

**THE IMPACT OF SKILL ACQUISITION ON CHOICE OF OCCUPATION
AND DESTINATION FOR MIGRANT YOUTHS IN MALAWI**

MASTER OF ARTS (ECONOMICS) THESIS

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UNIVERSITY OF MALAWI

CHANCELLOR COLLEGE

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MASTER OF ARTS (ECONOMICS) THESIS

By

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Thesis submitted to the Department of Economics, Faculty of Social Science in partial fulfillment of the requirements for the award of a Master of Arts degree in Economics

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DECLARATION

I, *Tony Mwenda Kamninga*, hereby declare that this is my own original work and that it has never been submitted to any other University or institution for similar purposes. Acknowledgements have been duly made where other people's work has been used.

TONY MWENDA KAMNINGA

Full Legal Name

A handwritten signature in black ink, appearing to read 'Tony Mwenda Kamninga', written over a horizontal line.

Signature

03 SEPTEMBER 2018

Date

STATEMENT OF APPROVAL

The undersigned certify that this thesis represents the student own work and effort and it has been submitted with our approval.

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DEDICATION

To my dearest parents

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ABSTRACT

The study examines the impact of skill acquisition on choice of destination and occupation for migrant youth in urban Malawi. This study uses primary data collected using a semi-structured questionnaire under the Youth, Employment and Migration for East and Southern Africa (YEMESA) project. Drawing from multinomial logit and probit models, the study found that having technical skills and belonging to social groupings do not have a statistical significant effect on being an entrepreneur but they increase the conditional probability of being employed for wage. This implies that there is no evidence of self-selection due to technical skills among migrant youth in urban Malawi. The study also shows that acquiring skills before migration and perceived entrepreneurial opportunities are significant correlates in the migrant's decision to migrate to Zomba and Lilongwe compared to Blantyre among migrant youth. Finally, the study also ascertain the role of information, expectations, family and social connections in the decision to migrate as well as to integrate in urban areas

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LIST OF ACRONYMS AND ABBREVIATIONS

AIDS:	Acquired Immune Deficiency Syndrome
AU:	African Union
GDP:	Gross Domestic Product
HIV:	Human Immunodeficiency Virus
IHS:	Integrated Household Survey of Malawi
IIA:	Independence of Irrelevant Alternatives
MGDS:	Malawi Growth and Development Strategy
NSO:	National Statistic Office of Malawi
TEVET:	Technical, Vocational Education and Training
TEVETA:	Technical, Vocational Education and Training Authority
UN:	United Nations
YEMESA:	Youth Employment and Migration in East and Southern Africa

CHAPTER ONE

INTRODUCTION

1.1 Background

There is a higher propensity for youth to migrate than the elderly in many countries of the world. The age bracket of what constitute youth differs across many countries of the world. According to Government of Malawi, (2013), youth is defined as consisting all persons from age 10 to 35 but this bracket changes to 18 – 35 when it comes to eligible youth for the labour market. More than 40 percent of youth are more likely, than older people, to migrate from the rural to urban areas, or across urban areas (Bell & Charles-Edwards, 2014; Bell & Muhidin, 2009; World Bank, 2007).

In Malawi, this kind of internal migration is rampant among young people who tend to move internally in search of employment, business enterprise and other occupational opportunities to improve their livelihood (Government of Malawi, 2014; Manda, 2013; Mussa, 2016). Internal migration takes different forms in Malawi namely: rural to rural, rural to urban, urban to urban and urban to rural (reverse migration). Rural to rural migration forms over 50 percent of total migration while rural to urban takes about 27 percent.

Malawi is a country with youth representing a bigger percentage of its population and as such Malawi has a broad base of the age structure pyramid (see Figure 1 in the appendix). Almost 50 percent of Malawi's population is aged 18 and

below(Government of Malawi, 2017). Because of such youth dominance in the population, there are many young people who become eligible for the labour market at almost the same time every year. It is estimated that around 130,000 young people become eligible for the labour market each year in Malawi as noted by Danish Trade Council's Analytical Unit (2016). And with the formal sector only producing around 30,000 jobs, the majority of youth enters vulnerable work in the informal economy or remain as unemployed.

As youth become eligible for the labour market, many start making decisions about their livelihood. It is during this stage of their lives that many young people start to realize their aspiration, assume economic independence and find their place in society and, as such, this is a particularly crucial stage of their life (Mussa, 2016). Indeed, it is at this stage that many young people make many decisions about their life including decisions on occupation to pursue and the choice of area to migrate to for improved livelihood. In Malawi, about 53 percent of migrants that moved from rural to urban areas, within the period of 2016 to 2017, were of the age bracket 15 to 34 showing that a large proportion of Malawian youth decides to migrate into the urban settings (Government of Malawi, 2017).

The decision to migrate into different destinations and occupations of choice is usually made significantly before the actual departure occurs (Tabor & Milfont, 2011; Tartakovsky, 2012). There are various factors that affect the choice of an economic destination and occupation for young people. For example, on the choice of an economic destination, young people tend to choose locations that provide more opportunities for employment, more and better social services, more opportunities and

ease of doing business, affordable distance from origin, and availability of community and family level networks (Lewin, Fisher, & Weber, 2012). These factors are grouped in the destination-specific factors. There are other factors that are individual-specific such as skills that the young people possess (in terms of education, training and in-born talents), and perception towards the area of destination.

Modern day economic migrants move not only between one region to another, they also move between industries and occupations (Ivanova, Ushchev, & Vakhitova, 2015). In choosing destination and occupation, young migrants (economic agents) exhibit a self-selection process. According to Nakosteen & Zimmer, (1980), the process of self-selection embodies the notion that young migrants choose among competitive alternatives of destination and occupation.

Despite the effort¹ by the government of Malawi in trying to ensure that young people are given enough information and necessary skills for their livelihood choices, the issue of youth decisions on internal migration is marginalized in academic literature and in development debates in Malawi. This marginalization of issues of internal youth migration is also noted by Black & Sward (2009). However, it is important for these issues to receive more attention, particularly considering the fact that these youth are at a critical stage in their life and their choices have a long term economic impact on the future welfare of their lives and, potentially, the nation as a whole (Mtika, 2007; Mussa, 2016).

¹ Malawi introduced free primary education in 1994, TEVETA in 1999, see De Gobbi & Anang, (2013)

In addition, an understanding of issues of internal migration helps in identifying skills differentials, the self-selection process and policies dealing with urbanization and rural degradation. It is, therefore, the aim of this study to examine the impact of skills and entrepreneurial activities on the choice of occupation and destination for migrant youth in Malawi from a theoretical point of view and the role of these activities in economic development towards proposing research agendas to address key policy issues. This will be done in three stages.

Firstly, a theoretical and empirical perspective review will be done on the characteristics of a migrant youth including characteristics and requirements of occupation and destination area. Secondly, having understood the characteristics, we then use such knowledge to synthesize a methodological framework in analysis of economic variables impacting the choice of occupation and destination among migrant youth in urban Malawi. And finally, after understanding the policy implications from our estimation, we will then outline priority areas with deficiencies, for future research to improve theory, methodology and indeed integration of youth migration, entrepreneurial activities and policy analysis.

1.2 Statement of the Problem

The studies of migration destination and occupation choices will, in the foreseeable future, play a key role in shaping Malawi's labour market and urbanization trends. This study aims at filling information gaps in the following ways: by adding to the scanty and gray literature on the internal migration in Malawi through collection of new data, by contextualizing migration literature to urban population with the

growing influx of young people in the urban area, and by focusing on the youth economic migration rather than general migration.

Despite the importance² of studying the factors that affect decisions by the young people on their choice of destination and occupation, literature in Malawi on such issues is scanty and has not been given much emphasis. A majority of literature in Malawi focuses on international labour migration and their consequences for the sending households in terms of remittances and other household welfare, HIV/AIDS, rural labour markets, and agricultural productivity. For example, Andersson (2006) and Chirwa, (1997b) looked at international migration and remittances, Anglewicz (2012), Chirwa (1995), Chirwa (1997a) Mtika (2007) looked at international migration and HIV/AIDS, while Englund (2002), Phiri (2006) Segal (1985), World Bank (2016) looked at migration and household welfare and Makande (1980), and Mtika (2007) looked at agriculture productivity and migration. The literature in Malawi overlooks the importance of decisions among possible alternative areas of destination and occupational choices that young people are faced with. Further, the roles of different skills and entrepreneurial opportunities are not explored in this field of literature in Malawi.

The study context is urban Malawi, unlike other literature that has focused on international migration decisions³. The urban Malawi context is timely because Malawi hopes to diversify its agricultural-based economy with more industrial economic drivers (Government of Malawi, 2016; UN-Habitat, 2011).

² See (Borjas et al., 1992; Chiswick, 1999; Dorosh et al., 2016) in the justification

³ See for example (Andersson, 2006; Chirwa, 1997a; Christiansen & Kydd, 1983; Makande, 1980; Mtika, 2007)

Entrepreneurial demands and opportunities are increasing in urban Malawi (World Bank, 2016) and, as result, there is an influx of rural young people looking to choose destination, industries and occupations close to grown urban areas (de Haan, 1999; Lucas, 1997, 2000; Marre, 2009; Rogers & Castro, 1984).

The context of young migrants is of emphasis in this study. In migration literature (for example, de Haan, 1999; Narman, 1995) it is found that, in the probability to migrate for economic reasons, age follows an inverted U shape with the decision to migrate reaching its peak during the middle to early adult years. As age increases, the expected future benefits from migration tend to increase and then decrease. In addition, the focus of skill in this study is crucial because young people will tend to choose regions that provide occupations that match their level of skills and education (de Haan, 1999; Narman, 1995).

