temperature ranges 9.5-24^{o}C with low temperature fluctuation. The district has two agro-climatic zones, where 66.66% was Weina Dega and 33.33% was Kola (Nuru & Mhatebu 2017).

Demographic Attributes

According to 2007 national census, Haramaya district has a total population of 271,394, of whom 138,376 are men and 133,018 are women; about 220,408 (81.2%) of the total population are rural residents. The majority (96.66%) of the inhabitants are Muslims, and 2.7% of the population practiced Ethiopian Orthodox Christianity whereas the rest 0.64% were followers of other religions that includes Protestantism, Catholicism, traditional religion, etc. (CSA 2008). Accordingly, about 42.2% of the people are in economically active age ranging between 15-60 years. According to the census, the district has got 44,857 rural and 11, 713 urban households that live in 43,126 and 11,233 housing units respectively. The ratio of person per housing unit was 1.043 for urban areas of the district and 1.040 for the rural ones.

Livelihood and Business Activities

The people in Haramaya district practice mixed agriculture. The production system in the study area is dominantly characterized by rain-fed and to some extent irrigated systems (Abebe, Haji &Ketema 2014). *Khat* and vegetable are the major products of the area followed by sorghum, maize and haricot beans where the khat is the major contributor (36.5%) of the household's income. (Abebe, et al. 2014). On the livestock side and the sheep, goat, cattle and donkey are the dominant animals reared by the community (Nuru&Mhatebu2017; Abebe et al. 2014).

However, natural and anthropogenic factors which caused different problems including the complete drying of three lakes, i.e. Haramaya, Addele and Harajitu, has wedged considerable impact on the livelihood activities of the people (Abebe, et al. 2014). The drying of the lakes had a significant negative effect on the income from vegetables, *Khat,* overall irrigated crops, inter-crop cultivation, overall crop and livestock production (Abebe, et al. 2014). Recently, even though the lakes have recovered in 2020, its contribution in the economy and ecological balance is not yet established by research.

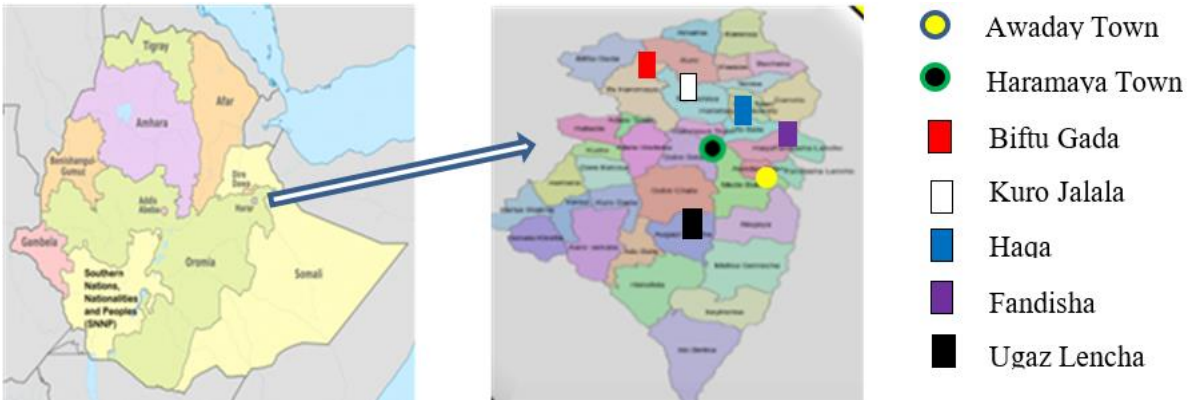
Moreover, it is located in a geographically advantageous place for market access and various nonfarm activities. It is located close to a federal administrative city with international airport, Dire Dawa, UNESCO registered World Heritage site of Harar and Qulubi-Gebriel Church, a famous church in Ethiopia celebrated twice a year by large number of people gathered from different parts of the country and abroad. Besides the presence of Haramaya University, one of the pioneer and reputable universities of Ethiopia, in the womb of the districts makes it the place of multilayered advantages. These and the like factors have facilitated expansion of productive nonfarm activities (Owoo & Naudé 2014; Syraji et al 2o17). Increasing number of people in the district are joining petty trade, craft works, daily labor in different off/non-farm employment and other livelihood activities (Teshome et al., 2015).

Despite the aforementioned advantages, the area is vulnerable for poverty and food insecurity due to high population pressures, land degradation and deterioration of other natural resources (Sileshi et al., 2019). The study conducted by Beyene et al., (2020) on the nutritional status of under-5 children in Haramaya district shows that 36.6 percent children are stunts and around 20 percent of them are underweight.

Several measures have been in place to mitigate the problems and enhance the agricultural development in the area. To overcome the nutrition problem and acute poverty, a social protection measure of Productive safety net program (PSNP) was introduced to the area since early 2000s (Sileshi et al., 2019). This was supported by the HABP project to transform the households from total aid dependence to asset formation and venturing (entrepreneurship). The other support measure was the establishment of Peasant Associations (PA) and making it easy for provision of trainings, and agricultural inputs through Farmers Training Centers (FTCs) for agricultural productivity (Wordofa & Sassi 2014).

Haramaya University, also in addition to the mainstream education and research works has established institutional structures such as Entrepreneurship and Technology Promotion Directorate to support productivity and diversification of rural economy. It has also been been providing entrepreneurship trainings, and technology incubation works through Agricultural and Rural Innovation Hub (ARIHUB). In addition to this Haramaya Technical and Vocational Training Center Afran Qallo Farmers Union and Haramaya Agricultural Farmers' Cooperative Union (HAFCU) are enhancing new business development and agricultural productivity by providing trainings and supplying improved agricultural inputs and technologies (Debela et al. 2018).

Figure 1.3: Administrative Map of Haramaya District



Source: Haramaya District Health Office

1.9.2. Philosophical Approaches and Research Designs

Literatures portray remarkable divergence in the way they defined rural entrepreneurship; the approaches they used to study it; and the methods used to measure and analyze it. This is mainly because the researches have studied it from standpoint of different fields of studies, such as economics, innovation studies, sociology, anthropology, history, etc. using their respective philosophical lenses and methodologies. Some of the entrepreneurship researches have been conducted through the lens of positivists philosophy, which perceives reality as absolute, universal and quantifiable truths whereas the others are underpinned by interpretivist-philosophy that depicts realities as a mentally constructed subjective reality that needs to be addressed qualitatively (Gray 2014; Creswell 2014). This research is underpinned by the philosophy of pragmatism that bridges the two philosophical extremes (Friesen et al. 2019).

The research includes both quantitative and qualitative parts. Hence, the mixed approach better complies with the framework of this research. The sequential explanatory strategy that presupposes collection of quantitative data followed by qualitative data (Creswell 2009) was used as the guiding strategy to undertake the research. As far as the specific research design is concerned, descriptive and exploratory design were used to establish the pattern and dynamics of rural entrepreneurship. Besides, the analytical and explanatory designs were employed to analyze the determinants of rural entrepreneurship and its contribution for reduction of multidimensional poverty.

1.9.3. Sample and Sampling Techniques

The unit of analysis for the research is a household and respondents are household heads. This is because over 90 of the entrepreneurial holdings in Africa are household enterprises (Fox and Sohnesson, 2012). An official report gathered from Haramaya District Administration Office (unpublished) shows that there are a total of 44,644 rural households in the district. To take sample respondents for the quantitative data, the researchers used the sample size determination formula set by Krejcie and Morgan (1970). The formula is presented as

Equation1. 1

$$S = \frac{\chi^2 NP(1-P)}{d^2(N-1)+\chi^2 P(1-P)}$$

Where: S = the sample size;

X^2 =: the table value of chi-square for 1 degree of freedom at the desired confidence level which is the squire of 1.96 (3.841)

N = the total target population (44,644)

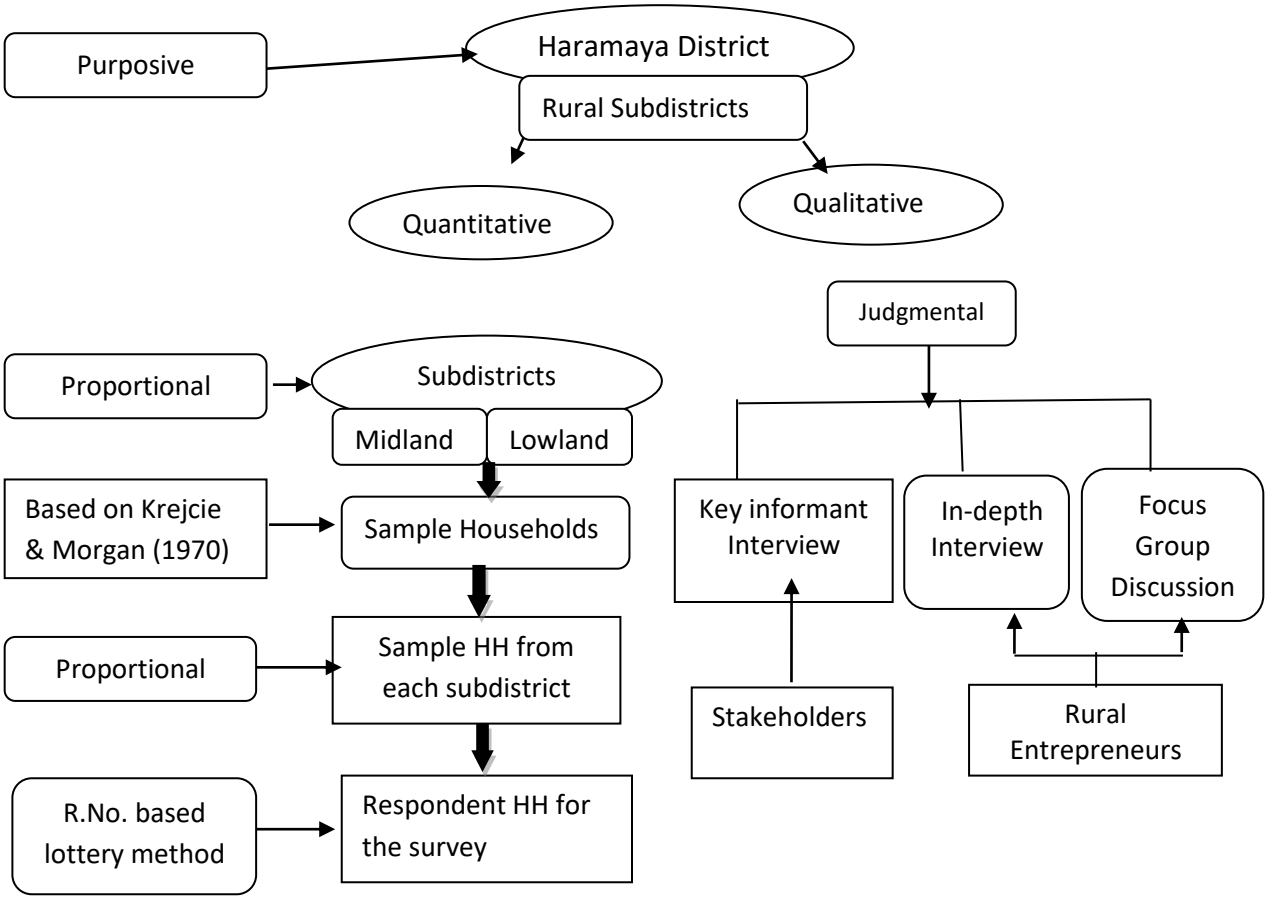
P = the population proportion assumed to be 0.50 (since this, according to Krejcie and Morgan (1970) would provide the maximum sample size).

d = the degree of accuracy expressed as a proportion (0.05).

$$S = \frac{1.96^2 x 44644 x 0.5(1-0.5)}{0.05^2(44644-1)+1.96^2 x 0.5(1-0.5)}, \quad S = \frac{3.841 x 44644 x 0.5(0.5)}{0.0025(44643)+3.841 x 0.5(0.5)}, \quad \textbf{= 380.83}$$

Accordingly, the sample size becomes 381.

Figure 1.4: Sketch for the multistage sampling



Source: The author

As far as the sampling techniques are concerned, generally multistage sampling was employed. In the first stage Haramaya district was taken as the research target because of its aforementioned locational and societal potentials for entrepreneurship and the fact that it is less studied. On the second stage the 33 rural sub-districts (*kebeles*) were stratified based on their ecological zones as lowland (11) and midland (22) sub-districts (HDAO 2019). 5 Sub-districts (2 from lowland and 3 from midland climatic zones) were selected as final sample kebeles based on proportional sampling technique. The number of sample households from each sample sub-districts were identified using the proportion allocation formulae

Equation 1.2 $$ns = n\left(\frac{Ns}{N}\right)$$

Where **ns:** refers to sample size of households from *Sub-district*;

N: stands for total Household of the district;

Ns: implies total household of the *Sub-district;* and

n: is total sample (at district level).

Accordingly, the sample respondents for the quantitative data were 46 households from Haqa, 41 from Ugaz Lencha, 128 from Kurro-Jalala, 58 from Fandisha-Lencha, and 108 from Biftu-Gada subdistricts. Finally, the respondent households were selected through a simple random sampling method (i.e. roll number-based lottery) using the household list from administration offices of each *Sub-district.*

Table 1.1: The sample from each sub-district (For Survey)

Sub-district	Distance (in KMs)		Total Households	Sample households	Percentage
	From Awaday town	From Haramaya town			
Kurro Jalala	23	13	2580	128	33.6
Biftu Gada	26	16	2177	108	28.35
Fandisha Lencha	2	12	1168	58	15.22
Haqa	2	14	927	46	12.07
Ugaz Lencha	20	25	826	41	10.76
Total			7678	381	100

Source: Based on HDAO (2019)

Sampling for the Qualitative Data

Judgmental and availability sampling technique was used to identify respondents for qualitative data. The helps of Harmaya District Micro Enterprise Development Office; and extension workers were immense in identifying the respondents. The qualitative data were gathered from agripreneurs, non-farm entrepreneurs; extension workers, *afosha*[3] leader, youth group leader and female group leader; as well as officers from Haramaya University Research office, Oromiya Saving and Credit Association, farmers' union, Micro and Small Enterprises Development office (later named as job creation and food security office), Trade and Industry, Administration office and HAP-project (an NGO).

Interview guides were prepared and the researchers personally interviewed as 6 rural entrepreneurs as in-depth interviewees (IDI) and 11 stakeholders as key informants (KII). Besides, Focus group discussion (FGD) with 7 rural entrepreneurs. The KII Respondents from each stakeholder institutions were chosen based on their specific post that shows expertise and exposure based on the recommendation from their respective offices or social settings. For the IDI and FGD the criteria used was maintaining balance between gender, farm-nonfarm sectors, and sub-districts.

[3] A social self-help organization whose Amharic equivalent is *"eddir".*

Table 1.2: Samples from each sub-district for qualitative data

Variable	Categories	B. Gada	F Lencha	Haqa	K. Jalala	U. Lencha	Haramaya Town	Total	
								N	%
Sex	Male	3	2	2	2	1	4	14	58.3
	Female	1	1	1	3	1	3	10	41.7
	Total	4	3	3	5	2	7	24	100
Occupation	Farmer	2	2	1	1	1	0	7	29.2
	non-farm business	2	1	2	3	1	0	9	37.5
	Employee of Gov't/NGO	0	0	0	1	0	7	8	33.3
	Total	4	3	3	5	2	7	24	100
Role as Respondents	KII	1	1	1	1	0	7	11	45.8
	IDI	1	1	1	2	1	0	6	25.0
	FGD	2	1	1	2	1	0	7	29.2
	Total	4	3	3	5	2	7	24	100
	Total	4	3	3	5	2	7	24	100

1.9.4. Instruments and Data Collection

The data collection instruments have gone through long rigorous process from preparation to data collection and analysis. Initially, some questions and the ideas that were found vital for addressing the research objectives, during the literature reading and proposal writing, were separately encoded in a file entitled potential questions. Those ideas were revisited based on the comments given on the overall research by examiners and panelists that participated on the proposal defense session. The second stage in the instrument preparation was searching for instruments that would fit the research objectives and context of the study area. The researcher found the multidimensional poverty index (MPI) developed by Alkire and Santos 2014) fitting for specific objective 4 and five of the research whereas there were no convincing standard instruments for the remaining objectives. Therefore, a mix of self-developed items (based on ideas from the literature) and the standard MPI were used to develop the survey questionnaire.

Then, the prepared questionnaire, along with list of specific objectives, were sent to 7 scholars that have studied entrepreneurship and poverty from different perspectives and fields of study for validation. These include 3 staff of center for rural development in Addis Ababa University, 1 from the department of Management in Mekele University, 3 from Haramaya University, i.e 1

each from departments of Rural Development and Agricultural Innovation; Economics and Management. Then the survey questionnaire was modified based on their comments and finally, translated to the local language (Afan Oromo) and set for pilot survey in Aughust 2019. The pilot survey was done by the researcher himself with the help of 4 extension workers and data were gathered using 43 questionnaires and 4 interview.

Based on the responses on the items and interview results some questions were refined. Changes, such as modification on the alternative responses, omission of some items (such as income from remittance, subsidy, ownership of refrigerator, television, etc.) and inclusion of some additional items (like, ownership of residence house and business site) were done accordingly. Then, total of 8 extension workers (2 each from K.Jala, B. Gada and Haqa districts and 1 each from U. lencha and F. Lencha subdistricts) were hired and given short training and orientation and collected the main data under the supervision of the researcher.

Finally, the major survey of 381 households was conducted from March 2020 to September 2020 being interrupted every now and then due to political movements, boycotts, road blockade and covid-19 lockdowns. The reliability of the survey instruments was established by crombatch's alpha result of 0.749 which falls in the acceptable standard, $\alpha > .0.70$ (Tavakol & Dennick 2011).

Since the research was based on sequential explanatory strategy of mixed approach, the questions for the qualitative data were revisited for use based on the preliminary result of the quantitative data. The qualitative data were gathered through was undertaken with the help of colleagues from Haramaya University in November and December 2020. Non-participatory observation also served as an important data gathering instrument. The interviews and the FGDs were recorded and captured in notebooks (as field notes) and some of the observed data were recorded in the form of photographs.

1.9.5. Data Analysis and Interpretation

Analysis of the data goes through different facets and phases. The qualitative data collected through in-depth interview, key informant interview, FGD and observation were analyzed using hybrid thematic analysis of Fereday & Muir-Cochrane (2006). The technique entails both inductive and deductive approaches (i.e. data-driven theme creation and analysis of data based on priori set templates) and it is helpful for mixed application of descriptive and interpretive research (Fereday & Muir-Cochrane 2006). Before the analysis, the qualitative data in the forms record and field-note were transcribed in the local language (Afan Oromo) and later translated to English to fit in the themes of discussion. The ideas from the stated qualitative data were primarily used to augment the results of the quantitative data. Initially, Nvivo 12.2 was started to be used to aid thematizing the qualitative data. But, later, color and bullet based thematization in Microsoft office word was widely used due to its simplicity and yielding the required information. Most importantly, the qualitative data were used to explain the pattern and dynamics of labor mobility and entrepreneurship in the rural areas of the district (objective 1). It has got a minimal role for the other 4 objectives since they are quantitative studies.

To analyze the quantitative data, Stata version-14 and IBM Statistical Products and Services Solutions (SPSS) version 20 were put in use. The first step of the data analysis was identifying respondents' characteristics as to whether they are appropriate enough to consider them for further analysis. Initially, around 27 socioeconomic characteristics of respondents were identified as potential predictor variables. Then their representativeness, collinearity variability, multicollinearity and potential relationship with the independent variables were checked using different techniques. The chi-square goodness of fit was used to measure the representativeness of the variables and the result indicated that all of the variables were fit enough for the representativeness criteria with the value of $P < 0.01$. Second, Pearson's correlation was employed to measure the collinearity between the variables and two variables namely length of stay in the current village and distance of from the main road were removed due to their collinearity with age and distance from market, respectively with $r > \pm 0.67$. This was followed by multicollinearity measured by variance inflation factor (VIF) and the average result was 1.33 whereas any figure below 10.0 is theoretically strong and acceptable (Bowerman & O'Connell, 1990)

At the third stage, religion was omitted because of its less variability since more than 97.4% of the respondents were found to be followers of the one religion (i.e. Muslims). Besides, a judgmental decision was made to omit level of education from the variables and use "ability to read and write" as an important variable. This is because, more than formal education, considerable number of people in the area have attended traditional Islamic education that makes them to have the capacity to read, write, comprehend, analyze etc. Besides, income and the type of agricultural activities the households run are removed due high potential of endogeneity.

Finally, the Chai-square test, Levene's F test and independent t-test were used as a preliminary measurement to check whether those respondents' characteristics could be predictors of rural entrepreneurship. The result, as depicted in Table 1.3, shows that except for gender and marital status of the household heads, their rank among their siblings, start-up capital and access to credit from financial institutions, the rest variables have got high potential as predictors.

Table 1.3: Respondent Characteristics and their relationship with rural entrepreneurship

Variables	Non-Entrepreneurs		Entrepreneurs		Chi-sq	Levene's test (f)	t-test
	Mean (SD)	Variance	Mean (SD)	Variance			
Midland	0.64 (0.48)	.23	.76 (0.43)	.183	4.29**	27.34***	2.23**
Male headed HH	0.85(0.36)	.127	.86 (0.35)	.122	0.05	0.205	0.23
Age	35.96(9.34)	87.3	35.63 (7.35)	54.08	45.67	4.63**	2.13**
Married HHH	0.78 (0.41)	.170	.80 (0.41)	.164	0.05	0.205	0.23
Read and write	.54 (0.49)	.25	.60 (0.49)	.242	1.042*	5.65**	1.02*
Number of siblings	5.21(2.47)	6.11	4.78 (2.16)	4.67	23.12**	3.86**	1.59
Birth rank	2.48 (1.72)	2.97	2.31 (1.53)	2.33	2.35	1.34	0.84
Grown as Orphan	.33 (0.47)	.22	.45 (0.50)	.25	4.26**	9.41**	2.07**
Own residence	1.55 (0.94)	.88	1.33 (0.76)	.57	22.87***	4.75**	1.10
Asphalt Distance	9.26 (8.73)	76.24	12.09 (9.15)	83.77	56.31***	2.72**	2.70**
Household Size	5.80 (2.37)	5.63	6.42 (2.32)	5.34	5.33**	0.368	2.22***
Access to Electricity	.36 (0.48)	.23	.47 (0.51)	.25	3.96**	6.67***	1.99**
Access to Mobile	.75 (0.43)	.19	.85 (0.36)	.13	3.98**	7.49***	2.00**
Access to Radio	.64 (0.48)	.23	.76 (0.43)	.18	5.19**	19.62***	2.88**
Contract Job	.02 (0.14)	.02	.06 (0.25)	.06	4.39**	29.08***	2.11**
Access to Training	.03 (0.17)	.03	.08 (0.27)	.07	3.37*	17.62***	1.84**
Member of Coop	.52 (0.50)	.25	.61 (0.49)	.24	2.58*	13.37***	1.61
Credit from Fis	.01 (0.07)	.01	.01 (0.11)	.01	0.19	7.58	0.44
Own land	.93(0.26)	.07	.94 (0.25)	.06	1.22	8.95***	0.43
TLU	17.99 (14.9)	22.05	20.34 (11.77)	138.4	53.98	5.46***	1.19
Start-up capital			12334.8 (2024.5)	40984.8	385.6***	43.38***	-4.58***
Motivation (EI[4])			.73 (.446)	.199	210.2***	80.21***	4.77***
Own site (EI)			.89. (311)	.097	30.05***	372.3***	-6.08***
Site location (EI)			.45 (.500)	.250	103.9***	67.43**	-5.75**

- * Significant at P< 0.1; ** significant at P< 0.05; *** significant at P< 0.01

Source: Authors' Survey (2021)

- [4] EI= potential predictors of entrepreneurial intensity alone since they are related to entrepreneurs only. The rest are predictors of both entrepreneurial participation and intensity

As far as models are concerned, the Probit model is employed to identify the determinants of participation in entrepreneurship; and the Tobit model was applied to analyze the determinants of entrepreneurial engagement intensity. To examine the effect of rural entrepreneurship for reducing multidimensional poverty, the Propensity Score Matching (PSM) model was applied. In addition to this Anova was used to check whether agricultural entrepreneurship and nonfarm entrepreneurship have difference in the degree of their influence on poverty alleviation. Finally, reports after the data interpretation were prepared in tabular, graphic, textual and figurative forms.

1.10. Structure of the Dissertation

This dissertation is built of seven chapters. The first chapter deals with the overall background and methodological matters. It includes background of the study; review of literature on rural entrepreneurship and poverty; conceptual framework, statement of the problem; objectives, research questions; significance of the research; its scope and limitations.

The body from chapter two to six entails empirical studies that were prepared in the form of manuscripts/articles and included as standalone chapters. They are prepared as concise discussions on the research findings on specific research issues.

The seventh chapter is the chapter that synthesizes and winds the ideas and discussions in the previous chapters. It is composed of summary of the overall research works; key findings conclusions and synthesized recommendations. It also endeavors to indicate the areas and methods that need to be taken in to consideration by future researches.

CHAPTER TWO: ARTICLE ONE

2. Entrepreneurial Characteristics and Sector-Based Mobility in Rural Settings: Experiences from Haramaya District, Oromia Region, Ethiopia[5]

Abstract

Increasing share of rural household in the developing countries is shifting from traditional substance-based farming to entrepreneurship due to diverse push and pull factors. Ethiopia is one of the countries endowed with diverse potentials and needs for development of rural entrepreneurship. Yet, very less is known about the nature of their occupational mobility, the mode of operation of the entrepreneurial works and the derivers behind them. This study explored the pattern, and dynamics of occupational mobility and rural entrepreneurship based on the data obtained from Haramaya district in Eastern Ethiopia. The research is undertaken on the basis of sequential explanatory strategy of mixed methods research. The quantitative data were gathered through survey of 381 rural households whereas the quantitative 11 key informant and 6 in-depth interviews, a focus group discussion of 7 entrepreneurs and observation were used to collect data. Data were analyzed through descriptive statistics and hybrid thematic analysis techniques. The finding of the research reveals that rural entrepreneurship is practiced by one-fourth of the rural households and it is characterized by business diversification, inter and intra-sector labor mobility, and value-centeredness rather than specialization, intensification and consumption-centeredness. The occupational mobility dynamics are primarily shaped by necessity-pushes caused by natural calamities, lack of job opportunity and failure or insufficiency of the previous job to meet basic needs of households. It is also influenced by some opportunities such as rise in demand, proximity to towns and price differences on a temporal and spatial basis. Narrow land access options, incompatibility of financial services with the religious values and the bureaucracy are identified to be the major bottlenecks of rural entrepreneurship. Therefore, the government should work on diversifying land access options. Besides, they should set short, and clear bureaucratic procedures for new start-ups and encourage expansion of rural busies. Banks and microfinance institutions should open satellite branches ore operate through rural agents to increase the accessibility of their service. Higher educational institutions should also identify and map tourism potentials of the area and trainings and provide advisory services on socially/religiously acceptable financing options.

Keywords: Occupational mobility; rural entrepreneurship; entrepreneurial dynamics

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2.1. Introduction

Rural entrepreneurship is getting an increasing attention from rural dwellers and different development actors as one of the key instruments that generates employment in rural areas with low capital cost, raises real income, reduces out-migration of the working force and harnesses innovation (Newbery, Siwale & Henley, 2017; Kushalakshi & Raghurama 2014). Similarly, rural households in Ethiopia in general (Freeman 2012) and Haramaya district in particular (Teshome, Bayisa & Keno, 2015) have started looking beyond dependence on traditional and subsistence based farming. There is an observable change in the types of products and technologies used by some of the farmers. The highest share (36.5%) of the household income is generated from market-oriented production of *Khat* followed by vegetables, sorghum, maize and haricot beans (Abebe et al. 2014). Non-farm businesses and off-farm activities are also growing as an additional livelihood and business undertakings in the area (Teshome et al., 2015).

Livelihood diversification and occupation change towards business (Hill & Christensen 1942) set important base for rural entrepreneurship (Petit et al. 2015; Bespalyy 2020; Folkman & Cowhig 1963). Rural Entrepreneurship, hance, has also become an eye-catching issue for different academic disciplines such as development studies, economics, sociology, management and psychology. But the way the disciplines and scholars define and approach rural entrepreneurship are divergent. The definitions range from narrow scope, which focuses only on rural industries (Boohene & Agyapong, 2017; Kushalakshi & Raghurama, 2014) to wide-ranged definition which include involvement in any income generating activities with excellence (Casson, 2010). For some scholars rural entrepreneurship refers to transitioning from farming as a livelihood to farming as a business (Dias, Rodrigues & Ferreira 2019; Naminse & Zhuang 2018) whereas for others it is owning non-farm and operation of business in rural areas (Nagler & Naudé, 2017; Ayambila 2014).

Bosworth (2012) defines rural entrepreneurship from the enterprise perspectives as firms' that are located in rural areas, selling rural products and serving rural customers. On the other hand, rural entrepreneurs are described in the actors/doers' perspective, as farmers producing the larger share of their agricultural products for market (Kahan, 2013) and persons that are self-employed in non-farm businesses (Nagler and Naude 2014). This research takes the mix of both categories and

rural entrepreneurship is defined here as entrepreneurial involvement of rural dwellers in rural businesses (both farm and non-farm). To further operationalize, it refers to running one's own non-farm business and/or undertaking agricultural activities in an innovative and market-oriented way.

Entrepreneurship is generally a dynamic process (Kuratko & Morris 2015) and it manifests different sorts of changes in a broad range of business activities (Brünjes 2012). But the dynamics of entrepreneurship is an under-explored and young subject in the academic and research arena. In fact, few studies analyzed some facets of entrepreneurial dynamics. One among them is a study conducted by Congregado, Golpe, and Parker (2012) that analyzed the macro-dynamics of entrepreneurship in Spain and the USA with the aim of checking hysteresis and policy influences. On the other hand Braunerhjelm, Desai and Eklund (2015) assessed the relationship between the economic regulation (legal/policy) and firm dynamics based on review of literature. Wangwe and Mmari (2013) also examined the transition of entrepreneurial operation from informal to formal modes. But, the policy influence of entrepreneurial dynamics with macro-level analysis in the developed countries (Braunerhjelm *et al.,* 2015; Congregado *et al.,* 2012). The studies have limitations to explain the cases in the global south in general and rural of Ethiopia in particular.

This study, therefore, endeavors to bridge the aforementioned gap and contribute to the body of knowledge by exploring the entrepreneurial characteristics and sector-based mobility in the rural areas of Haramaya district of Ethiopia. The characterization includes profiles of rural entrepreneurship in terms of number or proportion of rural entrepreneurs, the type of business they are involved in and the extent of their engagement whereas under the sector-based mobility the researcher will discuss nature, paths and drivers of inter-sector and intra-sector mobility.

To attain this, data were gathered through survey of 381 rural households randomly selected from 5 sub-districts (*kebele*s), interview of 6 entrepreneurs and 11 stakeholders as well as a focus group discussion (FGD) with 7 entrepreneurs purposively designated from Haramaya district. Descriptive statistics and hybrid thematic analysis were used to analyze the data and the result shows that business diversification and dynamic labor mobility as well as the prominence of necessity factors in shaping the nature of rural entrepreneurship.

2.2. Literature Review

2. 2.1. Rural Entrepreneurship: A Theoretical Review

Entrepreneurship studies have long overlooked rural areas and focused on the urban ones (Meera, 2017). Rural entrepreneurship began to have a place in the literature in the 1980s (Pato and Teixeira, 2016). On top of that the concept rural entrepreneurship is defined and approached in divergent and fragmented ways. But generally, the definitions can be categorized as farm inclusive (Naminse and Zhuang, 2018; Sancho, 2010) and non-farm oriented definitions (Ayambila, 2014; Nagler and Naudé, 2014; Nagler and Naudé, 2017).

This research lays its base on the Agrarians Labor Reallocation Theory (ALRT) of Hymer and Resnick (1969) in approaching the occupational mobility and entrepreneurship. The theory identifies three major areas of labor engagement namely, agriculture, non-agricultural jobs and leisure activities (Hymer and Resnick, 1969). Accordingly, surplus labor, after the attainment of households' food needs, join the non-farm sector in different forms. Ranis and Stewart (1993) add that the increase of rural labor in the non-farm sector is supported by the growth of technology in farm and non-farm sectors and increased productivity following the integration of rural areas into the world's economy. The involvement of surplus agricultural labor into the non-farm sector in turn contributes for the overall betterment of rural households (Hoang, Pham and Ulubaşoğlu, 2014).

ALRT assumes that the rural sectors produce two products, denoted as **Z** and **F**, in their non-leisure labor activities. The letter **Z** stands for varieties of products of non-agricultural activities the rural areas such as weaving, metal working, processing food, pottery, etc. whereas **F** represents agricultural/food products mathematically represented in the possibility production curve as $\boldsymbol{F = f(Z)}$. Hymer and Resnick (1969) stresses that rural life is not limited to consuming or selling rural products. They also sell **F** products to obtain manufactured goods **M** from urban areas or abroad. Then the consumption of the **M** is determined by the share of food produced **F** and consumed in the rural area **C** and the exchange rate between the **F** and **M,** represented by **P**.

$$\boldsymbol{M = P(F - C)}$$

Besides, the theory also shows the presence of bi-directional movement of rural labor from farm to non-farm sector and vice versa. Those from non-farm sector may join the agricultural labor when they are integrated with wider market to produce exportable food (Hymer and Resnick, 1969).

However, the theory overlooks the possibility of rural settings to import some un-manufactured food items and their possibility of hosting manufacturing companies and selling finished and semi-finished goods. In addition to this, the theory explains the change from simple labor mobility between sectors and the production and consumption pattern of rural areas. Occupational mobility naturally goes beyond mere shifting of livelihood activities and includes entrepreneurship which entails change in traits, ownership and operational patterns (Gretzinger et al. 2018; Nagler and Naude, 2014; Ayambila, 2014). Rural entrepreneurs run their farm and nonfarm businesses in innovative and market-oriented ways (Arafat et al. 2020; Naminse & Zhuang 2018; Nagler & Naude 2017; Ayambila 2014)

Rural entrepreneurship is a dynamic process which manifests temporal/seasonal (Nagler and Naudé, 2014) and spatial/locational (Blanchard, 2013) differences. Unlike the assertion of ALRT, it is not always opportunity factors that lead rural labor towards occupation change or entrepreneurship. Necessity also plays a decisive role in shaping the nature and extent of their occupational and entrepreneurial dynamics (Abbot et al. 2012; Hennon 2012)

Abbott, Murenzi and Musana (2012) assert that rural occupational mobility goes from working on a family farm to paid farm work and then to operating paid non-farm work or owning non-farm enterprise. Berhanu and Amdework (2011) also identified four measures taken by farmers in their entrepreneurial pursuits. These are productivity and scaling up production in farming; on-farm diversification; supplementary agricultural diversification; and non-farm business.

Unlike the mainstream occupational choice theory, which associates the choice with individual decision (Lucas, 1978), ALRT and the Agricultural Households models of Singh, Squire and Strauss (1986) emphasize the central role of households in making livelihood and business decisions.

2.2.2. Empirical Review

Despite the paramount importance of understanding the characteristics of rural entrepreneurship in different contexts to inform alternative rural development policies, decisions and interventions, especially in the developing countries, it has attracted little research attention (Pato& Teixeira 2016; Power 2011). Some of the few studies conducted in the cases of Subsaharan Africa and Ethiopia reveal country and sub-national level disparity of rural entrepreneurship based on contexts (Boohene & Agyapong 2017; Rivera-Santos et al 2015).

Nagler and Naude (2014) have analyzed the patterns and determinants of rural entrepreneurship in six African countries using the World Bank's LSMS-ISA dataset (2005 – 2012) and their finding reveals that rural entrepreneurial activities are dominantly small scale and informal household enterprises seasonally operated by household members in areas close to the household residence in traditional markets targeting local consumers (Nagler and Naude 2014).

Rural households tend to join entrepreneurship either due to necessity (distress push) or to utilize opportunities (demand pull) (Pato& Teixeira 2016; Short et al 2009. The necessity may emanate from the failure of the existing livelihood activities to meet the households' needs' (Pato& Teixeira 2016; Loening et al. 2008) whereas, the opportunities may be the demand and supply gaps and price differences in the market (Short et al 2009). Nagler & Naudé (2017) also indicate that rural entrepreneurs predominantly prefer to join in easy-to enter activities rather than in activities that require higher starting cost. With regards to scale of operation in terms number of employees, rural entrepreneurial activities are run by only the owners themselves (Nagler & Naudé 2014; Loening et al. 2008). About 80% per cent of rural enterprises in Africa (Nagler & Naudé 2014) and 73 % in Ethiopia (Loening et al. 2008) are one-person firms.

As far as the dynamics is concerned, Congregado *et al.* (2012) analyzed the macro-dynamics of entrepreneurship in Spain and the USA to check the hysteria in the businesses and the influence of policies in the hysteric dynamics. Their study underscores that policies play important role in shaping the entrepreneurial hysteresis. Braunerhjelm *et al*. (2015) also assessed the relationship between the economic regulation and firm dynamics in entrepreneurship based on review of literature. When it comes to the developing countries, Wangwe and Mmari (2013) show the

presence of dynamics in the transition of entrepreneurial operation from informal to formal modes.