An issue of internal youth migration in Malawi is a gray area, as much has not been written on it particularly looking at the nexus of youth, skills and entrepreneurship due to data unavailability. This study also contributes to current literature by providing data for future researchers, as we designed the data collection tools and collected, entered and analyzed such data. Provision of data is an important aspect of contribution in any other social sciences. Not only does it act as a point of reference but also provides the contextual understanding by which data collection can be replicated.

1.3 Justification for the Study

The study of factors that affects young migrants' choices of economic destination and occupation cannot be overemphasized for developing countries such as Malawi. Firstly, Chiswick, (1999) explains that by studying factors that affect the labour market choices by migrants, one gains an understanding of the common proposition in migration literature that young migrants tend to be favourably self-selected for success in the labour market. In other words, more than individuals who choose to remain in their area of origin, young people who choose to migrate tend to be more able, ambitious, aggressive, and entrepreneurial, on average (Chiswick, 1999). This understanding is important for critical analysis of the economic and sociological consequences and opportunities for both the sending (origin) regions and the receiving (destination) regions as well as for the migrants themselves (Chiswick, 1999). Hence, the more and highly favourably self-selected the migrants are, the more successful will be their adjustment in the destination. And a successful adjustment means the individual will be more likely to make a favourable impact on society and the country's economy (Chiswick, 1999).

Secondly, the study of the choice of occupation and destination helps in understanding the regional differences in returns to skills as well as regional differences in mean incomes (Borjas, Bronars, & Trejo, 1992). Further, these skills and income differentials help in predicting the skill composition of migration flow where regions and occupations that have higher returns to skills will have more skilled migrant workers than those that have lower returns (Borjas et al., 1992). In addition, this understanding helps policy makers appreciate that economic impact of

migration depends on *which* people migrate (what skills do they have) rather than adopting the view of general migration only (Borjas et al., 1992).

Thirdly, immigration and emigration policies and programmes in regions of destination and origin respectively can also be influenced through the study of factors that affects young people's decisions to migrate (Chiswick, 1999). Policies and programmes that aim at reducing inequality, discrimination, and creating the *land of opportunity* where there is high social mobility and a person's success depend less on the type of contacts/ties one has and more on hard work and on merit (Bhalotra & Rawlings, 2013; Chetty, Hendren, Kline, Saez, & Turner, 2014), can be put in place. In addition policies that aim at paving the way for free choice of destination and occupation and supporting large investments in the destination may also be put in place. Free movement from rural to urban is expected to stimulate economic development given well-supported investments in these urban areas (Dorosh, Pauw, & Thurlow, 2016).

Fourthly, these studies also inform policy on the vulnerability caused by migration and urbanization, the tradeoffs of investing in the rural areas, towns and cities, welfare rises for the rural and urban population (Dorosh et al., 2016). In addition, policy makers and environmentalists are able to understand developmental challenges that come with migration decision such as spread of disease pandemic (such as Cholera, Dysentery), supply of unclean water, insecurity, and poor physical infrastructure (Mutandwa, Taremwa, Uwimana, Gakwandi, & Mungisha, 2011)

1.4 Objectives

1.4.1 Main Objective

The main objective of this study is to examine the impact of skills acquisition on the choice of destination and occupation among migrant youth in urban Malawi.

1.4.2 Specific Objectives

The specific objectives of the study are to:

- i. Examine the effect of awareness or expectation of entrepreneurial opportunities on the choice of destination.
- ii. Analyze the impact of technical skills obtained before migration on choice of destination.
- iii. Examine the role of social networks and entrepreneurial opportunities on choice of occupation.

1.5 Organization of the study

The rest of the thesis is organized as follows: Chapter Two provides an overview of the Malawian migration patterns and the institutional context within which youth migration can be enhanced or frustrated. Chapter Three reviews the theoretical and empirical literature on the factors that determine choice of destination and occupation. Chapter Four presents the methodology used in this study. Chapter Five presents the results and discussion. Chapter Six provides conclusions and policy implications from the study.

CHAPTER TWO

INTERNAL MIGRATION AND INSTITUTIONAL CONTEXT IN MALAWI

2.1 Introduction

This chapter presents both the historical and current trends of Malawi's internal migration. This approach looks at the definition of migration and the major reasons for the movements that have occurred within the borders of Malawi over the years. In essence, this Chapter describes what is known about youth migration in Malawi and directly links to the broader literature in Chapter Three to see if this study is couched within the broader theories. In subsection 2.3 this study presents the institutional framework of Malawi that can necessitate or frustrate internal migration and youth enterprise.

2.2 Internal Migration in Malawi

According to Government of Malawi (2009) internal migration is defined as a form of mobility over space involving usual residence change between clearly defined geographical units for a considerable long time (in this study, over 6 months). Many Malawians have been involved in internal migration for a long time and this dates back to pre-colonial times. During that era, migration was food based but this changed during the colonial era with the introduction of cash-based, formal economies. Because of a lack of significant minerals in Malawi, early colonials focused development of the agriculture sector more particularly in the southern part of Malawi (Mtika, 2007).

There were large concentrations of estate farming during this period and GDP approached 4.5 in the 1960s, a figure relatively higher than most sub Saharan African countries (Pryor & Chipeta, 1990). Malawi's agriculture sector was very much labour intensive and, indeed, required significant manpower. People from all parts of the country migrated to work in these estates, eager to access cash-based labour opportunities.

During independence, the State⁴ encouraged developing the nation through agriculture with estate agriculture as the foundation. According to Kishindo, (2002), the government of Malawi also introduced a number of irrigated settlement schemes throughout the country that aimed at spurring the growth of rural towns as well as the enabling the boost of Malawi's export through increased maize production. To take advantage of these initiatives, many Malawians migrated and settled in these areas. Later, during first ten years of multiparty democracy⁵, significant shifts in migration patterns occurred as the government shifted from agriculture-based migration to commerce-and business-spurred migration. This shift led to high urbanization and overcrowding in many urban centers (Mtika, 2007).

Currently, about 54 percent of migrants moved from rural to other rural areas while 27 percent moved from rural to urban areas in Malawi (Government of Malawi, 2017). According to the World Bank (2016), about 2.8 million people lived in urban areas during the period of 1998 to 2008 representing a 20 percent of the population.

⁴ Malawi was under one party rule of Kamuzu Banda, the country's first president who is considered as the father and founder of Malawi and ruled the nation for over 30 years from Malawi's independency in 1964 to 1994.

⁵ This was during Bakili Muluzi presidency. Muluzi ruled Malawi between 1994 and 2004

In addition, the World Bank (2016), projects that by 2030 one in every five Malawians will be an urban dweller. Predominantly, urbanization in Malawi is caused by rural labour migration. This dramatic increase in rural urban migration has led to great pressure on resources.

1.6 Institutional framework on Youth Labour Migration

The role of the state in determining the rule of law, encouraging or discouraging customary practices (particularly in relation to the country's government-led institutions), and prioritizing policy and development needs cannot be overstated in regard to remedying labor market failures for migrant youth as well as strengthening the effectiveness of the integrated labor market and improved social services. For example, support rendered to legal frameworks, identification and removal of legal barriers that prevent young men and women from accessing employment opportunities, and the recognition of business ownership for migrant youth, is necessary to enable the full potential of business enterprises especially at the small and micro-level.

This section serves to present a review of the existing national or state policies so that we shed more light on the state of affairs of youth policies and national development plans insofar as what they foretell for the youth in Malawi. This comes on the back of the knowledge that the public plays a critical role in provision of physical infrastructure to connect young migrant entrepreneurs and their business premises to the market of goods and services and clients. The Constitution as the highest law of the land has a comprehensive view of young people's welfare such that it actively

considers different issues pertaining to the migrant youth's welfare.

For example, in the Principles of National Policy on section 13 of the Malawi Constitution, Government of Malawi (1995) states that the State shall actively promote the welfare and development of the people of Malawi (the migrant youth inclusive). This is to be done by progressively adopting and implementing policies and legislation aimed at achieving, among others, a sensible balance between the creation and distribution of wealth through the nurturing of a market economy and long term investment in health, education, economic and social development programs (See S. 13(n) in Government of Malawi, 1995). This means that all national policies that will be made should be made with a view of realizing the goal of proper welfare for all people. This also applies to legislation as all legislation needs to have a basis and the basis is in policies. Just like *policies*, a piece of legislation, which is against Section 13 and established policies, is voidable such that its application can be avoided. It should however, be noted that this section cannot be adjudicated upon as it demonstrates what Malawi's aspirations are as a nation but does not put a duty on the government to do what is stated. It just tells government that when they want to make laws or policies they should base these on such Sections.

In an effort to remove obstacles and improve opportunities of migrant youth, the Government of Malawi (1995) in Section 29, guarantees the right for (young) people to freely engage in economic activity to pursue a livelihood anywhere in Malawi. Thus youth can work anywhere in the nation. This is reflected in the national youth policy where the Government of Malawi (2013) clearly indicates the objective of creating more and decent formal and informal employment for the youth in both rural and urban areas. The Government of Malawi (2011) stresses that equal opportunity to

employment is a right for all productive age groups and embarks on strengthening weak institutions and regulatory frameworks to combat challenges on labour and employment.

Furthermore, in Section 30, the Government of Malawi (1995) guarantees the people the right to development. This states that all persons have a right to development and, therefore, to enjoy economic, social, cultural and political development. This means that when youth feel this right is not being implemented they may turn to the courts. In line with this, the Government of Malawi (2006) outlines the role of giving the rights to Malawian youth, and promoting equality in economic activities participation by both women and men on the sustainable development of Malawi. The Government of Malawi (2006) attests that empowering youth and women in economic activities would enhance employment and income of the nation. The Government of Malawi in 1999 launched the Technical, Entrepreneurial and Vocational Education and Training Authority (TEVETA) institution with a revised TEVET policy being launched in October 2014 to cover both the formal and informal sector of the economy in terms of skills training(Danish Trade Council's Analytical Unit, 2016).

However, it should be noted that the implementation of these rights is dependent on the availability of resources. All the state is required to do is show that it is doing its best either through the government policies or the legislature that they pass. Thus, government is mandated to work towards people's realization of the right to development. This is echoed in section 30(2) where the state shall take all necessary measures for the realization of the right to development.

Such measures shall include, amongst other things equal opportunity for all in their access to basic resources, education, services, food, shelter, employment and infrastructure. The state is also mandated to introduce reforms aimed at eradicating social injustices and inequalities (Government of Malawi, 1995). Not only that, the State also has the responsibility to respect the right to development and justify its policies in accordance with this responsibility. This entails that youth can formally challenge the State if they see that their general developmental welfare is not being respected by various government policies and projects.

Furthermore, Section 31 of the Malawi constitution (Government of Malawi, 1995), guarantees the right to fair labor practices. “Fair” here simply means *according to the law*. So, all pieces of legislature that talk about employment or any labor related issue must be based on this section. Flowing from that, the Employment Act was enacted to establish, reinforce and regulate minimum standards of employment with the purpose of ensuring accelerated economic growth and social justice (Government of Malawi, 2002). It is the piece of legislation that guarantees the right to employment for youth. One of its fundamental principles is non-discrimination against the youth. This entails that any project or program or indeed policies that discriminates against youth should be made illegal and thus, inapplicable. The Danish Trade Council’s Analytical Unit (2016) further notes that migrant female youth are more employed in the informal sector than males indicating disparities in the employment.

1.7 International Institutional framework and The Malawi Labour Migration

On a continental level, Malawi, being a member of the African Union (AU) has ratified the African Youth Charter as recommended by Section 200 of the

Constitution. This means that provisions of this charter will be applicable to Malawi albeit not with as much strength as locally made legislation. However, since Malawi is answerable to the international guidelines, policies and Charters, one can take a government to court if it does not fulfill its obligations as stated in the charter and agreed by that State. The charter provides for non-discrimination against the youth (art.2) and the right to development.

Following Article 12 of the African Youth Charter, (that states that all state parties to the charter must come up with a comprehensive youth policy), the government of Malawi develops the National Youth Policies. These policies among other things integrate the youth in all decision making. According to LO/FTF Council's Analytical Unit (2014), a revised National Youth Policy was launched by the Government of Malawi (2013) aiming at empowering the youth so that they can face the social, cultural, economic and political challenges facing the country. Institutions such as the national youth council take active roles in helping migrant young people in Malawi to decent employment. For example, LO/FTF Council's Analytical Unit (2014) stated that a national internship program was established in 2010 to help in giving necessary work experience for school leaving youth and indeed connects them to the wider job market.

As a way of ensuring compliance to the provisions of the African Youth Charter, the State created different youth-related policies. Chief among them is the National Youth Policy. The government has also come up with the Malawi Growth and Development Strategies (MGDS) that are the overarching medium term national development frameworks. On labor, the goal is to ensure that equal opportunity to employment is a

right for all productive age groups. The policies also stress the need to address challenges that are faced by the youth. This is echoed in the 2014 Millennium Development Goal Report for Malawi whose aim among others is to minimize the levels of youth unemployment (Ministry of Finance, 2014).

CHAPTER THREE

LITERATURE REVIEW

3.1 Introduction

This section begins by looking at the theoretical perspectives of the motives of migration to help us understand the processes of migration in theory. We then review the existing empirical research on the motives of labour migration and entrepreneurial activities as well as the driving forces of choice of destination. We finally look at Malawi-specific gray literature on the policies, legal and regulatory framework for necessitating a more integrated labour market for migrant youth.

3.2 Theoretical Review

3.2.1 The Equilibrium and Rational Choice models: Neoclassical Approach

3.2.1.1 The Harris-Todaro Model

Michael Todaro developed one of the major theoretical frameworks for understanding the motives behind the internal migration using Kenyan data (Greiner & Sakdapolrak , 2013). The Harris-Todaro model is a two-sector model of rural-urban migration that was originally proposed in Harris and Todaro, (1970) and restated in Greiner and Sakdapolrak, (2013). It is frequently used for analyzing labour-market equilibrium. In this model Todaro suggested that the motive for individual migration is based on rationally calculated cost and benefits to the migrant, according to Greiner and Sakdapolrak, (2013).

Todaro (1969) states that the rational calculations should: a) include a subjective estimation of the probability of obtaining employment in the urban sector; b) consider the unemployment rates in the urban; and c) address the expected stream of income which was basing on the urban wages.

Todaro (1969) was concerned with understanding why there were a growing number of migrations from rural to urban despite the persistent high unemployment in the urban areas. His model, offers one possible explanation. Todaro (1969) shows that, individuals will choose to migrate to urban areas even though there is a possibility of ending up unemployed or receiving low wages. These individuals calculate, rationally, that such mishaps are just in the short run and they consider the trade-off of future positions and compensation as a satisfactory risk. The fortunes in the long run are calculated based on the fact that migrants hope to find higher paying jobs through urban contacts and becoming integrated into a larger urban society (Petrov, 2007). The theory largely relates to the migration situation among Malawi's migrant youth. The Danish Trade Council's Analytical Unit (2016) indicates that despite over 40 percent urban unemployment in Malawi there is still a growing influx of young people to these growth centers. In this regard, the Harris-Todaro model offers a possible explanation to why there is such a growing migration despite rising cases of urban unemployment.

Despite its popularity, which made Allen (2001) to refer to it as not only innovating but also revolutionary, the Harris-Todaro model came under criticism. Firstly, this model is based on the notion of perfect information and rational decision-making that is often time unrealistic on the impending information asymmetry issues and other market imperfections. Secondly, the assumptions of randomness in job selection

process and the equal competitiveness of workers and the homogeneity of labour force (in terms of skills, and attitudes) are in a strict sense considered unrealistic (Sjaastad, 1962).

3.2.1.2 The Human Investment Theory of Migration

Embodied in the human capital theory, Larry A. Sjaastad coined the Human Investment Theory of Migration in 1962. Within the human investment schema, the decision to migrate was taken as an investment by the individual and involved the expected returns and costs over time (Sjaastad, 1962). According to Byerlee (1974), under the Human Investment Theory, the expected variables are segmented into two. Firstly, the monetary costs and returns, which include: the differences between rural and urban incomes, the magnitude of both rural and urban incomes through remittances, the costs of migration and the difference between the actual and perceived value of migration which is determined by the labour market information.

Secondly, the psychic or the non-monetary costs and returns, which include: risks of losing old connections and starting anew, exclusion, uncertainty, the costs of pollution, and overcrowding. In many empirical writings, there is a tendency to neglect these psychological effects and only focus on the expected value of income and other quantifiable measures, because of challenges in measuring and collecting accurate data. Thus, this study consolidate psychic issues that have been neglected for so long in migration literature by providing subjective and open-ended questions to extract the different perceptions and experiences among migrant youth in terms of the choices they make.

3.2.1.3 Ravenstein's Laws of Migration

An explanation of the basic factors (termed *pull* and *push* factors by Lee, (1967) for destination area and area of origin respectively) that determine the migration processes can be traced back to the work of Ravenstein (1885). In these articles, Ravenstein (1885) explain the decision to migrate as a result of the differences in opportunities between urban and rural areas (Stark, 1991; Stark & Bloom, 1985): it is the inherent nature of all humans to better themselves materially and this makes people migrate.

These articles became the foundation of modern day thinking in migration even though they did not describe an explicit economic framework. The foundations laid by these theories have been very crucial in migration studies over year; however, there is need for statistically based formulations to identify the significance of the associations that were claimed. In this regard, the study employs variables contributed by this theory while subjecting them to scientific investigation to establish the causality.

3.2.1.4 The Roy Model

This model discusses the effects of self-selection into different occupations. Roy (1951) outlines model of selection based on the issue of comparative advantage and then the resulting effects are investigated on the distribution of earnings in different occupations (Dahl, 2002). Many researchers have adopted the framework for various labour market setting such as occupational choice and choice of industry (Dahl, 2002). These researchers have replaced choice of occupation in the original Roy (1951) study with any other choice market where individuals want to enter.

3.2.2 Household and Livelihoods: A Pluralistic approach

3.2.2.1 Then New Economics of Labour Migration

This is one of the prominent theories that aimed at counter arguing the view held by the neoclassical theorists such Harris, Todaro, Sjaastad and Roy. According to Démurger (2012), Deotti and Estruch, (2016), Lewin et al., (2012) and Mutandwa et al. (2011), the view that decision to migrate is mainly based on a sole individual's response to perceived financial differentials between rural and urban areas was highly questioned. Household decision-making, migration networks and indeed other regional characteristics are the major factors that the new economics of labour migration theoretical propositions regard to have a major impact of the processes of migration

3.3 Empirical Review

3.3.1 Choices based on community wide observable push and pull factors

Many of the studies on choice of migration destination and occupation have focused on the pull-and-push community-wide factors and physical characteristics (factors that are observable and external to individuals). These studies include: Lewin et al. (2012), Mutandwa et al. (2011) and Carletto and de Brauw (2007). Observable and external factors include weather conditions (rainfall variability and drought probability), land holdings, availability of road networks, the availability of good services in destination area (such as electricity, clean and treated water, technology) in areas of destination, the availability of family and community level connections in different enterprises and work settings as well as different size of land holdings in the area of origin.