The studies in general have focused on mere statistical understandings of few attributes of rural entrepreneurship and have hanged up their works on continent and subcontinent macro level. The wider part of addressing rural entrepreneurial profile in terms of socio-demographic characteristics, dynamics, derivers and rural-urban market ties are not well addressed.

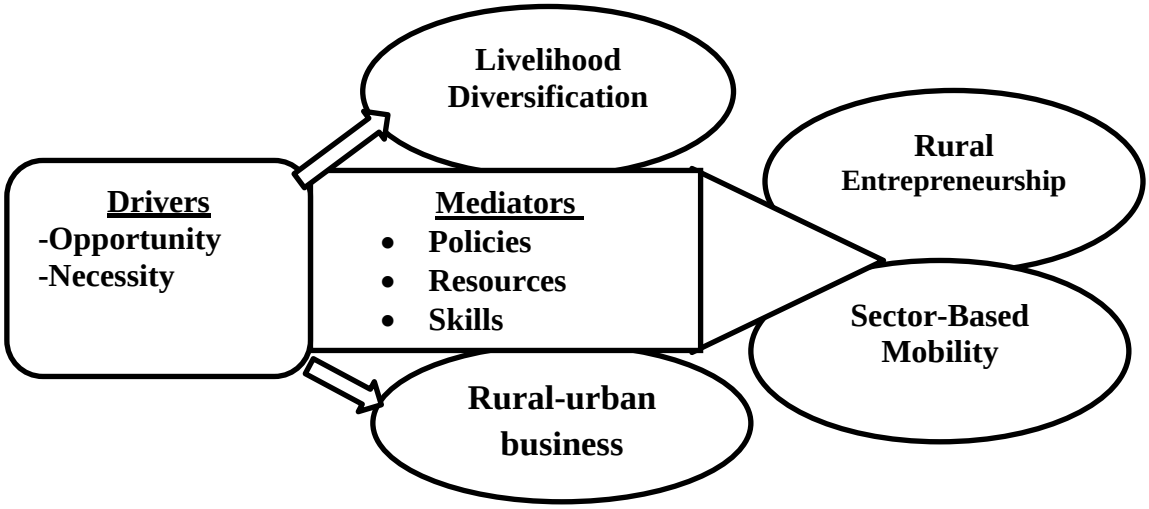
2.2.3. Conceptual Framework

ALRT identifies different reasons for occupational mobility of labor. Ranis and Stewart (1993) describe the creation of surplus labor because of agricultural productivity and integration of rural areas into global markets as the major factors. On the other hand, Brünjes's (2012) framework shows that rural entrepreneurial and occupational engagement is determined by an interplay of need for livelihood diversification, the influence of economic geography and entrepreneurial pursuit. Accordingly, mobility towards entrepreneurship is shaped by the factors that could be manifested as necessity or opportunity factors. Besides, non- pecuniary factors such as failure to accept or adapt to sudden change in job, residence, or accustomed lifestyle also contribute to shift in occupation and entrepreneurship (Congregado *et al*., 2012).

Brünjes (2012) emphasizes the prevalence of uneven distribution of economic activities from one village to the other. The nature of relationship between rural settings and the neighboring urban areas has a high propensity of determining business development in the villages (Pato and Teixeira, 2016). Nearby towns dominantly serve as markets for rural agricultural products and they also serve the villages as the immediate channels to get finished goods and agricultural tools that would enhance rural businesses. The livelihood and economic geography are supported or hindered by the nature of mediators, such as individual (skills), institutional (policies and laws), communal (resources) factors, that shape the nature of occupational mobility and entrepreneurship (Brünjes 2012). Farmers' skill is a very important element that enhances the decision about the modality of entrepreneurial undertakings (Brünjes 2012). It requires different skills from the farmers' side to move from conventional farming to farm diversification and other businesses (Dias, *et al*., 2019).

Local resources also serve as the important stepping stones in undertaking entrepreneurial pursuits. Rural entrepreneurship is an outcome of encounters between rural entrepreneurs and locally accessible resources (Bosworth, 2012). The resources could be physical, financial, natural or social capital in nature. On top of these, policies and laws are keys that shape the relationship between different economic components and the mode of operating entrepreneurial activities (Braunerhjelm*et al*., 2015; Fortunato, 2014). Several studies have stressed the importance of policies and laws to support and guide rural entrepreneurship (Pato and Teixeira, 2016).

Figure 2.1: Conceptual Framework



Source: Adapted from Brünjes (2012) and modified

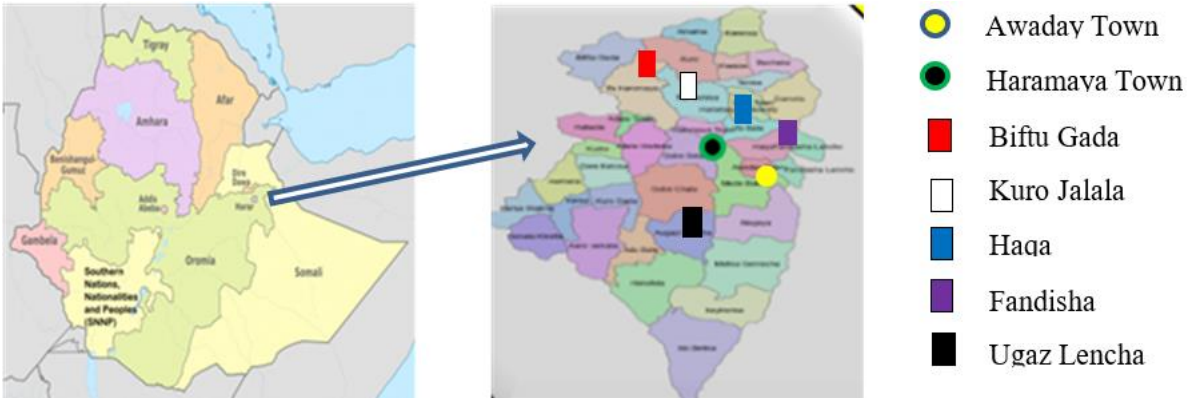
2.3. Methodology

Research area Description: The data for this research were gathered from Haramaya district (*woreda*) located in Eastern Ethiopia 497 kilometers east of the national capital Addis Ababa. The district has two agro-climatic zones, (66.66% is Midland and 33.33% is Lowland) (Nuru and Mhatebu, 2017). According to 2007 national census, the district has a total population of 271,394 of which 138,376 are men and 133,018 are women; and about 220,408 (81.2%) are rural residents and the rest 50,986 (18.8%) are urban dwellers.

The district is well-known for mixed agriculture especially *Khat* and vegetable production and beef farming as well as production of sorghum and maize (Nuru and Mhatebu, 2017; Abebe *et al*., 2014). *Khat* takes the highest share (36.5%) in generating households' income (Abebe *et al*.,

2014) and Petty trade, craft works and daily labor are also part of the livelihood activities in the district (Teshome et al., 2015).

Figure 2.2: Administrative Map of Haramaya District



Source: Haramaya District Health Office

Sampling: Both random and non-random sampling techniques were used with sequential explanatory strategy of mixed research design (Creswell, 2014). The Quantitative data were gathered and then the qualitative ones followed after preliminary analysis on the former one. The qualitative ones were used to elaborate the elements and perspectives that couldn't be fully addressed by the quantitative ones. The unit of analysis for the research is a household and respondents are household heads. This is because over 90 of the entrepreneurial holdings in Africa are household enterprises (Fox and Sohnesson, 2012).

To take sample respondents for the quantitative data, the researchers used the sample size determination formula set by Krejcie and Morgan (1970). The formula is presented as

$$S = \frac{\chi^2 NP(1-P)}{d^2(N-1)+\chi^2 P(1-P)}$$

Where: S = the sample size; $\mathbf{X^2}$ =: the table value of chi-square for 1 degree of freedom at the desired confidence level which is the squire of 1.96 (3.841) **N** = the total target population (44,644[6]). **P** = the population proportion assumed to be 0.50 (since this, according to Krejcie and

[6] Official report found from district administration office (unpublished) shows that the district has a total of 44,644 households in 35 sub-districts out of which 33 sub-districts are classified as rural.

Morgan (1970) would provide the maximum sample size). **d** = the degree of accuracy expressed as a proportion (0.05).

$$S = \frac{1.96^2 x 44644 x 0.5(1-0.5)}{0.05^2(44644-1)+1.96^2 x 0.5(1-0.5)}, \quad S = \frac{3.841 x 44644 x 0.5(0.5)}{0.0025(44643)+3.841 x 0.5(0.5)}, \quad \mathbf{S = 380.83}$$

Accordingly, the sample size becomes 381. As far as the sampling techniques are concerned, generally multistage sampling was employed. In the first stage, Haramaya district was taken as the research target because of its aforementioned locational and societal potentials for entrepreneurship and the fact that it is less studied. On the second stage, the 33 rural sub-districts (*kebeles*) were stratified based on their ecological zones as lowland (11) and midland (22) sub-districts (Haramaya District Administration Office (HDAO), 2019). 5 *Sub-districtss* (i.e. Haqaa, and Ugaz Lencha, from the lowland as well as Kurroo-Jaalaalaa, Fandishaa-Leenchaa, and Biiftuu-Gadaa, from the midland were selected using proportional and lottery methods.

The number of sample households from each sample sub-districts were identified using the formulae

$$ns = n\left(\frac{Ns}{N}\right)$$

Where **ns** refers to sample size of households from *Sub-district*; **N** stands for total Household of the district; **Ns** implies total household of the *Sub-district;* and **n** is total sample (at district level).

Finally, the respondent households were selected through a simple random sampling method (i.e. roll number-based lottery) using the household list from administration offices of each *Sub-district.*

Table 2.1. The sample from each sub-district

Sub-district	Distance (in KMs)		Total Households	Sample households	Percentage
	From Awaday town	From Haramaya town			
Kurro Jalala	23	13	2580	128	33.6
Biftu Gada	26	16	2177	108	28.35
Fandisha Lencha	2	12	1168	58	15.22
Haqa	2	14	927	46	12.07
Ugaz Lencha	20	25	826	41	10.76
Total			7678	381	100

Source: Based on HDAO (2019)

Data Collection: A close-ended questionnaire was prepared in English and then translated to the local language (Afan Oromo) for convenience. The data, using 381 copies of the survey questionnaire, were collected by 8 enumerators that were hired, trained and supervised by the researcher. The enumerators were extension workers with diploma and bachelor degree level education working in the study subdistricts. The qualitative data were gathered through KII, IDI, FGD and observation. Interview guides were prepared and the researcher personally interviewed 6 rural entrepreneurs and 11 stakeholders as key informants and in-depth interviewees. Besides, FGD with 7 rural entrepreneurs was undertaken with the help of colleagues from Haramaya University. The respondents for the qualitative data were agripreneurs, non-farm entrepreneurs; stakeholders such as extension workers, *afosha* leader, youth group leader and female group leader; as well as officers from Haramaya University Research office, Oromia Saving and Credit Association, farmers' union, Micro and Small Enterprises Development office (later named as job creation and food security office), Trade and Industry, Administration office and HABP-project (an NGO). They were identified based on judgmental and availability sampling with the help of Haramaya District Microenterprise Development Office; and extension workers. Field observation also served as an important data gathering instrument. The interviews and the FGDs were recorded and captured in notebooks (as field notes).

Data Analysis: Since this research is a mixed method research and the qualitative and quantitative data are required to augment each other and mutually explain the phenomena under study, hybrid thematic analysis was used for analysis. The technique entails both inductive and deductive approaches (i.e. data-driven theme creation and analysis of data based on priori set templates) and it is helpful for mixed application of descriptive and interpretive research (Fereday and Muir-Cochrane, 2006). In doing so the researchers employed Braun and Clarke's (2006) thematic analysis steps, i.e., familiarization with data; generating initial codes; identifying, reviewing, and naming the themes; and writing up the presentation.

The recorded interviews and FGD were transcribed, translated to English, color-coded on Microsoft Word and different themes were identified. Then the identified themes were squeezed into four as the sectors and economic activities operated by rural entrepreneurs, the pattern of their income diversification and occupational mobility, the drivers and paths of the mobility and the nature of rural-urban business and market linkage. Descriptive statistics was used to analyze the quantitative data with the help of Stata version-14 software.

Finally, the research results were presented in text, tables and figures in the way both the quantitative and the qualitative data augment each other in explaining the study subject.

2.4. Results and Discussions

2.4.1. Respondents' Profile

As shown in Table 2.2, about 33.6% of the respondents are residents of Kurro Jalala sub-district followed by 28.35% from Biftu Gada. The rest 15.22%, 12.07% and 10.76% are residents of Fandisha Lencha, Haqa and Ugaz Lencha, respectively. 85.3% of the respondents are male and 97.4% of them are Muslims. With regards to marital status 78.7% are married whereas the rest 8.1%, 7.9% and 5.2% are single, divorced and widowed respectively. As far as literacy is concerned, 43.57% have not attended any school, whereas 29.4% have attended primary school. The 17.32% 5.5%, 3.7% and 0.5% have attended secondary school, and earned certificate/diploma, bachelor's degree and Master's degree respectively.

Among the sub-districts, Ugaz lencha and Kuro Jalala have got the highest share of male respondents (90.2% and 89.8%) whereas Biftu-Gada is somehow multi-religious and Fandisha

Lencha is a solely Muslim population. With regards to level of education, Biftu Gada has got some respondents from all levels whereas Fandisha lencha and Kuro Jalala have the highest (56.9%) and the lowest (26.6%) share of non-educated respondents.

Around 24.4% out of the total 381 households are rural entrepreneurs whereas the remaining 75.6% are non-entrepreneurs. Kuro Jalala and Ugaz lencha are sub-districts with the highest (32%) and lowest (7.3%) share of rural entrepreneurs. This could be associated with the proximity of Kuro Jalala to a water catchment around Lake Adele and Lake Haramaya (which helps for cash crops and vegetable production) and Ugaz Lencha's location in dry lowland.

Table 2.1: Profile of survey respondents

Variable	Category	B. Gada	F. Lencha	Haqa	K. Jalala	U. Lencha	Total	
							N	%
Sex	Female	23	7	9	13	4	56	14.7
	Male	85	51	37	115	37	325	85.3
	Total	108	58	46	128	41	381	100
Marital Status	Single	11	0	2	11	7	31	8.1
	Married	94	54	39	84	29	300	78.7
	Divorced	1	2	2	22	3	30	7.9
	Widowed	2	2	3	11	2	20	5.2
	Total	108	58	46	128	41	381	100
Religion	Muslim	105	58	44	124	40	371	97.4
	Orthodox C.	1	0	2	4	1	8	2.1
	Protestants	2	0	0	0	0	2	0.5
	Total	108	58	46	128	41	381	100
Level of Education	No schooling	54	33	29	34	16	166	43.6
	Primary	30	11	9	53	9	112	29.4
	Secondary	14	10	4	31	7	66	17.3
	Diploma	4	3	2	5	7	21	5.5
	Bachelor	4	1	2	5	2	14	3.7
	Masters	2	0	0	0	0	2	0.5
	Total	108	58	46	128	41	381	100
Participation in Entrepreneurship	Non-entrepreneur	85	41	37	87	38	288	75.6
	Entrepreneurs	23	17	9	41	3	93	24.4
	Total	108	58	46	128	41	381	100

Source: Survey result, 2021

As far as the respondents of the qualitative data (KII and FGD) are concerned, a total of 24 respondents participated as indicated in Table 2.3. Out of those respondents 58.3% are male and majority, i.e. 45.83% and 33.3% are educated to secondary and diploma level. Coming to their general occupation 29.17% are farmers 37.5% are involved in non-farm business and the remaining 33.33% are employees in government offices, nongovernmental organizations or private companies. 54.17% of them are taken as respondents because they are rural entrepreneurs whereas 45.83% have participated as key stakeholders. Kuro-Jalala is better-off in terms of the share of female respondents and unsurprisingly Haramaya town is very good in terms of the share of educated respondents because all of the respondents are officials from different governmental and non-governmental offices. Occupationally, Fendisha Lencha and Haqa have got the highest share of farmers and non-farm entrepreneurs respectively, (66.7% each).

Table 2.2: Respondents of Qualitative Data

Variable	Categories	B. Gada	F Lencha	Haqa	K. Jalala	U. Lencha	Haramaya Town	Total	
								N	%
Sex	Male	3	2	2	2	1	4	14	58.3
	Female	1	1	1	3	1	3	10	41.7
	Total	4	3	3	5	2	7	24	100
Occupation	Farmer	2	2	1	1	1	0	7	29.2
	non-farm business	2	1	2	3	1	0	9	37.5
	Employee of Gov't/NGO	0	0	0	1	0	7	8	33.3
	Total	4	3	3	5	2	7	24	100
Role as Respondents	KII	1	1	1	1	0	7	11	45.8
	IDI	1	1	1	2	1	0	6	25.0
	FGD	2	1	1	2	1	0	7	29.2
	Total	4	3	3	5	2	7	24	100
	Total	4	3	3	5	2	7	24	100

Source: KII and FGD

2.4.2. Rural Entrepreneurship and the Economic Sectors

Agriculture is the major economic activity that characterizes rural areas of Haramaya. However, some households are found changing their work from agriculture as a livelihood to agriculture as a business and some other households are running non-farm enterprises. Entrepreneurship has become an integral part of the life of nearly a quarter of rural residents. As indicated in Table-2.4 above out of the 381 sample households 93 (24.4%) fall in the definition of rural entrepreneurs. Out of the 93 rural entrepreneurs 35 (37.63%) are agricultural entrepreneurs (agripreneurs) and 47 (50.54%) are non-farm entrepreneurs whereas the rest 11(11.83%) are portfolio rural entrepreneurs that fit in the definition of entrepreneurship in both sectors[7]. From amongst the sub-districts, kuro Jalala has the highest number of agripreneur households (29 out of 46) and Fandisha Lencha has the highest number of non-farm entrepreneurs (16 out of 58). The fact that

[7] Portfolio rural entrepreneurs, in this research, are different from entrepreneurs that run more than one venture for the sake of diversification of their livelihood. Rather it refers to entrepreneurs who are involved in both farm sectors with full scale and clear entrepreneurial attributes.

Haqa is located immediately next to Awaday town (the largest market and export center for *khat*) is the major possible reason behind this (See figure 2).

Only a few rural entrepreneurs specialize in specific types of entrepreneurial work. Great majority of them expand and diversify their businesses to meet the market demand and to hasten their economic growth. In this token, 52.2% of the agripreneurs work on a mix of two or more agricultural businesses (such as crop and vegetable, poultry dairy and beef farming). Agripreneurs that emphasize only on crop and vegetable production are 43.5% and the rest 2.2% each depends on dairy and beef farming. Retail shop and petty trade are the most common businesses run by 37.9% and 22.4% non-farm entrepreneurs respectively. The other 13.79% own grinding mills and 19% own two or more non-farm enterprises. In addition to this a total of 41 out of the 58 non-farm entrepreneurs have been engaged in agricultural activities to support their domestic consumption. 68.3% of them produce crops and vegetables and 31.7% have been engaged in two or more agricultural activities. Kuro Jalala has the highest share of entrepreneurs running a mix of many business activities in both sectors.

The finding of this research is in support of the works of Alkaeli, Chegere and Rand (2023) and Hennon (2012) that associates rural entrepreneurship with diversification, multi occupation, and portfolio of activities. But rural entrepreneurs have dominantly been operating in agriculture and trade. On the other hand, the involvement in manufacturing activities is extremely rare in rural areas of Haramaya as opposed to Fox and Sohnesson's (2012) work that states manufacturing (processing agricultural products) to be the common entrepreneurial activity in rural areas. The agro-processing enterprises in the district are way less than the Sub-Saharan average which, according to Nagler and Naude (2014), is between 20% to 30%.

Table 2.3: Business activities of rural entrepreneurs

Variable	Category	B. Gada	F. Lencha	Haqa	K. Jalala	U. Lencha	Total	
							N	%
Agricultural Business	Crop and Vegetable	6	4	0	8	2	20	43.5
	Dairy Farming	0	1	0	0	0	1	2.2
	Beef farming	0	0	1	0	0	1	2.2
	Mix of two or more	0	0	1	21	2	24	52.2
	Sub-total	6	5	2	29	4	46	100
non-farm Activities	Petty trade	4	6	1	0	2	13	22.4
	Grinding mill	3	3	1	2	0	9	15.5
	Retail shop	5	7	3	5	2	22	37.9
	Tailor	1	0	0	1	0	2	3.4
	Coffee/breakfast	0	0	0	1	0	1	1.7
	Mix of two or more	2	0	5	4	0	11	19
	Sub-total	15	16	10	13	4	58	100
Agricultural activities run by NFE	Crop & Vegetable	10	1	11	1	5	28	68.3
	Mix of two or more	5	0	0	6	2	13	31.7
	Sub-total	15	1	11	7	7	41	100
non-farm enterprises owned by Agripreneurs	Grinding mill	0	3	0	1	0	4	36.4
	Retail shop	0	2	0	2	0	4	36.4
	Mix of two	0	0	2	1	0	3	27.2
	Sub-total	0	5	2	4	0	11	100

Source: Survey result, 2021

Several previous studies by authors such as Alkaeli et al. (2023) and Meera (2017) have dealt with the age of entrepreneurs leaving narrow room to analyzing the age and temporal aspect of the enterprises. Meera's (2017) study in Rural Banglore, India shows that middle age entrepreneurs are the dominant age group in the rural entrepreneurial settings. This is in line to the case of Haramaya where the average age of the entrepreneurs is 35.6 years. On the other hand, it contradicts with the findings of Alkaeli et al. (2023) in Tanzania that asserts the youth to be dominant in rural entrepreneurship. Coming to the age of business ventures in the farm and non-farm sectors, agriculture as a business is much younger than the non-farm business with the maximum age of 23 and 41 years respectively as shown in Table 2.5. Even though agriculture as a livelihood is an old phenomenon, its emergence in the sense of entrepreneurial pursuit is somehow a recent development.

Table 2.4: Age of the Entrepreneurs and ventures

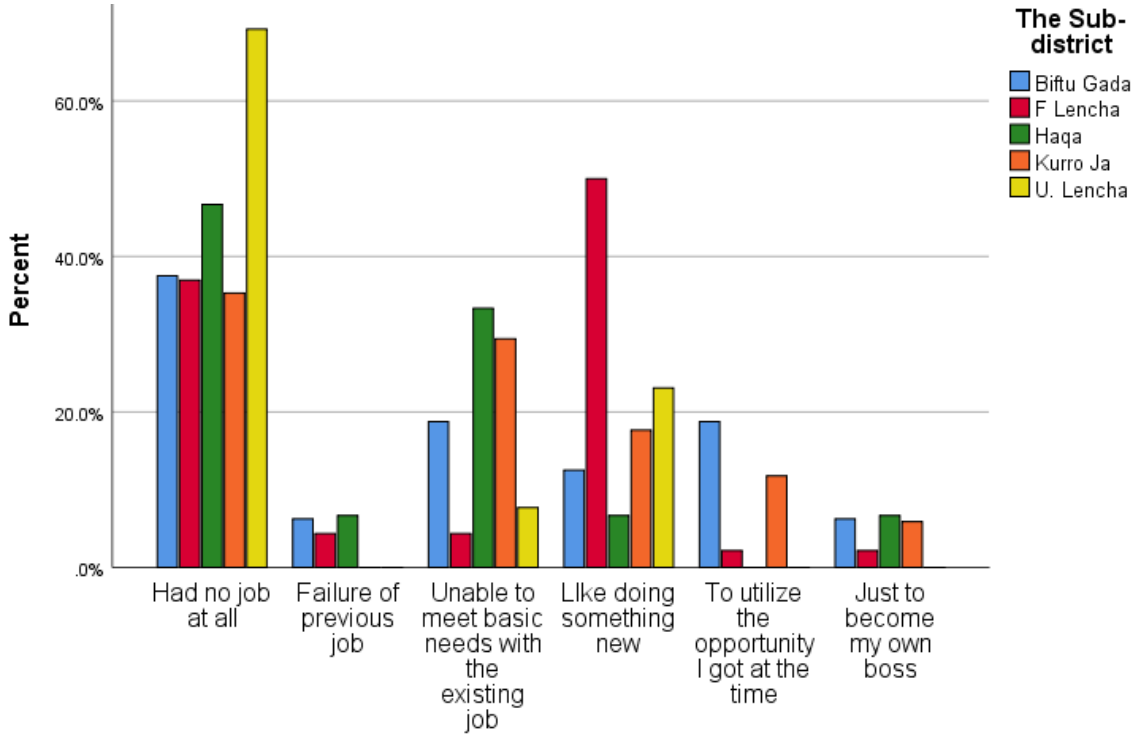
Variables	Categories	Obs	Mean	Std. Dev.	Min	Max
All respondents	Their age	381	35.87927	8.890925	18	75
	Years of owning the livelihood base	256	18.84375	8.232825	1	52
Entrepreneurs	Their age	93	35.63441	7.354066	18	57
Age of enterprises	All enterprises	90	11.56667	7.74894	1	41
	Agricultural enterprises	44	11.72727	5.521053	2	23
	non-farm business	46	11.41304	9.464732	1	41

Source: Survey result, 2021

2.4.3. Drivers of Rural Entrepreneurship

Diversification and sectoral dynamics in rural entrepreneurship are shaped by different factors. 58 non-farm entrepreneurs were asked about the reason behind their starting non-farm business leaving farming activities and the result shows that around 60% are driven by necessities such as lack of job and failure in the previous job. The remaining 40% are opportunity-driven entrepreneurs who started the business because they wanted to do something new, utilize new opportunity and become one's own boss. Ugaz-Lencha sub-district has the highest percentage of necessity entrepreneurs derived by lack of job whereas Fendisha Lencha has got the highest percentage of opportunity entrepreneurs motivated by their interest of doing something new as shown in figure 2.3. This also could be associated with the location of Fendisha Lencha closer to Awaday town, which is one of the biggest *khat* markets in the country. The location of Ugaz Lencha far from which provides opportunities for non-farm entrepreneurs who buy items from towns and sell in rural, and vice-versa. The subdistrict district has diverse entrepreneurs that are motivated by both necessity and opportunity derives. This indicates the degree of intra-subdistrict difference among the entrepreneur households in terms of their motive of inter-sector mobility. This strengthens the work of Shehu and Abubakar (2015) and Blanchard (2013) which indicates that rural entrepreneurial undertakings exhibit different characteristics based on their location.

Figure 2.3: Derivers of rural entrepreneurship



Source: Survey result, 2021

Opportunities such as a rise in food demand, technological advancements (such as motor pumps for irrigation), or access to better resource bases (due to regeneration of Haramaya Lakes) and knowledge lead them to start entrepreneurial activities. Increasing demand for agricultural products in nearby towns and neighboring countries has served as an important source of motivation for agripreneurs. Except for *khat*, sorghum and maize, most crops, vegetables and fruits are brought to Haramaya and surrounding cities from far places up to 1100 KM (Shashamene, Jimma and Arbaminch towns). Hence some households decided to utilize the opportunity (Supply-demand gap) to change their consumption-based production to market-oriented production. Above all, the rise in the demand for *khat* and vegetables in local markets and as export-items has made a great share of the farmers to focus on *khat* and vegetables production. Most of the entrepreneurs produce high-value items for sale and prefer buying less-priced food items from the market. Hence, they depend on imported food items (such as rice) and items brought from the other parts of the country (like bananas) for their consumption.

Very recently, some farm-enhancing non-farm activities such as renting motor pumps and selling out well-water are emerging as the pathways between agripreneurship and non-farm entrepreneurship. Initially agripreneurs buy motor-pumps and dig water-wells to irrigate their farms. After irrigating their own farm, they rent the motor-pump and sell the water in the well for other farmers. The non-farm entrepreneurs also buy motor-pumps just for the sake of renting for farmers.

Table 2.5: Motives behind rural entrepreneurship

	Necessity	**Opportunity**
Agri-preneurship	# Raise in household food demand (FGD) # Lack of paid jobs (FGD) # Failure in previous job (KII/5.9%)	# Boom in market food demand (KII/11.8% and FGD) #Agricultural productivity supports (FGD) # Agricultural business training by Haramaya University and extension workers (FGD and KII/17.6%) # Access new/additional land (inheritance or provision by government) (KII/5.9%)
non-farm Entrepreneurship	# Shortage/absence of household's farmland (KII/17.6% and FGD) # Lack of job (37.9%) # Small capital (FGD) # Failure in previous job/farm (5.2%)	# Raise in rural demand for consuming industrial products (FGD and KII/64.7%) # Demand for agricultural technology, tools and chemicals # Price difference of goods from place to place (for trade) (KII/11.8%) # Excess products in rural area (for agro processing or cottage industry) (KII/5.9%) # Rural Business Fund (loan or subsidy) (FGD) # Demand for better houses and facilities induced by rural economic growth (FGD)

Source: Survey, KII and FGD, 2021

The FGD discussants elaborated that necessity-driven mobility, the desire to expand income sources in order to supply their continuously increasing household size; and the need to utilize the surplus labor are the major motives that lead to diversification in the rural area. Members of farmer households move to off-farm employment on a seasonal and permanent basis mostly because of factors like mismatch between the households' food demand and supply, insufficient income from one's own farm work, or failure in farms due to calamities such. Example of such calamities is a sudden desiccation damage that dried khat and other plants overnight in and around the district (in December 2017) and the 2016 el-Niño that led to economic shocks in different households.

Generally larger body of previous studies have indicated the dominance of the male or male headed households in the entrepreneurial works (Loening, Rijerks and Soderbom, 2008; Ellis, 2000). However, the findings are in congruity to most recent studies which show that more female entrepreneurs are found in rural non-farm sectors in Devanahally, India (Meera, 2017), Tanzania (Alkaeli et al., 2023) and Ghana (Ayambila 2014). In these studies, the increase in number of women in this sector are associated to spatial proximity to urban areas, that makes men to leave the rural petty trade and engage in urban employment and business; and the vulnerability of women to different shocks that pushes them to operate less-lucrative non-farm businesses (Alkaeli et al., 2023; World Bank,2018; Meera, 2017).

In Haramaya district men are dominant in owning the rural ventures (i.e., 85.7% of the agricultural and 83.6% of the non-farm enterprises). On the other hand, petty trades and retail shops are dominantly managed by the female whereas the men are responsible for the business activities that mostly necessitate mechanical skills such as farming; operating transport vehicles, the grinding mills and water-pump machines, etc.

In majority of the businesses in Haramaya district (98.9%) employees are family members and relatives for less or literally no payment. Household members get employed in non-farm activities owned by relatives with three major motives: (1) Covering households' basic needs expenses; (2) grasping skills and experience for their future business; and (3) making money that would help as a start-up capital. This supports the study of Meera (2017) in India and the macro- analysis of Nagler and Naude (2014) in the Sub-Saharan Africa. Accordingly, rural entrepreneurship has less contribution for wage employment since great majority of the owners do not employ outside their households.

Participation in contract labor activities also serves as an important step towards entrepreneurship. This is better exemplified in the business journey of a 32-year-old entrepreneur who resides in Kurro Jalala sub-district. He says,

> *"My business is the result of a stadium. I mean 7 years ago Haramaya University was constructing a big stadium. I engaged in labor work there in non-farming seasons for two years and saved the money I earned. I also sold some goats and an ox to add on the saved money and*

bought a Bajaj (tricycle) which I used to start a transportation business between our village and the town".

The result is in confirmation with the ideas of Alkaeli et al. (2023) and Abbot et al. (2012) that rural households whose needs couldn't be met by agriculture tend to look for off-farm wages and then embark on non-farm options.

The above statement also shows the importance of the combination between local resources (household assets) and exogenous opportunities for rural start-ups. In addition to this, traditional saving and mutual help networks such as *quubii*[8] serve as important sources of capital for staring and/or expanding business. Several youths from farmer households have started non-farm business (mostly transportation business and retail shops) using the money they generated through such systems. Women also use *quubii* in most cases to run petty-trade and informal cross-border trade. They use it to buy imported finished goods such as clothes, electronic accessories, packed food items, etc. from Somaliland to sell them in domestic markets. Then they trade agricultural products from Ethiopia back to Somaliland.

These serve as the major forms of financial service for the rural entrepreneurs because their attachment to formal financial institutions (banks and Microfinance institutions) is negligible. As it is indicated in Table 2.7, only two persons (0.5%) from the whole respondents got loans from banks or microfinance institutions, i.e., one is an entrepreneur and the other is not. The entrepreneur was from Fandisha Lencha sub-district and the non-entrepreneur was from Biftu Gada. The former one borrowed a total of ETB 5000[9] to expand the existing business whereas the latter one borrowed ETB 2000 for unmentioned reasons. This goes in support of Pato and Teixeira (2016) that underline the importance of social network in rural entrepreneurship as a source of support and information.

The studies of Alkaeli et al. (2023), Ayambila (2014) and Osei-Assibey (2010) show that rural entrepreneurs have poor access to banks and microfinance institutions. Hence, they use their household savings and borrowing from family/relatives as the major financial sources to set up and run their businesses. The major reason behind the poor access to financial services was long

[8] an association of people mobilizing finance and distributing them among members on a rotating basis.
[9] Around 150 USD based on the exchange rate of the borrowing time.

associated to non-existence of the formal financial institutions or credit markets (Abdulai and Crolerees, 2001). Recent studies associate it with the weak culture of borrowing money (Alkaeli et al., 2023) and the restrictions of the formal institutions (Ayambil,a(2014). In the case of Haramaya, however, the major reason for not getting loans from financial institutions is a religious reason. 35 (37.6%) entrepreneurs reported that they didn't want to borrow money from banks or microfinance institutions because the mode of loan provision goes against their religious jurisprudence. Since around 97% of the entrepreneurs are Muslims, the incompatibility is mostly attached to interest-based loan provision, which is considered 'Haram' (a term meaning forbidden by Muslims). The second problem that hindered 22 (23.7%) entrepreneurs from getting the financial services is the complex bureaucracy of banks and microfinance institutions. The other 19 (20.4 %) could not get it because of lack of assets for collateral. The other 3 (3.2 %) could not access financial institutions closer to their place of work or residence. The remaining 6 (6.5%) and 4 (4.3%) have failed to borrow because of the mix of the aforementioned reasons and other unspecified reasons, respectively.

In addition to this, the FGD participants stressed that the government and microfinance institutions give priority to urban SMEs, women and unemployed graduates during loan provision whereas rural entrepreneurs are given less attention in this regard. On top of that, the loan provision mechanism is time consuming because the offices want the loan seekers to get organized in group of five and more persons, get support letters and clearances from different institutions.

Generally, the study goes in conformity with the works of Hennon (2012) that shows diversification as the major characteristics and necessity factors as the prominent drivers behind rural entrepreneurship. It also goes in line with the works by Abbot et al. (2012) which associates the occupational mobility from farm to non-farm sectors with the quest to assure sustenance. Yet it does not comply with Berhanu and Amdework (2011) whose research in Northern Ethiopia described that the occupational mobility starts from scaling up agricultural production followed by on-farm diversification, supplementary agricultural diversification, and goes to owning non-farm business. Unlike their study that showed the prominence of opportunity-drivers rural entrepreneurship, in Haramaya district is dominantly derived by necessities.

Table 2.6: Access to financial services

Questions	Categories of responses	All Respondents		Entrepreneurs	
		Freq	%	Freq	%
Have you ever got loan from bank or Microfinance	No	253	66.4	89	95.7
	Yes	2	.5	1	1.07
	Missing	126	33.1	3	3.23
	Total	**381**	**100.0**	**93**	**100**
If you have not got loans from bank/microfinance, why?	Inaccessibility of Banks or MFIs Nearby	16	4.2	3	3.23
	Banks/MFIs are too bureaucratic	47	12.3	22	23.66
	I have no collateral asset for collateral	54	14.2	19	20.43
	Its modality of loan provision is against my religious rule	120	31.5	35	37.63
	Mix of two or more reasons	6	1.7	6	6.45
	Other	11	2.9	4	4.3
	Missing	127	33.3	4	4.3
	Total	**381**	**100**	**93**	**100.00**

Source: Survey result, 2021

The other important entrepreneurial attribute that stems from necessity is the skill of converting challenges-into-opportunities. This is better exemplified in the measures taken by some rural entrepreneurs following the partial revival of Lake Haramaya in 2020 and the 2016 el-Niño in the Eastern and North Eastern parts of Ethiopia. The 'revival' of Lake Haramaya after 20 years of extinction has resulted in damage of several farmlands and blockage of travel from some villages to Haramaya town and market. But, a few youths with entrepreneurial pursuits have taken this as an opportunity to start a water transport business. They collected empty plastic water bottles and put them in grain sacks (locally called *luqqa*). 3 to 4 of such sacks are tied together to form boat-like floating materials (See Figure 2.4). Then they transport people and materials and get paid ETB 10 to 20. Later, they replaced the plastic bottles by wooden boats

The second case is related to the 2016 el-Niño that caused the death of many livestock, food shortage and drying of plants. Selling out some of the livestock and slaughtering the others for food were widely used as the major coping mechanism at the time. As many animals were

slaughtered and their skins were thrown away, the environment started smelling musty and gets polluted. Three friends discussed how to get rid of the problem and changed it into a business opportunity. They collected cattle skin and started producing *gurboota*, a container put on the back of a donkey to transport materials. This is a further elaboration for the models of Dias, *et al*. (2019) and Bosworth (2012) that link rural entrepreneurial undertakings with farmers' special skills and the nature of local resources.