Using the Malawi Second Integrated Household Survey (2004-2005) data, Lewin et al., (2012) run a full maximum likelihood information regression model to estimate the

relationship of rainfall conditions on the decision by rural workers to migrate and find other occupations in urban areas. The results showed that rainfall shocks have a negative relationship with rural out migration. Areas with lower rainfall variability and lower drought probability attracted an influx of migrants. Despite insights raised regarding migration direction, there are still many things that were not taken into consideration and this is where this research would come in to contribute. Lewin et al. (2012) did not consider the youth separately (who are of prime interest in this study) but rather migration by all age groups of people. In addition, there is no emphasis of these migrants being economic migrants in this study as well. Furthermore, the effects of individual specific factors for decision-to-migrate are downplayed in this study much as characteristics in the destination are considered.

Mutandwa et al. (2011) used a *factor analysis* to determine those factors that affect the decision by youth to migrate to urban areas. The study found that availability of social services in the rural areas deters young people from migrating and the availability of permanent and stable jobs in urban areas is likely to contribute to young people's decision to move into the urban areas. Despite this study focusing on youth, it does not distinguish and show how youth make choices between different urban areas. In addition, this study does not explain the choice in terms of competing occupation alternatives. Mutandwa et al. (2011) study was done in Rwanda, using the survey data in the Western and Northern Province regions that have different socio-economic conditions to those of urban Malawi, the focus of this study.

Carletto and de Brauw (2007) used data from the Rural Household Survey of National Bureau of Statistics of China for 2007 to model rural urban migration in that country.

Specifically, the study wanted to determine the factors affecting choice of destination and length of stay in migration destinations. Using a recursive bi-variate probit model, the study found that household composition and size (family demographics) had significant effects on shaping the decision to migrate into different destinations and even a seemingly larger effect for long-distance migration. This study however, did not consider migrant youth in a special way and uses only data from rural China, which is different from the conditions in Malawi.

In this regard, literature on community-wide observable push-and-pull factors often lack detailed emphasis on the individual non-observable factors, and an emphasis on the age of interest (the youth).

3.3.2 Choices based on the individual specific and some non-observable push and pull factors

The other strand of literature on the choice of migration destination and occupation choices among migrants has focused on both individual-specific and non-observable factors. The understanding of these factors, however, is particularly challenging as it requires collecting significant individual-specific data, but nevertheless the decision to choose a destination and an occupation reflects, generally, individual's tolerance of risk (Deotti & Estruch, 2016; Frieze & Li, 2010; Gibson & McKenzie, 2011; Malchow-Møller, Munch, Schroll, & Skaksen, 2009; Tabor, Milfont, & Ward, 2015; Tanle & Agblorti, 2011).

These factors include individual skills (brick laying, carpentry, business management, formal education), perceived income differentials in the urban areas, attitude to migration and change of occupation (risk profile of an individual and propensity of

adventure), gender effects, occupation of parents, marital status of the migrant, marriage patterns (uxirilocal or patrilocal), and other intrapersonal factors such as work focused, degree of family centeredness, patience and assertiveness.

Azzarri et al. (2008) estimate the multinomial logit model to study occupational choice and found that individual-specific factors such as marital status, number of children, gender and education status of an individual have significant impact on the choice of occupation in Albania. However, the study does not place emphasis on the youth and migration as such.

Highly skilled individuals tend to make decisions to migrate into areas that provide a suitable environment that will utilize their skills (Siar, 2013).

Together with their perception that the destination can help them harness their knowledge and skills, people also chose particular destination because of better quality personal life and good opportunity for their family (Siar, 2013).

3.3.3 Literature on international migration decisions

Much literature on the decision of choice of migration destination in Malawi has also focused on international migration. Works of Anglewicz (2012), Chirwa (1995), Chirwa (1997a), Chirwa (1997b), Christiansen & Kydd (1983) Lewin et al. (2012) and Mtika (2007) have concentrated on such international migration.

In the difficulty of the HIV/AIDS pandemic, some of these studies focused on young migrants responding to the risks of contracting HIV (Anglewicz, 2012; Chirwa, 1995; Mtika, 2007). For these Malawi specific studies, the major economic migration destination choices that are made are to move into the resource rich countries such as

South Africa and Zimbabwe where migrants tend to work in mines (Chirwa, 1997b), while professionally trained migrants, such as doctors and nurses, tend to migrate into the United Kingdom.

3.4 Conclusion

To sum up, this review has given the major reason that affects the decision by migrating individuals on the choice of area destination and occupation. These factors have been divided into three categories: firstly, those that are individual specific (from personality to perceptions of the migrating area), secondly those choice based on the community level factors and thirdly, the choice of destination outside the country of origin. The study at hand aims at filling the academic literature gap that is seen in much of the literature in terms of internal migration decision, methodology, area of focus and population group of focus (youth).

CHAPTER FOUR

METHODOLOGY

4.1 Introduction

This chapter presents the economic tools of analysis that have been used in this study. In general, the methodology is motivated by both the theoretical and empirical literatures that were reviewed in Chapter Two. Drawing from the review of literature, in Chapter Three, Section 4.2 presents the structural specification of both a dichotomous and polychotomous choice models that are in line with previous studies on occupational choice and destination choice, as this study examines alternatives and choices that prompt an individual's behaviour. Section 4.3 provides an explanation and justification of a particular technique chosen to estimate the structural model to achieve the objectives of this study. Also in this section, the mathematical derivation of the chosen technique is demonstrated. While, section 4.4 describes the diagnostic tests for the estimation techniques, section 3.5 explains the data and the data source to be used. Included in this Chapter are the variables that are hypothesized to have an impact on choice of economic destination and occupation.

4.2 The Structural Models

The structural models are based on the preferences of a decision-maker of the area of destination and industry of occupation within the conceptual framework of the Roy model (Roy, 1951) under the discrete choice specification.

An individual decision-maker is faced with a set of alternative destinations and occupations and the alternative he chooses reveals an underlying preference. This is the random utility view of choice (Cameron & Trivedi, 2005; Greene, 2012; Hosmer, Lemeshow, & Sturdivant, 2013; Long & Freese, 2014; Maddala, 1983; Treiman, 2009). These choices are influenced by observable characteristics such as wages in a particular occupation and employment opportunities in the destination areas. These choices are also affected by unobservable characteristics such as skills of the decision maker (Cameron & Trivedi, 2005).

For the polychotomous model, suppose the dependent variable Y is the destination and has j (Blantyre, Lilongwe, Zomba and Mzuzu) unordered alternative outcomes such that

$$Y = \begin{cases} \text{Blantyre} \\ \text{Lilongwe} \\ \text{Zomba} \\ \text{Mzuzu} \end{cases}$$

1

For the dichotomous models, supposed the dependent variable Y is the occupation and defined as follows:

$$Y = \begin{cases} 1 & \text{Entrepreneur} \\ 0 & \text{Otherwise} \end{cases} \quad \text{or} \quad Y = \begin{cases} \text{Wage Employed} \\ \text{Otherwise} \end{cases}$$

2

In both models, further suppose that the utility of choosing alternative j or being in a certain occupation by the consumer i is given as

$$U_{ij} = \mathbf{X}'_{ij}\beta + \varepsilon_{ij}$$

3

Given the random utility view, if an individual chooses alternative j or join a particular occupation, it is revealed that U_{ij} will maximize the utility of the consumer among the J utilities or along the chosen occupation. It follows therefore that the structural model is then built on the probability that the choice j is made by the consumer. Thus,

$$\begin{aligned}
\Pr(Y = j | X) &= \Pr(U_{ij} - U_{ik} > 0) \quad \forall \quad j \neq k \\
&= \Pr[(\mathbf{X}'_{ij}\beta + \varepsilon_{ij} - \mathbf{X}'_{ik}\beta + \varepsilon_{ik}) > 0] \\
&= \Pr[\varepsilon_{ij} - \varepsilon_{ik} > -\mathbf{X}'(\beta_j - \beta_k)] \\
&= \Pr(\varepsilon > -\mathbf{X}'\beta) \\
&= F_j(\mathbf{X}'\beta)
\end{aligned}$$

4

Therefore, using equation 4 above, one can come up with different other dichotomous and polychotomous models, (such as logit, probit, multinomial logit, multinomial probit, nested logit, ordered models, sequential models, mixed and multivariate models), depending on the functional form of F_j whose probabilities lies between 0 and 1 and sum over j alternatives equal to one.

4.3 The Analytical Framework

The approach to examining the first two specific objectives of the study (impact of skills and entrepreneurship opportunities) is based on multinomial logit modeling of factors that affect choice of destination. While the approach to examining the third objective (role of social networks and entrepreneurial opportunities) is based on the probit modeling of the factors that affect occupational choice.

In line with this estimation procedure, the dependent variables are defined as polychotomous and dichotomous categorical variable.

4.3.1 Modeling Destination Choice

The estimation models with polychotomous dependent variable can be done in many ways. Drawing from the functional form of F_j and if it follows the cumulative distribution function (CDF) of a logistic distribution, then three models for estimation are used and these are: the multinomial logit, conditional logit and mixed logit.

The major difference between the multinomial logit and conditional logit is the differences in the variation of regressors for different alternatives (Maddala, 1983). When regressors take different values for different alternatives (alternative varying), a Conditional logit model is used for estimation. In the case of alternative invariant regressors, the independent variables do not vary with a change in an alternative chosen outcome and a multinomial logit model is estimated (Maddala, 1983). The mixed logit model combines characteristics of the two models (multinomial logit and conditional logit) where some regressors vary over alternatives and others are alternative invariant regressors. This study adopts the multinomial Logit model, as regressors used in this study are alternative invariant.

4.3.2 Modeling Occupational Choice

The estimation of binary choice also draws from the functional form of F_j . If the F_j is in a linear form then a Linear Probability Model (LPM) is used, if a logistic distribution followed the a logit or logistic model can be fitted while if the F_j follows a standard normal distribution, then the probit model is fitted (Cameron & Trivedi, 2005; Gujarati, 2004; Maddala, 1983).

According to Shirazi (1995), despite being easy to use, the LPM has some deficiencies.

First, the LPM violates the properties of the disturbance term. The error term follows a Bernoulli, such that the model cannot be used for references (Cameron & Trivedi, 2005). Second, the LPM has nonsensical probabilities as it has the possibility of having probabilities that lie outside the 0-1 bounds and Last, the LPM suffers from heteroscedasticity (Hosmer et al., 2013). For all practical purposes the probit and logit models are considered to have little difference in the results that obtained. The inference drawn from the two methods applied to the same data are invariably similar despite logit coefficient having the tendency to exceed probit coefficient by a scale factor of 1.6 to 1.8 (Shirazi, 1995). The probit model is adopted and used to test the third objective of the study.

4.3.3 Multinomial Logit

The multinomial logit follows a logistic distribution and is estimated when regressors do not vary across alternatives (Cameron & Trivedi, 2005). In this study, the interest of the multinomial logit is to examine how changes in the independent variables (such as skills and entrepreneurial opportunities) affect the probabilities of responding to choosing a destination. Therefore, if we let the response probability be $\Pr(Y = j | X) = P_{ij}$ given the alternative destination

$j = \text{Blantyre, Lilongwe, Zomba and Mzuzu}$, then the multinomial logit is specified as follows:

$$P_{ij} = \frac{e^{X_{ij}\beta_j}}{\sum_{i=1}^J e^{X_{ij}\beta_j}} \quad j = \text{Blantyre, Lilongwe, Zomba and Mzuzu}$$

Since in this estimation technique, probabilities are modeled, it is important to mention that the condition $\sum_j P_{ij} = 1$ is a necessary restriction to ensure model identification because probabilities must sum to unity.

The multinomial logit model above can be extended to show the conditional probability of observing one choosing a particular destination among the four cities (Blantyre, Lilongwe and Mzuzu) given any alternative of any other city. Put it differently, the conditional probability of choosing an alternative j given that either j or any other alternative say, k is observed as follows:

$$\begin{aligned} \Pr[y = j | y = j \text{ or } k] &= \frac{e^{\mathbf{X}\beta_j}}{e^{\mathbf{X}\beta_j} + e^{\mathbf{X}\beta_k}} \\ &= \frac{e^{\mathbf{X}(\beta_j - \beta_k)}}{1 + e^{\mathbf{X}(\beta_j - \beta_k)}} \end{aligned}$$

6

Indeed, the model above is a traditional logit formulation with coefficient $(\beta_j - \beta_k)$ and this coefficient cannot be identified until normalization such that $\beta_k = 0$.

Following Greene, (2012) equation 11 is normalized as follows:

$$\Pr(Y_i = j | X_i) = \frac{e^{\beta_j X_i}}{1 + \sum_2^4 e^{X_{ij}\beta}} \quad \text{for } j = 2, 3, 4$$

7

$$\Pr(Y_i = 0 | X_i) = \frac{1}{1 + \sum_{j=2}^4 e^{X_{ij}\beta}} \quad \text{where } j = 0$$

8

Generally, the specification in model (4) is, in a sense, not identified because there is more than one solution to coefficients β_j corresponding to different outcomes. The

result of this inability to be identified is that - in estimating - there would be the same probability for different alternative outcomes. To deal with this problem, there is need to normalize one coefficient. It does not matter which coefficient is normalized; the choice of a normalized coefficient is arbitrary. Coefficient for Lilongwe are chosen as a base category, In this case the remaining coefficients for other cities will measure the changes relative to that of Lilongwe (base category group).

Indeed, similarly to binary logit models, the relative probability of choosing alternative j to a base category (1) is given as follows:

$$\frac{\Pr(Y = j | X)}{\Pr(Y = 1 | X)} = e^{x\beta_j}$$

9

4.3.4 Probit Model

As mentioned in Section 4.3.2 above, the study uses a probit model to estimate objective iii of the study. As indicated in Section 4.3.2, according to Cameron & Trivedi (2005) and Maddala (1983) probit model follows a cumulative standard normal distribution as follows:

$$\Pr(Y = 1 | X) = F(z) = \Phi(z) = \int_{-\infty}^z \frac{1}{\sqrt{2\pi}} e^{-\frac{1}{2}z^2} dz$$

10

Where (z) is the set of standardized regressors that are hypothesized to affect the occupational decision. In this study, the focus is on finding the change in the probability of an individual in the choice of a particular occupation. This change is given as follows:

$$\frac{\partial P(y_i = 1 | x)}{\partial x_i} = f(z) \beta_i = \phi(z) \beta_i$$

11

4.3.5 Model Specification

This study estimates a multinomial logit model for effects of skills and entrepreneurial activities on choice of economic destination. The study also estimates two probit models for effects of social interactions and entrepreneurship skills on choice of occupation.

In the first model, factors (including skills and entrepreneurial opportunity) are modeled such to hypothesis impacting young people's decisions to choose among four urban destinations in Malawi: Mzuzu, Lilongwe, Blantyre and Zomba.

The choice of the coefficients of Blantyre as a base category is arbitrary. Blantyre is the commercial capital of Malawi with many of industrial activities. Comparing to the commercial city as the base category makes interpretations of results and findings in this study.

The model for city of destination among migrant youth is presented as:

$$\Pr(Y_i = j | X_i) = \frac{e^{X_i \beta + w' \beta_j}}{\sum_{i=1}^4 e^{X_i \beta + w' \beta_j}} = \beta_0 \text{const} + \beta_1 \text{age} + \beta_2 \text{age}^2 + \beta_3 \text{Marital status} + \beta_4 \text{Dependents} \\ + \beta_5 \text{Sex} + \beta_7 \text{Hh size} + \beta_8 \text{Religion} + \beta_9 \text{Tribe} + \beta_{10} \text{Entr Opportunities} + \\ + \beta_{11} \text{Family/Friends} + \beta_{12} \text{Education} + \beta_{13} \text{Technical Skills} + \beta_{14} \text{Better services}$$

12

In the second models, the following model specification is employed:

$$\Pr(Y_i = j | X_i) = \Phi \left[\begin{array}{l} \beta_0 \text{const} + \beta_1 \text{age} + \beta_2 \text{age}^2 + \beta_3 \text{Marital status} + \beta_4 \text{Dependents} \\ + \beta_5 \text{Sex} + \beta_7 \text{Hh size} + \beta_8 \text{Religion} + \beta_9 \text{Tribe} \\ + \beta_{10} \text{Entr Opportunities} + \beta_{11} \text{Family/Friends} + \beta_{12} \text{Education} \\ + \beta_{13} \text{Technical Skills} + \beta_{14} \text{expenditure index} \end{array} \right]$$

13

4.3.6 Sensitivity Analysis: The analytical style of Polychotomous Models

In probit and multinomial logit models, just like many other multiple response dependent variable models, the coefficients of the regressors cannot be interpreted as they appear, according to Cameron and Trivedi (2005). Particularly, much as the signs of the coefficients and the statistical significance can be interpreted as they appear, the coefficients cannot be interpreted in a straightforward manner. This is so because the predicate coefficients do not isolate the effects of a particular variable as they detail within them effects of all other explanatory variables (Cameron & Trivedi, 2005). This study drives the marginal effects on the probability of choosing a particular destination and occupation following Greene (2012) and these marginal effects are given as follows:

$$\frac{\partial P_j}{\partial X_i} = P_j \left[\beta_j - \sum_{k=0}^J P_k \beta_k \right] = P_j [\beta_j - \bar{\beta}]$$

14

Where $\bar{\beta}$ is the weighted probability average of the β s. It follows that the sign of the response is not necessarily given by the sign of β_j unless $\beta_j > \beta_k$ for all $k \neq j$.

The marginal effects used in this study explain changes in the probability when choosing a particular destination (Mzuzu, Lilongwe, Zomba) compared to the base categories of Blantyre or choosing a particular occupation (Self-employed,

entrepreneurship and wage employed). An addition to the interpretation of the statistical significance of the independent variables is that if a variable is significant at 1 percent level of significance, it follows that it is also significant at both 5 percent and 10 percent. However the converse is not true.

The sensitivity analysis, therefore, implies that under different assumptions the results can be different because a theory is only as good as its assumptions. All variables that do not have statistical significance are not interpreted; however, a theoretical story about their insignificance is explained in passing.

4.3.7 Variables Definition, Measurements and Expected Signs

As explained in the preceding subsection, on one hand, the two independent variables for the two probit regression models are both dichotomous in nature. While on the other hand the dependent variable for the multinomial logit model is polychotomous in nature. In this subsection, we explain the independent variables that have been hypothesized to impact the decision to choose a destination or an occupation.

These variables are motivated by the review of literature and these variables include:

Age and square of age of a migrant individual: The number of years of an individual migrant has an important impact in migration literature. Young people have a higher propensity to migrate than the elderly. It is expected that age will follow an inverted U shape in the decision to migrate to a particular destination because in migration literature (for example, de Haan, 1999; Narman, 1995) age follows an inverted U shape. Therefore, it is expected that the coefficient of age variable would be positive while the coefficient of square of age variable is expected to be negative.

Number of Dependents: These are number of individuals a migrant youth is currently looking after either his/her own children or relatives staying at area of origin but heavily dependent on the migrant youth.