Figure 2.4: Boat made of plastic water bottles (left) and *gurbota* presented for sales (Right)

Photo captured by the authors (2021)

2.4.4 Market and Business linkage with urban areas

Rural entrepreneurs have strong market tie with the neighboring urban areas. As it is shown in Table 2.8, 75% of the rural entrepreneurs get raw materials from, and 60% of them sell their products to nearby towns. Kuro Jalala has the highest number of entrepreneurs, i.e., 32 and 27, getting their raw materials from and selling their products to nearby towns. Besides, only Kuro Jalala and Biftu Gada have got entrepreneurs (one person each) that vend their products directly in the national capital, Addis Ababa. Absence of rural weekly markets in the villages is one of the key reasons that made the entrepreneurs focus on urban markets. The neighboring towns also serve as bridges to export rural products to neighboring countries (Somaliland and Djibouti).

But the urban merchants do not always serve as facilitating agents. They sometimes appear as obstacles that hinder the rural entrepreneurs from meeting their target market and attaining their business goals. FGD participants stress that rural entrepreneurs have less access to customers

from those neighboring countries and they have been denied, by the urban merchants, from doing so. But the case is different when it comes to rural entrepreneurs who have siblings that live in the towns and involved in cross-border trade. They get better access to customers from Somaliland and they get easy access to imported goods to be sold in rural markets.

The urban merchants are the prime price makers and this limits the rural entrepreneurs to status of price-taker. Thus, the agripreneurs take relocation of part of their household labor from rural agriculture in rural areas to non-farm business in the towns. A 36 years old rural entrepreneur from Biftu Gada shared his experience as follows.

> *"Three years ago, I had produced potato in a large quantity. During the harvesting time a group of traders from Awaday town met me in the market and one of them asked me to harvest and collect potato in large quantities and he agreed to pay ETB 9 per kilogram. I harvested all of the potatoes from my farm and even bought some from other farmers. But, on the day he was supposed to come with a lorry and collect/transport the products, he told me that the market price of potato has reduced significantly and he would come only if I would sell it for ETB 4 per kilogram. That was really shocking and I decided to look for other merchants who would pay me better price. Yet, it seems that all of the merchants agreed to 'kill' the price. After some days I finally sold small portion of it for ETB 5.5 per kilogram whereas the large part of it had got spoiled already. I tell you; I couldn't fully recover economically from that shock till today. As of that day I told my younger brother to be at least kuulii (daily laborer) in the town so that he would grow to a big merchant in the future and help us in giving market information and advising us".*

This supports the work of Pato and Teixeira (2016) and Young, (2010) that stresses the importance of social network as a means of accessing distant market.

The nearby towns also serve as the major target places for the rural entrepreneurs to expand or shift their business. Opening small retail shops and tailor-shops, running transportation business and constructing rent houses in the towns are the major ways rural entrepreneurs of Haramaya district join the urban business environment (FGD). This also serves as a marker of business growth (achievement and expansion).

Table 2.7: Sources of raw materials and market

Variable	Category	B. Gada	F. Lencha	Haqa	K. Jalala	U. Lencha	Total	
							N	%
Raw material source	Villages	7	5	3	1	1	17	23.6
	Nearby towns	14	3	5	32	0	54	75
	National Capital	1	0	0	0	0	1	1.4
	Total	22	8	8	33	1	72	100
Market for products	Villages	14	4	6	5	0	28	38.9
	Nearby towns	7	4	2	27	1	41	56.9
	National Capital	1	0	0	1	0	2	2.8
	Total	22	8	8	33	1	72	100

Source: Survey result, 2021

2.4.5. Sector-Based Mobility

The above discussions are depicted in summarized form in Figure 2.5 below. The figure shows that the occupational mobility dynamics of the entrepreneurs is built on three dichotomous pillars. The first one is driver pillar which is categorized in to two as necessity and opportunity. The second pillar is modus operandi which has a livelihood-business dichotomy. The third one is status pillar. It shows the position of the participants in the business categorized as employees and owners. The three pillars are built on foundations of sectors, i.e. farm and non-farm activities.

The occupational mobility takes place from sector to sector and within one sector itself. The intra-sectoral entrepreneurial mobility is manifested by shift from agriculture as livelihood to agriculture as business (agripreneurship). On the other hand, the occupational mobility in most cases happens as a shift from farm as livelihood to participation/employment in non-farm or off-farm work just for the sake of diversifying household income sources and then for some it ends in owning non-farm businesses (nonfarm entrepreneurship). Generally, off-farm and non-farm wage employment also serve as a bridge for non-entrepreneurial forms of occupational mobility between sectors.

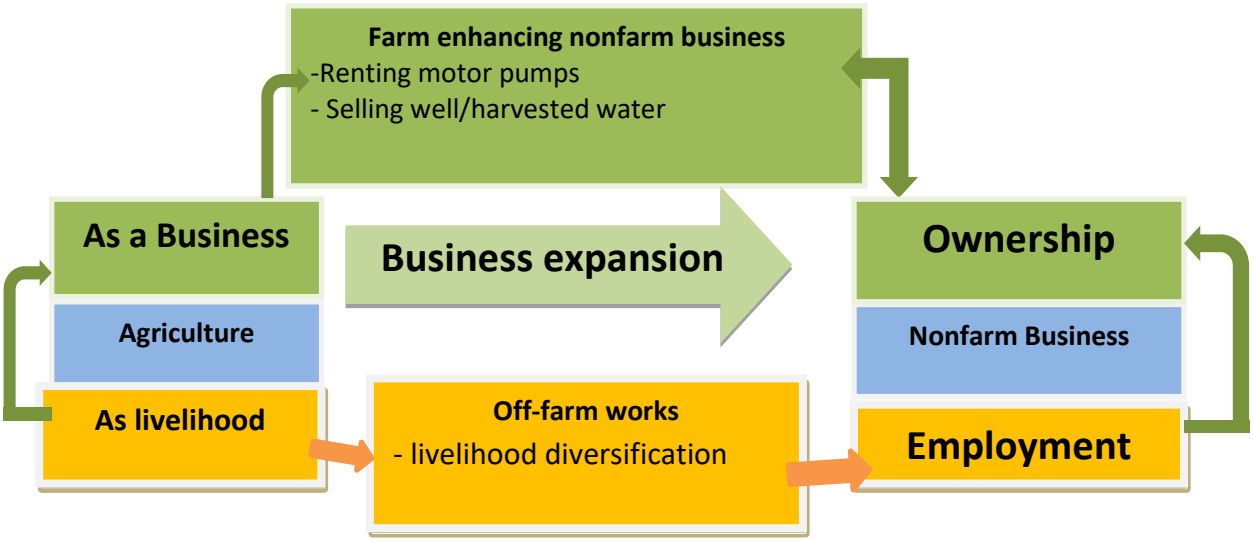
The journey from farm to non-farm works also takes place as an entrepreneurial mobility. Some 'successful' agripreneur households move a step ahead and start non-farm enterprises to expand or shift their business from farm to non-farm or from rural to urban area.

But it is less likely for persons from non-farm entrepreneurship background to start farming business such as vegetables and fruit production as new ventures. In fact, there are possibilities of starting agricultural activities such as poultry and beef farming. This is because most of the farmlands in the district are already occupied and very scarce. In addition to this, they have less chance of owning new farmlands as Ethiopian law does not allow purchase and exchange of land. On top of that, renting-out farmlands are not well-known in the business culture of the community. This is well depicted in the statement of an entrepreneur who runs transportation businesses. He said,

> *"I know some types of crops that make the best profit if produced. No one is producing them around here. But the problem is that I was not born here and I don't have farmland through inheritance. Since farmland is not sold and there is no culture of personally leasing out farmland, there is no way I can change my ideas into reality. Finally, I told my friends who have farmlands to produce the crop I wanted to produce. But none of them are ready to do it. But I wonder why the government denies buying and selling farmland".*
> (Nasir, Haqa subdistrict, 12 November 2020)

This confirms with the works of Shehu and Abubakar (2015) and Maertens (2009). Maertens's (2009) study in Senegal shows that households that own no or lesser land are more likely to involve in wage and non-farm works. Similarly, Shehu and Abubakar's (2015) study in Nigeria shows lack of a well-functioning land market as a hurdle for entrepreneurial development.

Figure 2.5: Sector Based Mobility[10]



Source: Survey, KII and FGD, 2021

2.5. Conclusions and Recommendations

Recently, entrepreneurship is a trending phenomenon with a good number of rural households engaging in rural entrepreneurship. Their entrepreneurial engagement is characterized by business diversification rather than specialization or intensive operation. Besides, the entrepreneurs prioritize producing high-value items over basic consumption goods. The dynamic labor mobility manifested within one sector or between farm and non-farm sectors is also related to the households' quest for business diversification.

The mobility are primarily shaped by necessity-push caused by natural calamities, lack of job opportunity and failure or insufficiency of the previous job to meet basic needs of households. It is also influenced by some opportunities like rise in demand, proximity to towns and price differences on a temporal and spatial basis. Proximity of the entrepreneurs' sub-districts to the towns also contributes to the difference in the nature of entrepreneurial motivation. In this token, motives and paths of occupation are also found to differ from context to context. Generally, the research findings are in support of the Labor Re-Allocation Theory of Hymer and Resnick (1969) in showing that rural entrepreneurship manifests occupational mobility of household labor. But it

[10] Labels: Blue rectangle= sectors; Yello rectangles= non-entrepreneurial works; green rectangles entrepreneurial works; or green arrows entrepreneur mobility; orange arrow= non-entrepreneurial mobility.

diverges from the theory in its explanation regarding the paths and reasons of labor mobility and entrepreneurial dynamics. On the other hand, problems associated with shortage of land, lack of access to financial services and absence of weekly village markets have remained the bottlenecks for entrepreneurial development and dynamics in the area.

Hence, it is vital that the government revisits the existing land and financial policies. More specifically, Office of Agriculture and Natural Resource Management, should create awareness about household-based land leasing (renting) to support entrepreneurial expansion. Office of MSE development and Trade and Industry should set short, and clear bureaucratic procedures (Ease of doing business) for new start-ups. Banks and microfinance institutions should craft modes operation that would make the financial services accessible, manageable and socially acceptable. Finally, the research has endeavored to explore dynamics of rural entrepreneurship in terms of occupational mobility within and between sectors. Hence, wide-range of research is needed to build an advanced understanding of dimensions of entrepreneurial dynamics in different contexts.

CHAPTER THREE: ARTICLE TWO

3. Determinants of Rural Households' Engagement in Entrepreneurship: A Case of Haramaya District, Ethiopia

Abstract

Rural entrepreneurship is an emerging trend being joined by growing number of rural households. But majority of rural people are still operating substance based traditional livelihood. This research investigates the determinants of participation in rural entrepreneurship. The data for this research were gathered from 381 rural households of Haramaya district in Eastern Ethiopia through cross-sectional survey. The gathered data were analyzed by running probit model. The finding shows that age of the household heads, household size, land ownership, distance of residence from market, and access to contract job are factors that significantly influence entrepreneurial engagement of the households. This suggests that necessities-pushes related to households' economic needs are the major determinants for participation in rural entrepreneurship whereas institutional support structures such as training, social network and credit have got less influence in creating rural entrepreneurs. Therefore, government offices such as, the offices of SME development should work to increase stakeholders' participation and network for to strengthen rural households' economic capacity and entrepreneurship development. Financial institutions should also expand and diversify their saving, credit and advises services to influence entrepreneurial development. Higher educational institutions, farmers cooperatives and NGOs should first jointly identify the needs and entrepreneurial opportunities in the area and offer trainings, advisory services and resources to boost their capacity to search and utilize business opportunities.

Keywords: Determinants, participation, rural, entrepreneurship, necessity, opportunity

3.1. Introduction

With increase in rural population and eventual decline in households' share of land as well as environmental degradation, traditional agriculture has become incapable to continue as the solitary and sufficing source of livelihoods (CSA 2018). Growing number of rural households in the developing regions are joining entrepreneurial activities in different sectors to overcome this problem and meet their survival and growth needs (Meera 2017; Petit *et al.* 2015). More than 40% of rural households in Africa operate non-farm enterprises (Nagler & Naudé 2014; Owoo & Naudé 2014) and the number will be much higher if agricultural enterprises are included. The 2015-2016 3rd wave Ethiopian socio-economic Survey (ESS) data shows that approximately 20% rural households in Ethiopia participate in various temporary or continues entrepreneurial activities (CSA 2018).

Similarly, rural households of Haramaya districts have started looking beyond the traditional farming which has served as the sole livelihood basis and turning their face partly towards entrepreneurial developments (Teshome et al., 2015). The dominant livelihood activities in the district are farming and livestock. Specifically, the highest share (36.5%) of the household income comes from production of a cash crop called Khat followed by vegetables, sorghum, maize and haricot beans (Abebe et al., 2014). On the livestock side, goat, cattle, sheep and donkey are the dominant animals reared in the area (Nuru and Mhatebu 2017; Abebe et al. 2014) Non-farm businesses activities and off-farm daily labor are other major activities the people in the district engage in away from agriculture.

Governments, local self-help groups, NGOs, and international organizations are also changing their face towards facilitating rural entrepreneurial development especially for poor and vulnerable households (Abiche 2012; Freeman 2012; Sawada and Harishchandra 2011). Ethiopian government and local self-help associations are also providing microcredit loans for rural households with partial endeavor of supporting entrepreneurship (Abiche 2012). In addition to this the World Bank group and different programs including Agricultural Growth Project (AGP) and the Household Assets Building Program (HABP) are also working to facilitate entrepreneurial development in rural Ethiopia (Sawada and Harishchandra 2011).

But participation in entrepreneurship from a household to the other (Ayambila 2014). Some households opt for entrepreneurship whereas the others decide to continue their long-learned livelihood. This has made recent literatures to develop interest of studying the factors that facilitate or hinder the participation in rural entrepreneurship since it is very important but less explored (Osondu 2014; Nagler & Naudé 2014; Shehu & Sidique 2014).

However, the bulk of the researches on the subject have focused on high income countries (74%) and upper middle-income countries (13%) in Europe and America (Pato& Teixeira 2016) even though large portion of rural areas are located in the developing countries such as Sub-Saharan Africa and South East Asia. Few scholars made attempts to examine the determinants of rural entrepreneurship in Sub-Saharan region (Alemu & Adesina, 2017; Nagler & Naudé 2017). Some of them classified the determinants in to different categories such as push versus pull factors (Nagler and Naudé 2014), individual versus contextual factors (Alemu & Adesina, 2017). Ayambila (2014) and Shehu & Sidique (2014) on their side classify the factors in to different characteristic levels, namely, individual, household; enterprise, community and institutional levels. But within the region, Anglophone nations were given much attention in those entrepreneurship researches compared to other countries (Boohene & Agyapong, 2017). Ethiopia is one of those countries where rural entrepreneurship is less explored. Rural entrepreneurship will have added value for the knowledge because, according to Rivera-Santos et al. (2015), rural entrepreneurship in Africa is bound to be defined by contextual differences in terms of colonial history, poverty, informality and the nature of ethnic identity.

Besides, majority of the existing literature have undertaken macro level analysis even though rural entrepreneurship differs from one rural setting to the other due to respective nature of country and local level circumstances (Nagler and Naudé 2014; Owoo& Naudé's 2014). Hence, exploring the determinants of rural entrepreneurship in diverse rural settings will have immense contribution for building the body of knowledge, policy and local practices.

With regards to the concept and category of rural entrepreneurship, most of the studies have dealt with involvement in off-farm and non-farm activities as livelihood diversification (Alemu and Adesina 2017; Osondu 2014; Ayambila 2014). Otherwise they have examined determinants of non-farm entrepreneurship exclusively from agricultural entrepreneurship (Nagler and Naudé

2017; Nagler and Naudé 2014) or vice-versa (Arafat et al., 2020). But rural entrepreneurship by its definition is not mere engagement in off-farm and non-farm activities (Nagler and Naudé 2017). Discussing about farm only or non-farm entrepreneurship only cannot show the complete picture of rural entrepreneurship either (Pato and Teixeira 2016).

Therefore, this research endeavors to bridge the aforementioned gap by examining the determinants of participation in rural entrepreneurship (in all rural business sectors). In doing so it attempts to distinguish (1) the participants of rural entrepreneurship from the non-participants; (2) explore the factors that determine their decision to engage entrepreneurship; and (3) identify the most influential category of variables that need special attention among the individual level, household level and community or institutional level variables.

3.2. Theoretical and Conceptual Frameworks of the Research

The room given by the literature for building theories specifically in rural entrepreneurship areas is narrow (Pato & Texiera 2016). The research stands on three theories from two different fields in dealing with rural entrepreneurship. These are the Agrarian Labor Relocation theory (Hymer & Resnick 1969) from economics and Embeddedness theory from sociology (Granovetter 1985) and Occupational Choice theory Blau et al (1956).

ALRT explains the nature of participation of rural labor in the farm and non-farm sectors. Accordingly, surplus labor of agricultural households, after the attainment of households' food needs, join the non-farm sector in different forms whereas the labor from the non-farm sector is driven by the increase in food demand to join agricultural works (Hymer & Resnick 1969). The embeddeddness theory underlines the importance of social capital and both endogenous resources and exogenous experiences in shaping the nature and extent of entrepreneurial undertakings (Granovetter 1985). The occupational choice theory appeared as a modern version of labor economic theories based on the works of Blau et al (1956) and Lucas (1978). It basically emerged to address the question whether people engage in entrepreneurial activities just spontaneously or whether there is some forcing factor behind their decision. The three theories assert the importance of rural entrepreneurship but they diverge in their explanations regarding the foundation for the entrepreneurial involvement. The occupational choice theory asserts that

individuals make analysis on the occupations available in their areas and choose either entrepreneurship or paid employment based on their tastes and abilities (Lucas1978). The choice is determined by the individuals' risk attitudes and market oriented productive capabilities (Parker 2018). ALRT puts households resources and goals, rather than individual choice, to be the central element for entrepreneurial decision (Sadoulet et al. 1998; Hymer & Resnick 1969). Accordingly, households have dual role as units of production and consumption and they make the decisions on the basis of maximization profit and utility. For the embeddedness theory societal and institutional factors are more important since the businesses are undertaken in the spectrum of community settings (Gaddefors and Anderson 2019; Granovetter 1985).

Recently, it is asserted that that the entrepreneurial decisions even go beyond household levels. Social and cultural elements such as family and neighborhood relationships and the tradition of working in private farm are also much vital (Michalewska-Pawlak 2012). In addition to individual and household factors, rural entrepreneurship is highly subject to be affected by socio-spatial elements of the community as well as the policies and practices of formal and informal institutions in the rural settings (Muñoz and Kimmitt 2019; Gaddefors and Anderson 2019; Michalewska-Pawlak 2012).

Generally the factors that determine rural entrepreneurship can be grouped as individual level, household and community or institutional characteristics (Ayambila 2014). Age is one of the individual level variables that influence rural entrepreneurship. Power (2011) also stresses that there is a decline in the likelihood of individuals becoming entrepreneurs as they become older. In Western countries, however, older entrepreneurs start and manage business easily because their life experiences help them to do so (Meera & Vinodan, 2018). With regard to sex, men are more prevalent in entrepreneurial and industrial works than women because of discriminatory rigid social norms and household duties that influence their time use (Nagler and Naudé 2017; Power 2011). But the trend of women's involvement in entrepreneurship is increasing from time to time.

The contribution of education and training projects in shaping behaviors in building entrepreneurial spirit is well recognized in entrepreneurship literature (Pluzhnik et al., 2018; Feher 2014))**.** Educated people are believed to be more participants and persistent in entrepreneurial activities because they may be able to employ more efficient techniques of production, and may

be aware of and therefore able to take advantage of greater opportunities for enterprise improvements such as credit facilities and effectively allocate household labor (Owoo and Naudé 2014). According to Power (2011) education helps individuals cope with their entrepreneurial problems more easily and feel competent to undertake tasks. Si et al. (2015), Owoo and Naudé (2014) and Audretsch et al., (2013) assert the importance of religion for entrepreneurial development and performance. According to the national census result more than 97 percent of the residents of Haramaya district are Muslims (CSA 2008). Hence, this research examines whether being a member of dominant religion (Muslim) has meaningful influence on rural entrepreneurship.

Drennan et al. (2005) in their work on entrepreneurial intention take difficult-childhood as one pillar individual level element swaying entrepreneurial decisions. Children who have passed through hardship especially during their young age those with more responsibility, such as the first born, and are much likely to become entrepreneurs when they become gown-ups. (Cheng et al. 2021; Power 2011). In this token, number of siblings, birth-rank among the siblings and growing as orphan are taken in this research as variables indicating childhood experiences.

Households are vital decision makers and resource units as far as rural entrepreneurship is concerned (Nagler and Naudé 2014). Household size has high relation with rural entrepreneurship because large-sized households would get the chance allocate their surplus labor in to non-farm business (Nagler and Naudé 2014). The possessions of households in terms of land size, electricity, communication means (phone and radio) livestock and finance (Nagler and Naudé 2014; Owoo and Naudé 2014) also have a remarkable role in influencing the likelihood of becoming rural entrepreneurs. According to Ayambila (2014) also households residing in high business flow areas have better potential of involving in entrepreneurial activities.

Alemu and Adesina (2017) and Owoo and Naudé (2014) underline the importance of participation in social networks such as cooperatives and access to credit in enhancing rural entrepreneurship (Alemu and Adesina 2017). Entrepreneurial activities are also prone to be affected by ecological zones associated because the amount and time span of rainfall and vulnerability of attacks by insects and frost have impacts on the type of work a household wants to engage in (Trettin and Welter 2011; Berhanu and Amdework 2011).

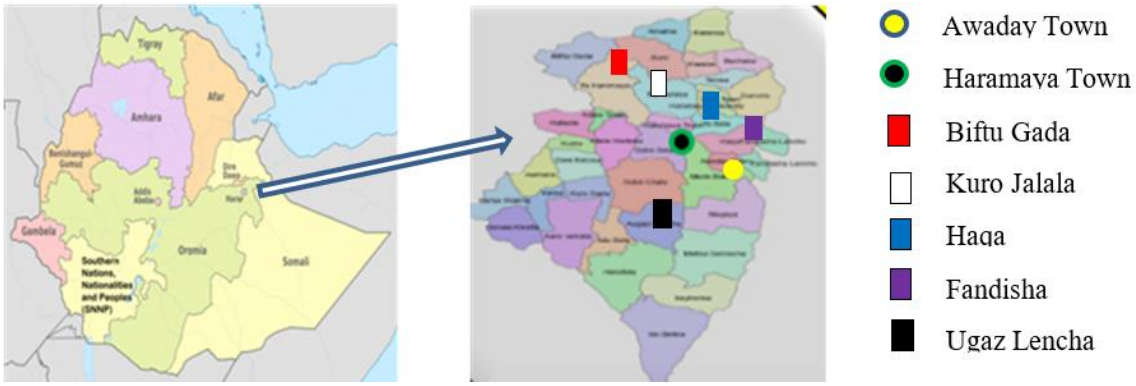
3.3. Methodology

3.3.1. Description of the Study areas

This study is conducted based on a cross-sectional household survey data gathered from five sub-districts (*kebeles* in local language) of Haramaya district located in Eastern part of Ethiopia. The district is located 497 kilometers from the national capital, Addis Ababa. According to the latest national census (CSA 2008) of the country, Haramaya has a total population of 271,394 out of which about 220,408 (81.2%) are rural residents. The latest but unpublished report got from district administration office shows that there are a total of 44,644 households in the district (HDAO 2019).

The district is well-known for mixed agriculture especially *Khat* and vegetable production and beef farming as well as production of sorghum and maize (Nuru and Mhatebu, 2017; Abebe *et al*., 2014). *Khat* takes the highest share (36.5%) in generating households' income (Abebe *et al*., 2014) Teshome et al (2019) state that Self-employment in petty trading, transporting by pack animal, fuel wood selling, charcoal making, selling fruits, making pottery and handicrafts and stone-mining are the main non-farm entrepreneurial activities in the area. They also list non-farm business opportunities in the hand craft works such as pottery, woodwork, metal works, tannery. Tannery is well stressed as lucrative business because there is huge wastage of skin and hides after animals are slaughtered. Smith works are also lucrative because despite their large market for agricultural and tools and household utensils, they are run by small number of people because they are undermined by the society.

Figure 3.1: Administrative Map of Haramaya District



Source: Haramaya District Health Office

3.3.2. Sampling and Data Collection

The target population of this research is rural dwellers of Haramaya district. In the rural areas business and other livelihood decisions, benefits and ownership are largely under households' possessions under the leadership of household head. Like most part of Africa (Fox & Sohnesson 2012) rural entrepreneurial holdings is owned by households. Hence, the research takes a household as the unit of analysis and the household head as key respondent in the survey. According to the official report gathered from district administration office (unpublished) there are a total of 44,644 households in the district. The formulae of Krejcie and Morgan (1970) was used to determine the sample size for the research. The formulae is mathematically represented as

Equation 0.1

$$S = \frac{\chi^2 NP(1-P)}{d^2(N-1)+\chi^2 P(1-P)}$$

where **S** stands for the sample size; **X2** represents the table value of chi-square for 1 degree of freedom at the desired confidence level which is the squire of 1.96 (3.841), **N** refers the total target population (44,644); **P** is the population proportion assumed to be 0.50 (since this, according to Krejcie and Morgan (1970) would provide the maximum sample size); **d** stands for the degree of accuracy expressed as a proportion (0.05).

Accordingly, the total sample size becomes 381 households.

Two sub-districts, namely Haqaa, and Qarsaa-Qajimaa, from the lowland and three, Kurroo-Jaalaalaa, Fandishaa-Leenchaa, and Biiftuu-Gadaa, from the midland are selected as sample sub-districts out of 11 midland and 22 lowland sub-districts. The number of sample households from each sample sub-districts are identified using the formulae

Equation 0.2

$$ns = n\left(\frac{Ns}{N}\right)$$

Where **ns** refers to sample size of households from *kebele* (sub-district), **N** stands for total Household of the district, **Ns** implies total household of the *kebele* and **n** is total sample (at district level).

Finally, the respondent households were selected through simple random sampling method using the household list from administration offices of each *kebele*.

Survey questionnaire was developed in English language and translated in to the local Afan Oromo language and administered as a tool of data collection. The data were collected by agricultural extension workers who were hired and trained for the specific reason. Stata version-14 software was used to analyze the gathered data.

3.3.3. Data Analysis

Three categories of variables are used as explanatory variables in the research. Variables under individual characteristics include sex, age, religion, literacy level, number of his/her siblings, childhood experience as orphan. The other variables are household characteristics such as household size, residence distance from market area, ownership of residence house and farmland, access to mobile phone, radio and electricity. The remaining variables are categorized as community and institutional variables. They include access to banks/microfinance, membership in cooperatives, access to entrepreneurship training, and ecological area of residence.

The majority of the variables in this research have discreet values and the dependent variable (participation in rural entrepreneurship) is a categorical binary response variable (i.e participants and non-participants). In such cases, Logit and Probit models are the most appropriate and popular models used to measure functional relationship between the dependent and independent variables (Cakmankayapan & Goktas, 2013). Almost all of the assumptions and technicalities of the Probit model are similar with the Logit except the slight difference on the sample size they require. The Logit is much convenient for large sample size (500 and above) whereas Probit is better to be used for smaller sample size (Cakmankayapan & Goktas, 2013). Hence, the Probit model is employed for analysis in this research because the sample size is 381.

Since normality of distribution and linearity of the relationship are not the integrals of logistic model maximum likelihood estimator technique and odds ratio are used as measures instead of the ordinary least square and marginal effect estimator (Cakmankayapan and Goktas 2013; Becker and Waldman 1987). Unlike the ordinary least square, maximum likelihood requires the

assumption of error distribution and normal binomial distribution of errors is associated to probit model and logistic errors are associated to logit model (King 2008). Then the formula for probit as a binary outcome model is specified as

Equation 3.3 $$\mathbf{P}\left(\mathbf{Y}=\frac{\mathbf{1}}{\mathbf{X}}\right)=\ ^{\varphi}(\boldsymbol{\beta_0}+\ \boldsymbol{\beta_1}\boldsymbol{\beta}\boldsymbol{X_1}+\ \boldsymbol{\beta_2}\boldsymbol{X_2}\ldots\boldsymbol{\beta_k}\boldsymbol{\beta}\boldsymbol{X_K})+\ \mu$$

Or

Equation 3. 0 $$\boldsymbol{P(Y=1)}\ \ =\ ^{\varphi}\sum_{k=1}^{K}\boldsymbol{\beta_k}\boldsymbol{X_k}$$

Where X stands for the independent variables, in this case, individual, household and community level variables

φ is cumulative standard normal distribution function which is calculated as

Equation 3.5 $$\mathbf{Z}=\ \boldsymbol{\beta_0}+\boldsymbol{\beta_1}\boldsymbol{X}$$

- $\boldsymbol{\beta_0}$ is the intercept of the function whereas
- **β1 to βk** are the parameters to be estimated, and
- μ is the error term, which is assumed to follow a standard normal distribution.

In addition to its assumption of distribution errors as normal the fact that probit model has single degree of freedom makes it face hurdles of fitting the goodness of running diversified variables. Hence, chi-square test and pseudo R-square were used together with the Probit model.

Table 3.1: Summary table of dependent and explanatory variable

Variables	Description	Measurement	Hypo. R/n
Dependent Variable	Intensity of entrepreneurial engagement (work-hour)	Continues	
Explanatory Variables			
Age	Age of the household head	Continues	-
Marital Status	Marital status of household head	0 =Sin./Div./wid* 1= married	+
Literacy	Can the household head read and write?	0= No 1= Yes	+
Number of siblings	Number of siblings the household head has	Continues	-
Grown as orphan	Whether the household head has grown as orphan	0= No 1= Yes	
Household size	The number of household members living under the leadership of the household head	Continues	+
Market distance	Distance of the residence from main market (in Km)	Continues	-
Electricity	Households access to electricity	0= No 1= Yes	+
Mobile	Households access to mobile phone	0= No 1= Yes	+
Radio	Households access to Radio	0= No 1= Yes	+
Own residence	Does your household own a residence house?	0= No 1= Yes	+
Own farmland	Does the household own a farmland?	0= No 1= Yes	+
Training	Has household head taken entrepreneurship training	0= No 1= Yes	+
Cooperatives	Is the household head member of cooperative?	0= No 1= Yes	+
Ecology	Climatic zone of residence of the household	0= lowland 1= midland	+
Contract	Experience/history of participation in contract employment	0= No 1= Yes	-
Own site	Is the business site own by the household?	0= No 1= Yes	+

Source: the authors (2022)

To use the model the variables were evaluated in terms of their multicolinearity and importance of each independent variables. The multicollineartiy was checked by method known as Variance inflation factor (VIF) as presented in table 3.2 below. The average result of the test is 1.33 and this shows that the model is very fit to proceed to analysis since no variable shows a result of more than 10. Collinearity between two independent variables was also measured by the use of

Pearson correlation and few variables such as length of residence stay and distance from main road have been omitted because of their collineiarity with age and nearest market, respectively. Other variables, such as sex, and religion, were omitted because they have got negligible influence on rural entrepreneurship and their presence affects other variables. The model is with good fit since prob> chi-square and Pseudo R-square of the regression are 0.0003 and 0.493 respectively.

3.4. Result and Discussion

3.4.1. Results

Out of the total 381sample rural households that are randomly selected 93 (24.4%) of them are identified to be involving in one or more entrepreneurial activities and the majority 288 (75.6%) are not involved. Probit results regarding determinants of participation in rural entrepreneurship are discussed hereunder.

Table 3.2: Determinants of Participation in Rural Entrepreneurship (Probit result)

Probit Regression			
LR chi2(18)	44.27	Number of obs	348
Prob > chi2	0.0003	Pseudo R2	0.493
Log likelihood	-136.63091		
Rural entrepreneurship	**Robust; Coef.**	**Std. Err.**	**Odds ratio**
Gender of the household head	-.031	.282	0.969
Age of the household head	-.018*	0.14	0.982
Marital Status	-.176	.251	0.833
Ability to read and write	.153	.223	1.165
Number of siblings	.050	.039	1.05
Grown as orphan	.335*	.188	1.40
Household size	.102**	.047	1.398
Own residence house	-.197*	.117	0.821
Access to electricity	.285	.207	1.33
Ownership of mobile phone	.187	.246	1.206
Ownership of radio	.102	.213	1.107
Access to contract employment	1.181**	.551	3.257
Access to entrepreneurship training	.094	.472	1.098
Member of cooperative	-.087	.214	0.915
Credit from FIs	.875	.985	2.39
Ownership of farmland	-1.394***	.489	0.26
Distance from main market	.031**	.031	1.363
Climatic attribute of the area	-.184	.246	0.831
_cons	-.253	.712	0.776

- * Significant at P < 0.1; ** Significant at P < 0.05

Source: The authors 2022

Generally, seven variables are found to have statistically significant relationship with rural entrepreneurship at P < 0.1, P < 0.05 and P < 0.01 levels of significance. Ownership of farmland and age are negatively associated to rural entrepreneurship at P < 0.01 and P < 0.1 levels of significance, whereas, household size, access to and experience of contract employment and distance of residence from market are positively related to it at P < 0.05. Similarly, age and childhood experience of the household head as an orphan as well as possession of residence house

by the household have positively associated with rural entrepreneurship at $P < 0.1$ level of significance.

The remaining variables namely sex (being male), number of siblings, membership in social networks (cooperative), participation in entrepreneurship training, literacy level of the household head; access to domestic facilities, i.e. electricity, mobile and radio; access to loans from bank/microfinance and ecological zone (being dweller of midland) were not statistically related to rural entrepreneurship.

3.4.2. Discussion

Households with large family size have higher tendency of participating in rural entrepreneurship than the small sized households. As household size increases by 1 person, the household is 1.3 times more likely to participate in entrepreneurship. The finding is in confirmation to the ALRT theory (Hymer & Resnick 1969) and the study of Nagler and Naudé (2014) that asserts the importance of large household size as a source of surplus labor to be allocated starting entrepreneurship. In addition to this, the entrepreneurial participation is likely to be decided due to the urge for meeting the needs of large population.

Farmland and residence house are the main economic assets of rural life. The result indicates that households that have no farmlands and residence houses are 1.4 times more likely to be entrepreneurs than those who own them. This shows that the entrepreneurs are dominantly motivated by necessity-drives than opportunity to be entrepreneurs. This appears in conformity with the study of Ayambila (2014) that associates rural entrepreneurship with a pursuit of alternative means of income and growth for the households that have less or no landholding. Similarly, households whose heads have experienced childhood socioeconomic hardship growing as orphans are 1.4 times more likely to become entrepreneurs than those who have not gone through such challenges. The finding confirms the works of Cheng et al. (2021) and Power (2011), which associate entrepreneurship with childhood challenges and the experience of responsibility in the family.

The result also shows that households that live far from market places have much tendency of participating in entrepreneurship than their counterparts. The result goes contrary to the works of Ayambila (2014) as well as Owoo and Naudé (2014) that state proximity to market place and main road enhance rural entrepreneurship. This could be because this research considered both agricultural and non-farm entrepreneurship whereas the previous ones took only the non-farm side. In addition to this, the market places referred in this research are located in towns (Haramaya and Awaday) since there is no any rural village markets in Haramaya district. Rural households that live in the villages closer to those markets mostly focus on their traditional livelihood or joining urban business than participating in rural entrepreneurship (FGD). The other likely reason for this is because the types of business they plan or afford to start are already there in the market and they refrain from competing the already established firms.

Age of the household head is another important variable that determines rural households' participation in entrepreneurship. Households headed by old aged households are less likely to join entrepreneurship. With an increase 1 year of age, the propensity of a person to participate in rural entrepreneurship declines by 0.9. The finding supports the argument of Power (2011) that asserts there is an opposite relationship between age and entrepreneurial participation. But it contradicts with the work of Meera & Vinodan (2018) that states entrepreneurial participation increases with experiences gained by living more age. This indicates that, in the case of Haramaya, the necessity and risk-taking tendency of the youths presides over the experience of the aged ones for entrepreneurial decisions. This throws light on the contextual reality of rural entrepreneurship in the developing regions, where necessity and physical capacity to undertake tasks are more influential in the entrepreneurial decisions than experiences gained.

Households that have got access to contract employment are 3.27 times more likely to engage in rural entrepreneurship as compared to their counterparts. This is mostly because contract employments owe some amount money and experiences that will help the households to start and run entrepreneurial works. The result supports the works of Meera (2017) and Power (2011) that underlines the importance of previous business exposures and experiences for starting one's own entrepreneurial work.

3.5. Conclusion and Recommendation

The research results invite the following conclusions. Even though Haramaya district is a place of diverse entrepreneurial opportunities and potentials, necessity factors are more prominent in influencing the entrepreneurial participation of rural households. The necessities dominantly emanate from the quest of meeting the need of growing population size and lack of basic livelihood assets such as land and residence house. In attempting to meet those needs contract based short term employments play a pivotal role as sources of experience and startup capital to establish one's own venture or transform it from traditional subsistence operation to business.

On the other hand, the roles played so far by the existing support structures such as entrepreneurship trainings, credit from financial institutions and social networks in increasing the entrepreneurial participation of rural households is small. Yet, the significant difference on the age shows that the youth are more eager to join and practically joining entrepreneurship.

Therefore, government offices such as, the offices of Small Enterprise Development; Agriculture and Natural Resource Management; and Trade and Industry should identify the needs of rural households and work to increase stakeholders' participation and network for rural entrepreneurship development. Furthermore, providing continues trainings, and advisory services as well as setting experience sharing platforms is also important to maximize and expand the practical skills gained in different localities by different households.

The Banks and Microfinance institutions operating in the area should also expand and diversify their financial services (saving, credit and financial advises) in the way they suit the needs and social values of the rural dwellers. The social networks in the area, such as the different associations and the Afran Qallo Farmers Union should go beyond supplying agricultural inputs and technologies. They can join hands with other institutions to develop projects that would offer short-term job opportunities that would serve as optional sources of income (for start-up capital) and experience to shape the entrepreneurial involvement.

ld serve as optional sources of income (for start-up capital) and experience to shape the entrepreneurial involvement.

Higher educational institutions such as Haramaya and Dire Dawa university and the Technical and vocational training centers in the area should work to clearly identify, map and reveal the available entrepreneurial potentials of the area. Moreover, diverse capacity building platforms should be created to address different parts of the community such as women, youths, small holder farmers, returnees from migration, school dropouts, etc. Exploring and introducing types of halal business (that are compatible with religious values of the community) and interest free financial services should also be sought for entrepreneurship development in the area.

CHAPTER FOUR: ARTICLE THREE

4. Determinants of Entrepreneurial Engagement Intensity in Rural Settings: Evidences from Haramaya District, Ethiopia[11]

Abstract

Empirical studies on entrepreneurial work intensity and its determinants in Ethiopia are negligible. Thus, the study examined the applicability of work intensity in rural entrepreneurship Haramaya district. The study was based on the Theory of Time Allocation. To this end, data were gathered via a cross-sectional survey of 381 rural households and were analyzed using the Tobit model. The findings revealed that ownership of the business site, location of the enterprise, contract work, the distance of residents from the main road, ecological settings, childhood experience of the household head as an orphan and the reason or motivation for starting an enterprise are found to be the most significant determinants of entrepreneurial intensity. The study underlined the prominence of household, spatial, and motivational factors in shaping the intensity of entrepreneurial work. Improving household-level resources and capabilities will also be very important to create as many devoted rural entrepreneurs as possible was recommended.

Key Word: intensity of entrepreneurial engagement, rural entrepreneurship, work-hours

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4.1. Introduction

Entrepreneurs differ from one another in the intensity of their entrepreneurial engagement. Growing number of the rural population in the developing countries regions is joining rural entrepreneurship (Petit *et al.* 2015). The Sub-Saharan Africa in general and Ethiopia are good examples in this regard (Nagler & Naudé 2017; Nagler & Naudé 2014). In the same token, a remarkable share of rural households in Haramaya district and its environs have started to join entrepreneurship whereas dependence on traditional farming as the sole livelihood basis is reducing from time to time (Teshome et al., 2015.). The area produces and exports large quantities of khat and vegetables as cash crops to the neighboring countries (Somaliland and Djibouti) and serves as a pathway of cross border trade between those countries and the interior part of Ethiopian. In addition to this, its proximity to the major tourism sites of Eastern Ethiopia, such as UNESCO registered walled village of Harar, prehistoric sites of Laga-Oda, etc., attracts many residents to join entrepreneurship.

Entrepreneurs differ from one another in the magnitude and patterns of their entrepreneurial operation (Ayambila 2014). One among those important aspects is the difference in terms of the intensity of their entrepreneurial engagement (Nagler & Naudé 2017; Ayambila 2014; Burmeister-Lamp et al. 2012). The amount of time spent on entrepreneurial work shows the degree of devotion of the entrepreneurs to undertake entrepreneurial works (Burke & Fiksenbaum 2016; Ferrante, 2005). This in turn is the key for the performance of the business in particular and the socioeconomic development in general (Sumiati, 2020; Ayambila, 2014). Therefore, it is important to identify the factors behind entrepreneurs' difference in their work intensity.

Yet, Majority of the studies in entrepreneurship have given prominence to the determinants of participation (Nagler & Naudé 2014; Michalewska-Pawlak 2012) whereas the differences among the entrepreneurs in their intensity entrepreneurial work and its determinants are poorly addressed (Ayambila, 2014). Almost all of them have tried to discuss the intensity of engagement in conventional (urban) entrepreneurship and the rural side of it is ignored (Sumiati, 2020; Burmeister-Lamp et al. 2012; Verheul, et al. 2009). They have mostly emphasized on the developed countries and less is known about the case in the developing regions (Santoro et al.,

2019). Third, the researchers that studied the difference in the entrepreneurial time have given much emphasis on its effects on the enterprise performance rather than the factors behind the difference in the entrepreneurial intensity (Sumiati, 2020 Owoo & Naudé 2014).

In fact a few studies, such as Ayambila (2014) have attempted to discuss the intensity of involvement in rural entrepreneurship in terms of work time. The results of Ayambila's (2014) study in Ghana associates the increase of number of days worked in the nonfarm self-employment and wage employment with household level economic resources such as the number of livestock, access to electricity and mobile phone. But the study has focused on non-farm sector leaving aside the work-time in agricultural entrepreneurship. Besides, the non-farm activities, emphasized in the literature include both wage-employment (non-entrepreneurial) and self-employment (entrepreneurial) forms (Ayambila, 2014) and it shows the general picture of nonfarm work-time than entrepreneurial work-time.

As far as Ethiopia is concerned, studies related rural entrepreneurship research have started to gain momentum very recently and they are still at their infant stage. Emphasis, in this regard, has been given to the prevalence, factors and performances of rural households' non-farm involvements, diversification and self-employment (Alemu and Adesina, 2017; Nagler & Naudé, 2017; Owoo & Naudé, 2014). Similarly, in Haramaya district and its environs, few studies have been undertaken on the nature and determinants of rural households' income diversification (Syraji et al., 2017); commercialization of agricultural items (Olani et al., 2017) and participation in non-farm activities (Abdurezak et al., 2021; Teshome et al., 2015) and little attention is given to study entrepreneurial intensity and its determinants. Haramaya district gives a viable example for such research as an area with wider entrepreneurial potential and a khat culture, which according to Gelaw & Haile-Amlak (2004) influences the mode and times of work.

Therefore, in the endeavor to address the aforementioned gaps, this research analyzes the determinants of rural entrepreneurs' entrepreneurial work intensity based on a cross-sectional survey data gathered from rural areas of Haramaya district, Ethiopia. In doing so, it analyzes the time devoted for entrepreneurial activities in both farm and- non-farm sectors.

4.2. Theoretical Review

This research is based on Becker's (1965) Theory of Time Allocation. The theory asserts human time as one of the most fundamental economic resources and explains how and why people allocate this resource to different activities. It denotes the importance of technologies used for labor productivity, transportation issues and consumption patterns in shaping work-hour. Accordingly human beings' time allocation is divided as work-time and leisure/consumption time. Ferrante (2005) asserts that allocation of working time for entrepreneurial, organizational and learning activities determine the technical and economic growth of a society. At enterprise level, it shows the behavioral pattern, human capital, firm size and performance (Ferrante, 2005).

Studies in this line have discussed entrepreneurial time allocation in two ways. Some have dealt with intra-firm time allocation between different tasks (Folta et al., 2006) whereas the others have studied time for new ventures and other tasks (business vs non-business time) (Verheul, et al. 2009). In this regard, entrepreneur's times are dichotomized as work-time and leisure-time. The work times are also further divided as self-employment (entrepreneurial) and wage-employment work-time. Burmeister-Lamp et al. (2012) state that hybrid entrepreneurs (those who run both wage-and self-employment activities) tend to have higher work hours as compared to the mainstream entrepreneurs.

There are different views regarding the determinants of entrepreneurial work-hours. The difference stems from the various and complex nature of factors that affect work intensity (Fairris 2004). According to the utility view, work-hours are primarily determined by expected return and the nature of risk associated with the work (Burmeister-Lamp, et al. 2012). Ferrante (2005) notes that individuals prefer to allocate more time on more rewarding activities. The regulatory focus view explains that allocation of time is based on either promotion-focus (growing and expanding business) or prevention-focus (preserving security and sustainability of one's business) (Brockner et al., 2004). Entrepreneurial traits related to productivity orientation, risk calculation and myopia strongly influence work time allocation (Ferrante, 2005). Coming to the internal capability and decision view, Verheul, et al. (2009) describe that entrepreneurs allocate their time to the business on the basis of their willingness and ability to run the enterprise.

With regards to indicators of entrepreneurial work-time Nagler & Naude (2017) have tried to roughly indicate the intensity of involvement in rural non-farm entrepreneurship using employees taking the number of hours, days and months per year worked in the enterprise for household and non-household employees. Ayambila, (2014) deals with the number of days worked per year in non-farm self-employment. This study takes the average work-hours per week spent on the entrepreneurial work as an indicator of intensity of entrepreneurial engagement.

4.2. Empirical Review

Rural entrepreneurship researches have generally identified, four set of variables as determinants of rural entrepreneurship (Ayambila 2014). These are individual characteristics, household characteristics, community and institutional characteristics, and enterprise characteristics (Alemu and Adesina 2017; Shehu & Abubakar 2015; Ayambila 2014; Nagler & Naudé 2014).

Different individual level factors are described in literature to affect the nature and extent of involvement in entrepreneurship. Age is one of those variables that influence rural entrepreneurship (Meera 2017). With regards to gender, men tend to invest more hours in entrepreneurial work as they have lesser share of domestic and social responsibilities than women (Verheul, et al. (2009). Marriage is widely described to have positive relation with entrepreneurship as rural dwellers get better access to farmland, material and financial gifts and social networks when they get married (Justo & DeTienne 2008).

A number of entrepreneurship literature assert the importance of education in general and entrepreneurship training in particular in shaping entrepreneurial work patterns (Pluzhnik et al. 2018; Feher 2014)**.** The more educated entrepreneurs are believed to be more participants and persistent in entrepreneurial activities (Owoo & Naudé, 2014). On the other hand, Burke & Fiksenbaum (2016) better educated people are mostly better paid and hence they seem to be less interested in working longer hours.

Individuals' decisions are swayed by their life experiences in addition to their education and goals (Drennan et al., 2005). According to Cheng et al. (2021) children who have passed through hardship especially during their young age have a higher likelihood of being attached to entrepreneurship when they become grown-ups. Similarly, children with more responsibility (i.e.

the first born and those who have many siblings) are more likely to start business activities (Power 2011; Soderbom 2019).

According to Burke & Fiksenbaum (2016), personal motivation of an entrepreneur is a key factor that affects the intensity of entrepreneurial work. Furthermore, Burke & Fiksenbaum (2016) classify the motives as positive and negative reasons. The positive reasons include better payment, social commitment, work enjoyment and self-actualization, whereas the negative ones include avoiding sanctions, unemployment insecurity. Similarly, these motivations are classified by Hyytinen & Ruuskanen (2007) as nasality-driven and opportunity-driven. Opportunity-driven entrepreneurs have a higher likelihood of investing much of their work on entrepreneurship than their counterparts because of their intrinsic motivation and relatively better attention to non-pecuniary returns (Hyytinen & Ruuskanen, 2007; Hamilton, 2000).

Household size has strong relationship with rural entrepreneurship since larger households can allocate surplus labor into non-farm entrepreneurship (Nagler & Naudé, 2014). The possessions of households in terms of land size, communication means (phone); and their distance from main road and marketplaces determine the facet of their participation and performance in the entrepreneurial activities (Nagler & Naudé, 2014; Owoo and Naudé 2014). Ayambila (2014) further states that households' access to electricity increases their tendency to devote more time for entrepreneurship because it facilitates working in the evenings.

Community culture, presence of communication infrastructures and participation in cooperatives are very important as far as entrepreneurship is concerned (Owoo & Naudé 2014; Michalewska-Pawlak, 2012). The time spent on entrepreneurship in rural areas is also influenced by ecological factors that are linked to the amount and time of rainfall; and damages by insects and hail and frost because most of the rural activities are dependent on nature (Berhanu & Amdework 2011). Trettin & Welter (2011) also call for future research that would assess the influence of socio-spatial contexts on the extent of entrepreneurial activities.

The characteristics manifested by the enterprises are also important factors that affect the intensity of entrepreneurial engagement. Ayambila (2014) describes firm age, location, sector, access to

labor and formal registration to be among the major enterprise characteristics influencing entrepreneurial intensity.

Based on the above discussions the theoretical and hypothetical determinants of entrepreneurial work-hours are summarized in table 4.1.

4.3. Methodology

4.3.1. Study Areas and Sampling Technique

The data for this research were gathered from five *Kebele*s/sub-districts (i.e Ugaz Lencha and Haqa from the lowland; and Biftu Gada, Kuro Jalala and Fandisha Lencha from midland) of Haramaya district which is located in Eastern part of Ethiopia. According to the latest population projection by CSA (2020), Haramaya district district has a total population of 386,305 out of which about 199,024 (51.5%) are males and 187,281 (48.5%) are female. The latest unpublished official report got from the district administration office shows that there are a total of 44,644 households in the district (HDAO 2019). The dominant livelihood activities in the district are farming. The highest share (36.5%) of the household income comes from *Khat* production followed by vegetables, sorghum, maize and haricot beans (Abebe et al. 2014). Petty trade, non-farm business activities and off-farm daily labor are other major activities the people in the district engage in away from agriculture.

381 households were selected for a survey based on the sample size determination formulae of Krejcie and Morgan (1970)

Equation 4.1

$$S = \frac{\chi^2 NP(1-P)}{d^2(N-1) + \chi^2 P(1-P)}$$

Where: S = the sample size; $\mathbf{X^2}$ =: the table value of chi-square for 1 degree of freedom at the desired confidence level which is the squire of 1.96 (3.841); **N** = the total target population (44,644). **P** = the population proportion assumed to be 0.50 (since this, according to Krejcie and Morgan (1970) would provide the maximum sample size); and **d** = the degree of accuracy expressed as a proportion (0.05).

$$S = \frac{1.96^2 x 44644 x 0.5(1-0.5)}{0.05^2(44644-1)+1.96^2 x 0.5(1-0.5)}, \quad S = \frac{3.841 x 44644 x 0.5(0.5)}{0.0025(44643)+3.841 x 0.5(0.5)}, \quad \mathbf{S = 380.83}$$

The number of sample households from each sample sub-districts were identified using the formulae

Equation 4.2 $ns = n(\frac{Ns}{N})$

Where **ns** refers to sample size of households from *Sub-district*; **N** stands for total Household of the district; **Ns** implies total household of the *Sub-district;* and **n** is total sample (at district level). Based on this, 128 households were taken as a sample from Kuro Jalala and 108 were from Biftu Gada. In addition to this, 58, 46 and 41 households, respectively, were taken as samples from Fandisha Lencha, Haqa and Ugaz Lencha.

Finally, the respondent households were selected through a simple random sampling method (i.e. roll number-based lottery) using the household list from administration offices of each *Sub-district.*

Survey questionnaire was developed in the English language and translated into the local Afan Oromo language and administered as a tool of data collection. The data collection was undertaken with the help of agricultural extension workers and local youths who were hired and trained for the specific reason. Finally, 381 questionnaires were filled and the gathered data were analyzed using STATA version-14 software. In addition to this, the qualitative data were gathered through key informant and in-depth interviews, focus group discussions and observation. Interview guides were prepared and the researchers personally interviewed 6 rural entrepreneurs and 11 stakeholders as key informants and in-depth interviewees. Besides, FGD with 7 rural entrepreneurs was undertaken with the help of colleagues from Haramaya University to get further explanations on some aspects.

Variables and Analytical Framework

The theory of time allocation describes households as small units of production and consumption that combine the necessary capital goods, raw materials and labor to clean, feed, create and otherwise produce useful commodities on one hand and consume products of other entities on the other (Becker, 1965). Their interests for survival or diversification of income sources serve as the major drivers and motives to start entrepreneurial activities (Soderbom, 2019). Households' decisions, especially in rural areas, are dominantly made by the household heads. This means the nature of households' entrepreneurial decisions are highly affected by the individual characteristics of a household head in addition to other factors that are common to all household members and the community. Based on this, four classes of variables are identified as potential determinants of rural entrepreneurship taking the works of Nagler & Naudé (2014), Ayambila (2014), Alemu and Adesina (2017) and Shehu & Abubakar (2015) as stepping stones. These four categories are individual characteristics, household characteristics, community and institutional characteristics, and enterprise characteristics.

Entrepreneurial intensity is measured, in this research, by the amount of time devoted for running the rural enterprises. Time is a resource human beings' access equally. Everybody has 24 hours in a day and 168 hours in a week. However, people differ on the allocation of these equally offered resources based on their prioritization. This research takes the average number of hours per week spent by the entrepreneurs on entrepreneurial works as a measure of entrepreneurial intensity and identifies the determinants of it.

Unlike Ayambila (2014), that studies entrepreneurial intensity based on work days in a year, average hours-per week are preferred to days per year due to two major reasons. First, it is relatively easier to be recalled and described by the rural households in the district as there is no habit of recording their work and leisure days of the year due to absence of fixed on and off days for private businesses. Second, there is discrepancies in the rural households about what a year exactly means because some use a rough lunar counting based on Islamic fasting or holiday times; the others use the solar Ethiopian calendar; and still some households use seasons as elements of calculating a year. Hence, the households were told indicate their average entrepreneurial work

hours either by multiplying their average working hours days working days per week or just estimating the lamp sum average hours out of total 168 hours in the week. Then the data was filled by 90 out of the 93 rural entrepreneurs and the data of 85 of them were treated because the remaining 5 were outliers with reportedly working 94, and 105 hours. The Tobit model was run taking 16 and 72 hours as left and right censoring values, respectively.

Based on the discussions in the review literature, the nature of the dependent and independent variables and their hypothesized relationship are described in Table 4.1. hereunder.

Table 4.1: Summary table of Dependent and explanatory variable

Variables	Description	Measurement	Hypo . R/n
Dependent Variable	Intensity of entrepreneurial engagement (work-hour)	Continues	
Explanatory Variables			
Age	Age of the household head	Continues	-
Marital Status	Marital status of household head	0 =Sin./Div./wid* 1= married	+
Literacy	Can the household head read and write?	0= No 1= Yes	+
Number of siblings	Number of siblings the household head has	Continues	-
Grown as orphan	Whether the household head has grown as orphan	0= No 1= Yes	
Household size	The number of household members living under the leadership of the household head	Continues	+
Market distance	Distance of the residence from main market (in Km)	Continues	-
Electricity	Households access to electricity	0= No 1= Yes	+
Mobile	Households access to mobile phone	0= No 1= Yes	+
Radio	Households access to Radio	0= No 1= Yes	+
Own residence	Does your household own a residence house?	0= No 1= Yes	+
Amount of land	Amount of farmland owned by the household (in hectare)	continues	+
Training	Has household head taken entrepreneurship training	0= No 1= Yes	+
Cooperatives	Is the household head member of cooperative?	0= No 1= Yes	+
Ecology	Climatic zone of residence of the household	0= lowland 1= midland	+
Contract	Experience/history of participation in contract employment	0= no 1= yes	-
Motivation	What factor primarily derived the household to start the entrepreneurial work	0= Necessity 1= Opportunity	+
Own site	Is the business site own by the household?	0= no 1= yes	+
Credit	Access to credit from FIs (banks or MFS)	0= no 1= yes	+
Business Site	Is your business site located in your village of residence or outside	0= outside 1= in the village	+

- * Single, divorced or widowed

Source: Authors survey (2021)

As it is indicated in Table 4.1. entrepreneurial work hour per week, which is a continues variable is taken as the dependent variables and individual level variables such as sex, age, literacy level, growing as orphan and marital status are taken as potential determinants (independent variables). Household level variables (such as household size, income, ownership of farmland and residence house; distance from main road, access to electricity, mobile phone and radio) as well as variables related to community and institutional support system (including access to entrepreneurship training, membership in cooperations and the nature of climatic area of residence) are taken as determinant variables. In addition to this, whether they are running the business on the site they own and the reason/motivation for starting that specific enterprise are classified as enterprise level characteristics that influence the entrepreneurial work hour.

Regarding the hypothesized nature (sign) of relationship between the independent and dependent variables the male, the youths, the married ones, those who can read and write, those who have grown as orphans and have small number of siblings are expected to invest much of their time on the entrepreneurial works. As far as household related variables are concerned, households that are small sized, that own residence house and farmland and have access to electricity, mobile and radio, as well as those who have got entrepreneurial trainings, members of cooperatives and those who live in midland area are considered to devote much of their time on rural entrepreneurship. Similarly, people who have no experience or exposure of participation in contract works; those who run their business in the sites they own and those that are opportunity-driven are presumed to have the propensity of spending more time on entrepreneurial works than their counterparts.

The research employs the Tobit regression model to measure the determinants of the entrepreneurial work-hour. The model is mathematically represented hereunder using the formulae of Sigelman & Zeng (1999).

Equation 4.3 $$Y_i^* = \beta X_i + \varepsilon_i$$

$$Y_i = Y_i^* : if \ \text{Yi} > 0 \quad (\text{because i.e. non} - \text{entrepreneurs are censored out})$$

= **0:** otherwise

where y_i^* is the latent dependent variable,

y_i is the observed dependent variable (participants in RE),

$\mathbf{x_i}$ is the vector of the independent variables,

$\boldsymbol{\beta}$ is the vector of coefficients, and

$\boldsymbol{\varepsilon_i}$ is assumed to be independently normally distributed.

In application of STATA command, 16 is used as the lowest limit (UL) and 72 is taken as the upper limit (UL) because the entrepreneurs work in their entrepreneurial business at least for 16 hours per week on average and the non-entrepreneurs give 0 hours for entrepreneurial work according to the data obtained from the study. Around 5 observations were censored because they were outliers reported to have 95 and 105 entrepreneurial work-hours per week

The appropriateness of the model and the nature of the available variables and data were checked to fit the basic assumptions. The first thing checked in this regard was how viable are the variables to use based on the multicollinearity and collinearity. The multicollinearity of the variables is measured by the famous multicollinearity test method known as Variance inflation factor (VIF). Collinearity between two independent variables was also measured by the use of Pearson correlation. A few variables, such as level of education and start-up capital are omitted from the analysis because they have a negligible influence on rural entrepreneurship and their presence affects other variables. The average VIF result for all variables is found to be 1.36, which is very good since it is far less than 10 and the Prob > F result is 0.000. This shows that the relationship between the existing variables fits the basic assumptions of regression models and it is possible to proceed to data analysis and interpretation works. In addition to this, the model shows the total similarity between the average marginal effect (dy/dx) and the coefficient of regression (Coef.) for all variables.

4.4. Result and Discussion

4.4.1. Characteristics of the respondents

Out of 381 randomly selected rural households, 93 (24.4%) are identified as having one or more entrepreneurial activities, while the majority of the remaining 288 (75.6%) are classified as non-entrepreneurs. The share of rural entrepreneurs in the Haramaya district is more than the national average, which is 20%, according to the CSA (2018). This demonstrates that a significant number of rural households engage in entrepreneurial activities. The entrepreneurs' households have a

large share of households with six to ten members (63.4%) compared to the non-entrepreneurs (50%) (Table 4.2).

Table 4.2: Household characteristics of the respondents

Variables	Category	Total HH		Non- entrepreneurs		Entrepreneurs	
		Freq	%	Freq	%	Freq	%
Sex of the household head	Female	56	14.7	43	14.9	13	14%
	Male	325	85.3	245	75.1	80	86%
	Total	**381**	**100**	**288**	**100**	**93**	**100**
Age of the HH head	18-34	172	45.1	134	46.5	38	40.9
	35-64	205	53.8	150	52.1	55	59.1
	65 and above	4	1.1	4	1.4	0	0
	Total	**381**	**100**	**288**	**100**	**93**	**100**
Marital Status	Single	31	8.1	24	8.3	7	7.5
	Married	300	78.7	226	78.5	74	79.6
	Divorced	30	7.9	23	8	7	7.5
	Widowed	20	5.2	15	5.2	5	5.4
	Total	**381**	**100**	**288**	**100**	**93**	**100**
Level of Education	No schooling	166	43.6	128	44.4	38	40.9
	Primary	112	29.4	80	27.8	32	34.4
	Secondary	66	17.3	49	17	17	18.3
	Diploma	21	5.5	18	6.3	3	3.2
	Bachelor	14	3.7	12	4.2	2	2.2
	Masters	2	0.5	1	0.3	1	1.0
	Total	**381**	**100**	**288**	**100**	**93**	**100**
Household size (persons)	1-5	165	43.3	135	46.9	30	32.3
	6-10	203	53.3	144	50	59	63.4
	More than 10	13	3.4	9	3.1	4	4.3
	Total	**381**	**100**	**288**	**100**	**93**	**100**

Source: Authors survey (2021)

The result indicates that, generally, the rural entrepreneurs in Haramaya district invest an average of 42.5 hours in a week with the minimum and maximum hours spent being 16 and 105 hours, respectively (Table 4.3). As indicated here some enterprises are active for only 16 hours out of 168 hours in a week, whereas others operate for as much as 105 hours on average. The standard deviation, which is 16.7 hours, also shows the presence of a high disparity among the entrepreneurs in the time they spend on their businesses. Hence, we will try to see the factors behind this disparity in the following discussions

Table 4.3: Average entrepreneurial work-hours in a week.

Variable	Obs	Mean	Std. Dev.	Minimum	Maximum
Entrepreneurial Work Hour per week	91	42.49451	16.73876	16	105

Source: Authors survey (2021)

4.4.2. Results

The result of the Tobit model (Table 4.4) shows that out of the total of nineteen independent variables nine are found to be determinants at the value of $P < 0.01$, $P < 0.05$ and $P < 0.1$ levels of significance. Among those variables, household size, distance from market and access to contract employment have positive relation with entrepreneurial intensity at $P < 0.05$ whereas owning business site and growing as orphan have positive association with $P < 0.01$ and $P < 0.1$ level of significance, respectively. On the other hand, the owning residence house and residing in midland agroecology have negative relationship with entrepreneurial intensity at $P < 0.01$ whereas opportunity-drive and number of siblings show negative relation at $P < 0.05$ and $P < 0.1$ level of significance, respectively.

The remaining 10 variables (i.e, gender, age, marital status, entrepreneurship training, skill of reading and writing, access to electricity, mobile phone and radio; and membership in cooperatives, access to credit from financial institutions, location of the enterprise in relation to the residence house, and the amount of land owned by the household) were not statistically associated to entrepreneurial intensity.

Table 4.4: Determinants of intensity entrepreneurial engagement

Number of obs	347		Prob > chi2	0.000
Lower Limit	16		Pseudo R2	0.2703
Upper Limit	72			
Left-censored	257		LR chi2(19)	98.08
Right-censored	5		Log likelihood	-504.484
Uncensored	85			

Entrepreneurial intensity (Work-Hour)	**Robust Coef = dy/dx.**	**Std. Err.**	**T**
Age of the household head	-.535	.4266	-1.25
Marital status	-6.049	6.884	-0.88
Literacy	1.503	6.414	0.23
Number of siblings the HHH supports	-2.395*	1.225	-1.96
Grown as orphan	10.65*	5.503	1.94
Household size	2.591**	1.354	1.91
The household owns residence house	-10.118***	3.724	-2.72
Distance from main market	1.049**	.4196	2.50
Agroecology	-22.943***	8.103	-2.83
Access to electricity	4.085	6.138	0.67
Access to mobile phone	9.338	7.305	1.28
Access to radio	-.263	6.231	-0.04
Access to contract employment	30.809**	13.94	2.21
Access to entrepreneurship training	8.033	12.586	0.64
Access to credit from FIs	30.231	25.887	1.17
Amount of land owned	-8.096	6.868	-1.18
Location of the business site	-4.835	11.915	-0.41
Reason of starting the business	-15.53**	7.341	-2.12
Own the business site	25.94***	6.513	3.98
_cons	40.166	25.105	1.60

- * Significant at P< 0.1; ** significant at P< 0.05; *** significant at P< 0.01

Source: Authors' Survey (2021)

4.4.3. Discussion

To further elaborate, the results shows that the very reason of starting rural entrepreneurship is an important determinant of the time devoted on the entrepreneurial work. The figure in Table 4.3 clearly shows that household that joined rural entrepreneurship due to necessity work more 15.5 hours than opportunity-driven ones. Entrepreneur household heads that have grown up as orphans spend significantly more of their time (nearly 10.7 hours/week) on entrepreneurial work as compared to those who have not passed through such experiences. It allied with the works of Cheng et al. (2021) and Power (2011), which associate entrepreneurship with childhood challenges and a degree of responsibility in the family. Household size and number of siblings are also found to help rural entrepreneurs positively and significantly devote much of their time to entrepreneurial work. The increase in household size and siblings (supported by the household head) by 1 person makes the entrepreneurs invest 2.6 and 2.4 hours more in their business. This is due to two likely reasons. One is because the necessity of working more hours gets higher to meet the needs of many persons. The other reason is the fact that households with larger sizes can allocate their additional workforce for many other works and allocate more time for business work. The study, in this regard, goes in line with the works of Nagler & Naudé (2014) and Soderbom (2019) which describe that household size has a strong positive relation with rural entrepreneurship since larger households can allocate surplus labor into entrepreneurship.

Possession of the households in terms of residence house and the site of their business are the other important determinants of entrepreneurial intensity. Households that own residence houses are found to spend 10.1 hours less time on the entrepreneurial works than those who don't own it. This shows that households that who tend to take their entrepreneurial works as the ultimate means of providing for family and generating assets are more devoted to intensively work on their business since. The above discussions generally show that necessity-driven entrepreneur households work more hours than opportunity-driven ones. The finding strongly challenges existing knowledge, such as the works of Hyytinen and Ruuskanen (2007) and Hamilton (2000), which associate opportunity-driven entrepreneurs with devoting much time to entrepreneurial activity. In addition to this, the response from a key informant interview in Haramaya indicates that household heads with the big sized family force themselves to work more hours to feed their large families.

On the other hand, entrepreneurs who run their entrepreneurial activity in their own business site work substantially more time on their business than those who have accessed their business sites through rent or temporary gift. As the marginal effect result shows, those who run their business on the site of their own devote 25.8 hours a week on average as compared to their counterpart. This is more related to the right and freedom of utilizing the business site for wider services and higher extents. This is well expressed in the responses of an interviewee who says.

> *"Mine is mine. On my own site, I can expand or change the appearance of the building, I can buy and set fixed assets like a permanent shelf and refrigerator and even work on starting additional business there. But if it is others' site, I would limit myself to putting temporary things and just doing the business that I rented the place for."*

Furthermore, the result indicates that entrepreneurs who have experience and access of participating in contract employment devote significantly more time, i.e. 30.8 hours more than their counterparts. The study in this regard complies with the work of Burmeister-Lamp et al. (2012) that states hybrid entrepreneurs (those who run both wage-and self-employment activities) tend to have higher work hours as compared to the mainstream entrepreneurs. Besides, the entrepreneurs use the experience the generated from contract-based employment to intensively work on their own businesses.

As far as spatial and locational aspects are concerned, distance of residence from the market (a business-friendly environment) is the other factor that significantly affects rural entrepreneurs' work-time. However, contrary to the previous assumptions (Ayambila 2014), the positive coefficient indicates that entrepreneurs who reside far from market work more time on their entrepreneurial works. The entrepreneurial work hours increase by 0.9 hours with 1 KM increase in the distance from market. This was the case since most rural entrepreneurs are involved in agriculture (either commercial or household consumption) which does not directly require close attachment to roads; and because most village settlements are far from the main road. Similarly, location of firms in relation to the places of residence is also another significant factor that affects the amount of time devoted for entrepreneurial works. Entrepreneurial households whose site of entrepreneurial activity is located within their own villages devote much more on their entrepreneurial business than those whose business sites are located away from their village. The

average marginal effect shows that the former ones invest 35 hours more in a week than the later ones. The research result strongly complies with the works of Ayambila (2014) and Mcpherson et al. (2010) to establish a strong impact of the enterprise's location on entrepreneurial work-hours.

The climatic attribute of residence the coefficient of regression and the marginal effect show that lowlander entrepreneurs devote significantly more time which is an average of 22.9 hours in a week than the mid-landers. Lowlands are mostly characterized by hot climates that are challenging for work. However, in Haramaya lowlanders are engaged in working longer hours in the morning, evening and night hours being encouraged by the motivation they get from the *khat* they chew. Mid-landers mostly focus on working during the day (FGD). Chewing *khat* is a common culture in the district and its environs.

4.5. Conclusion and Recommendation

The findings of the research lead us to conclude that necessity factors strong determinants entrepreneurial intensity in rural areas. The necessities are associated with, the urge of meeting the need of large family size (household size and siblings), overcoming the childhood experiences of socio-economic hardship (as orphan), the lack and need for building assets (residence house). Moreover, short-term employment opportunities serve as platforms that shape the work-habit of rural entrepreneurs works. The study also underscores the importance of households' economic resources in shaping the development endeavors of rural areas.

The entrepreneurial intensity is also determined by distance from main road, which offers a business opportunity to meet the supply-demand gap, and the climatic conduciveness to work longer hours. On the other hand, the impact of trainings and social networks (cooperatives) in creating devoted entrepreneurs is minimal.

Therefore, Offices of Enterprise Development and Job opportunity, Agriculture and Natural Resource Management and Trade and Industry in the district should go beyond providing support for new venture creation. There should be continues training and advisory services for rural households to raise their intensive business operation in the way it will eventually lead to better performance. Similarly, higher educational institutions such as Haramaya University and Haramaya Technical and Vocational Training Institute (currently, Polytechnic College) as well as

nongovernmental and civic society organizations should also strengthen their efforts by including on-site business advises in their programs, to make entrepreneurs to increase the intensity of their business operation. Oromia (regional) Road Authority, in collaboration with different allies and subordinate offices should work on improving the transport infrastructure as they will increase the entrepreneurs access to different business resources and motivate for longer work hours.

The institutions should also design projects that would offer short short-term employment which will in turn serve as the sources of experiences and motivations for entrepreneurs to work longer hours. Finally, future studies are encouraged to undertake similar studies in different and wider contexts using indicators, such as number of employees, amount of capital, number ventures run by an entrepreneur, etc. since the subject is less explored.

CHAPTER FIVE: ARTICLE FOUR

5. Assessment of the Status and Severity of Multidimensional Poverty in Cash-Crop Based Rural Settings: The Case of Khat Producing Haramaya District in Ethiopia[12]

Abstract

Transforming rural households from subsistence farming to cash-crop production is widely promoted as a way out of poverty for rural areas. However, there is lack of empirical researches showing the facet of multidimensional poverty in the cash-crop producing areas in general and khat producing areas in particular. This study, therefore, assesses the status and severity of multidimensional poverty in the khat and vegetable producing rural areas of Haramaya district in the Eastern Ethiopia. The data for the research were gathered through a cross-sectional survey on 381 rural households. The Alkire-Fosters method (Multidimensional Poverty Index) was used to measure multidimensional deprivation of the households. The finding reveals that that the headcount multidimensional poverty in Haramaya district is 85.5 %. The overall multidimensional poverty in the study area is much profound compared to the national average (68.7%) and regional average (71.5%). Deprivation in the living standard indicators, such as sanitation facilities, energy sources, access to safe drinking water and electricity are the major contributors for the severe poverty in the area. The deprivations in those indicators are dominantly shaped by economic, attitudinal and location factors. Therefore, the government is recommended to work on rural electrification; developing drinking-water and road infrastructures; and awareness creation to hit multiple targets in curbing the poverty. NGOs and CSO can also assist the poverty alleviation endeavor by providing material and financial supports Besides Higher educational institutions should provide well-being and improved lifestyle.

Keywords: Rural, multidimensional poverty, poverty headcount, poverty intensity,

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5.1. Introduction

Developing regions host large and increasing number of people living under poverty line (Si *et al.*, 2015). Rural poverty in multidimensional aspect is much higher (85%) in rural areas as compared to the urban counterpart and it is one of worst in rural areas of Sub-Saharan Africa (Fiseha et al., 2019; Alkire et al., 2014). To alleviate similar problems in different developing countries, several state and non-state actors have embarked towards participatory and community based development projects with much emphasis to rural poor and other vulnerable communities. The United Nations has set "Ending poverty in all its forms everywhere" as the first of its 17 agenda of sustainable development goals (SDG).