Household Size: This is number of people living under the same roof and sharing a meal (Government of Malawi, 2017). It is defined for the current household of the migrant youth. *A priori*, it is expected that as the number of both the dependents and household size increases, the probability of an individual to migrate also increases. Likewise, the expected sign of the coefficients for household size and number of dependents is expected to be positive for both entrepreneurship and wage employment decisions.

Marital Status: This variable has been defined in such a way to show whether a migrant youth is married or not. It is structured in binary nature where 1 is for all those that are married and 0 represents those that are not married. Those that are not married include: the divorced/separated, those who are single/never married before and the widowed/widower. While those that are married include those that are co-habiting. It is expected that females who are married are more likely to migrate and be in wage employment (Beegle & Poulin, 2013), even though traditionally married women are expected to migrate less.

Sex of a Migrant: The state of being male or female is a very important demographic characteristic among migrants, entrepreneurs and wage-employed people. Sex in this study has been defined as a dummy variable and 1 represents all female while the base category (0) is all males. It is expected that the coefficient of sex variable

(female in this study) will be negative for decision to migrate to a new destination and wage employment. However, for the decision to join entrepreneurship, the sign cannot be known before hand.

Technical Skills: This variable shows whether an individual had acquired any technical skill before or after migration. There are various technical skills in this formulation including brick laying, hairdressing and automobile mechanic. This is the main variable of interest in this study on migration decision in this study, thus the expected sign is not know before hand and we intend to investigate such in the study.

Better Social Services: Using the multiple correspondence analyses (MCA), the study has constructed an index to reflected the availability of different social services in a particular area of destination that would act as pull factor for migration. This index is constructed by the cross tabulations from the information on the availability of the following: security, water quality, housing, social interactions, financial services, health care facilities, education facilities and road networks. It is, thus, expected that a destination with better social services will attract many migrants and indeed the coefficient of that variable will be positive.

Household Economic Index: In a similar manner to the variable on better social services, use is made of MCA to construct information of an index of household economic status from the information of availability of the following items in the household: television, refrigerator, mobile phone, gas stove/electric cooker, bicycle, motorcycle, car/truck, agricultural land, urban plot, radio, radio cassette player/music system, table, chairs, sofa sets, bed, cupboard and wall clock. It is expected that the higher the household economic index the higher the chances that one would join

entrepreneurship while the lower the chance an individual will choose to be wage employed.

Awareness of Entrepreneurial Opportunities and Expected entrepreneurial opportunities: The study employs subjective questions on awareness expected entrepreneurial opportunities to capture the entrepreneurial opportunities for migrant youth in the area of destination. The coefficients of these variables are expected to be positive.

Religion: This variable is defined in a categorical fashion with no religion or other being a base/reference category while Christianity and Islam are other categories. It is not known beforehand the expected sign of this variable.

Tribe: In Malawi there is different tribes. This variable is defined in line with the types of marriage practices that these tribes practice. The dummy variable of tribe has 0 representing patrilineal tribes while 1 representing matrilineal tribes. Almost all tribes of the northern Malawi and the Sena tribe practice patrilineal while those of the central and southern Malawi practice matrilineal marriage system. With this representation, we expect that tribes of matrilineal decent are more likely to migrate to cities in the central and southern region because of distance compared to those that practice patrilineal. In term of entrepreneurship, we expect that tribes that practice matrilineal to have a positive relationship with the conditional probability of joining entrepreneurship because most of tribes in central and southern Malawi are business inclined. Patrilineal tribes are expected to positively relate to the conditional probability of being in wage employment.

Education: This is the measure of formal schooling of the migrant youth shown by the highest certificate they have or lack thereof. It is a categorical variable with the

reference category being no education. Other categories include: Primary education, Secondary education and Tertiary education.

4.4 Diagnostic Tests

These are statistical set of techniques pertaining to the regression analysis aiming at gauging the soundness of a model. Since this study uses polychotomous models with cross section data, diagnostic tests in these models include the assessment of overall model significance, the goodness of fit, heteroscedasticity issues, multicollinearity and the irrelevant of independent alternatives.

4.4.1 Goodness of fit

The indirect pseudo-R squared are used as a summary statistic measure indicating the accuracy with which a model guesstimates the observed data(Greene, 2012; Gujarati, 2004; Maddala, 1983; Wooldridge, 2012).

4.4.2 Overall model significance

In the polychotomous models parameters are estimated using the maximum likelihood estimation technique. According to Gujarati (2004) there are three classical tests for overall model significance in the maximum likelihood estimation and these include: the likelihood ratio test, the Lagrange multiplier and the Wald test. These three tests have the same distribution asymptotically and test the null hypothesis that all the regressors are jointly equal to zero i.e. $[H_0 : \beta_{1k} = \beta_{2k} = \beta_{3k} = \dots = \beta_{jk} = 0]$ against the alternative that not all regressors are jointly equal to zero i.e.

$$[H_A : \beta_{1k} \neq \beta_{2k} \neq \dots \beta_{jk} \neq 0].$$

According to Davison (1993), the three tests tend to give the same random variable in the large sample⁶ as such it does not matter which test is used. The Wald test is used of the three.

4.4.3 *The independence of irrelevant alternatives*

A major limitation of the multinomial logit, the conditional logit and the mixed logit is that discrimination among the J alternatives reduces to a series of pairwise comparisons(Cameron & Trivedi, 2005). These are unaffected by the characteristics of alternatives other than the pair under consideration.

Since the following formulation holds in equation 6 above,

$$\begin{aligned} \Pr[y = j | y = j \text{ or } 1] \\ = \frac{e^{x\beta_j}}{1 + e^{x\beta_j}} \end{aligned}$$

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And thus, the ration $\frac{\Pr[y = j]}{\Pr[y = k]} = \frac{e^{x\beta_j}}{e^{x\beta_k}}$ does not depend on other alternatives. This

weakness is known more formally as the assumption of independence of irrelevant alternatives⁷ in literature (Long & Freese, 2014). This inherent weakness in these models works better when alternatives are dissimilar and implies that adding another alternative or changing the characteristics of a third alternative does not affect the relative odds between alternatives (Cameron & Trivedi, 2005; Long & Freese, 2014).

Hausman test according Long & Freese (2014) is used to test for existence of the independence of irrelevant alternatives and is specified as follows:

⁶ In this context, over sample size of 30

⁷ Or the red bus-blue bus problem

$$HM = (\hat{\alpha}_B - \hat{\alpha}_A) [(\hat{\alpha}_B - \hat{\alpha}_A)]^{-1} (\hat{\alpha}_B - \hat{\alpha}_A)$$

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Where the null hypothesis is the independence of irrelevant alternatives holds and the alternative hypothesis is that the independence of irrelevant alternatives does not hold. The statistic is distributed as a chi-squared with degrees of freedom equals to the number of parameters.

4.4.4 Heteroscedasticity

One of the Gauss Markov's classical assumptions is that the variance of the error term given regressors is constant (Andersson, 2006; Chirwa, 1997a; Makande, 1980). When there is no equal spread (Heteroscedasticity) in the variance of the error term across different segment of the population, the assumption of homoscedasticity is violated. Among others, the presence of outliers in the data and model misspecification are the causes of heteroscedasticity. The estimators of regression parameters are unbiased and consistency in the presence of heteroscedasticity but the estimator variances are biased which makes any inference faulty.

The Breush-Pagan test statistic and the White (1980) test are used to test for the presence of heteroscedasticity. In the case where, there is presence of heteroscedasticity and the nature of heteroscedasticity is known then, weighted least square technique and/or feasible generalized least square (FGLS) technique are employed (Wooldridge, 2012). In the case where we do not know the nature of heteroscedasticity, then use is made of White's (1980) robust standard errors.

4.5 Data and Data Collection

This study uses data collected under the Youth Employment and Migration in Eastern and Southern Africa (YEMESA) project. Under the project we collected data on migrant youth, demographics, education and training, income expenditures, youth enterprises, employment characteristics among others from a representative sample of 1500 migrant youth in urban Malawi.

4.4.5 Data Collection

The study adopted a mixed methods approach for data collection as follows:

- A. A detailed literature review and desk review research to provide information on migrant youths, skills, economic activities (entrepreneurships and employment)
- B. Other methods of collecting both qualitative and quantitative data such as
 - a. A scoping visit of selected migrant youth
 - b. Focus Group Discussions (FGDs)
 - c. Key Informant Interviews
 - d. In depth Interviews

4.4.6 Research Instruments

Different research instruments were used in the data collection process. The following are the instruments used:

- 1) Semi structured questionnaire
- 2) Check List for FGDs
- 3) Checklist for city youth leadership (both government and private)
- 4) Checklist for other stakeholders

4.4.7 Sampling

For the quantitative data collection, a scientific sampling derived from viable sample frames was conducted. To determine the benchmark for the set indicators, sample size formula below was used

$$n = \frac{1.96^2 \rho(1-\rho)(DEFF)}{d^2}$$

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Where (ρ) is the estimated expected proportion and (d) is desired level of absolute precision and (DEFF) is the estimated design effect.

In order to generate the largest sample size, the value of (ρ) is set to 0.5 (or 50 %). In addition the DEFF is set at 1.1 assuming that (ρ) is similar across all clusters in each city of interest. The desired level of absolute precision is also set at (+/-) 50%.

A semi-structured questionnaire was administered to these 1500 migrant youths (defined as those that are between 15 and 35 years of age). The target areas were chosen based on the density of youth enterprise, employment or industries that are perceived to be youth intensive.

The study site targeted included Lilongwe (an administrative capital and has the fastest growing formal and informal sector), Blantyre (Malawi's commercial hub), Zomba (a University town, and regional center with a high concentration of youth working in the research companies), and Mzuzu (a regional town for the northern Malawi with a significant foreign market of Tanzanians, Rwandese, Burundians and Congolese).