Ethiopia is one of the worlds' poorest countries found on the bottom list of wellbeing in the list of countries used by Alkire et al. (2018). Haramaya district is one of the most populous rural districts in Ethiopia. It is located in the Eastern part of the country 500 KM away from the capital city (Addis Ababa). Crop and vegetable production are the source of income of the households in the district. The higher share (36.5%) of the household income came from production of *Khat* (a cash crop) which is followed by sorghum, maize and haricot beans (Abebe et al., 2014). The larger share of the khat and vegetables are produced to be sold in domestic markets and in the neighboring countries (Djibouti, Somaliland, and Somalia). The areas is famous at national level for beef farming (fattening) and rearing goat, cattle, sheep and donkey are the dominant animals reared by the community (Nuru & Mhatebu, 2017; Abebe et al., 2014).

The area is vulnerable to poverty and food insecurity due to high population pressures, land degradation and deterioration of other natural resources (Sileshi et al., 2019). The study conducted by Beyene et al., (2020) on the nutritional status of under-5 children in Haramaya district shows that 36.6 percent children are stunts and around 20 percent of them are underweight. Therefore, the national and regional governments, together with different partners, have put in place measures of social protection. Productive safety net program (PSNP) is in place since early 2000s (Sileshi et al., 2019).

Such and the like cash crop producing areas believed to have better opportunity for increased income (Hirons, et al., 2018). But, although khat producing areas and households are found to

earn relatively better income (Hussein et al., 2022; Njiru et al., 2013) their status in terms of wellbeing is not well known. Studies have given very less room to explore the facet and magnitude of poverty of such cash-crop producing areas.

Hence, this paper attempts to contribute a brick to bridge the aforementioned gap on the subject by assessing the status and intensity poverty in a khat and vegetable production dominated Haramaya district in Ethiopia. In doing so, the study is underpinned by Alkire and Foster's multidimensional poverty approach which has its base in the capability approach of Amartya Sen (1999). The approach conceives poverty as a deprivation in numerous dimensions and incapability to attain basic wellbeing requirements (Alkire & Santos 2010). Specifically, the research analyzes the aggregate as well as indicator level status and severity of households' poverty. It also explores the contribution of the specific poverty indicators for the overall multidimensional poverty.

5.2. Theoretical Background

Even though the issue of poverty has long been one of the central agenda for almost all practitioners, academics and institutions working on development matters, yet

> [*I]ts definition varies among development practitioners, researchers, governments, multi-national corporations and non-governmental organizations due to the nature, magnitude and causes of poverty which differ across regions and nations of the world* (Fiseha et al. 2019: P-205).

The variations in defining the concept have also impacted in variations of the ways poverty is measured. Naminse & Zhuang (2018) and Gerezgiher (2016) summarized those wide ranged conceptualizations of poverty as dichotomies of narrow-broad, absolute-relative, quantitative-qualitative, unidimensional- multidimensional, Chronic-transient, urban-rural, etc. Todias et al (2013) also give personal wealth Vs quality of life dichotomy.

In spite of such differences, all of the poverty studies appear convergent in their basic philosophy and purposes. Philosophically poverty is a concept of social/moral philosophy associated with inequality. The central point of moral philosophy is equality of all members of a society and their

equitable access to something. In this token poverty can be taken as undesirable and 'unacceptable' side and level of inequality (Asselin 2009). The purpose of measuring poverty by all these parties is to trace the poor, describe their characteristics, measure the extent of their poverty, identify the determinants of the poverty and inform decision (policy or strategy) makers to address the problem (Hailu 2016).

Wu & Si (2018) describe that, poverty was initially associated with groups' lack of food and resources for maintaining minimum living conditions. But recently, the scope of poverty has got widened to include vulnerability, political rights and general opportunity and capability (Bruton et al. 2013). For Tobias et al (2013) the central elements to be seen with regards to poverty are subjective wellbeing (happiness) and quality of life of an individual than aggregating the national level GDP.

These days, the most widely used approach describes poverty as a multidimensional phenomenon which is an aggregate deprivation of human well-being that entails lack of basic necessities, access to basic education, primary health care and protection against discrimination (Naminse & Zhuang 2018). Multidimensional approach of poverty emanates from the Capability Approach of Amartya Sen (1999). Sen, (1999) describes poverty as lack of basic capabilities explained in terms of adequate nourishment, health, psycho-motor capacity to operate ones economic and social life permission to take part in community activities. The approach also addresses philosophical gaps and technical difficulties especially in developing countries such as difficulties in distinguishing household and personal finances since rural people have less habit of keeping financial records (Abbott et al., 2012).

Asselin, (2009) introduces two categories of poverty in the discussion about multidimensional poverty. These two are poverty by inclusion and specific poverty. Poverty by inclusion is further divided in to exogenous poverty and endogenous poverty. Exogenous poverty is viewed in deductive approach which considers every member of the poor household as poor (example: mr-x is poor because his household is poor) whereas endogenous poverty is inductive (aggregation) which considers a set (unit of analysis) as poor because one subset is poor at its own level. He also classifies the poverty lines in to two as intersection and union poverty. Accordingly,

intersection-poor are people who are poor in all primary indicators and union-poor are those who are deprived in at least one of the primary indicators.

With regards to measuring multidimensional poverty, different inter-governmental organizations have set list of poverty indicators. Four categories of assets, namely human capital, social/institutional assets, natural resources and man-made assets identified by Rogerson in 1999 for in measuring poverty. Recently, Alkire et al. (2010) have developed multidimensional poverty index (MPI) with three dimensions, i.e. health, education and living standard. There are a total of ten (10) indicators under the three dimensions. It was revised in 2011 (Alkire & Santos 2011) and given a name Standard MPI (MPI-0). It was further revised as Multidimensional Destitution Index (MPI-I) in 2014 (Alkire & Santo 2014) and Global MPI for Measuring Acute poverty in 2018 (Alkire and et al. 2018).

However, the Multidimensional approach to poverty is not perfect and unanimously welcomed. Rather critics point-out its shortcomings in relation to continuity, monotonicity, and sensitivity to multiple deprivations (Duclos & Tiberti 2016). Rippin (2011) and Alkire et al. (2018) also discusses the failure of MPI to capture the correlation between the indicators, intra-poor and intra household inequality, and the fact that changing the cut-off point causes a change in the rank of the countries.

5.3. Empirical Review

Several researchers have made studies on different sort of multidimensional poverty since the inception of the capability approach (Sen, 1999). The researches are wide ranged in nature which includes elaborating the concept (Alkire & Foster 2011; Wagle 2009; Asselin 2009); setting models and indices for its measurement (Thorbecke 2013; Alkire & Foster 2011; Alkire & Santos 2010) and application of the theory and the models in different social and geographical settings (Kaibarta et al 2022; Coromaldi & Zoli 2012). In recent times the Alkire-Foster method MPI is widely used to determine the status poverty in different level of analysis and diverse types of data. The method is highly emphasized by researchers to assess poverty in the developing regions and rural areas (Padda & Hameed 2018; Joshua et al. 2017; Adeoti, 2014). Ethiopia is one of the countries whose data were used to develop the MPI model (Alkire & Santos 2014, Alkire & Santos 2011). Besides, several other researchers have analyzed in different places and levels of

analysis employing the same measurement mechanism (Eshetu et al. 2022; Ambaye et al.,2021; Gebrekidan et al., 2021; Abeje et al., 2020; Tigre, 2018; Ambel et al., 2015). Therefore, the model is possible to be applied to measure the multidimensional poverty in khat and vegetable producing Haramaya district Eastern Ethiopia.

5.4. Methodology

This research was conducted based on cross-sectional survey undertaken in Haramaya district which is located in East Hararghe Zone of Oromiya Region of Ethiopia. According to the 2007 national census of Ethiopia (the latest official census), Haramaya district has a total population of271,394 out of which about 220,408 (81.2%) are rural residents (CSA, 2008). The latest unpublished official report got from district administration office shows that there are a total of 44,644 households in the district (HDAO 2019).

The livelihood in the district is characterized by mixed agriculture which is dominated by rain-fed and, to some extent irrigated, crop production (Abebe et al. 2014). The area is known for production of *Khat* (which contributes 36.5% of the household income) and Vegetables as well and livestock such as sheep, goat, cattle and donkey (Nuru & Mhatebu2017; Abebe et al. 2014).

On the other hand the area is vulnerable for poverty and food insecurity due to high population pressures, land degradation and deterioration of other natural resources (Sileshi et al., 2019). The study conducted by Beyene et al., (2020) on the nutritional status of under-5 children in Haramaya district shows that 36.6 percent children are stunts and around 20 percent of them are underweight. Diverse factors, including the complete disapearance of three lakes, i.e. Haramaya, Addele and Harajitu, hveave contributed for the poor socioeconomic status (Abebe, et al. 2014). The drying of the lakes had a significant negative effect on the income from vegetables, *Khat,* and livestock production (Abebe, et al. 2014). Recently, even though the lakes have recovered from 2020, their contribution in the economy and ecological balance is not yet established by research.

To overcome the nutrition problem and acute poverty, a social protection measure of Productive safety net program (PSNP) was introduced to the area since early 2000s (Sileshi et al., 2019). This was supported by the HABP project to transform the households from total aid dependence to asset formation and venturing (entrepreneurship). The other support measure was the training,

advisory and technology transfer services undertaken by and through Harmaya University using PAs and FTCs as platforms (Wordofa & Sassi 2014).

The data were gathered from five sub-districts (two from lowland and three from midland agro climatic zones) based on multistage sampling. 381 households were selected for semi-structured survey based on the sample size determination formulae of Krejcie and Morgan (1970). The formulae is mathematically presented as

Equation 5.1 $$S = \frac{x^2 NP(1-P)}{d^2(N-1)+x^2 P(1-P)}$$

Where: S = the sample size; X 2 =: the table value of chi-square for 1 degree of freedom at the desired confidence level which is the squire of 1.96 (3.841) N = the total target population (44,644[13]). P = the population proportion assumed to be 0.50 (since this, according to Krejcie and Morgan (1970) would provide the maximum sample size). d = the degree of accuracy expressed as a proportion (0.05).

$$S = \frac{1.96^2 \, X \, 44644 \, X \, 0.5(1-0.5)}{0.05^2(44644-1)+1.96^2 \, X \, 0.5(1-0.5)} = 380.83$$

Accordingly, the sample size becomes 381 households

The sample from each sub-district were identified based on proportional random sampling formulae

Equation 5.2 $$ns = n(\frac{Ns}{N})$$

Where **ns** refers to sample size of households from sub-district, **N** stands for total Household of the district, **Ns** implies total household of the sub-district and **n** is total sample (at district level).

Finally, the respondent households were selected through simple random sampling method using the household list from administration offices of each sub-district. Survey questionnaires were developed in English language and translated in to the local language (Afan Oromo) for

[13] Official report found from district administration office (unpublished) shows that the district has a total of 44,644 households in 35 sub-districts (kebeles) out of which 33 sub-districts are classified as rural.

convenience. The data were gathered by extension workers hired and trained as enumerators for the specific purpose. In addition to this, two FGDs, thirteen KIIs and Field observation were gathered by the researchers. Stata version-14 software and Statistical Package for Social Sciences (SPSS) version 20 were used for data analysis.

Analytical Models

To analyze household poverty, the research employed multidimensional poverty index (MPI), developed on the basis of Alikire-Foster Method and well depicted by following UNDP and OPHI endeavors. Accordingly, multidimensional poverty is measured by three equally weighed poverty dimensions, i.e. health, education and living standard. There are a total of ten (10) indicators under these dimensions. Nutrition and child mortality are the indicators with equal weight under health dimension whereas child enrolment and year of schooling are indicators of education dimension of poverty. Living standard is measured by water, cooking fuel, toilet, electricity, floor material and assets.

Table 5.1: Multidimensional Poverty indicators and their weight

Dimension	**Indicator**	**Deprived if …..**	**W**
Education	Years of schooling (**Ed-1**)	No household member completed grade 5	1/6
	Child school attendance (**Ed-2**)	Any school aged child (7 to 15 years) is not attending school	1/6
Health	Morbidity (**H-1**)	HH experienced death of under-5 child	1/6
	Nutrition (**H-2**)	Any household member is informed or treated because he/she is malnourished	1/6
Life Standard	Electricity (**LS-1**)	Access to electricity	1/18
	Improved Sanitation **(LS-2)**	HH has no improved sanitation facility or they use together with other households	1/18
	Drinking water (**LS-3**)	The household can't get a safe drinking water in a distance of 30 minutes' walk, roundtrip.	1/18
	Flooring (**LS-4**)	Household has a dirt, sand/soil or dung floor	1/18
	Cooking Fuel (**LS-5**)	Household cooks with wood, dung or charcoal	1/18
	Asset ownership (**LS-6**)	Household owns one of the durable assets such as TV, radio, mobile phone, bed, bicycle, motorbike/tricycle, water pump/generator	1/18

Source: Alkire & Santos (2014)

Next to the model specification, setting the cut-off points and weights are important to come up with visible results. Each poverty dimensions weights 1/3 value and each one of the pair indicators under education and health weigh 1/6 (i.e. 1/3 times 1//2) whereas every one of the six indicators under living standard dimension weigh 1/18 (i.e. 1/3 times 1/6) (Rohwerder 2016)

Here the weight **W** for indicator **i** is

Equation 5.3

$\sum_{i=1}^{d} \boldsymbol{Wi} = \mathbf{1}$ (Alikire & Santos 2010).

The general poverty/deprivation score of each respondent ranges from **0** (if a person is not deprived in any of the indicators) to**1** (if the respondent is deprived in all of the indicators) out of the sum of weighted indicators.

General deprivation of a person

Equation 5.4 $\boldsymbol{Ci} = \frac{\boldsymbol{W_1}}{\mathbf{1}} + \frac{\boldsymbol{W_2}}{\mathbf{2}} + \cdots \frac{\boldsymbol{W_d}}{\boldsymbol{d}}$

Where **Ci** is general deprivation score (ranging from **0** to **1**) and

Wi is weight attached indicator **i**.

Finally, the respondents will be classified with dummy responses in to two. A household is categorized as multidimensional poor if it deprived in 33.33% or more weighted indicators based on Alkire & Santos (2014) categorization. A person will be taken as poor if he/she is marked above the composite cut-off line and as non-poor if he is marked below the composite cut-off. The MPI is calculated by multiplying the incidence of poverty by the average intensity across the poor (AxH).

Poor households also differ in the intensity of their poverty which is described by the average proportion of indicators in which they are deprived. In this token households are classified as non-poor if they are deprived in less than 20% of the weighted indicators; as "vulnerable to poor" if they are deprived in 20%-33.32%; as poor if they are deprived in 33.33%- 50%; and severely poor if they are deprived in more than 50% (Alkire & Santos, 2014).

In addition to the multidimensional poverty headcount ratio, intensity and the MPI, the total deprivation score and the contribution of each indicator for the overall multidimensional deprivation were measured. The total deprivation score represents the sum of household deprivation which stands for the proportion of the total number of variables in which the households are deprived to the total number of indicators. This is mathematically expressed as

Equation 5.5 $\sum_{i=1}^{n} \frac{\sum_{i=1}^{10} Di}{10}$ Where Di stands for the indicators in which a household is deprived and the total number of indicators used in the study are 10 in number. On the other hand, the contribution of each indicator for the overall poverty is expressed as the proportion total number of households in indicator to the sum of deprivation in all indicators.

Equation 5.6 $$contribution\ by\ indicator\ i = \frac{total\ number\ of\ households\ deprived\ in\ indicator\ i}{total\ deprivation\ count\ in\ all\ indicators}$$

Finally, data gathered through focus group discussion were used to augment and elaborate the quantitative results.

5.5. Result and Discussion

5.5.1. Aggregate Multidimensional Poverty Status

The figure in Table 5.2. indicates that, out of the 380 sample rural households of Haramaya district about 325 (85.5%) are multidimensional poor and 55 (14.5%) are non-poor. The headcount deprivation ratio is 85.5% with a total deprivation score of 185.7 and the poor are deprived in 59% of the weighted multidimensional poverty indicators. Based on this, the multidimensional poverty index, which is expressed as the product of headcount ration and intensity of deprivation, becomes. 0.503.

Multidimensional poverty in Haramaya district is more than the national average in terms of the headcount average and the MPI which, according to UNDP (2021) report, are 68.7% and 0.367% respectively. It is also more than the average at Oromia region (the region in which the district is found) which is 71.5% and 0.385, respectively (OPHI 2021). Moreover, the intensity of poverty is the district is much deep than the national (i.e.53.3%) and regional (i.e. 53.78%) average intensity (UNDP 2021; OPHI 2021).

Table 5.2: Composite results on multidimensional poverty

	Value	Percentage
Multidimensional poor households	325	85.5
Non-poor households	55	14.5
Poverty headcount ratio	0.855	85.5
Poverty intensity	0.588	58.8
MPI	0.503	
Total deprivation score	185.67	

Source: Own survey (2021)

5.5.2. Sociodemographic Characteristics of the Households

The district level aggregate result shows that female headed households have slightly larger proportion of multidimensional poor (87.5%) as compared to the male headed ones (85.5%). The proportion of multidimensional poor households shows a decline with the advancement in the level of education from 87.3% (for non-schooled ones) to 75% (for degree holders and above) as indicated in table 4. As far as the sub-districts are concerned, Fandisha Lencha and Ugaz Lencha have the highest (90%) and lowest (76%) of multidimensional poor. On the other hand, larger number of the districts' poor household lives in Kuro-Jalala and the smallest of them are residents of Ugaz-Lencha. In fact, this is directly proportional to the number of samples from the residents.

Table 5.3: Sociodemographic Characteristics

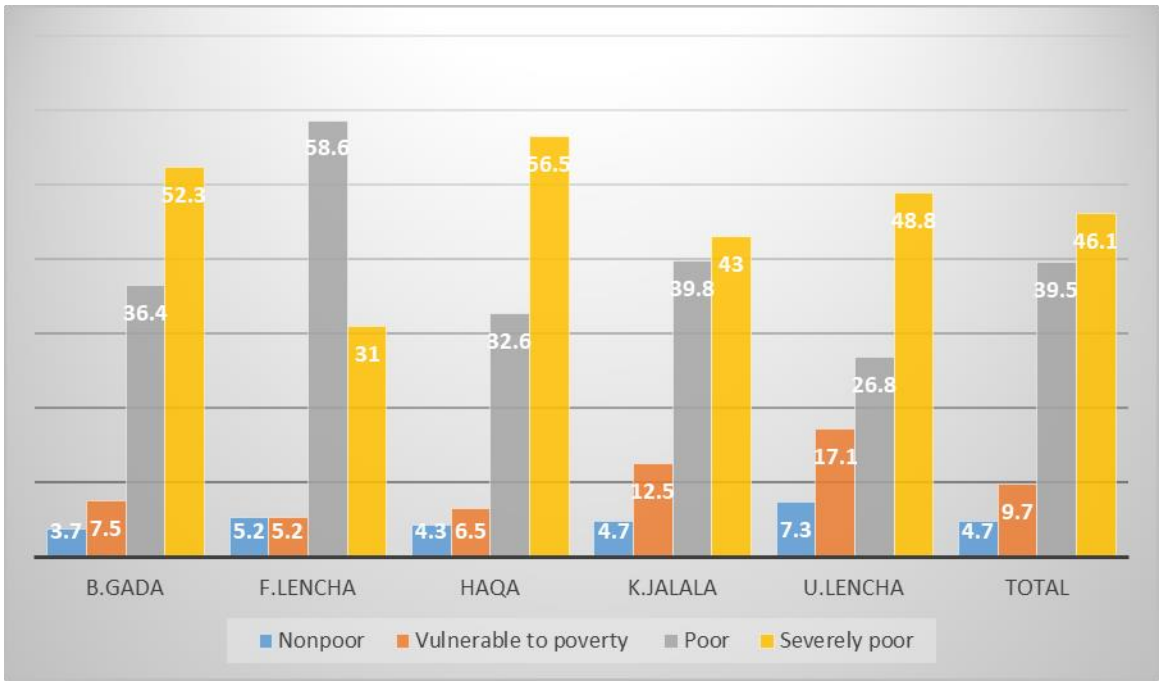
Characteristics		MPI (N)		Total	% of the poor	Mean d/ce	t-test
		Non-poor	Poor				
Sex	Female	7	49	56	87.5	.873	19.243***
	Male	48	276	324	85.2		
	Total	55	325	380	85.5		
Level of education	Have not attended formal school	21	145	166	87.3	1.236	7.028***
	Primary school	14	97	111	87.4		
	Secondary school	11	55	66	83.3		
	Diploma or Certificate	3	11	14	76.2		
	Bachelor degree	1	1	2	75		
	Total	55	325	380	85.5		
Subdistrict	Biftu Gada	12	95	107	88.8	2.691	12.405***
	F Lencha	6	52	58	89.7		
	Haqa	5	41	46	89.1		
	Kurro Ja	22	106	128	82.2		
	U. Lencha	10	31	41	75.6		
	Total	55	325	380	85.5		

Source: Own survey (2021)

5.5.3. Severity of Multidimensional Poverty

In addition to the discrepancy based on the poverty cut-off, as poor and non-poor, households differ in the level and intensity (the average proportion of indicators in which they are deprived (Alkire & Santo, 2014) of poverty. In this regard the composite intensity of multidimensional poverty is 50.3% (See Table 5.2).

Figure 5.1: Poverty Severity across sub-districts



Source: Own Survey (2021)

Households are categorized based on the magnitude of their deprivation as non-poor (if they are deprived in 0 to 19.99% weighted indicators), vulnerable to poverty (if deprived in 20 to 33.32%), poor (if deprived in 33.33 to 50%) and severely poor (if deprived in more than 50%). Initially both non-poor and vulnerable to poverty are categorized as non-poor whereas the poor and severely poor are simply categorized as poor taking 33.33% as a threshold. Figure 5.1 shows that the proportion of the four category households in the sub-districts.

To begin with, the total result shows that the largest portion of the rural households in Haramaya district (46.1%) are severely poor followed by 39.5% that are just poor. The other 9.7% and 4.7% are vulnerable to poor and non-poor. With regards to the sub-districts, all of the sub-districts the largest percentage of households are the severely poor ones, followed by the poor, then the vulnerable ones and the absolutely non-poor are the smallest portion in all districts. Fandisha Lencha is an exception where the 'poor' households are much larger than the severely poor. Furthermore, Ugaz-Lencha and Kuro-Jalala sub-districts have better proportion of households in the categories of both non-poor and vulnerable to poverty (i.e 7.3% and17.15; and 4.7% and 12.5%, respectively). On the other hand, Haqa is the leading sub-district in the share of severely

poor households 56.5%) and Fandisha Lencha is the leader in the percentage of its households in the poor category (58.6%).

This shows that, the district in general and all its sub-districts have very less proportion of people that are non-poor and vulnerable to poverty as compared to the national (i.e. 12.9% & 18.4%) and the regional (i.e., 11.3% & 17.2%) average. On the other hand, the area is worse both at district and sub-district levels in the share of poor and severely poor population than the national (26.85 & 41.9%) and regional (27.1% and 44.4%) level mean (UNDP, 2021; OPHI, 2021).

One of the major reasons behind this is associated to their proximity to Awady town (the influential khat business and export hub) and the focus on urban projects. Majority of the rural residents in general and Haqa and Fandisha-Lencha sub-district in particular emphasize on using any surplus income they earn to invest on building rental or business houses in or on the outskirts of Awaday and Hamaya rather than utilizing them for health, education and household facilities in the villages. This makes them give lesser attention to develop and improving facilities in their main domicile (FGD).

5.5.4. Deprivation in each Indicator of MPI

First, the correlation between the 10 indicators was calculated so as to identify the degree of their goodness and convenience to undertake different analysis on them individually and as composite. The calculated Pearson's correlation value shows that the coefficient of all the indicators fall between -0.12 and 0.39. Such a value shows very less collinearity/correlation and the variables highly fulfill the requirements of fit to undertake different measurements.

Table 5.4 below shows the average proportion of headcount poverty in each indicator. In nutshell out of the 10 indicators of poverty around 93% and 92% of rural the households are deprived in access to sanitation facilities and the use of low energy sources (such as wood, dung, and charcoal) for cooking, respectively. On the other hand, they are relatively better-off in the level of nourishment with only 19% have household members that are malnourished.

As far as the households in the sub-districts are compared in their deprivation in the indicators, Fandisha Lencha has the largest proportion of households deprived in year of schooling with around 47% of the households having no member that has schooled to grade five or more. Kuro-

Jalala is better of in this regard (29%). Yet Kuro-Jalala is the highest in terms children's school attendance (73%). Biftu-Gada and Ugazl-Lencha have the lowest proportion in this regard with around 44% each.

Table 5.4: Proportion of poverty in each indicator by Sex, Sub-district and Ecological Zone

		Ed-1[14]	Ed-2	H-1	H-2	LS-1	LS-2	LS-3	LS-4	LS-5	LS-6
Sub-districts	Biftu Gada	.429	.439	.336	.234	.832	.888	.925	.832	.944	.477
	F Lencha	.466	.534	.293	.224	.310	.862	.603	.689	.8103	.224
	Haqa	.413	.609	.391	.261	.435	.978	.869	.826	.9567	.217
	Kurro Ja	.289	.727	.297	.078	.773	.977	.945	.875	.929	.070
	U. Lencha	.415	.439	.341	.171	.488	.927	.732	.829	.926	.341
	Total	.384	.571	.323	.176	.647	.929	.855	.824	.918	.255
Sex	Female	.446	.554	.304	.179	.607	.911	.839	.875	.911	.286
	Male	.373	.574	.327	.176	.654	.932	.858	.815	.919	.25
	Total	.384	.571	.324	.176	.647	.929	.855	.824	.918	.255
Ecology	Lowland	.456	.488	.32	.176	.832	.896	.904	.864	.952	.448
	Midland	.349	.612	.325	.176	.557	.945	.831	.804	.901	.161
	Total	.384	.571	.324	.176	.647	.929	.855	.824	.918	.255

Source: Own Survey (2021)

Average proportion of households deprived in the morbidity aspect range between 29% in 39% in Haqa and 29% in Kuro-Jalala sub-districts. Regarding access to electricity as an important life standard indicator, Biftu-Gada is the highest (83%) and Fandisha-Lencha has the lowest (31%). This is largely associated to the number of villages in the sub-district that have got access to electric line in addition the household level discrepancy. Haqa and Kuro-Jalal have the worst

[14] Ed =education dimension (Ed-1 and Ed-2 represent years of schooling and child school attendance, respectively); H= health dimension (H-1=child mortality and H-2 = Nutrition): and LS = Living standard dimension (LS-1= access to electricity; LS-2= Improved sanitation facilities; LS-3= Pure drinking water; LS 4= quality of the floor; LS-5= cooking/energy fuel and LS-6= asset ownership)

share (98%) in the access to sanitation facilities whereas Fandisha-Lencha which is said to be better has 86% its households deprived. Kuro Jalala has the worst degree of deprivation in the access to pure drinking water (95%) and the type of floor (88%) whereas Haqa is the most deprived one in the type of energy used for cooking (96%). Kuro-Jalala has the best result in asset ownership deprivation in which only 7% of its households are deprived whereas Biftu-Gada has the largest share of deprived households (48%).

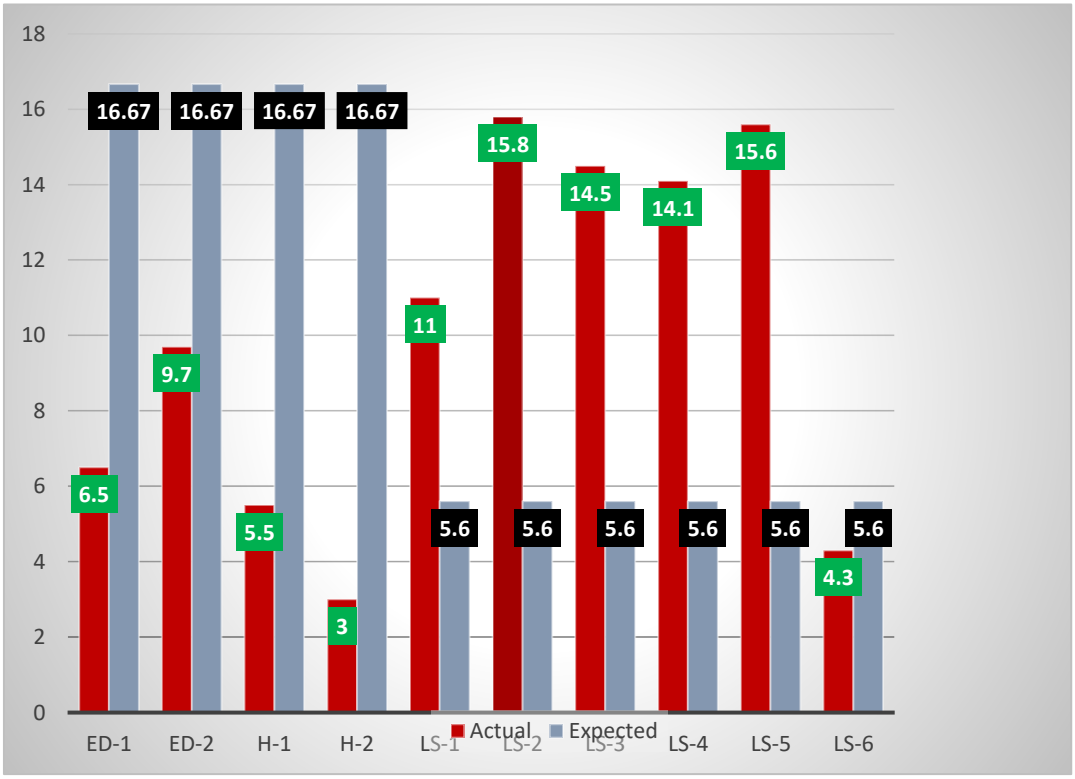
As far as the gender of the household head is concerned, there is no big visible difference between male and female headed households in the proportion of indicators of multidimensional deprivation. In fact. the female headed households are better-off, with a very narrow difference, in the 6 out of 10 indicators, namely child school attendance, morbidity, access to electricity, sanitation, energy source and modern energy sources.

The midland agro-ecological zone has more advantage in the majority of the indicators, where indicators such as access to electricity, drinking water, energy sources and ownership of assets show noticeable differences. Lowlanders are found to be better in children's school attendance.

5.5.5. Contribution of each Dimension and Indicator to Multidimensional Poverty

The other aspect this research looked in to is the contribution of each dimension and indicators for the overall multidimensional poverty.

Figure 5.2: The contribution of each indicator for MPI



Source: Own survey (2021)

Generally, all the three dimensions are expected to have a 1/3 (33.33%) share and each indicator in the education and health dimensions are supposed to have 1/6 (16.7%) contribution. The remaining six indicators under the living standard dimension are expected to have a 1/18 (5.6%) contribution. Yet the survey result shows that 75.3% of the poverty is contributed by the living standard dimension whereas education and health dimension have got 16.2% and 8.5% share respectively.

As it is indicated in figure-5.2, access to improved sanitation facilities and the type of energy used for cooking are the major indicators that contribute 15.8% and 15.6% while they are supposed to

have 5.6% contribution. Other, indicators under the standard of living dimension also have immense contribution in this regard since access to drinking water, the type of house floor and access to electricity contribute 14.5%, 14.1%, and 11% respectively. Based on the explanation of Alkire & Foster (2011) such a deprivation which surpasses the base weight of the indicator shows extreme level of deprivation.

Children's school attendance is the next contributor (9.7%) followed by household members year of schooling (6.5%). The deprivation in terms of malnourishment is the least contributor among all (3%) followed by ownership of fixed asset (4.3%) and morbidity (5.5%) indicators.

The above results are in line with the regional multidimensional poverty situations where according to OPHI (2021) the major contributors for the poverty are indicators under the life standard dimension even though there are huge discrepancies between the district and the regional average in those indicators. On the other hand, the finding is divergent from the study of Mare et al. (2022) in grains producing Burji and Konso districts of Southern Ethiopia where education and health dimension indicators are the major contributors to MPI.

It is not only the lack of money that made these facilities less available in the rural environment. Rather the people think these facilities as part of urban lifestyle and they invest the money they generate from selling khat to build houses with full of those facilities in Awaday and Harammaya towns. Then they rent out those houses or give it to their children on high school and college education or those that pursue business to stay in (FGD).

5.6. Conclusion and Recommendation

Haramaya district is characterized by high multidimensional poverty in its rural areas despite its location in the hub of cash crop production, tourism activities and informal cross-border trade. The multidimensional poverty of the households is mainly attributed to the deprivation in the living standard indicators such as improved sanitation facilities, energy sources safe drinking water and quality house floor and electricity. On the other hand, the households are relatively better in terms of health-related indicators and ownership of durable assets. The multidimensional poverty is mainly attributed economic the households' lack of economic capability to purchase

and develop improved living standard facilities and their attitude of considering those facilities as parts of urban lifestyle.

Therefore, government, especially Ethiopian Road Authority, Offices of Water and Energy, Electric Light and Power authority, through their regional, zonal and district offices should work on infrastructural developments that would ensure the rural households access to those living standard facilities. Most importantly, working on projects like rural electrification, drinking-water and road infrastructure development will hit multiple targets in addressing the multidimensional poverty.

Other institutions such as Haramaya University, and Haramaya Health Office as well as Haramaya Hospital should take the initiative to create awareness on the importance of the living standard facilities for the overall well-being and help them to use the money they generate from different sources to improve the facilities in their main residential area.

To clearly target the intervention areas and extents, it is important to establish the relationship between social and demographic variables and multidimensional poverty. Therefore, we recommend future researches to go deeper in to the subject and examine the determinants of the status and intensity of rural households' multidimensional poverty in general as well as factors behind the deprivation in different dimensions or indicators (such as sanitation facilities; quality of the floor and cooking/energy fuels) in particular

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CHAPTER SIX: ARTICLE FIVE

6. A Composite and Comparative Examination of the Impacts of Rural Entrepreneurship on Multidimensional Poverty: The Case of Haramaya District, Ethiopia

Abstract

Poverty is one of the major problems that is affecting the economic, social and political life of people mainly in rural areas of the developing regions. Rural entrepreneurship is emphasized by governments, academia and development actors as instrument to overcome poverty and inequality in rural areas. However, researches have given less attention to divulge the empirical relationship between rural entrepreneurship and poverty in the Sub-Saharan Africa where there are large proportion of poor and rural population. This study investigates the contribution of rural entrepreneurship for alleviation of multidimensional poverty, to fill the gap. In doing so, it examines how farm and non-farm entrepreneurship sectors, both jointly and separately, are contributing for the poverty alleviation. The data for this research were gathered through cross-sectional survey of 381 rural households and FGD in Haramaya district in Eastern Ethiopia. Multidimensional Poverty Index (MPI) was used to measure household poverty; and Propensity Score Matching and ANOVA were employed to analyze the contribution of rural entrepreneurship for poverty alleviation and to compare farm and non-farm entrepreneurship. The findings of the research reveal that rural entrepreneurship in general has a significant contribution for reduction of multidimensional poverty at as significance value of $P < 0.05$. Entrepreneur households are significantly better than the non-entrepreneurs in 5 out of the 10 multidimensional poverty indicators. But there is no remarkable difference between farm and non-farm entrepreneurship in their impact on multidimensional poverty alleviation. Hence, rural development policies and strategies should go beyond targeting income increment or diversification and focus on expansion of entrepreneurial undertakings for improvement in multidimensional well-being. They should also emphasize the importance of expanding rural non-farm activities while keeping the endeavors of increasing production and productivity in agriculture.

Keywords: Rural entrepreneurship, multidimensional poverty, agriculture, non-farm entrepreneurship

6.1. Introduction

Entrepreneurship has emerged as one of the priority agendas of different development actors, academicians and researchers due to its huge potential for socio-economic development. It is widely claimed to be a crucial solution to eradicate extreme poverty (Sutter *et al*., 2019). It is portrayed as a good remedy, in some cases as a panacea (Fritsch, 2013), to reduce unemployment, generate incomes, minimize economic migration, eradicate poverty and foster economic empowerment of women and youth (Pato & Teixeira 2016; Kushalakshi & Raghurama 2014; Ansari et al 2013). Even though the link between entrepreneurship and economic development is well pronounced since Schumpeter's (1934) era, it has got higher momentum following Yunus's (2007) micro financing project and the 2008 economic recession.

Rural entrepreneurship is emphasized by different scholars and development actors for its deemed nature of low cost undertaking and its contribution in raising households income, reducing out-migration of the working force and harnessing innovation (Newbery *et al*., 2017; Kushalakshi1& Raghurama, 2014). Studies also assert its role of generating income for daily survival, employment, fostering economic growth and reducing economic inequality and acute poverty (Hoang *et al*., 2014 ; Abbott *et al*., 2012).

In line to this, several entrepreneurship development programs have been launched in the developing regions and more importantly in the rural areas. The World Bank Group is one of the big entities that embarked on enhancing the growth of rural entrepreneurship as one of the major pathways to achieve the 'twin goals' i.e. poverty alleviation and shared prosperity (IEG, 2015). Similarly the United Nations Development Program (UNDP), European Union (EU), Food and Agriculture Organization (FAO), the Netherlands Development Organization (SNV), World Agroforestry Centre (ICRAF) and other international organizations are engaged in entrepreneurship development program in the developing regions such as Sub-Saharan Africa. According to Nukpezah & Blankson, (2017) micro-financing, capability and social security, market-based, and good governance are the four major strategies implemented by such institutions in relation to entrepreneurship development and poverty alleviation in the developing regions. In addition to this, developing the value chains to increase profitability; promotion of

better operation techniques; and legal and institutional frameworks were taken as vital objectives of such programs (IEG, 2015).

In Ethiopia, Entrepreneurship Development Program (EDP) has been working on training and facilitating small funds for entrepreneurs through the Entrepreneurship Development Center since 2013 with the support of United Nations Development Program (UNDP) (Gebremeskel 2018). Meanwhile, the World Banks Group aided Women Entrepreneurship Development Program (WEDP) has been providing training, technical and financial supports for women entrepreneurs (EDI 2023).

Considerable share of rural population in Ethiopia are joining rural entrepreneurship and one in each five rural households participate in various temporary or continues entrepreneurial activities (CSA, 2018). The same stands true for Haramaya District where households are replacing traditional subsistence farming by entrepreneurship (Teshome *et al*., 2015). On the other hand, the district is vulnerable for poverty and food insecurity due to high population pressures, land degradation and deterioration of other natural resources (Sileshi *et al*., 2019). The study conducted by Beyene *et al*. (2020) on the nutritional status of under-5 children in Haramaya district shows that 36.6 percent children are stunted and around 20 percent of them are underweight.

Researches in entrepreneurship are characterized by fragmented focus and diverging perspectives and results (Lee & Rodríguez-Pose 2021; Sutter et al. 2019). The scholars on one end portray entrepreneurship as the panacea for poverty alleviation (Fritsch, 2013) whereas, on the other continuum it is described to be 'not enough' to serve as a poverty reduction instrument (Lee & Rodríguez-Pose 2021; Ping and Zong (2021). Yet, the researchers have given less attention to investigate the empirical relationship between entrepreneurship and poverty in the agrarian communities (Lee & Rodríguez-Pose 2021; Dzingirai 2021; Naminse et al., 2018).

Besides, the existing studies analyzed the relation between entrepreneurship and poverty based on income (Si et al. 2015; Fiseha et al., 2019), consumption (Seng, 2015; Hoang et al., 2014), human capability (Naminse et al., 2018; Amorós & Cristi, 2011) and resource-based approaches (Menshikov et al., 2020).

This study endeavors to examine the contribution of rural entrepreneurship for alleviation of multidimensional poverty based on the Alkire-Foster Approach of measuring multidimensional poverty. The data for the research were gathered from 381 households through a cross-sectional survey in Haramaya district in Eastern Ethiopia and supported the findings by focus group discussions (FGDs). In doing so, it analyses the status and pattern of rural households' multidimensional poverty; and compares farm entrepreneurship with non-farm entrepreneurship in terms their contribution for poverty reduction.

6.2. Review of Literature

6.2.1. Theoretical Review

Entrepreneurship-poverty nexus is viewed from different standpoints. Development actors and states have long been giving much emphasis expansion of big industries; creating and supporting multinational companies; and aids and supports from rich countries and persons to the poor counter-parts were taken as plausible ways to reduce poverty (Si et al., 2015). Such perspectives associate the poor as dependent, factors of production as labor and consumers. This, perspective has got challenged recently as increasing number of literature and policies are embarking towards installing entrepreneurship as an instrument for poverty alleviation. Even though the link between entrepreneurship and economic development is well pronounced since Schumpeter's (1934) era it has got higher momentum following Yunus's (2006) micro-financing project and the 2008 economic recession. On the other hand, the remediation theory associates poverty with lack of resources and entrepreneurship contributes for poverty alleviation by providing access to different resources (Chliova et al., 2015; Berge et al., 2014; London, 2009).

This paper employs the Bottom of Pyramid (BoP) theory of Prahalad (2012) and Alkire-Foster method (Alkire & Santos 2014) in its discussion about the contribution of entrepreneurship for poverty alleviation. The theory is well-fitting with the entrepreneurial and livelihood characteristics in the developing countries and rural settings (Si et al. 2015; Bruton et al., 2013). BoP theory considers the people in the bottom of the pyramid as both producers and consumers (Si et al. 2015). Entrepreneurship in this regard is defined as a step towards self- employment through creating new or expanding the existing businesses with the aim of moving out of poverty trap and ensuring economic development (Naminse et al., 2018). It is an activity that entails

creation of different means, ends, or means-ends relationships between the production and consumption lines and hence positively influencing the economic development and well-being of individuals and communities (Sutter et al., 2019). In rural contexts, entrepreneurship is typified by self-employment based improved operation of farm and/or non-farm activities for better earning and living (Naminse et al., 2018).

According to Si et al. (2015), the poor utilize entrepreneurship in the three-stage journey as they move out of poverty and ensuring economic development. The first stage is a survival stage which includes necessity driven involvement in minor businesses to feed one's family. At the second stage, the households involve in diversified businesses with the desire of making, sharing and accumulating profits and at the third stage the households utilize their social and institutional networks to expand their businesses and utilize their profit for better consumption and development (Si et al., 2015). In such a journey, individuals move from working on family businesses, to self-employment and then to creating job opportunities.

Theoretically, the entrepreneurial steps of poverty reduction are explained in diverse ways. The labor-based explanation emphasizes on the wellbeing contribution through employment opportunity and wage generated from small businesses (Lee & Rodríguez-Pose, 2021). Entrepreneurship, if crafted on inclusive approach, creates employment opportunity for the disadvantaged group and helps them utilize their benefit for household consumption and reduction of household poverty (Kenworthy & Marx, 2017). The expansion in new firms creates competition for labor that leads to rise in wage and increases the income (Lee & Rodríguez-Pose, 2021). The competition also leads to discount in the products price (competition for customers) of the needing households (Wilmoth,(2017). In rural settings, entrepreneurship helps for higher productivity in farm and non-farm activities that in turn contributes for reduced migration and improved living standard (Naminse et al., 2018; Saxena, 2012)

Contrary to this, Lee & Rodríguez-Pose (2021) asserts that job creation through entrepreneurship is not a guarantee for poverty reduction unless the issues of job quality, skill bias and labor leakage are not well-addressed. Accordingly, there are likelihoods where the new jobs are given to already rich households due to skill-focus and new jobs may make the labor forces leave their

localities. These cases may leave the poverty in the households and communities unchanged (Lee & Rodríguez-Pose 2021).

Menshikov et al., (2020) developed a model for resource-based poverty measurement. Accordingly, the poor are classified as resource-poor (those who do not have basic resources), functional-poor (those who have resources but could not transform themselves into beneficiary capital due to lack of entrepreneurial pursuit) and resource-functional poor (people who lack both) Menshikov et al., (2020). These resources could be capital (asset), financial (microloans from banks and other institutions), human resources (education and skill training), social capital (networks and trust) institutional resources (support from government and non-state institutions) (Nukpezahand Blankson, 2017; Si et al., 2015). Institutional supports and training help people to explore their environment and discover the important resources and use their innovation and entrepreneurial skills to transform the resources into valuable products and fight poverty (Si et al., 2015). Even though there are no many empirical research that compare farm and non-farm entrepreneurship on poverty (Naminse et al., 2018), it is expected that they sway poverty in different ways due to the difference in the nature of resources are built on and the way those resources are transformed.

Sutter et al. (2019), reviewing 200 articles published in the last three decades categorizes entrepreneurship-poverty nexus as remediation (meeting immediate resource issues), reform (institutional changes), and revolution (fundamental assumptions of business).

The entrepreneurs that move out of poverty become role models and cause others to follow them and leave poverty (Si et al., 2015). The indigenous social networks also serve the entrepreneurial households and their communities for mutual learning and networked entrepreneurial engagement for economic development (Si et al., 2015). Internal characteristics such as behaviors, attitudes and activeness have paramount influence of the extent entrepreneurship contribution for poverty reduction (Si et al., 2015; Bruton et al., 2013).

Si et al., (2015) gives a general summary of the journey of people in the BoP out of poverty. Accordingly, poverty reduction through entrepreneurship goes through four stages that include (1) shift of attitudes towards fighting poverty; (2) inter-regional or inter-community mutual

interaction; (3) focus on small profit rather than profit maximization; and (4) platforms of transforming from just consumer to both producer and consumer (Si et al., 2015).

With reference to the well-being indicators, employment, skill development, social responsibility and availability and accessibility products are the major mechanisms entrepreneurship contributes for poverty reduction (Fiseha et al., 2019). It also helps households generate an income that makes them to be able to spend on healthcare, education, and housing. On the other hand, rural poor in the developing region have limited access to those elements to improve their living condition (Naminse et al., 2018). Entrepreneurship also boosts social wealth by creating new markets, technologies and institutional forms (Hussain et al., 2014) and contributes for food security too (Dzingirai, 2021). Démurger & Fournier (2011) asserts the contribution for the change in the pattern of energy consumption, i.e. decline in the use of firewood as major energy source

Contrary to the above discussions, Lee & Rodríguez-Pose (2021) characterized entrepreneurship by creation of low productivity firms aimed at addressing specific demands of local markets which makes its poverty reduction role insignificant. Fiseha et al. (2019) also argues that entrepreneurship is highly expanding in the developing countries whereas large share of the people in those regions are under extreme poverty.

6.2.2. Empirical Review

In addition to the theoretical discussions, some empirical researches endeavored to establish the relationship between entrepreneurship and poverty. But the result shows, diverse and contradictory relationship between rural entrepreneurship and poverty. Lee & Rodríguez-Pose (2021) studied the nexus between the two in US cities based on panel data of a decade (2005 to 2015). Their finding shows clear difference between entrepreneurship sectors, i.e. tradable and non-tradable sectors) in their contribution for poverty reduction. The entrepreneurship in tradable sector (such as food retail and hairdressing business) is more impact for poverty alleviation than the non-tradable ones (including manufacturing of electronic items). Coming to the rural and agricultural communities Naminse et al. (2018) and Li et al. (2016) studied agricultural entrepreneurship and the capability aspect of wellbeing (education, economic and sociocultural capitals) in China. Similarly, Ping and Zong (2021) also analyzed the impact of tourism-based

entrepreneurship on multidimensional poverty (expressed by income, education and health indicators) and the finding shows a weak link between the two. On the other hand, Saxena's (2012) research in rural India shows that entrepreneurship is a promising sector to improve farmer household's well-being.

As far as the case of Africa is concerned, Mensah and Benedict (2010) show that, entrepreneurship could not bear a tangible poverty reduction impact in Eastern Freetown of South Africa because of poor communication and linkage between the government and entrepreneurs. On the other hand, Fiseha *et al.* (2019) examined the case in rural Cape Town (South African) and reports that entrepreneurship has an immense poverty reduction contribution.

Based on the above reviews and discussions, the researchers make the following hypothesis and embark towards testing them on the empirical ground of Haramaya district.

- H_1= Rural entrepreneurship significantly contributes for multidimensional poverty alleviation.
- H_2: There is a significant difference between farm and non-farm entrepreneurship in their impact on poverty alleviation

6.3. Methodology

This research was conducted based on cross-sectional survey undertaken in Haramaya district which is located in East Hararghe Zone of Oromiya Region of Ethiopia. Haramaya district is one of the most populous rural districts in Ethiopia. It is located in the Eastern part of the country 497 KM away from the capital city (Addis Ababa). Crop and vegetable production are the source of income of the households in the district. The higher share (36.5%) of the household income comes from production of *Khat* (a cash crop) which is followed by sorghum, maize and haricot beans (Abebe et al., 2014). The larger share of the khat and vegetables are produced to be sold in domestic markets and in the neighboring countries (Djibouti, Somaliland, and Somalia). On the livestock side, goat, cattle, sheep and donkey are the dominant animals reared by the community (Nuru & Mhatebu, 2017; Abebe et al., 2014).

In addition to the agricultural activities, the people in the district are involved in petty trade, other off/non-farm activities, and daily labor. The closer location of the district to important tourist and business centers (such as Harar, Diredawa historical cities and Qulibi religious center) gives wider option for engagement in entrepreneurial activities. On the other hand, the district is vulnerable for poverty and food insecurity due to high population pressures, land degradation and deterioration of other natural resources (Sileshi *et al*., 2019). The study conducted by Beyene *et al*. (2020) on the nutritional status of under-5 children in Haramaya district shows that 36.6 percent children are stunted and around 20 percent of them are underweight.

Several livelihood and entrepreneurship measures have been taken by different actors to overcome poverty and food insecurity and enhance economic growth in the area. Haramaya University is one of the major institutions in the support structure that have been providing diverse material and non-material supports to realize the aforementioned and other rural development goals in the area. Through its extension and outreach program under the office of Vice-President for research affairs, it has disseminated 96 crop varieties for rural households in 23 districts via 100 FTCs of which 22 were from Haramaya district (HUOVPRA, 2022). The office has also been providing trainings on Nutrition Sensitive Agriculture; Cattle production and Management; Poultry Production and Management. Similarly, Afran Kelo Farmers' Cooperative Union (AKFCU) was used as bridge to reach out rural farmer households. As it is shown in Table 6.1, the Directorate of Community Engagement and Entrepreneurship Development (CEEDD) has delivered entrepreneurship trainings for a total of 5104 students, 3058 local youths and 66 rural households from 2018 to 2023 in collaboration with EDI.

Table 6.1: Entrepreneurship trainings organized by Haramaya University

No	Year	HU Students	Local youths	Rural Households
1.	2018	219	800	0
2.	2019	0	333	0
3.	2020	3341	0	42
4.	2021	1367	39	24
5.	2022	50	1498	0
6.	2023	127	388	0
Total		**5104**	**3058**	**66**

Source: CEEDD (2024)

These endeavors were further strengthened by ARIHUB that works on entrepreneurship training, innovation incubation, market linkage for students and local youths. For instance, in 2021, it has provided trainings as well as advisory and incubation services for 9 enterprises with 50 members working on rabbit farming, chicken production and marketing, pasta production and marketing, sweet potato production and marketing, chicken incubator machine.

Other institutions such as Oromia Saving and Credit Association (recently upgraded to Sinqe Bank) has been providing small credit for youth entrepreneurs that were organized by MSED office in to different business. In addition to this Haramaya Technical and Vocational Training Center Afran Qallo Farmers Union and Haramaya Agricultural Farmers' Cooperative Union (HAFCU) are enhancing new business development and agricultural productivity by providing trainings and supplying improved agricultural inputs and technologies (Debela et al. 2018). Previous researches in the district have examined the impacts of FTC services (Wordofa, 2019) and membership in Cooperatives (Debela et al. 2018) on income. Yet, less is known about the contribution the supports discussed above for rural entrepreneurship and alleviation of multidimensional poverty in the area.

According to the 2007 national census of Ethiopia (the latest official census), Haramaya district has a total population of 271,394 out of which about 220,408 (81.2%) are rural residents (CSA, 2008). The latest unpublished official report got from district administration office shows that there are a total of 44,644 households in the district (HDAO, 2019).

The data were gathered from five sub-districts (two from lowland and three from midland agro climatic zones) based on multistage sampling. About 381 households were selected for semi-structured survey based on the sample size determination formulae of Krejcie and Morgan (1970). The formula is mathematically presented as survey based on the sample size determination formulae of Krejcie and Morgan (1970).

Equation 6.1 $$S = \frac{x^2 NP(1-P)}{d^2(N-1)+x^2 P(1-P)}$$

Where: S = the sample size; X^2 =: the table value of chi-square for 1 degree of freedom at the desired confidence level which is the squire of 1.96 (3.841); N = the total target population

(44,644). P = the population proportion assumed to be 0.50 (since this, according to Krejcieand Morgan (1970) would provide the maximum sample size) and d = the degree of accuracy expressed as a proportion (0.05).

$$S = \frac{1.96^2 \, X \, 44644 \, X \, 0.5(1-0.5)}{0.05^2(44644-1) + 1.96^2 \, X \, 0.5(1-0.5)} = 380.83$$

Accordingly, the sample size becomes 381 households

The sample from each sub-district were identified based on proportional random sampling formulae

Equation 6.2 $$ns = n(\frac{Ns}{N})$$

Where **ns** refers to sample size of households from sub-district, **N** stands for total Household of the district, **Ns** implies total household of the sub-district and**n** is total sample (at district level).

Finally, the respondent households were identified through Simple random sampling method using the household list from administration offices of each sub-district. Survey. The data were gathered by the help of local youths and extension workers hired and trained as enumerators for the specific purpose. In addition to this, FGD was used to support and elaborate the quantitative results.

Analytical Models

The Socioeconomic background of the rural households was analyzed as preliminary information using descriptive statistics (i.e., frequency, percentage, means and standard deviation). Similarly, frequency and percentage were used to depict their overall entrepreneurial participation as a treatment variable.

To analyze household poverty, the research employed multidimensional poverty index (MPI). MPI is deprivation-based poverty measurement established on the foundation of Alkire-Foster method (Alkire & Santos, 2010). It came in to being as a result the study on poverty and human development carried-out by of initiative group of scientists from Oxford University. Currently,

the model is widely applied by international research organizations and researchers in the developed countries (Mitra & Brucker 2019) and in the developing regions. Hailu (2016) has applied the model to analyze the rural poverty in Tigray region of Ethiopia. Later, this was applied in the northwestern, western and southern parts of Ethiopia (Eshetu et al. 2022; Mare et al, 2022; Ambaye et al., 2021).

Accordingly, multidimensional poverty is measured by three equally weighed poverty dimensions, i.e. health, education and living standard. There are a total of ten (10) indicators under these dimensions. Nutrition and child mortality are the indicators with equal weight under health dimension whereas child enrolment and year of schooling are indicators of education dimension of poverty. Living standard is measured by water, cooking fuel, toilet, electricity, floor material and assets.

Each poverty dimensions weights 1/3 value and each one of the pair indicators under education and health weigh 1/6 (i.e. 1/3 times 1//2) whereas every one of the six indicators under living standard dimension weigh 1/18 (i.e. 1/3 times 1/6) (Rohwerder, 2016)

Here the weight **W** for indicator **i** is

Equation 6.3 $\sum_{i=1}^{d} Wi = 1$ **(Alikire & Santos 2014)**

The general poverty/deprivation score of each respondent ranges from **0** (if a person is not deprived in any of the indicators) to**1** (if the respondent is below the cut-off in all of the indicators) out of the sum of weighted indicators.

General deprivation of a person

Equation 6.4 $Ci = \frac{W_1}{1} + \frac{W_2}{2} + \cdots \frac{W_d}{d}$

Where **Ci** is general deprivation score (ranging from **0** to **1**) and

Wi is weight attached indicator **i**.

Finally, the respondents were classified with dummy responses in to two. A household is categorized as multidimensional poor it is deprived in 33.33% or more weighted indicators based on Alkire & Santos, (2014) categorization. A person will be taken as poor if he/she is marked above the composite cut-off line and as non-poor if he is marked below the composite cut-off. The MPI is calculated by multiplying the incidence of poverty by the average intensity across the poor.

Equation 6.5 **AxH**

The unit of analysis for this research is a household (and the respondents are household heads) because households are the major resource centers and decision makers in rural settings in the study area. Previous researches also underscore the importance of household level analysis and call for other for future researches to do so (Lee & Rodríguez-Pose 2021; Sutter et al., 2019). Most businesses in rural areas are run with the intention of ensuring family level welfare and several micro-enterprises could be run by one household which makes firm and individual level analysis less important (Sutter et al., 2019).

Numerous models have been developed for impact evaluation in non-experimental causal studies (Khandker Koolwal & Samadn 2009; Dehejia & Wahba 2002). Some of them include double Propensity score matching, non-parametric statistical matching, difference methods, instrumental variable methods, regression discontinuity; Multivariate regression and pipeline methods (Benedetto, Head, Angelini & Blackstone 2018; Khandker et al. 2009; Baser 2006).

This research uses Propensity Score Matching (PSM) model to examine the effect of rural entrepreneurship for reducing multidimensional poverty. PSM is chosen because it is helpful to estimate the contribution of participation in entrepreneurship (binary outcome treatment) for poverty. The model also has a merit in terms of reduction of selection biases (Rubin 2006). In addition to this, PSM "*is the PSM are not limited by the number of events, and their use may be warranted when the number of confounders is large, or the number of outcomes is small"* (Benedetto et al. 2018: P-5).

Besides our dataset meets most of the assumptions needed for propensity score matching according to Weldeslassie's (2017) Caliendo and Kopeinig (2008) and Rubin (2006)

explanation. (1) The questionnaire administered to all the respondents were the same and undertaken on random basis; (2) both groups have similar (normal) distribution of observed and unobserved characteristics with the skewness and kurtosis results of 0.125 and 0.255, respectively (which are both in the acceptable ranges between -1 to 1. (3) Both categories are from the same socioeconomic environment and from the same dataset; and (4) there is conditional independence (i.e. potential outcomes are independent of the treatment)[15]. This research is based on 381 randomly selected households with 1:3 treatment ratio (i.e., entrepreneurs- non-entrepreneurs' ratio). This confirms to the fact that PSM can be effective where the sample size is 200 and above (Howarter 2015) and where treatments are seldom (Pirracchio Resche-Rigon & Chevret 2012).

[15] Cochran-Mantel-Haenszel test was run to check the conditional independence and the result proves the prevalence of conditional independence with a significant value of odds ratio at $P < 0.01$.

Table 6.2:The independent, dependent and outcome variables

	Mean			T test		V(T)/ V(C)
Variable	**Treated**	**Control**	**%bias**	**T**	**p>t**	
Sex	.888	.944	-16.1	-1.20	0.231	.
Age	36.58	38.22	-19.3	-1.24	0.216	0.68
Marital Status	2.125	2.194	-12.1	-0.71	0.480	1.11
Literacy	.583	.638	-11.3	-0.68	0.498	.
Number of siblings	4.903	4.472	17.3	1.00	0.318	0.61*
Growing as orphan	.444	.375	14.4	0.84	0.400	.
Household size	6.736	7.25	-23.7	-1.41	0.162	1.34
Market Distance	12.702	11.32	18.6	1.04	0.301	0.93
Climatic condition	.763	.8194	-12.3	-0.82	0.415	.
Training	.069	.208	-65.0	-2.44	0.016	.
Member of Coop	.611	.667	-11.2	-0.69	0.491	.
TLU	19.84	19.61	1.8	0.12	0.904	1.03
Income	5504.4	5405.4	0.7	0.15	0.877	1.30

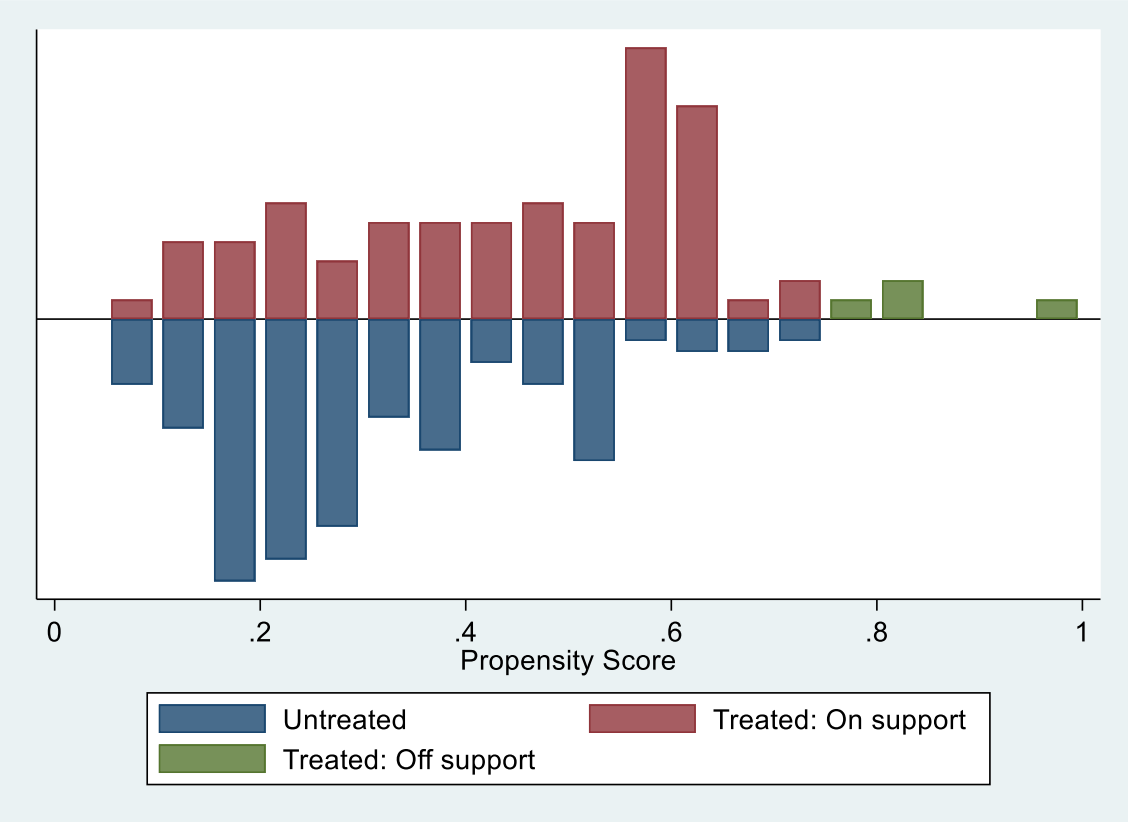
Source: Authors' Survey 2021

As far as the covariates are concerned, only those variables that are derived from literature sources and technically those that can happen before and affect both the treatment and the outcome are chosen. The variables are not found to be 'too good' (i.e., completely treated, X=1) or 'too bad' (completely non-treated, X=0) except for access to credit that fell in the former category (X=1). To make PSM analysis Rosenbaum and Rubin, (1985) advise that the covariate variables should have balanced mean results for both groups in the treatment variable and there should be no significant difference between them. Based on this Propensity score of the covariates was calculated using *psmatch2* and *psetest* commands in stata 14. This was supported by independent t-test to check the mean balance of the covariates and the result, as indicated in Table 6.1. shows that, except for access to entrepreneurship training that shows significant t test result at $P < 0.05$ level of significance the rest covariates are found to have balanced mean for treatment and control groups. Income was also omitted from the list of variables, based on Caliendo &

Kopeinig's (2008) criteria that advises excluding variables that are endogenous and that affect the outcome exclusively of the treatment.

Additionally, common support condition of the treatment (entrepreneur) and control groups (non-entrepreneurs) was identified, using *psgraph* command, for further checking of matching quality. The result shows that all of the untreated observation and 80 out of 93 treated observations are in the common support room.

Figure 6.1: Common support propensity Score of entrepreneurs and non-entrepreneurs



Source: Authors' Survey 2021

Sensitivity analysis was tested using ROC Curve to check how the set of independent variables affect the dependent one. '0' was set as the estimation value for ROC curve because it shows that a household is non-poor. The result is found to be fair with the true positive value of 0.576 (i.e 57.6%).

The Rubin's (2006) approach of estimating binary outcome was employed to undertake the PSM. The PSM estimation on

Equation 6.6

Di = 0, (for non-entrepreneurs

= 1, for entrepreneurs

And potential outcome for individual i is **Yi (Di)**

where i= 1, 2…N

Generally, the treatment effect can be mathematically represented as Yi (1)- Yi(0) where only one of Yi(1), Yi(0) is observable outcome and the remaining are unobservable. And we have analyzed both average treatment effect on the population (ATE) and average treatment effect on the treated observations (ATET).

Equation 6.7

$$ATE = E(Y(1)-Y(0))$$

$$ATET = E(T\ D=1)$$

$$= E(Y(1)\ D=1) – E(Y(0)\ D=1)$$

In other words, it refers to the difference between the observed and unobserved outcomes among the treatment observations (i.e. rural entrepreneurs).

Before undertaking the matching of the results, propensity score estimation and balancing score were done for identification of better covariant. Additionally, probit and the nearest neighbor matching models were used undertaking the PSM estimate. Probit was used because it is one of the most suitable models for analyzing binary-outcomes (in this case participation and non-participation in rural entrepreneurship). Referring to the nearest neighbor matching, each observation was matched with 3 observations with closer attributes because the ratio of rural entrepreneurs to non-entrepreneurs in the data set is found to be around 1:3.

Both ATE and ATET on income and Multidimensional poverty were estimated for all the rural entrepreneurs as well as non-farm and agricultural entrepreneurs separately using t-effect stata command. To ensure the robustness of the measurement bootstrap analysis was applied. Furthermore, descriptive summary statistics is used to compare the mean and standard deviation

results in each multidimensional poverty indicators of entrepreneurs versus non-entrepreneurs. Later, the treatment (entrepreneurship) was divided in to two based on sectors (as agricultural and non-farm entrepreneurship) and mean comparison and analysis of variance (ANOVA) was applied to spot sectoral difference in terms of contribution for poverty alleviation. Stata version 14 and SPSS-20 software were used to calculate the propensity score matching and ANNOVA test, respectively due to their convenience.

6.4. Result and Discussion

.4.1. Multidimensional Poverty Status

As it could be seen in Table 6.3, 93 (24.4%) of the total 381 observations are treatment observations that have joined entrepreneurial category whereas 288(75.6%) are not involved in entrepreneurial activities. With reference to poverty status of the study area 85.5 % of the sampled rural households are found to be multidimensional poor and 14.5% are multidimensional non-poor.

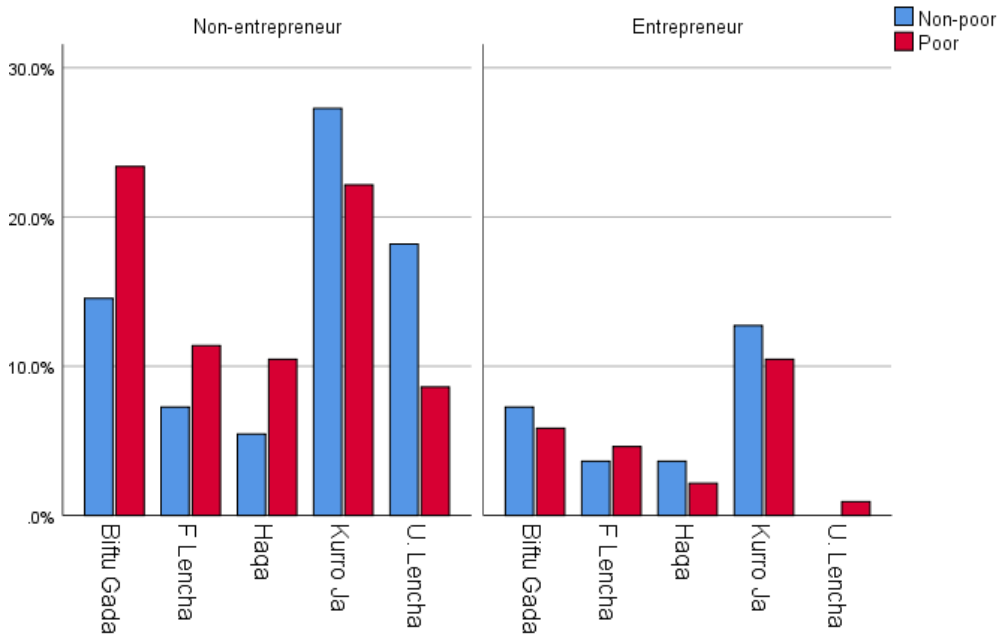
Table 6.3: The Treatment group and Treatment Effect

		Freq.	**Percent**
Rural entrepreneurship as a treatment	Non-entrepreneurs	288	75.59
	Entrepreneurs	93	24.41
	Total	381	100.00
Multidimensional poverty status	0 non-poor	55	14.5
	1 Poor	325	85.5
	Total	380	100.00

Source: Authors' Survey 2021

As it could be seen in Figure 6.2, three sub-districts, namely, Biftu Gada, Haqa and Kuro Jalal have got more percentage of the entrepreneur households that are multidimensional non-poor than the poor in. But Ugaz Lencha and Fandisha lencha have more percentage of poor households in entrepreneurship category. On the other side, the percentage of multidimensional poor non-entrepreneur households is greater than that of the poor non-entrepreneur households in three sub-districts, namely Biftu Gada, Fandisha Lencha and Haqa, In the case of Kuro Jalala and Ugaz Lencha the poor in the non-entrepreneur family are less than the non-poor.

Figure 6.2: Multidimensional poverty in each sub-district



Source: Authors' Survey 2021

6.4.2. The Impact of Rural Entrepreneurship on Multidimensional Poverty

The results in the following tables indicate the contribution of rural entrepreneurship for alleviating rural poverty. Each observation is matched to minimum of 3 and maximum of 4 observations sharing the same or close characteristics from other category. The model was ordered to measure the treatment effect in two different ways. One is measuring the Average treatment effect on all observations and the second one is measuring average treatment effect on the treated observations.

Table 6.4: Propensity score matching

Treatment-effects estimation		**Number of obs**	255
Estimator: propensity-score matching		**Matches requested**=	3
Outcome model: nearest neighbor matching		**Min** =	3
Treatment model: probit		**Max** =	4

Variable	Sample	Coef	Treated	Controls	Difference	S.E.	T stat
MPI	Unmatched		.842	.889	-.046	.048	-0.97
	ATET	-0.962**	.847	.972	-.125	.06	-2.98

Source: Authors' Survey 2021

Table 6.4 shows the effect of rural entrepreneurship as population average treatment effect (ATE) and average treatment effect on the treated (ATET). The result shows that rural entrepreneurship in its aggregate form wedges statistically significant effect on multidimensional poverty with ATET significance value of $P < 0.05$. This leads us to reject the null hypothesis and conclude that rural entrepreneurship has a significant poverty reduction effect. The negative sign of coefficient of the result shows the inverse relationship between entrepreneurship and poverty. This is supported by the results of t statistics under psmatch2 command which shows -0.97 for the unmatched observations and -2.98 for the ATET.

As far as the mean MPI result of entrepreneurs and non-entrepreneurs is concerned there is a significant mean difference for six out of the ten MPI indicators at different levels of significance. The difference is profound in the health dimension indicators with both infant mortality and malnutrition being significant at less than $P < 0.05$ and $P < 0.1$ degree of significance. Living standard dimension is the second in the degree of difference with three indicators showing statistical significance of less than 1% (access to electricity and ownership of assets) and 5% (the quality of floor). One of the two education dimension deprivation indicators (i.e., school age children that are not in school) is also found to show significant mean difference between entrepreneurs and non-entrepreneurs at less than $P < 0.05$ level of significance.

Table 6.5: Mean difference in each indicator

		Mean	Std. Deviation	t-test mean difference	Significance (2-tail)
Grade5	Entrepreneur	.33	.474	-.067	.247
	Non-entrepreneur	.40	.491		
Not in School	Entrepreneur	.68	.470	.141**	.017
	Non-entrepreneur	.54	.500		
Death	Entrepreneur	.29	.496	-.127**	.023
	Non-entrepreneur	.42	.456		
Stunting	Entrepreneur	.12	.325	-.077*	.092
	Non-entrepreneur	.20	.397		
Electric	Entrepreneur	.51	.503	-.188***	.001
	Non-entrepreneur	.69	.462		
Sanitation	Entrepreneur	.96	.204	.037	.227
	Non-entrepreneur	.92	.272		
Drinking Water	Entrepreneur	.82	.389	-.050	.231
	Non-entrepreneur	.87	.340		
Floor	Entrepreneur	.74	.440	-.108**	.017
	Non-entrepreneur	.85	.358		
Charcoal	Entrepreneur	.88	.325	-.049	.138
	Non-entrepreneur	.93	.255		
Facilities	Entrepreneur	.15	.360	-.139***	.008
	Non-entrepreneur	.29	.454		

Authors' Survey 2021

6.4.3. Comparison of Farm and Non-farm Entrepreneurs

When it comes to comparing entrepreneurship in different rural sectors, we made mean comparison and ANNOVA test in two ways (1) running for all the four groups (non-entrepreneurs, agricultural entrepreneurs, non-farm entrepreneurs and entrepreneurs in both cases). (2) We omitted the non-entrepreneurs and entrepreneurs in both sector and then we made ANNOVA comparison on farm and non-farm entrepreneurship. The result in both cases shows that there is no statistically significant difference between farm and non-farm entrepreneurship in their contribution for reduction of multidimensional poverty. Hence, we fail to reject the null hypothesis.

Table 6.6: Comparing MPI mean for entrepreneurs in different sectors

Sector of Entrepreneurship	Mean MPI	N	ANNOVA sign. for the two means	ANNOVA sign. for All
Non-entrepreneur	.86	287	0.399	0.167
Agricultural Entrepreneur	.83	35		
non-farm Entrepreneur	.89	47		
Entrepreneur in both sectors	.64	11		
Total	.86	380		

Authors' Survey 2021

In addition to this, we calculated the mean difference between farm and non-farm entrepreneurs in the ten indicators of MPI. The result shows that there is no significant difference between the two for all the indicators except in the access to electricity which shows the significant advantage of non-farm entrepreneurs over the farm entrepreneurs with less than 1% degree of significance. This is mainly because some non-farm businesses run in the area require electric power for operation and light to run evening business. Retail shops have refrigerators to keep bottled soft drinks cold; barber shops and a grinding mill is also found using electric power to operate its business. Contrary to this, the agricultural activities are mostly done during day time and they don't require electric powers. In fact, some farmers are observed operating their farm activities at night time but just using torch-light not electricity.