4.4.8 Data Processing and Analysis

This study only focuses on the quantitative data from the semi-structured questionnaire. Paper questionnaire were administered and data entry was done using Statistical Package for Social Science (SPSS). Data analysis was done using STATA computer package to provide useful insight into the nature of skills and economic opportunities among migrant youth in urban Malawi. Phenomenological approach to extract subjective experiences and interpretations of the respondents on migrant youth skills, economic opportunities and migration was used for quantitative questions with subjective answers.

CHAPTER FIVE

ESTIMATION AND INTERPRETATION OF RESULTS

5.1 Introduction

This chapter presents the empirical results for the choice of destination and occupation among migrant youths in Malawi. Subsection 5.2 presents tables of descriptive statistics of the variables used in the three models for choice of occupation and destination. Subsection 5.3 presents the results of diagnostic tests that were performed on the models. These diagnostic tests are those that have been explained in the Methodology Chapter (Subsection 4.4). Subsection 5.4 and 5.5 present the marginal effects of models for destination and occupation. Finally, the chapter concludes with a discussion of the findings in the subsection 5.6.

5.2 Descriptive Statistics

This section provides the descriptive statistics of the sample used to provide a brief overview of the data in terms of the various variables used as well as the general picture that the data portrays through the different measures of central tendency.

Table 1 and

Table 2 show the tabulation of numbers of technically skilled migrant youth that were interviewed across different cities and occupations.

Table 1 Skilled Migrant Youth by Destination

Name of the City	Number of respondent with Skills:		Total
	After Migration	Before Migration	
Zomba	10	35	45
Blantyre	105	109	214
Lilongwe	56	134	190
Mzuzu	36	37	73
Total	207	315	522

Table 2 Migrants Skills by Occupation

Name of Occupation	Number of respondent with Skills:		Total
	After Migration	Before Migration	
Entrepreneurs	84	140	224
Wage Employed	102	125	227
Total	186	265	451

From Table 1 among 522 migrant youths who reported having technical skills (such as brick laying and hair dressing), 45 were migrants in Zomba City representing 8.62 percent of these technically skilled migrants. 214, migrant youth in Blantyre, 190 in Lilongwe and 73 in Mzuzu, also reported having skills representing 41%, 36.4% and 13.98% respectively. Of these technically skilled youth, 35 (Zomba), 109 (Blantyre), 134 (Lilongwe) and 37 (Mzuzu) migrant youths reported to have obtained these skills before they migrated.

Likewise, in

Table 2, among migrant youths who reported to have had technical skills before migrating, 140 (45.02 percent) were in businesses as entrepreneurs while 125 (40.19 percent) were in wage employment.

Table 3 Summary Statistics of the Continuous Variables Used

	All	Zomba		Blantyre		Lilongwe		Mzuzu	
	Mean	Mean	SD	Mean	SD	Mean	SD	Mean	SD
Age	26.5	27.7	4.4	25.7	5.1	26.3	4.7	27.7	4.5
Dependents	3.1	3.2	2.7	2.3	1.9	3.6	3.2	3.3	3.7
HH size	3.5	3.2	1.9	3.6	1.9	3.6	2.0	3.4	1.8
N	1,425	130		484		500		311	

Table 3 shows the summary statistics of the continuous variables used in the multinomial logit modeling of destination choice. The study collected data from a sample of 1,425 young migrants in the four cities in Malawi.

The average age of sample was 26.5, however, migrant youth in Zomba (27.7) and Mzuzu (27.7) are slightly older than the average age while those in Lilongwe (25.7) and Blantyre (26.3) are slightly younger than the average age. The degree of variability in these ages is similar with the standard deviation units of 4.4, 5.1, 4.7 and 4.5 for Zomba, Blantyre, Lilongwe and Mzuzu respectively. This portrays that the most youthful migrants are in Lilongwe.

Household size, defined⁸ as the total number of individuals living in the same roof and sharing meals shows that on average in every migrant youth household there are about 3.5 members. This number of members is lower than the average in Zomba (3.2) and Mzuzu (3.4) while for Blantyre (3.6) and Lilongwe (3.6) the numbers are

⁸ See (Government of Malawi, 2017)

similar and slightly higher than the average.

Unlike household size that looks at only members living within the same dwelling unit, dependents imply all those that obtain direct help from the migrant youth in question whether within the household or outside. Migrant youth in Lilongwe (3.6) have the highest number, on average, of dependents followed by migrants youth in Mzuzu (3.3) of While On average, a migrant youth in Zomba has 3.2 dependents, compared to 2.3, 3.6 and 3.3 dependents for a migrant youth in Blantyre, Lilongwe and Mzuzu respectively.

Table 4 Summary Statistics for Categorical Variables Used

Variable	Sample	Frequency	Percent
Not married	1419	690	48.63
Married	1419	729	51.37
Patrilineal Tribe	1409	923	65.51
Matrilineal Tribe	1409	486	34.49
Technical Skills (yes)	1409	566	40.17
Technical Skills (No)	1409	843	59.83
No religion	1425	195	13.68
Christianity	1425	1025	71.93
Muslim	1425	205	14.39
Female	1417	317	22.37
Male	1417	1100	77.63
No Education	1425	38	2.67
Primary	1425	410	28.77
Secondary	1425	555	38.94

Tertiary	1425	420	29.47
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Table 4 shows the variables that are amenable to frequencies and percentages. Generally over half (51.37) of migrant youth interviewed were married suffice to say that by 26 most migrant youth are married as inferred from the mean age. The data also show that a majority of migrant are those whose tribe practice patrilineal types of marriage system. Many young people from the northern region and Sena tribe from the southern region practice patrilineal (65.51 percent) and migrate more compared to those who practice matrilineal (34.49).

A majority of migrant youth is educated with only 2.67 percent of these youth reported not to have at least formal education. This indicates that over 97 percent of youth are literate. However, a majority (28.98 percent) of these youth only reported to only have up to secondary school level of education.

On the gender dynamics, over 78 percent of migrant youth are males while females only represent the remaining 22 percent. This probably is not surprising as migration involves a lot of risk taking, change of scenery, loss of previous connections which over time has been a less attribute to African females compared to males (World Bank, 2007). Only 40.17 percent of the interviewed migrants reported to have technical skills while over 59 percent do not have any technical skills. A majority of these migrant youth (71.93 percent) identified themselves as Christians followed by 14.39 percent of those who identified themselves as Muslims.

5.3 Diagnostic Tests results

This subsection explains the tests results of the model diagnostic tests that we performed. All the diagnostic tests results are included in the appendix.

5.3.1 Hausman Test

The study used the Hausman test to analyze the assumption of the Independence of Irrelevant Alternatives (IIA). The results show that we fail to reject the null hypothesis since the computed Chi-squares are less than the critical Chi-squares. Hence, the assumption of IIA is not violated and we are justified to continue using the multinomial logit model for estimation.

5.3.2 Goodness of fit

Using the goodness of fit measure, the results show that the model fits reasonably well. However, using the pseudo R squared, about 17.37 percent of the variation in the dependent variable is explained by the independent variables in the model for destination while about 15.36 variations in the dependent variable are explained by the independent variables in the model of occupation. Noting that a high R-square does not mean the model is good; we test for the significance of the variables and the model using the Wald test in subsection 5.3.3.

5.3.3 Overall model significance

To determine overall model significance, the Wald Test is used and the results show that all 63 and 64 independent variables, we reject the null hypothesis that they are jointly insignificant. Hence overall, the model is significant. The Wald test have a Chi Square computed greater than Chi squares critical and we reject the null hypothesis in both models that coefficients of variables are insignificant.

5.4 Empirical results from Destination model

This subsection of the study presents *only* the findings and interpretations⁹ from the first model following the estimation of destination of migrant as the dependent variable. In line with the analytical style of the polychotomus models, the base category in the dependent variable is Blantyre (Malawi's commercial capital).

Table 5 shows significant statistical results for individuals who had technical skills before migrating to Zomba and Lilongwe. On one hand, Compared to Blantyre, individuals who had technical skills before migrating were less likely (on average) to migrate to Zomba by 6.77-percentage point, *ceteris paribus* and this is significant at 1 % significant level. On the other hand, relative to Blantyre, the conditional probability of migrating to Lilongwe for an individual with technical skills is significantly reduced by 18.49 percentage point at 1% significant level on average and holding other things equal. A similar reduction in probability to migrate is noticed in Mzuzu but this is not statistically significant.

The age of an individual is statistically significant in regarding to increasing the chance of migration to Zomba and Mzuzu compared to Blantyre while reducing the chance of migrating to Lilongwe relative to Blantyre as well. On one hand, there is about 8.0 and 7.65 percentage point increase in the conditional likelihood of migrating to Zomba and Mzuzu respectively as an individual grows older, on average holding other things constant.