Generally, the result of this study is in confirmation with the works of Fiseha et al (2019) in rural South Africa, Li et al. (2016) in China and Saxena (2012) in rural India which assert the immense contribution of entrepreneurship for reducing poverty for rural households. The findings are also in support of the works of Naminse et al. (2018); Li et al. (2016); and Démurger & Fournier (2011) that explain the prominence of entrepreneurship in shaping households and the capability (such as education) and living conditions (like energy utilization pattern).

On the other hand, it goes in contrary to the researches of Ping and Zong (2021) and Mensah and Benedict (2010) that show negligible relationship between entrepreneurship and poverty reduction. It also negates the research of Kacher & Weiler (2018) in rural America which shows that the poverty reduction impact of rural entrepreneurship differs from sector to sectors. This could be also one indicator of the difference in the poverty alleviation influence of rural

entrepreneurship based on the level of economic development and the overall socioeconomic contexts.

6.5. Conclusions and Recommendations

The study examined the contribution of rural entrepreneurship for alleviation of multidimensional poverty in Haramaya district. The district is one of the most deprived areas in terms of multidimensional poverty compared to the global average for rural areas and other parts of the country. However, entrepreneur households are significantly better than the non-entrepreneurs in curbing their multidimensional poverty. More importantly, rural entrepreneurship is contributing for the poverty reduction efforts of rural households by improving their access to health services and living standard dimensions. There is no significant difference between farm and non-farm entrepreneurship in terms of alleviation of multidimensional poverty.

Therefore, the government, especially the offices of Small Enterprise Development, Trade and Industry, and Agriculture and Natural Resource Management should multiply their efforts supporting entrepreneurial development in rural settings for better income and reduction of multidimensional poverty. It is important that Harmaya university expands its scope in terms of reaching wider villages in its entrepreneurship training, advisory and incubation services. Other higher educational institutions, such as Haramaya Polytechnic college and Dire Dawa University should also devise new effective ways of supporting rural entrepreneurial development in the area. They can join hands with local and international NGOs, such as HABP, and give due focus on the expansion of rural non-farm business and increasing production and productivity in agriculture simultaneously since both sectors are indifferently important for poverty reduction in rural areas.

Besides, infrastructural upgrading such as road construction, pure drinking water, rural electrification will have a significant importance of hitting dual targets (i.e. rural entrepreneurship and multidimensional poverty alleviation) simultaneously. Therefore, Ethiopian Road Authority, Electric Light and Power Authority and Ministry of Water and Energy should jointly work on ensuring the stated projects through their regional and district level offices. Private firms and financial institutions should also join hands in providing credits and business supplies for rural entrepreneurs.

Lastly, this research has examined poverty in crop and vegetable production dominated area using the Alkire-foster method of poverty analysis. Future researches are recommended to be undertaken on the subject in diverse rural contexts (for example, pastoralist areas) employing similar or different methods.

CHAPTER SEVEN:

7. SYNTHESIS

7.1. Introduction

The researches in this dissertation attempted to address diverse objectives to better understand the characteristics, determinants and socioeconomic outcomes of rural entrepreneurship. The studies were based on the data gathered from five sub-districts of Haramaya district in 2019 and 2020 and they are organized in the aforementioned chapters.

Chapter one gives general introduction about the researches. It gives the background of the study subject and the way previous literature defined and approached it. Based on that it framed the problem statement and conceptual framework of the study. The second chapter discusses the characteristics of rural entrepreneurship in terms of the pasterns and dynamics of entrepreneurial undertakings and sector-based mobility of the rural labor. In the third and fourth chapters, determinants of rural households' participation and intensity of engagement in entrepreneurship are discussed. The fifth chapter examined the overall status and severity of multidimensional poverty of the rural households whereas the sixth chapter analyzes the influence of rural entrepreneurship on multidimensional poverty.

This synthesis chapter that aims to put together the key issues and findings of the previous chapters. In doing so it summarizes central ideas of the research articles and manuscripts discussed in the aforementioned chapters; provides conclusions based on the research findings and gives recommendations on what should be done to foster rural entrepreneurship and increase its poverty alleviation role. Finally, it gives direction on what future researches should focus to bring about deeper and broader understanding of the subject.

7.2. Summary of Main Findings

7.2.1. Entrepreneurial Characteristics and Sector-Based Mobility

Several studies have worked on profiling and characterizing rural entrepreneurship directly or indirectly. The profiling done by most of those studies focused on either farm or non-farm entrepreneurship, exclusively. This research incorporated rural entrepreneurship in both sectors in its analysis. It also described the dynamics in the mobility within a sector and between the two sectors. Unlike a few studies on entrepreneurial dynamics that hanged their work on analyzing macro-level, quantitative secondary data this research has used mixed method and cross-sectional which to provide elaborate and context-based explanation on the state of affair. Descriptive statistics and the hybrid thematic analysis were used to analyze the quantitative and qualitative data to characterize the pattern and dynamics of occupational mobility and entrepreneurship in the rural areas.

The result indicates that around quarter of the sample rural households are engaged in either or both of agricultural and non-farm entrepreneurship at varying extent and manner. Unlike Fox and Sohnesson's (2012) explanation, that states manufacturing (processing agricultural products) to be the common entrepreneurial activity in rural areas, the result in this research shows negligible engagement of manufacturing based entrepreneurial works in the rural area. Rather, the rural entrepreneurs dominantly operate in agriculture and trade and service sectors. Cash-crop and vegetable production, poultry, dairy and beef farming are the dominant agricultural activities whereas retail shop and petty trade are the major non-farm ventures rural entrepreneurs are engaged in. Even though agriculture as a livelihood is an old phenomenon, its emergence in the sense of entrepreneurial pursuit is much younger than non-farm entrepreneurship with maximum age of 23 years for agri-preneurship and 41 years for the non-farm one. Off-farm and non-farm wage employment are emphasized by rural households as sources of additional income and experiences for starting new ventures.

Rural entrepreneurs give more emphasis to diversification of their business and income sources than intensification of the business at hand. More than half of the agri-preneurs work on a mix of two or more agricultural businesses whereas total of 41 out of the 58 non-farm entrepreneurs have

been engaged in agricultural activities to support their domestic consumption and gain additional income.

The entrepreneurs, especially in the non-farm sector, are mainly driven by necessity factors such as lack of job, failure in the previous job to meet the growing household needs and natural calamities. Most of the agricultural entrepreneurs are driven by opportunity factors such as raise of demand for food, expansion of agricultural inputs and technology and availability of some agribusiness training and funds. The raise in the demand for *khat* and vegetables in local markets and as export-items have made a great share of the entrepreneurs of Haramaya district to focus on production of high-value items for sale and prefer buying less-priced food items from the market. Hence, they rely on food items that are imported from abroad or brought from the other parts of the country (like, rice, macaroni, pasta, bananas, etc.) for their consumption.

Rural ventures in both farm and non-farm sectors are dominantly owned by male headed entrepreneur households. Yet, there is a growing involvement of women in entrepreneurial activities due to division of labor within households. Petty trades and retail shops are dominantly managed by the female household members whereas the men are responsible for agricultural works and non-farm business that necessitate mechanical skills such as operating transport vehicles, the grinding mills and water-pump machines.

Rural entrepreneurs have strong market tie with the neighboring towns that serve as the source of inputs and product markets. On the other hand, they face challenges due to the price setting role and the competition of urban merchants in rural market. Access to finance and land are also the major bottleneck of rural entrepreneurship. Households and family networks remain the major source of finance for rural entrepreneurial works since more than 99.5% have no access to credit from banks and microfinance institutions primary because they perceive the mode of loan provision goes against their religious jurisprudence. Likewise, agricultural entrepreneurs reply on owned or inherited land to run their agricultural business because the policy does not support purchase of land and there is weak culture of renting land.

7.2.2. Determinants of Rural Entrepreneurship

Rural entrepreneurial activities do not operate in vacuum. Their establishment and intensity of operation are determined by diverse independent and interacting factors. Literature have made tremendous efforts to give theoretical explanation about the factors that shape the nature and magnitude of entrepreneurial participation. This research has combined lessons from the Agrarian Labor Relocation (economic) theory from economics and Embeddedness theory (sociology) and Occupational Choice theory (psychology) to examine the determinants rural households' participation in rural entrepreneurship. Additionally, it utilized the theory of Time Allocation to analyze the intensity of entrepreneurial engagement. The variables that potentially influence rural entrepreneurship are classified in to four major categories: individual household, community and institutional and enterprise characteristics.

Regarding the method of analysis, the randomly collected data of 381 rural households were analyzed using the Probit and Tobit models to examine determinants of participation and intensity of engagement, respectively. The two models are supported by qualitative data acquired through observation, interviews and FGD.

The result shows that around the quarter of rural household in Haramaya district are entrepreneurs that invest an average of 42.5 hours per week for entrepreneurial works. The minimum and maximum hours they spend on the work is 16 and 105 hours respectively. As far as the determinants are concerned, household size, distance from business areas (I.e., main market/road) and experience of employment in temporary/contract works are important variables that influence both the participation and intensity of rural entrepreneurship. Households with large family size have the necessities that urge them to wedge more efforts to meet the households' needs. On the other hand they have advantage of allocating surplus labor for entrepreneurial works for longer time that confirms to the explanations ALRT theory (Hymer & Resnick 1969) and the study of Nagler and Naudé (2014).

Households that live far from the main market and road have higher tendency of participating in and devoting much time for entrepreneurial works because those who live closer to main roads and town markets either consume from the town or join the urban business than operating in rural ventures. This contradicts with previous assumptions and results that describe proximity to market

place and main road to be enhancing factors for entrepreneurship (Ayambila 2014; Owoo and Naudé 2014). On the other they give much of their time for entrepreneurial businesses that are located in their residence villages than the ventures/farms located out of their village.

Households that have access to and experience of participating in temporary/contract wadge employment have higher propensity of participating in entrepreneurship and they devote much of their time foe the entrepreneurial works. This complies with the work of Burmeister-Lamp et al. (2012) that states hybrid entrepreneurs (those who run both wage-and self-employment activities) work for longer hours as compared to the mainstream entrepreneurs. The lesson and experience they gain from the wage work possibly contributes for such devotion.

Ownership of farmland and business sites also affect the pattern and magnitude of entrepreneurial work. Rural entrepreneurship is associated to necessity factors such as lack of farmland ownership, lack of job and failure of previous job that drive rural households to start entrepreneurial works. But, once they have started the business, the entrepreneurs that operate in the business sites of their own allocate much of their time than those who run their enterprise on the site they got by lease.

In addition to the factors that jointly affect the participation and intensity of rural entrepreneurship, some factors influence them separately. age of the household head strongly sways participation whereas the intensity of entrepreneurial work is strongly influenced by the climatic condition of the residence area, number of siblings supported by the household head, the motive of starting the business and ownership of the business site..

As far as factors that exclusively affect entrepreneurial work hours are concerned entrepreneur household headed by a person who have grown up as orphans and those that live in the lowland spend significantly more of their time on entrepreneurial work compared to their counterparts. The likely reason in the former case is because the household heads work hard due to their childhood economic trauma whereas the reason for the latter case is because the weather is conducive to operate business even during night times.

7.2.3. Poverty Alleviation Impacts of Rural Entrepreneurship

One of the reasons why scholars and development actors support entrepreneurial works in rural areas is due to its poverty reduction potential. Previous studies have examined the poverty reduction role of entrepreneurship in different socioeconomic settings. Majority of them were conducted in America, Europe and Asia mainly focusing on the monetary dimension of poverty measurement. This study attempts to feel the gap by examining the nexus of entrepreneurship with multidimensional poverty in rural settings of less developed region based on the data from Haramaya district.

The multidimensional Poverty Index (MPI) of Alikire-Foster Method was used to identify the poverty status and severity of rural households whereas PSM and ANOVA were used to analyze the impact of entrepreneurship on multidimensional poverty and examine the difference of farm and non-farm entrepreneurship for reduction of multidimensional poverty.

The research result shows that Haramaya district has one of highest status and severity of multidimensional poverty (85.5%) that surpasses the national (68.7%) and the regional averages (71.5%). The largest portions of the rural households (46.1%) are severely poor followed by 39.5% and 9.7% that are poor and vulnerable to poverty. It is only 4.7% of the households that are non-poor in strict sense. Nevertheless, the entrepreneur households are significantly better than the non-entrepreneurs in the status of their multidimensional poverty and there is no significant sectoral difference (between farm and non-farm entrepreneurship) in their poverty reduction role. The entrepreneurs are significantly better-off in five out of the ten weighted MPI indicators, namely mortality, malnutrition, access to electricity, ownership of assets and the quality of floor materials of their houses).

7.3. Major Conclusions

The research generally studied the nature, the factors and outcomes of rural entrepreneurship in developing areas, based data from Haramaya district. Based on the findings discussed above the research makes the following conclusions.

There is a notable prevalence of rural households' engagement in rural entrepreneurship in both farm and non-farm sectors in Haramaya district. The entrepreneurial activities are micro and small-scale undertakings that are characterized by diversification, inter and intra-sector labor mobility, and value oriented-ness. They are dominated by farming and trade activities that are poorly associated to value addition and manufacturing. Temporary/contract employment serves as abridge for mobility from traditional livelihood to rural entrepreneurship (most importantly to the non-farm entrepreneurship).

However, despite wide entrepreneurial potential of the district necessity-push factors play the dominant role of influencing the participation in entrepreneurship, the amount of time devoted for entrepreneurial works and the nature and extent of entrepreneurial mobility between farm and non-farm sectors.

Households' socioeconomic variables and spatial attributes play significant role for the entrepreneurial development in rural areas. Considerable share rural dwellers are transforming their growing population (household size) in to assets (entrepreneurship). Likewise, the rural entrepreneurs have developed strong business tie with the nearby urban areas as the source of raw materials and markets for their product. But they choose to be spatially far from towns or cities to undertake their entrepreneurial activities. It is not only entrepreneurship that is lesser with proximity to towns. Multidimensional poverty is also found to be higher among the rural households that live closer to urban centers than those who farther. This shows that the effectiveness of entrepreneurial development and household well-beings in rural areas is much associated to endogenous growth than the spatial influence of urban areas and business opportunities in distant areas. Generally rural entrepreneurship is found to be determined by household characteristics whereas institutional and community level variables, such as access to training and credit and membership in social networks have got less impact of creating rural entrepreneurs so far.

As far as poverty status is concerned, Haramaya district are among the poorest areas in Ethiopia despite its location in the hub of cash crop production, tourism and informal cross-border trade. Even though rural entrepreneurship is dominantly influenced by necessity than opportunity factors it is significantly contributing for reduction of multidimensional poverty through its role of ensuring improved households' access to different assets and facilities, better nutritional status and reduced mortality.

However, entrepreneurship development in the rural areas is challenged by community and institutional factors such as policy and culture of land access and incompatibility of financial services with the religious values and office bureaucracy. Even though financial institutions have currently started interest free financial services to comply with religious values, rural households could not access the loans due to lack of awareness and because the institution have focused on interest free savings than financing.

7.4. Recommendations

Based on the preceding findings, discussions and conclusions, the following recommendations are provided. With over 80% of the Ethiopian population residing in rural areas and experiencing multidimensional poverty, particularly in the study locale, addressing rural poverty stands as the foremost priority in the country's development efforts. Subsequently, the promotion of rural entrepreneurship is identified as a viable approach to alleviate multidimensional poverty among rural households.

Ethiopia's recent 10 years (2020 to 2030) strategic development plan for (NPC, 2019) and the first National Entrepreneurship Strategy (UNIDO 2019) have emphasized creating strong rural-urban linkage and employment opportunity. The strategy emphasized on raising agricultural production through cluster based large scale farming and increasing market linkage (NPC, 2019) more than self-employment in small scale businesses. Besides, the existing strategies lack explicit description and models of linking farm and nonfarm sector growth in the rural settings. Therefore, the government of Ethiopia should explicitly include rural entrepreneurship as a poverty reduction tool in the national development strategies, action plans and intervention projects. Emphasis should also be given to widening and diversifying land acquisition and financial access options that align with the economic realities and religious values of the people. The Ministry of Skill and Labor and its subordinate offices at different level and the Entrepreneurship Development Institute (EDI) can take the lead in developing and implementing the strategies.

As land and labor are the primary assets in rural areas, the government should continually revise and diversify legal land access options and strategies for ease of doing business. Facilitating private, communal and public land lending and leasing culture could be helpful to support entrepreneurs who lack or face shortage of farmland to get the opportunity to start or expand their agricultural businesses. Youths and households that want to participate in micro and small enterprise as teams are supposed to go through long and time-consuming bureaucratic process to get licenses. Hence, comprehensive institutional reforms are also needed to reduce the bureaucracy and install fast and productive operation of entrepreneurial activities. Expanding one stop services aided by digitalizing the office works will be helpful this regard.

So far, rural entrepreneurs have given less attention to manufacturing sector despite huge potential of rural areas for agro-processing and other cortege industries. Therefore, the government should develop rural industrialization strategy to enhance manufacturing and value addition. This should be supported by entrepreneurial-resources mapping researches to guide the policies and intervention decisions. The state should also undertake infrastructural upgrades on rural electricity, drinking water, and road construction that would encourage entrepreneurial activity and in turn aids in the reduction of multidimensional poverty. Establishing village markets, in addition to the town markets, also will help the people to get exposure and derive business experiences and motivations.

The government alone may lack resources and expertise to fully address the problems associated to rural entrepreneurship. Hence, non-state actors such as non-governmental organizations, civic societies as well as saving and credit associations should take part in providing training, material and financial supports, and creating market linkages for the entrepreneurs' products and services. They can also work with religious scholars to introduce more religiously acceptable types of business and modes of operation. Female headed households are less participants in entrepreneurship due to lack of access to basic assets such as land and capital. The Women Entrepreneurship Development Program (WEDP) and institutions with similar goals should facilitate religious leaders and community elders to convince and guide the community to assure improved access of women to inherited or leased land, livestock and financial supports.

Higher educational institutions, such as Haramaya University, Dire Dawa University and Harar Technical and Vocational Training Institute should expand their entrepreneurship training, advisory services, research and technology transfer works to wider and remote rural areas. Since great majority of the entrepreneurial pursuits are necessity-driven, the higher educational institutions can take the lead in researching and revealing diverse entrepreneurial opportunities, providing training and technical advises on how those opportunities should be utilized. They should come up with different innovations and transfer technologies to the rural households.

There is a growing trend of opening interest-free banking services in the country. However, the rural households have limited access to these services, which they perceive as being compatible with their religious values. This is likely due to the lack of awareness, less accessibility of those

financial services locations as well as the collateral requirements for credit. Therefore, financial institutions should consider setting affordable and flexible collateral requirements, opening satellite shops or operating through agents to reach the rural people. Additionally, they should provide or sponsor continues training on interest free financial services and finance management practices.

Primarily, rural households should take the lead in searching and utilizing every opportunity to start or expand their entrepreneurial works. Towards this end, they should also take the initiative to contact different institutions to get training, expert advises and financial supports. The culture of leasing uncultivated farmland should also be developed as a means of enhancing agricultural entrepreneurship and generating additional income.

Overall, rural households, community leaders, government, non-governmental organizations, civic societies, higher educational institutions and financial institutions should collaborate for the development of rural entrepreneurship as the means of curbing poverty in its multidimensional form.

Table 7.1: Research Summary: Objective, Theory, Analysis and Findings Matrix

Objectives	Theory	Data Analysis	Findings
Patterns and dynamics of RE	ALRT	Descriptive statistics and Hybrid thematic analysis	Necessity-driven, small-scale, diversification, labor mobility, value-centeredness and strong linkage to the towns market
Determinants of participation in rural entrepreneurship	Occupational choice	Probit model	- HHs' resource and spatial characteristics, - HHH's age and religion
Determinants of entrepreneurial engagement intensity	Theory of Time Allocation.	Tobit model	HHs' resources, -spatial aspects, and - HHHs' childhood experiences
Multidimensional Poverty status and severity	Capability Theory	Aalkie-foster Method (MPI)	- Profound Multidimesnsional poverty; - Living standard dimension
The contribution of rural entrepreneurship for poverty reduction	BOP	PSM & ANNOVA	-Entrepreneurship reduces multidimensional poverty - by facilitating access to good health services, and electricity - No significant difference between sectors

7.5. Future Research Directions

This research has studied the patterns and dynamics of occupational mobility; determinants of entrepreneurial participation and intensity as well as the status and severity of multidimensional poverty in rural areas. Moreover, it has analyzed the contribution of rural entrepreneurship for multidimensional poverty alleviation. However, this paper cannot be taken as a final and complete work on the study subject. Hence, some aspect of it that need to be addressed by future researches are mentioned as follows.

One of the strengths of this research over the previous studies is the fact that it constituted both farm and non-farm sectors rather than treating them exclusively. It has emphasized on profiles, dynamics and determinants of both sectors all together. This is useful to make decisions and interventions on the overall matters of rural entrepreneurship. Yet the sectors may possibly manifest peculiar characteristics in certain aspects and some variables may affect them in different manners and magnitudes. Hence, further studies should make comparison between the determinants of agricultural entrepreneurship and nonfarm entrepreneurship.

With regards to the study locale, this research is conducted in a rural setting known for production of *khat* and vegetable as cash-crops. Conducting similar studies in different livelihood zones **s**uch as staple food (such as *teff, enset,* etc.) production areas and pastoralist areas will help to get more complete picture about the state of affairs.

The research refreshes the existing knowledge on the determinants of rural entrepreneurship taking several variables categorized as individual, household, institutional/community and enterprise characteristics variables. We encourage future researches to scrutinize the intensity of entrepreneurial engagement using different indicators other than work-hour. The intensity could be measured based on the amount of capital, the number of employees, or variety of items to produced or sold.

With reference to poverty, the research has examined the status and severity of multidimensional poverty and its relation with rural entrepreneurship using the Alkire-foster method. Future researches are recommended to go further and examine the determinants of rural households' multidimensional poverty. Besides, our research has examined the impact of entrepreneurial

participation on multidimensional poverty. Therefore, future researches can analyze the effect entrepreneurial intensity on multidimensional poverty of the rural households.

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APPENDICES

Appendix 1: Household Survey Questionnaire

ADDIS ABABA UNIVERSITY

COLLEGE OF DEVELOPMENT STUDIES

CENTER FOR RURAL DEVELOPMENT

Dear Sir/Madam!

The questionnaire in your hand is prepared as a data collection tool prepared to conduct research on "Rural Entrepreneurship: Characteristics, Determinants and its Contribution for Alleviation of Multidimensional poverty in Haramaya Distirict". It is solely prepared for PhD Dissertation being conducted in partial fulfillment for attaining Degree of Philosophy in Development Studies (Rural Development) from Addis Ababa University.

I would like to assure you that the information you give here will only be used for research purpose, and it will be kept absolutely confidential. Hence, you are kindly requested to fill the questions in the questionnaire genuinely and completely.

For any further information in relation to the questionnaire, you can contact me via the addresses hereunder.

Abdibeshir Said: Mobile: 0909067643

Email: abdibeshirs@gmail.com

1. Kebele _____
2. Date: _____

Background Information (individual)

1. Sex of the HH head: 1. Male 0. Female
2. Age in years on the date of interview (recall approximation): _____
3. Marital status:- 1. Married 0. Single, Divorced or Widowed
4. Can you read and write? 1. yes 0. No

5. Level of formal education in years _____
6. What is your religion? 1 = Tewahido Orthodox 2 = Catholic 3 = Protestant 4 = Muslim 5 = other 6 = Non follower

Childhood experiences

7. Number of Siblings _____
8. Your rank/order of birth among the siblings _____
9. Have you grown as an orphan (due to death of either or both of your parents)?
   1. yes 0. No
10. Have you grown in a separated/divorced family? 1. yes 0. No

Household Characteristics

11. Household size (Number of people living in the house, including you)
12. Number of Household members in terms of age group
    Less than 15 years old_____
    15 to 64 years old _____
    65 years and above _____
13. Distance from Main/asphalted road (in KM) _____
14. Distance from District Market place (in KM) _____
15. Climatic zone of your residence area 1. Midland 0. Lowland
16. Do you own land? \
17. Average monthly income of the HH (ETB) _____ ,
18. Does your household use electricity at home ? 1.Yes 0. No
19. Does your household own mobile phone ? 1.Yes 0. No
20. Does your household own radio? 1.Yes 0. No
21. Your household's average monthly expense for food items (birr) _____
22. Average monthly expense for non-food items (transport, medical, education, etc. (birr)
    _____

Entrepreneurial status

23. Does your household own any rural non-farm business? 1. Yes 0. No
24. Does your household own any agricultural work/business? 1. Yes 0. No

25. How much share/parentage of your agricultural products are produced for selling in market ? _____
26. How do you react when you get the information about new agricultural innovations (inputs or technologies)?
    i. I immediately adopt and modify it to my context
    ii. I use the innovations as soon as I get information
    iii. I wait until others use it and tell me about its importance
    iv. I don't like to use new innovations that much

Agriculture

27. Do you operate agricultural activities 1. Yes 0. No (Skip to Q 37)
28. What type of agricultural activities are you running (multiple response is possible)

    Crop/vegetable production ☐ Dairy farm ☐

    Beef farming ☐ Beekeeping\ ☐
29. Household landholding (in hectare) _____\
30. How do you access land? 1. Rent 2. C
31. Three primary crops produced in rank (if any)

    1st _____, 2nd _____ 3rd _____\
32. Amount/value of crops produced in _____ year _____
33. Livestock ownership (Total TLU) _____

34. Is there contract/temporary business/farms activity you are engaged in?

    1.Yes 0. No
35. If you are running agricultural business, which of the following measures does you usually take to increase your production (put tick mark)?

	Items/technology	
1.	Fertilizers	
2.	Improved seed	
3.	Use irrigation or water pump to water your farm land	
4.	Use tractor(s) or combiner	
5.	Bought or rented additional land for farming or livestock feed production	
6.	Rented a house for store or keeping bees/livestock	

36. How much annual income (in birr) do earn from the following agricultural activities

Crop/vegetable production _____

Dairy farm _____

Beef farming _____

Beekeeping\ _____

37. Do you own a non-farm business? 1. Yes 0. No (Skip to Q 41)

38. What non-farm business do you own? (multiple answer is possible)

Petty trade ☐ Floor mill ☐ Retail Shop ☐ Tailor house ☐

Coffee shop or restaurant ☐ Weaving ☐ Blacksmith or pottery ☐

Welding and Furniture production ☐ Carpenter (constr☐n)

Mining (minerals, stones, sand) ☐ Renting out house ☐

Vehicle for rental/transport business ☐ Others: specify _____

39. Why did you decide to engage in this business

Because I had no job ☐

Because my previous job failed (couldn't suffice basic needs) ☐

Because I like doing something new, ☐

To solve some social problem of my community ☐

To utilize the opportunity I got ☐

Because I wanted to be my own boss, ☐

40. How much total annual income do you earn from all non-farm businesses you own?

_____

Institutional or Community Characteristics

41. Have you ever got business (entrepreneurship) related training? 1.Yes 0. No

42. If yes, what was(were) the topic of the training? (multiple answer is possible

Business plan preparation, ☐ marketing, ☐ record/book keeping, ☐

Business development services ☐

43. Who organized the training?

Government institution ☐

Private institution ☐

NGO ☐

Individual volunteers ☐

44. Is your firm registered/licensed **1.** Yes 0. No
45. Are you a member of local cooperatives/associations ? 1.Yes 0. No
46. What services do you obtain from your cooperative/association?
47. Do you cooperate with your neighbors/relatives/friends? 1 = Yes *0 = No*
48. On what basis do you cooperate?

Sharing information, ☐ sharing facilities, ☐ Both ☐

Enterprise Characteristics

49. Is your major business/farm located in your village of residence?

1.Yes 0. No

50. When did first you start your current business/farm (E.C): _____
51. Startup capital of your major business/farm (birr) _____
52. Which source did you use to get start-up capital for running your farm/non-farm busuiness? (multiple answer possible)

Own saving or selling assets ☐

Gift/loan from family/relatives/friends ☐

Loan from family/relatives/friends ☐

From cooperatives or equb ☐

Loan from microfinance/bank ☐

Subsidy from government or NGO ☐

Not Applicable ☐

53. Have you ever got loans from Banks/microfinance institutions

1.Yes 0. No (skip to Q 56)

54. Howmuch birr have you borrowed in total _____

55. Why did you borrow? 1. To start new venture 2. to expand the existing one

56. What hindered you from borrowing money from the financial institutions

1, There are no Banks/microfinance institutions nearby ☐

2, Banks/Microfinance institutions do not provide loans for businesses of my type ☐

3, I have no asset to present as a collateral for loan ☐

4, The way of of providing loans are aginst my religious values ☐

Other reason (if any) _____

57. Total current capital: _____

58. Number of employees (anyone working for the enterprise/farm): _____

59. Is the place you are running your major business/farm owned by you?

1. yes 0. No

60. On average how many days/week do you work on your enterprise? _____

61. On average how many hours/day do you work on your enterprise? _____

62. How many workers are from family members? _____ and how many of them are employed in your firm? _____

63. The nature of labor employees:- Full time ☐ Contract____ ☐

64. Does your business/farm show seasonal variations in performance?

1. yes 0. No (skip to Q 65)

65. Which month (E.C) does your business/farm witness the highest performance?

_____

66. Where do you get raw materials (items of sale)?

From the locality ☐ , From nearby towns ☐

Directly from the capital city ☐ Directly from the neighboring country ☐

67. To which market do you provide your products?

Local, ☐ Nearby town ☐ Export market ☐

Are there other ventures in your sub-district that operate the same business as yours?

1. Yes 0. No

68. How do you evaluate the performance of your business in the last three years

Highly growing ☐ Moderately growing ☐ Stagnant ☐

Moderately declining ☐ Highly declining ☐

69. What do you plan for your business in the next three years

1. Closing ☐ 2. Maintaining the status-co ☐

3. Expanding ☐ 4. Shifting to other ☐

70. If you were to expand your business, how would you do it

1. Opening other business in the same sub-district/kebele ☐

2. Opening the same venture somewhere else ☐

3. Opening different venture somewhere el ☐

71. **Multidimensional Poverty**

Description	**No**	**Yes**
At least one household member has completed five years of schooling	1	0
Is there any school aged child (7 to 15 years old) who is not attending school?	0	1
Is there any recent under 5 child death record in the family?	0	1
Is there any member of the family (especially a child) who is underweight, stunt or waist	0	1
Does the household have access electricity	1	0
The household's sanitation facility is to the standard (MDG guidelines) or it is to the standard but shared with other households	1	0
The household has no safe drinking water or the safe drinking water is located more than 30-minute round-trip walk from home	0	1
The household lives in a dirt, sand or dung floored house	0	1
The household cooks with dung, wood or charcoal	0	1
The household does not own any of the following assets/facilities I.e. radio, TV, bike, motorbike, car, bajaj or refrigerator and does not own a car or truck	0	1

Appendix 2: Appendix 2: Affaan Oromo Version Questionnaire

Yuunivarsiitii Finfinnee
Kolleejii Qorannoolee Misoomaa
Wiirtuu Misooma Baadiyyaa

Bar-gaafii Qorannoo

Kabajamoo!

Ani, Obbo Abdibashiir Sa'id, yuunivarsiitii Finfinneetti, kolleejjii Qorannoowwan Guddinaa (College of Development Studies) keessatti barataa digrii sadaffaa ykn PhD'ti. Yeroo ammaa kanatti ammoo ittiin guuttannaa barumsichaatiif jecha qorannoo (Dissertation) mataduree **"Haala Hoji-uumtummaa baadiyyaafi walitti dhufeenya inni Hiyyummaa waliin qabu (Rural Entrepreneurship: Characteristics, Determinants and its _with household poverty)"** jedhu irratti geggeessaa jira. Bargaafiin isin harkaa qabdan kunis qorannoo kana haala bu'a qabeessa taheen gaggeessuuf jecha odeeffannoolee barbaachisoo tahan sassabuuf kan qophaa'eedha.

Odeeffaannoon isin kennitan hundi qorannoo kanaaf baay'ee barbaachisaa akka tahe akkasumas qaama biraa kamiifiyyuu akka dabarfamee hin kennamneefi qorannicha kanaaf qofa akka oolu isiniif mirkaneessuun barbaada. Kanaafuu gaaffilee bargaaficha keessa jiran hunda isaanii guutuun milkaa'ina qorannichaa akka galmaan geessan kabajaan isin gaafadha.

abajaan isin gaafadha.

Waa'ee bargaafichaa irratti gaaffii ykn yaada kamiiyyuu qabaannaan yeroma feetanitti lakkoofsa bilbilaafi iimeelii armaan gaditti barraahanin na qunnamuu ni dandeessani. **Abdibashiir Sa'id**: : 0909067643 Imeeliin: abdibeshirs@gmail.com

Kutaa 1ffaa

1. Lakkofsa bargaaffichaa (serial number): _____
2. Maqaa araddaa keetii _____
3. Bulchaan maatii keeti si'ii? 1= Eyyen 0= Miti
4. Saala bulchaa manaa (abbaa/haadha worraa) 1= Dhiira 0= Dubara
5. Umriin keeti woggaa meeqa taha? _____
6. Araddaa kana woggaa meeqaa keessa jiraatte?_____
7. Haala gaailaa:- 1=hinfuune/hinheerumne 2= fuudheera/heerumeera 3= addaan baheera 4= abba/haati manaa ko lubbuun hin-jiru
8. Barreessufi dubbisuu ni dandeessaa? 1= Eyyen 0= Miti
9. Barumsa idilee kutaa meeqa barattee _____
10. Amantaan keeti maali? *1= Islaama 2=Ortodoksii 3= Kaatoolikii 4= Protestanti 5= kan biraa*

11. Obboleeyyan meeqa qabda? _____

12. Obbolewwan kee keessa meeqaffa irrati dhalatte? _____

13. Umriin keeti oso woggaa 18 hinguutiin abba fi haadha keeti keessa namni du'e jiraa? 1= Eyyen 0= Miti

14. Abbafi haati keeti wol hiikanee turanii? 1= Eyyen 0= Miti

Haala Diinagdeefi Hawaasummaa Maatii

15. Lakkoofsi maatii (namoota wajji jiraattan hundaa) meeqa? _____

16. Maatii kee keessaa namoonni umriin isaanii:
    1, waggaa 0-14 tahe meeqa? _____
    2, waggaa 15-64 tahe hoo?_____
    3, waggaa 65 oli tahe hoo?_____

17. Maatii kee keessaa lakkoofsi namoota umriin isaanii waggaa 15-64 tahee hojii hinqabne meeqa? _____

18. Mana jireenyaa hoo akkamitti argattan? 1= ijaaruun, 2= bittaan 3=dhaalaan 3=kiraan

19. Manni jireenya kee kutaa meeqa qaba? _____

20. Manni jireenya daandii asfaaltii irraa kiiloomeetira meeqa fagaata? _____

21. Gabaa irra-dhihoo irraa hoo kiiloomeetira meeqa fagaata? _____

22. Bakka qonnaa ykn dalagaa kee irraa hoo? _____

23. Hojii akkamii irra hirmaattee jirta? (deebii tokkoo oli deebisuu ni dandeessa)

0= Hoji hinqabu 1= nama jalatti qacaramanii hojjachuu 4= hojjataa mootummaa 1= Hojii dhuunfaa kiyya

24. Walumaagalatti galiin waggaatti maatii keetii meeqa? _____ ,

25. Maddaalee armaan gaditti tarreeffaman keessaa waggaatti galii birrii meeqaa argatta?

1, Qonna midhaanii _____ 2, Beelada _____
3, Qacarrii dalagaa namaa _____ 4, biizinasii qonnaa alaa dhuunfaa keeti _____
5, gargaarsa namaa/dhaabaa (remittance) _____
26. Baatitti qarshii meeqaa bittaa meeshalee nyaataafi dhugaatiitiif baafta? _____

27. Bittaa nyaataan alaatiif (barumsa, fayyaa, geejjiba, bashannanaa fi kkf) meeqa baafta? _____

28. Tajaajila elektiriikaa ni qabdanii akka maatiitti 1= Eeyyen 0= Miti

29. Bilbila mobaayilaa hoo? 1= Eeyyen 0= Miti

30. Siree hoo? 1= Eeyyen 0= Miti

31. Raadiyoo hoo? 1= Eeyyen 0= Miti

32. Televizhinii hoo? 1= Eeyyen 0= Miti

33. Doqdoqqee ykn saayikilii hoo? 1= Eeyyen 0= Miti

34. Firiija (qabbaneessituu) hoo? 1= Eeyyen 0= Miti

35. Mana kuusaa (magaazina) hoo? 1= Eeyyen 0= Miti

36. Hojii kontiraataan dalagdu qabdaa? 1= Eeyyen 0= Miti

Kutaa 2ffaa: Haala Dhaabaa

1. Leenjii waa'ee hoji uumtummaan wal-qabatan fudhattee beektaa? 1= Eeyyen 0= Miti **(#6)**

2. Gaaffii 1ffaaf deebiin kee "Eeyyen' yoo tahe leenjicha tara meeqa fudhatte? _____

3. Leenjichi maal irratti xiyyeeffata ture? 1= karoora bizinasii qopheessuu , 2=gurgurtaa, 3= tajaajila maamiltootaa 4= waan biraa (ibsi) _____

4. Leenjicha eenyutu qopheesse? 1= Mootummaa 2= Dhaaba dhuunfaa 3=Dhab Mitotuma 4=tola ooltota

5. Leenjichi na fayyadeera jettee yaaddaa? 1= Eeyyen 0= Miti

6. Miseensa hojii-gamtaa gamtaa hawaasummaa (kan akka afooshaa) taatee beektaa? 1= Eeyyen 0= Miti **(#9)**

7. Gamta kee irraa tajaajila hoji-uumtummaan wolqabate akkamii argatta?
   1 = odeeffannoo gahaa 2=liqiifi meeshaalee hojii, 3= gareen gabaa gaggeessuu,
   4= waliin bituu, 6= waan biraa (ibsii) _____

8. Wol-amanuun miseensonnta gamticha giddu jiru akkami?
   1= tasumayyuu hinjiru 2= hinhinjiru 3= ani hinbeeku 4= hanga tokko jira 5=baay'ee jira

9. Maatii/hiriyoota/fira wajjiin walitti dhufeenya gaarii qabdaa? 1= Eeyyen 0= Miti**(11)**

10. Hoji-uumtummaan wolqabate walitti dhufeenyi kuni maal fayyadaara?
    1= odeeffannoo waliif kennuu 2= meeshaalee geejjibaa wal gargaaruu 3= meeshaa gabaa waliif kenuu 4, kanbiraa

11. Aadaan hawaasa keetii hoji-uumtummaa ni jajjabeessa jettee yaaddaa?
    1= tasumayyuu hinyaadu 2= hinyaadu 3= ani hinbeeku 4= hanga tokko nan yaada 5=baay'ee

Akkaataa Bizinasii

12. Hojiin qonna ykn qonnaan-alaa ati hojjattu kan dhuunfatte keeti? 1= Eeyyen 0= Miti(**66**)

13. Bakki hojiicha itti dalagdu eessatti argama? 1= araddaa keessa jiraadhutti 2= araddaa jireenyaatirraa alatti

14. Woggaa meeqa erga ati hojicha dhuunfatte? _____

15. Gaafa eegaltu sana qarshii meeqa iti baafte? _____

16. Maallaqa ittiin jalqabde keessan meeqa meeqa maddoota armaan gadii irraa argatte? Qabeenya kee irraa _____ Maatii/ hiriyyota/fira irraa _____ Quubi/hojii-gamtaa irraa _____ Kennaa mootummaa ykn dhaabbata miti-mootummaa irraa _____

17. Maykiroo ykn baankii irraa liqeeffattee beektaa? 1= Eeyyen 0=Miti **(21)**

18. Hojicha ittiin maal ittiin gochuuf liqeeffatte 1= jalqabuuf 2= babal'ifachuuf 3= lachaniifuu

19. Walumaagalatti qarshii meeqa liqeeffatte? _____

20. Liqiin kun hangam si fayyade? 1= baay'ee na fayyade 2= xiqqoo na fayyade 3= faaydaas miidhaas hinqabu 4= xiqqoo na miidhe 5= baay'ee na miidhe

21. Gaaffii 17ffaaf deebiin kee "miti" yoo ta'e, maaliif hin liqeeffatini?
    1= baankiifi maykiroo faaynaansiin bakka dhihooti waan hinjirreefi
    2= bizinasii akka kiyyaa kanaaf jarri waan liqii hinkenninu jedhaniifi
    3= qabeenya qabsiisee ittiin liqeeffadhu waan dhabeefi
    4= haalli liqiin itti kennamtu waan amantaan kiyya faallessituufi
    5= sababa biraati (ibsi) _____
22. Amma hoo kaappitaalli waliigalaa kee meeqa?_____

23. Lakkoofsi hojattootaa (si dabalatee) gaafa hochicha dhuunfattu meeqa ture? _____

24. Amma lakkoofsi hojjattootaa meeqa? _____

25. Meeqa isaaniitu miseensa maatii keetiiti? _____

26. Meeqa isaanii qacarriin fidde? _____
27. Haalli hojjattoota qacarriin hojjatanii akkam?:- 1= dhaabbataa 2= faraqaa (yeroo muraasa)

28. Hojiin ati dhuunfatte kan akkamiiti?
    1= Kan qonnaan wal qabate qofa 2= bizinasii qonnaan-alaa qofa (**38**) 3= lachanuu
29. Hojiin qonaan walqabate ati dhunfatte kan akkamiiti?
    1=midhaan, kuduraafi muduraa oomishuu 2= aannan oomishuu 3= loon furdisuu
    4=horsiisa kanniisaa 5= horsiisa lukkuu 6= waan biraa (ibsi) _____
30. Akka maatiitti lafa qonnaa ni qabdanii? 1= Eeyyen 0= Miti

31. lafti keesan hektaara meeqa taha?_____

32. Lafa sana akkamitti argattan? 1= dhaalaan 2= kiraan 3= hirtaan (mootummaa) 4= bittaan 5=haala biraa (ibsaa) _____

33. yoo midhaan, kuduraafi muduraa oomishta tahe gosoota sadii kan baay'inaan oomishtu ibsi?

Lak.	Gosa oomishaa	Waggatti kuntaala meeqa?
1.1.		
2.2.		
3.3.		

34. Beeylada hoo qabdaa? 1=Eeyyen 0= Miti

35. Beeylada yoo qabaatte maal maal fa'a akka tahaniifi hammam akka tahan ibsi

Lak	Gosa beeyladaa	Meeqa
1.	Loon	
2.	O Gaala	
3.	C Re'ee	
4	Hoolaa	
5	Lukkuu	

36. Oomisha qonnaa oomishtu keessaa dhibbeentaa meeqa gabaaf jecha oomishta?

1= 25% gadi 2= 25% hanga 50% 3= 50.1% hanga 75% 4= 75.1% hanga 100%

37. Oomisha guddisuudhaaf filannoo armaan gadii keessaa kam kam fa'a fayyadamte?

1.	Xaa'ootti fayyadamuu
2.	Jallisii ykn bishaan jenereetaraa
3.	Tiraaktara ykn makiinaa haamtuu fayyadamuu
4.	Lafa qonnaa dabalataa kireeffachuu
5.	Mana dabalataa beeyladaaf ykn kuusaa meeshaaf kireeffachuu
6.	Sanyi filatamaa facaasuu

39. Hojii bizinasii kanatti seenuun dura haalaa maalii keessa turte?
    1= ooyruu kiyya qotachuu 2= bizinasii koo kan biraa qonnaan ala tahee hojjachuu
    3= hojii hinqabu ture 4= qacaramanii hojjachuu 5= barataa 6= waan biraa (ibsi) _____
40. Irra caalaa maaliif bizinasii kana eegaluuf murteessite?
    1= carraa biraa waanan dhabeef 2= dalagaan duraanii waan na-kasaarseef
    3= waan haaraa hojjachuu waanan fedhuuf 4= rakkina hawaasaa furuuf
    5= carraa bizinasii addaa waanan hubadheef 6= namni biraa akka na ajajuu waan hinbarbaanneefi
41. Bakka/mana bizinasicha itti hojjattu akkamitti argatte?
    1,=kan dhuunfaa kooti 2= nan kireeffadhe 3= namatu yeroodhaaf bilaashatti naa kenne
42. Bizinasiin kee kun akkamitti dhufe ?
    1= anatu uume, 2= dhaalaan argadhe, 3= nama irraanin bite 4= nama biraa wajji walitti makne
43. Bizinasii kana haala amma hojjataa jirtu kanaan hojjachuuf akkamitti murteessite?
    1, lafumaa ka'eetan 2, nama biraa irraaniin argee fooyyeffadhe 3, nama biraa irraan woraabe
44. Bizinasii kee irraa wonti ani kalaqe jettu keessa jiraa/kan calaqqisaa ni jiraa? 1= Eeyyen 0=Miti **(52)**
45. Gaaffii 44ffaaf deebiin kee yoo "Eeyyen" tahe maal maal fa'atu kalaqa kee of keessaa qaba?
    1= meeshaa/tajaajila oomishamaaru 2= adeemsa (process) inni ittiin oomishamaaru
    3 = haalli beeksisaafi gurgurtaa 4= waan biraa (ibsi) _____
46. Bizinasiin kun nama meeqaan (akkamitti) dhaabbate/dhuunfatama?
    1= anuma qofaani, 2= gareedhaani 3= aksiyoonaani 4=haala biraa (ibsi) _____
47. Bizinasiin kee galmaa'eeraa? (hayyama baafatteertaa?) 1=Eeyyen 0=Miti(**53)**
48. Bara kam hayyama argatte? _____

49. Haalli hayyama baasisuu baatii meeqa si jalaa fixe? _____

50. Erga hayyama baafattee baatii meeqatti dalagaa bizinasichaa eegalte? _____

51. Hayyamichi hanga ammaa hojii irra jiraa? 1= Eeyyen 0=Miti

Yeroo baay'ee wantoonni haaraan kalaqamuu isaanii yoo dhageessu maal goota?
1= akkuma gabaarra ooletti bituuf murteessa
2= namoonni biraa itti fayyadamanii hanga natti himanitti eega
3= waanuma haaraa odeeffachuu kana hinjaaladhu

53. Hojiin dhuunfaa kee waggaa guutuu dalagaa irra jiraa 1=Eeyyen 2= miti

54. Waqtii kamitti irra caalaa dalaga keessa dalaga?

1= Birraa (ji'a 1_{ffa}-$3f_{fa}$) 2= Bona (ji'a 4_{ffa}-6_{ffaa}) 3= Arfaasaa (ji'a 7_{ffa}-9_{ffaa} 4= Ganna (ji'a 10_{ffaa}-12_{ffaa})

55. Woqtii kamiti gad aanaa dalaga keessa dalaga (cufama)?

1= Birraa (ji'a 1_{ffa}-$3f_{fa}$) 2= Bona (ji'a 4_{ffa}-6_{ffaa}) 3= Arfaasaa (ji'a 7_{ffa}-9_{ffaa} 4= Ganna (ji'a 10_{ffaa}-12_{ffaa})

56. Torbaanitti guyyaa meeqa hojjatama?_____

57. Guyyatti sa'aatii meeqa hojjatama? _____

58. Araddaa kee keessatti namoonni biro hojii akka keetii kan dhunfatan nijiranii? 1= Eeyyen 2= Miti

59. Meeshaalee ittiin dalagattu (gurgurtu) eessaa fidatta?
1= Aradduma kana keessaa 2= magaalaa dhihoo irraa 3= Finfinnee irraa 4= biyyoota ollaa irraa

60. Meeshaa/tajaajila kee eessatti gurguratta?
Araddaa kanatti 2= magaalaa dhihootti 3= Biyya alaatti

61. Odeeffannoo gabaa waytaawaa ni argattaa? 1= Eeyyen 0= Miti

62. Odeeffannoo gabaa akkamitti argatta?
1= gama waldaatiin 2= gama hiriyootaa 3= miidiyaa irraa

63. Sochii hoji dhuunfattee waggootta sadan darban keessa ture akkamiti ilaalta?
1= haalaan guddatutti jira 2= suuta guddatutti jira 3= jijjiirama hinqabu
4= suuta gadi bu'aara 5= daddafee gadi bu'aara

64. Waggootta sadii fuulduratti hojicha keetiif karoora maalii qabda?
1= Cufuu 2= akkuma jiru dalaguu 3= babal'ifachuu 4= jijjiiruu

65. Yoo nan babal'isa jette akkamitti? 1= bizinasii biraa aradduma kanatti banuu
2= bizinasii kanuma araddaa biraatti banuu 3= magaalatti bizinasii banuu

66. Osoo hojii haara dhuunachuu barbaadde silaa biznesii maalii banatta? _____

Hiyyummaa Kallatti Hedduu (Multidimensional Poverty)

67. Erga hojicha dhuunfatte itti fayyadamummaa wantoota nyaata, dhugaatii uffanna irratti Jijjiirama akkamii hubataa jirta?
1= baay'ee dabalaa jira, 2= dabalamaa jira 3= sanuma 4= xiqqoo hir'ataa jira 5= baay'ee hir'ataa jira

68. Erga hojicha dhuunfatte bayyina gosoota wantoota fedhii bu'uuraa kan maatii keetii akkamitti laalta?

1= baay'ee dabalaa jira, 2= dabalaa jira 3= sanuma 4= xiqqoo hir'ataa jira 5= baay'ee hir'ataa jira

69. Agarsitoota deega kallatii-hedduu

	1	0
Maatii keessaa namni kutaa 5 fi sanii ol barate jiraa?	Hinjiru	Jira
Ijoolleen umriin barumsaaf geessee **barumsa irra hinjirre** jirtii?	Jira	Hinjiru
Daa'imni umriin **waggaa 5** osoo hinguutin **duute** jirtii?	Jira	Hinjiru
Sababa waan nyaatamu dhabuutiin guyyaan isin **agabuu bultan** jiraa?	Jira	Hinjiru
Daa'imni **qancaree** akka malee haphii tahe jiraa ?	Jira	Hinjiru
Mana keessan elektiriikni jiraa ?	Hinjiru	jira
Manni fincaanii fi dhiqannaa keessan kan **kophati dhuunfatameefi kan sadarkaa eeggatee?**)	Miti	Eeyyen
Bishaan dhugaatii qulqulluun bakka adeemsa miilaan **daqiiqaa 15 gaditti** nijiraa?	Hinjiru	Jira
Maatiin kee mana keessi isaa **liishoo** tahe keessa jiraataa?	Miti	Eeyyen
. Nyaaataafi dhugaatii tolfachuuf **boba'aa ykn elektiriikatti** fayyadamtanii?	Miti	Eeyyen
Maatiin kee raadiyoo, mobaayilaa, TV, firiijaa, Baajaaj keessaa tokko **ni qabaa**?	Miti	Eeyyen

Appendix 3: Interview questions for the entrepreneurs?

1. Kebele _____
2. Date: _____
3. Sex of the of the inerviewee: 1. Male 0. Female
4. Age : _____
5. Level of education _____
6. What types of business/entrepreneurial activities are you engaged in

_____

`1. Definition and Ccharacteristics of rural entrepreneurship

1.1. What is entrepreneurship for you?

1.1. What was your status before starting this business?

1.2. <u>The Entrepreneurs</u>

1.2.1. What is the difference between rural entrepreneurs like you and conventional (urban) entrepreneurs?

1.2.2. What motivated you to start this business?

1.2.3. (If agripreneur) what makes you different from other farmers?

1.2.4. How did you get the opportunity of starting the business?

- What was the opportunity? (demand -supply gaps, price differences, technology substitution, or innovation)?

1.2.5. What do you do with the money you make from the business (buying fixed asset or expand the business)

1.3. <u>The Business</u>

1.3.1. Is your business registered? (if not why not?)

1.3.2. Are there other firms doing the same business in the kebele? How do you compete?

1.3.3. Do you run it every day or targeting weekly market days?

1.3.4. Do you have farm/non-farm activity to substantiate your major business?

1.3.5. Who are your customers? (Whole sellers, processors, retailors or end users?)

1.3.6. On what basis do you decide item prices?

1.3.7. How do you respond when you face

- The change in preference and lifestyle (demand)?
- Price fluctuation
- Shock/failure

1.4. What is the trend in the share of agriculture and non-agricultural fields in your area

1.5. How does the productivity in your farm affect the productivity in non-farm sector and Vice versa

1.6. Do you want to send your family members for urban life or retain them here (in the future)? why?

2. How does your relationship with your family, relatives, and friends affecting your business knowledge and your business?

2.1. What is the basis of your relationship do you have with

- Business enterprises within the village
- Enterprises in neighboring villages
- Enterprises in urban areas
- Enterprises in other regions

2.2. What benefit have you got with the following institutions?

(Training, finance, material, land, market linkage, buying your product...)

- Government based institutions (universities R&D on RE, district and regional offices,
- Private institutions (banks, unions/associations, firms,
- Ngo/CSOs
- Local social institution (Afosha, equb, wodaja…)
- Are you ready pay for business related knowledge gathering?

2.3. How does the community label your work and how does that influence your work?

2.4. What kind of relationship is there between those institutions in terms of enhancing rural entrepreneurship?

2.5. What are the challenges of those institutions in promoting rural entrepreneurship?

3. What does their pace of your profit and business expansion look like?

3.1. How much per cent of the profit do you invest for family? (food, cloth, accommodation rent…., education)?,

3.2. How much do you invest for expanding the business?

4. What changes have you experienced on your household life since you started the business (in terms of health, education and asset/facility ownership)?

5. What are the major challenges are you facing to run your entrepreneurial works?

6. What should be done to overcome those challenges?

Appendix 4: Key Informant Interview and Focus Group Discussion

7. What are the major Characteristics of rural entrepreneurship in Haramaya district

7.1. Who are rural entrepreneurs

7.1.1. What is entrepreneurship and who are percieved to be entrepreneursi in your area?

7.1.2. What motivates them to be entrepreneurs in rural area?

7.1.3. Why do they involve in some sectors and not others?

7.1.4. What are the criteria to distinguish a farmer from agriprenrur?

7.1.5. Are the entrepreneurs here *opportunity* or Necesity based

- If opportunity, what are they? (demand -supply gaps, price differences, technology substitution)?

7.1.6. Do the entrepreneurs focus to fixed asset formation or financial movement? (with increase and diversification)

7.2. The Business

7.2.1. Do the rural entrepreneurs operate in informal or formal mode?

7.2.2. Do they focus on providing unavailable items? Or the available ones in a cheaper price?

7.2.3. Do they run it targeting the weekly market days or every day?

7.2.4. Are non-farm activities complements for agriculture or major business? (52/58 non-agricultural entrepreneurs are involved in agriculture also)

7.2.5. What are the basics of their price setting?

7.2.6. The pick and low seasons for both agripreneurs and nonagripreneurs is almost similar

7.2.7. What sector business do you want to join in the future (service/trad, agriculture or manufacturing). Why?

7.2.8. Who are their consumers/buyers (local Vs nonlocal? User, retailer or wholesaler, transformer (using their products as raw materials?)

7.2.9. How do they respond for

- The change in preference and lifestyle (demand)?
- Price fluctuation
- Shock/failure

8. Rural entrepreneurship and regional innovation system

8.1. How does the social network of the entrepreneurs with the following institutions affect their business knowledge and entrepreneurial establishment?

- Family, friends, relative/clan members
- Afosha equb or other local institutions
- Associations and cooperatives

8.2. How does their relation with other enterprises shape their entrepreneurial knowledge and business operation?

8.3. What types of relationship do rural enterprises have with other enterprises within the village; neighbouring villages; urban area; other regions

8.4. How are following institutions influencing rural entrepreneurship?

- Academic institutions
- district and regional offices,
- Banks, microfinance institutions,
- NGos/CSos
- Local social institution (Afosha, equb, wodaja…)

8.5. Are the rural entrepreneurs ready to pay for knowledge to run business? (give examples)

8.6. What national and Oromiya level strategies/policy and action plans are there regarding your institutions role of rural entrepreneurship?

- Sectors and business types identified as main focus
- Category of society targeted
- Budget allocated
- Major actions planned to be done
- Institutions identified to work with for RE enhancement

8.7. What are the challenges of your institutions in promoting rural entrepreneurship

8.8. What is the trend in the share of agriculture and non-agricultural fields

8.9. How is the mobility/transition from one form of entrepreneurship to the other (eg: from Farm entrepreneurship. to RNE or vie versa and within)

8.10. How does the productivity in farm affect the productivity in the non-farm?

8.11. What is the trend in the rural-urban Vs urban rural Vs rural- rural entrepreneurial migration

9. What effect has rural eentrepreneurship got on poverty alleviation endeavors of your area in terms of….
   Income
   Health
   Education
   Asset and facilities ownership
10. What are the major challenges of rural entrepreneurship in your area?
11. What should be done to overcome those challenges?

Appendix 5: Some preliminary test results

	qoladega	sex	age	Marital2	read	brothe~s	rankam~s	parent~h	hhsize
qoladega	1.0000								
sex	0.1184	1.0000							
age	0.1287	0.1974	1.0000						
Marital2	-0.1229	0.1894	0.1026	1.0000					
read	-0.0272	0.1330	-0.4191	0.0180	1.0000				
brotherssi~s	-0.3489	-0.0079	-0.0337	0.0299	-0.0735	1.0000			
rankamongb~s	-0.2226	0.0352	-0.0376	0.0267	0.0071	0.6573	1.0000		
parentsdeath	-0.1235	-0.0721	0.0022	-0.0385	-0.0382	-0.0811	-0.0371	1.0000	
hhsize	0.0107	0.2485	0.2556	0.1160	-0.1057	0.0476	-0.0521	0.0305	1.0000
houseresid~e	0.2831	0.0599	0.0351	-0.0590	-0.0827	-0.0404	0.0005	0.0571	0.0642
asphaltdis~e	0.2844	0.0114	-0.0302	-0.2031	-0.0227	-0.1257	-0.0765	-0.0019	-0.1796
marketdist~e	-0.2666	-0.0457	-0.0254	-0.0550	-0.1294	0.0882	0.0125	0.0466	-0.1680
income	0.0174	0.0295	0.0339	0.0558	0.0649	-0.0854	-0.0118	-0.0292	0.1110
hhelectric~y	0.3232	0.0559	-0.0984	0.0240	0.1248	-0.0718	0.0123	-0.2276	-0.0305
hhmobile	0.0612	0.0098	-0.0959	0.0750	0.2436	0.0438	-0.0051	-0.0190	0.1662
radio	-0.0382	0.0908	0.0974	0.1192	0.0666	0.0819	0.0946	0.0857	0.0615
contract	0.0640	0.0810	-0.0934	0.0646	0.0755	0.0133	0.0077	-0.1218	0.1304
training	0.0759	0.0389	-0.2065	-0.0796	0.2457	-0.0914	0.0077	0.0651	0.1023
memberofcoop	-0.1667	0.0344	-0.1978	0.0329	0.1048	0.0437	0.1395	-0.0592	-0.2412
cooperative	0.1125	0.0112	-0.1763	-0.1739	0.0958	0.0214	-0.0497	-0.0550	-0.1785
bankmicro	-0.0290	0.0508	-0.0419	0.0405	-0.0896	0.0569	-0.0423	0.0433	-0.0479
landown	0.0089	-0.0609	-0.0688	-0.0486	0.0435	0.0328	0.1214	-0.0921	-0.0571
amountland	-0.1591	0.0335	-0.0288	-0.0778	-0.0271	0.0419	-0.0083	-0.0108	0.1299
TLU	-0.2842	-0.1237	-0.0565	0.0520	-0.0345	0.3384	0.1828	0.0878	0.0123

	qoladega	sex	age	Marital2	read	brothe~s	rankam~s	parent~h	hhsize
qoladega	1.0000								
sex	0.1184	1.0000							
age	0.1287	0.1974	1.0000						
Marital2	-0.1229	0.1894	0.1026	1.0000					
read	-0.0272	0.1330	-0.4191	0.0180	1.0000				
brotherssi~s	-0.3489	-0.0079	-0.0337	0.0299	-0.0735	1.0000			
rankamongb~s	-0.2226	0.0352	-0.0376	0.0267	0.0071	0.6573	1.0000		
parentsdeath	-0.1235	-0.0721	0.0022	-0.0385	-0.0382	-0.0811	-0.0371	1.0000	
hhsize	0.0107	0.2485	0.2556	0.1160	-0.1057	0.0476	-0.0521	0.0305	1.0000
houseresid~e	0.2831	0.0599	0.0351	-0.0590	-0.0827	-0.0404	0.0005	0.0571	0.0642
asphaltdis~e	0.2844	0.0114	-0.0302	-0.2031	-0.0227	-0.1257	-0.0765	-0.0019	-0.1796
marketdist~e	-0.2666	-0.0457	-0.0254	-0.0550	-0.1294	0.0882	0.0125	0.0466	-0.1680
income	0.0174	0.0295	0.0339	0.0558	0.0649	-0.0854	-0.0118	-0.0292	0.1110
hhelectric~y	0.3232	0.0559	-0.0984	0.0240	0.1248	-0.0718	0.0123	-0.2276	-0.0305
hhmobile	0.0612	0.0098	-0.0959	0.0750	0.2436	0.0438	-0.0051	-0.0190	0.1662
radio	-0.0382	0.0908	0.0974	0.1192	0.0666	0.0819	0.0946	0.0857	0.0615
contract	0.0640	0.0810	-0.0934	0.0646	0.0755	0.0133	0.0077	-0.1218	0.1304
training	0.0759	0.0389	-0.2065	-0.0796	0.2457	-0.0914	0.0077	0.0651	0.1023
memberofcoop	-0.1667	0.0344	-0.1978	0.0329	0.1048	0.0437	0.1395	-0.0592	-0.2412
cooperative	0.1125	0.0112	-0.1763	-0.1739	0.0958	0.0214	-0.0497	-0.0550	-0.1785
bankmicro	-0.0290	0.0508	-0.0419	0.0405	-0.0896	0.0569	-0.0423	0.0433	-0.0479
landown	0.0089	-0.0609	-0.0688	-0.0486	0.0435	0.0328	0.1214	-0.0921	-0.0571
amountland	-0.1591	0.0335	-0.0288	-0.0778	-0.0271	0.0419	-0.0083	-0.0108	0.1299
TLU	-0.2842	-0.1237	-0.0565	0.0520	-0.0345	0.3384	0.1828	0.0878	0.0123

	member~p	cooper~e	bankmi~o	landown	amount~d	TLU
memberofcoop	1.0000					
cooperative	0.0515	1.0000				
bankmicro	-0.1042	-0.0162	1.0000			
landown	-0.0466	0.0195	0.0149	1.0000		
amountland	0.0185	0.0142	0.1970	-0.1169	1.0000	
TLU	-0.0437	-0.1440	0.1871	-0.0105	0.1265	1.0000

. vif

Variable	VIF	1/VIF
marketdist~e	1.71	0.584461
SiteOwn	1.55	0.645673
memberofcoop	1.50	0.668361
read	1.47	0.679226
age	1.46	0.684056
hhmobile	1.43	0.698924
EntReason	1.40	0.716180
hhelectric~y	1.37	0.728892
qoladega	1.36	0.733510
training	1.36	0.736459
radio	1.33	0.754036
hhsize	1.26	0.795264
brotherssi~s	1.24	0.803773
contract	1.24	0.807359
houseresid~e	1.22	0.821279
BusinesSite	1.19	0.837965
parentsdeath	1.11	0.903055
Marital2	1.10	0.906975
bankmicro	1.05	0.949115
Mean VIF	1.33	

Descriptive Statistics					
	N	Minimum	Maximum	Mean	Std. Deviation
Subdistricts	43	1	5	2.72	1.579
QolaDega	43	0	1	.53	.505
Sex	43	0	1	.77	.427
Age	43	20	52	34.14	8.043
Age Group	43	1.00	2.00	1.5116	.50578
AGEsqare	43	400	2704	1228.70	556.427
LiveinVillage	43	3	52	32.51	10.462
LIVsqare	43	9	2704	1163.91	623.269
Marital2	43	0	1	.74	.441
MaritalStatus	43	1	4	2.02	.636
Read	43	0	1	.63	.489
LevelofEducation	43	0	4	1.02	1.123
Religion	43	1	2	1.05	.213
MUSLIM	43	0	1	.95	.213
BrothersSisters	43	0	12	4.86	2.284
RankamongBros	43	1	7	2.09	1.377
Grown as orphan	43	0	1	.37	.489
ParentsDivorce	43	0	1	.19	.394
HHSize	43	1	10	5.70	2.220
Household Size	43	1.00	2.00	1.5814	.49917
AgeCategoryFamily1	43	0	6	2.23	1.324
AgeCategoryFamily2	43	1	8	3.40	1.866
AgeCategoryFamily3	43	0	2	.07	.338
Unemployed	43	0	6	2.16	1.526
Rooms	43	1	5	1.91	1.042
AsphaltDistance	43	.75	28.00	10.5058	9.18340
MarketDistance	43	.30	28.00	13.5302	7.46253
WorkPlacedistance	43	.00	3.00	.6681	.57766
Occopation	43	0	5	2.56	1.098
Income	43	.00	16400.00	4676.7907	3897.52919
percapita	43	.00	125.00	30.3823	28.44311
povertyIncome	43	0	1	.88	.324
Sourcecrop	43	.00	12500.00	3033.0000	3006.09309
SourceLivestock	43	.00	4200.00	921.1628	1122.88788
Sourceofffarm	43	.00	4000.00	374.4186	1033.04751
SourceBusiness	43	.00	3750.00	150.0000	600.49583
SourceRemitance	43	0	350	12.79	60.840
FoodExpendature	43	0	33000	2948.86	4860.229
NonfoodExpendature	43	0	4000	716.40	819.204
HHElectricity	43	0	1	.28	.454
HHMobile	43	0	1	.70	.465
HHBed	43	0	1	.14	.351
Radio	43	0	1	.60	.495
HHTelevision	43	0	1	.14	.351
HHMotorbike	43	0	1	.02	.152
HHFrij	43	0	0	.00	.000
Contract	43	0	0	.00	.000
Training	43	0	1	.05	.213
Howoften	2	2	4	3.00	1.414
WhoOrganized	2	4	4	4.00	.000
WasItHelpful	2	1	1	1.00	.000
MemberofCoop	43	0	1	.53	.505
Trust	28	1	5	2.29	1.607
Relative	43	0	1	.88	.324
BasisofCoop	38	1	6	1.71	1.293
CulturePromote	43	1	5	3.40	.791

Doyouown	43	0	1	.53	.505
AreaofEngagement	23	1	3	1.09	.417
Howlong	23	2	41	16.26	9.724
Startcapital	17	100	6000	2546.06	1895.601
FromSaving	17	0	5000	2116.65	1973.585
FamilyGiftLOan	17	0	2500	429.41	808.366
Cooperative	17	0	0	.00	.000
Subsidy	17	0	0	.00	.000
BankMicro	23	0	0	.00	.000
WhyBorrowed	0				
HowMuch	0				
Useful	0				
CurrentCApital	18	5000	700000	108888.89	192100.124
StartEmployee	23	0	3	1.35	.714
CurrentEmployee	22	0	7	2.50	1.566
EmployeeFamilyMember	23	0	7	2.26	1.630
Paidworkers	23	0	0	.00	.000
Partime	0				
BusinessType	24	1	3	1.42	.830
AgriType	28	1	7	3.29	2.866
LandOwn	36	.00	1.00	.9342	.22996
AmountLand	35	.02	2.00	.4217	.38352
WayofOwning	34	1.00	1.00	1.0000	.00000
MajorCrop1	35	1	7	1.94	1.305
Crop1Amount	35	.12	50.00	11.0814	10.22286
MajorCrop2	35	0	8	2.69	1.778
Crop2Amount	35	.00	100.00	12.6809	18.00261
MajorCrop3	35	0	12	2.49	3.013
Crop3Amount	35	.00	150.00	19.6437	39.98846
Livestock	29	0	1	.76	.435
TLU	22	2	53	16.86	14.227
Catle	22	0	6	2.23	1.716
Camel	22	0	2	.09	.426
Goat	22	0	20	3.68	5.195
Sheep	22	0	11	2.86	2.587
Hen	22	0	27	8.00	8.018
ForMarket	35	1	4	2.23	1.190
HalfMechEnt	34	0	1	.62	.493
Fertilizer	34	0	1	.91	.288
Irrigation	34	0	1	.62	.493
Tractor	34	0	1	.29	.462
LandRent	34	0	1	.15	.359
PestHerbside	34	0	1	.21	.410
ImprovedSeed	34	0	1	.79	.410
NonfarmType	5	1	13	4.00	5.099
BeforeThis	7	1	4	1.86	1.464
WhyThis	7	1	6	3.00	1.826
HowGetSite	7	1	3	1.29	.756
HowTheEnerprise	7	1	2	1.29	.488
TheWayofDoing	7	1	3	1.57	.787
InnoWhichPart	6	0	3	1.83	1.169
WhenLicen	26	0	2010	154.42	545.532
operationafterLicense	2	1	1	1.00	.000
LicensingTime	2	3	4	3.50	.707
FunctionalLicense	2	0	1	.50	.707
Seasonality	31	0	1	.81	.402
LowSeason	31	1	4	3.16	1.003
DaysinWeek	31	3	7	5.39	1.283

HoursinDAy	31	4	12	7.48	1.981
Competitior	30	0	1	.93	.254
RawMaterial	30	1	2	1.53	.507
UptodateInformation	30	0	1	.80	.407
HowGetInformatin	25	1	4	2.56	.712
Performance	34	1	5	3.53	.861
FuturePlan	34	1	4	2.88	.844
HowExpand	34	1	3	2.15	.958
FutureBusiness	43	0	3	1.60	.849
ConsumtionTrend	29	2	5	3.62	.979
ConsumVariety	29	1	5	3.48	1.243
Grade5	43	0	1	.40	.495
NotInSchool	43	0	1	.67	.474
Death	43	0	1	.47	.505
Stunting	43	0	1	.16	.374
Electric	43	0	1	.72	.454
Sanitation	43	0	1	.98	.152
DrinkingWater	43	0	1	.91	.294
Floor	43	0	1	.84	.374
Charcoal	43	0	1	.93	.258
Bajaj	43	0	1	.26	.441

Appendix 6: Published Articles and Letter of Acceptance

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Published:
Nov 21, 2023

Keywords:
Intensity of entrepreneurial engagement, Rural entrepreneurship, Work-hours

Issue
Vol. 5 No. 1 (2023)

Section
Articles

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Determinants of entrepreneurial engagement intensity in rural settings: evidences from Haramaya district, Ethiopia

Abdibeshir Said
Worku Tuffa
Alemseged Gerezgiher

Abstract

Empirical research studies on entrepreneurial work intensity and its determinants in Ethiopia are negligible. Thus, the study examined the applicability of work intensity in rural entrepreneurship Haramaya district. The study was based on the Theory of Time Allocation. To this end, data were gathered via a cross-sectional survey of 381 rural households and were analyzed using the Tobit model. The findings revealed that ownership of the business site, location of the enterprise, contract work, the distance of residents from the main road, ecological settings, childhood experience of the household head as an orphan and the reason or motivation for starting an enterprise are found to be the most significant determinants of entrepreneurial intensity. The study underlined the prominence of household, spatial, and motivational factors in shaping the intensity of entrepreneurial engagement. Finally, the importance of placing emphasis on the vitality of improving household-level resources and capabilities to create as many devoted rural entrepreneurs as possible was recommended.

Assessment of the Status and Severity of Multidimensional Poverty in CashCrop Based Rural Settings: The case Khat producing Haramaya District in Ethiopia

Assessment of the Status and Severity of Multidimensional Poverty in CashCrop Based Rural Settings

PDF

Published: Jul 20, 2023

Keywords:
Rural, multidimensional poverty, poverty headcount, poverty intensity

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Abstract

Shifting rural areas from subsistence to cash-crop production has got emphasis from different state and non-state development actors as a plausible step to generate better income. However, there is lack of empirical researches showing the facet of multidimensional poverty in the cashcrop producing areas. The objective of the study is to assess multidimensional poverty in the khat and vegetable producing rural settings of Haramaya district in Eastern Ethiopia. The research used cross-sectional household survey data gathered from 381 rural households and applied Alkire-Fosters of Multidimensional Poverty Index (MPI) to measure household poverty. The research finding shows that the proportion and intensity of multidimensional poverty in the study area is much more profound compared to the national and regional average as well as in most parts of the country. Deprivation in the living standard indicators such as lack of sanitation facilities, lack of energy sources, lack of safe drinking water and lack of electricity are the major contributors for the severe poverty in the study area. The deprivations in those important indicators are dominantly caused by economic, attitudinal and locational factors. Therefore, the government and other development actors are highly recommended to wedge joint efforts on projects such as rural electrification, developing drinking-water and road infrastructures as well as well-being education which can hit multiple targets in curbing poverty.

Issue

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Date: July 6, 2023

To: Mr. Abdibeshir Said Dula

Subject: Manuscript Acceptance for Publication

Dear Authors,

It is recalled that you submitted a manuscript titled "**The Pattern and Dynamics of Occupational Mobility and Entrepreneurship in Rural Settings: Experiences from Haramaya District, Oromia Region, Ethiopia**" for potential publication in East African Journal of Social Sciences and Humanities (EAJSSH), Haramaya University. Hence, the Editorial Board of the journal is pleased to inform you that your manuscript has been accepted, after a thorough peer-review, for publication either in Volume 8 Issue 1 (June 2023) or Volume 8 Issue 2 (December 2023) of our journal. Our journal's ISSNs are 2521-2192 (print) and 2959-149X (online).

Sincerely,

Birhanu Midakso
ብርሃኑ ሚደቅሶ ዳምጤ

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