⁹ For discussion of the variables of interest see section o discussion

Table 5 Multinomial Logit Model Results for Choice of destination

	Zomba	Lilongwe	Mzuzu
Age	0.0800* (0.042)	-0.1144** (0.047)	0.0765* (0.041)
Square of Age	-0.0013* (0.001)	0.0018** (0.001)	-0.0012 (0.001)
Co-habiting	0.0019 (0.034)	0.0871 (0.059)	-0.0121 (0.038)
Divorced/separated	-0.0100 (0.042)	0.1931** (0.094)	-0.0653 (0.042)
Widow/Widower	- (0.018)	-0.0003 (0.289)	-0.0617 (0.071)
Single/NM	0.0750*** (0.037)	-0.0334 (0.058)	0.0345 (0.044)
Female	0.0235 (0.036)	-0.0808 (0.056)	0.0015 (0.038)
Household size	-0.0161 (0.010)	0.0280** (0.013)	-0.0167* (0.009)
Dependents	0.0051 (0.004)	- (0.008)	0.0045 (0.004)
Christianity	0.0230 (0.038)	0.0250*** (0.067)	-0.0366 (0.040)
Muslim	0.0254 (0.045)	- (0.081)	0.0080 (0.058)
Patrilineal tribe	-0.0317 (0.025)	0.2398*** (0.046)	0.2031*** (0.037)
Aware of Opportu	0.0720** (0.029)	0.0188 (0.075)	-0.0317 (0.048)
Expected Opportu	0.0635** (0.032)	-0.0504 (0.081)	-0.0453 (0.049)
Family/Friends	0.0677* (0.040)	-0.0491 (0.085)	-0.0505 (0.057)
Primary Educ	0.0367** (0.016)	0.2011 (0.176)	-0.0951 (0.109)
Secondary Educ	0.1071*** (0.018)	0.0783 (0.171)	-0.0948 (0.104)
Tertiary Educ	0.1212** (0.051)	0.0724 (0.188)	-0.1012 (0.1012)
Technical Skill	0.0677*** (0.023)	- (0.044)	-0.0255 (0.029)
be4		0.1849*** (0.027)	
Better social servic	-0.0237 (0.021)	0.0563** (0.027)	- (0.044)
			0.1309***
Observations	501	501	501

Marginal effects; Standard errors in parentheses

* $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$

While on the other hand, on average, there is about a 11.44 percentage point decrease in probability of migrating to Lilongwe as one gets older compared to Blantyre, holding other things equal.

To capture the non-linear effects of age, the variable square of age is included. Conforming to many migration literatures, an individual's choice to migrate to Zomba and Mzuzu follows the inverted U shape as the coefficient for the square of age is found to be negative. However, the coefficient for the square of age for individuals who chose to migrate to Lilongwe relative to Blantyre is positive indicating a U shape relationship between age and choice of Lilongwe as destination.

All levels of education have shown a statistical significant relationship in individual's choice of Zomba as the area of destination compared to Blantyre. This conforms to what Caldwell (1968) and Gborstu (1995). On average holding other factors equal, compared to individuals with no education, individuals with primary, secondary and tertiary education are more likely to choose Zomba as destination, relative to Blantyre, with 3.67 (primary), 10.71(secondary) and 12.12 (tertiary) percentage points. For other cities (Lilongwe and Mzuzu), all the categories of education status have no statistical significant relationships.

Marital status of an individual has a statistical significant impact on the decision to choose a destination. For example, the results in Table 5 above shows that, on average, compared to those that are married, individuals who are divorce or separated have 19.31-percentage point increase in the probability of migration to Lilongwe compared to Blantyre, holding other factors equal. Individuals who are widowed have a reduced chance of about 7.5-percentage point of migrating to Zomba compared to Blantyre, on average and holding other things constant. For other cities and categories of marital status, there are no statistical significant associations.

There is also a significant impact on the decision to migrate to one destination over another and the household size of an individual in the area of origin. In this study, the results show that an increase in household size leads to about 2.8-percent increase in the probability of migrating to Lilongwe compared to Blantyre on average and holding other things constant. Furthermore, an increase in the number of persons in the same dwelling unit, leads to a 1.67 percent point decrease in the probability of migration to Mzuzu compared to Blantyre, on average, holding other factors constant. This variable is not statistical significant in reducing the probability of going to Zomba compared to Blantyre.

Compared to other religion, identifying as a Christians reduces the chances of an individual going to Lilongwe compared to Blantyre by 16.15-percentage point, on average and holding other things equal. In the same vein, compared to other religion, identifying as a Muslim reduces the chances of migrating to Lilongwe compared to Blantyre by 23.98-percentage point, on average and *ceteris paribus*.

The results also show statistically significant associations between marriage patterns and tribes, and the decision of a destination. Compared to individuals whose tribes follow matrilineal (uxilocal) system of marriage, individuals whose tribes follow patrilineal marriage patterns are less likely to choose Lilongwe as their destination compared to Blantyre but more likely to choose Mzuzu as a destination compared to Blantyre by 9.49 and 20.31 percentage points respectively, on average holding other things constant.

Awareness and expectation of entrepreneurship opportunities has been found to have a positive impact on increasing the chances of an individual to choose Zomba as a destination compared to Blantyre. On average, and holding other things constant, individuals are more likely to choose Zomba as destination compared to Blantyre by

7.2 and 6.37 percentage points for both awareness of entrepreneurial opportunities and expected entrepreneurial opportunities respectively. Availability of family and friends in the destination is found to be a significant factor in increasing the probability of choosing Zomba as a destination over Blantyre by 6.8-percentage points, on average and holding other things constant.

The results also show that availability of better social services in the area of destination has significant impact (at 1% level of significance) in choosing that city over Blantyre. On average, availability of better social services increases the chance of going to Lilongwe compared to Blantyre by 9.74-percentage points, holding other things constant. Meanwhile, on average, availability of better social services reduces the chance of going to Mzuzu compared to Blantyre holding other things constant.

5.5 Empirical results from Occupation models

This subsection presents *only* the findings from the second model following the estimation of occupation of migrant as the dependent variable in line with the analytical style of the dichotomous models. In modeling the factors that affect choice of occupation among migrant youth in urban Malawi, Table 6 presents the results from a multinomial logit model.

The results in Table 6 demonstrate that individuals with technical skills were less likely to choose entrepreneurship and wage employment compared to being unemployed or doing petty trade.

On average, holding other things constant the condition probability of being an entrepreneur decrease by 57.10-percentage point for migrant youth with technical skills compared to those without. This result is significant at 5 percent level of significance. While the impact of technical skills on the probability of finding wage

employment is positive and significant at 5 percent level of confidence. The conditional probability of being wage employed increases by 8.91–percent point significant for skilled young migrant on average holding other factors constant.

Table 6 Probit Model results for occupation

	Entrepreneur		Wage Employment	
Age	-0.0413	(0.080)	0.1007	(0.076)
Square of Age	0.0015	(0.001)	-0.0027*	(0.001)
Not married	-0.2510***	(0.088)	0.1699**	(0.086)
Prim. Education	0.1198	(0.266)	0.3572	(0.266)
Sec. Education	0.1557	(0.265)	0.3134	(0.265)
Tertiary Educ	0.0458	(0.331)	0.2889	(0.327)
Patrilineal tribe	-0.2523***	(0.084)	0.2034**	(0.081)
Female	-0.1502	(0.096)	0.2538***	(0.092)
Dependents	0.0419***	(0.015)	-0.0343**	(0.014)
Christianity	-0.1695	(0.114)	0.0160	(0.108)
Muslim	-0.1204	(0.142)	-0.0861	(0.138)
Tech Skills	-0.1971**	(0.081)	0.0891**	(0.077)
Entre Opportunities	0.5710***	(0.143)	0.1214	(0.129)
Social networks	-0.0791**	(0.034)	0.0404	(0.033)
HH Economic Index	0.2888***	(0.061)	-0.1320**	(0.061)
Observations	1320		1320	

Marginal effects; Standard errors in parentheses

* $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$

Belonging to social networks and groups reduces the chance of being an entrepreneur while it increases the chance of getting a wage employed even though this is not statistical significant.

On average, holding other factors constant, individuals who reported to belong to social groupings and networks have their conditional probability of being entrepreneurs reduced by 7.97-percentage point while their conditional probability of being wage employed increases by 4.04 percentage point despite this effect being not statistically significant at the conventional levels of significance.

On one hand, individuals who perceive that there is entrepreneurship opportunity are more likely, by 57.10-percentage point, to go into entrepreneurship. This result is significant at 1 percent level of significance. Such perceived entrepreneurial opportunity leads to an increase in the probability of being employed, however, such an increase is not statistically significant.

The results also show that, individuals who are not married are about 7.75 less likely to go into entrepreneurship than being unemployed, compared to those that are married, on average holding other things constant. Furthermore, the results also show that belonging to patrilineal tribe has a statistically significant impact on occupation of an individual. Compared to those of matrilineal tribes, individuals belonging to patrilineal tribes are less likely to venture into entrepreneurship by 25.23-percentage point on average and holding other things constant. However, individuals of patrilineal tribes are more probable to be in wage employment by 20.34-percentage point on average, holding other things constant.

An increase in the number of dependents of an individual has statistically significant effect in an individual being either an entrepreneur or wage earner. On average and holding other things constant, there is a 4.19 percentage point increase in the conditional probability of being an entrepreneur with an increase in the number of dependents and this is statistically significant at 1 percent. However, an additional dependent leads to a 3.43 percent point decrease in the conditional probability of being in wage employment.

Households with a higher economic status have more chances of being entrepreneurs than being unemployed by 28.88 percentage point on average holding other things constant. While education is considered as an expedient agent of change according to (Shirazi, 1995), it does not have any significant effect in decision to become a entrepreneur or in wage employment in these models. The results also show that the relationship between age and entrepreneurship follows a U shape while that of age and wage employment follows an inverted U shape. This is to say that decision to join entrepreneurship increases as age increases while those of joining wage employment reduces as with age.

5.6 Discussion for Destination Model

This sub-section presents a discussion of results that have been found in subsection 5.2. The discussion centers on the variables of interest such as skills and entrepreneurial opportunities. Furthermore, the discussion also compares the findings of this study with previous studies. Under this section, reasons are given for all the variables that are not conforming to the expected results, either the coefficients are of opposite sign or the variable is not statistically significant.

The findings of this study show that individuals with technical skills obtained before migration are less likely to migrate to Lilongwe and more likely to migrate to Zomba compared to Blantyre. Owing to the fact that Blantyre has been the Malawi's business hub and centre of many industrial sites, youth with skills will find it more appealing to choose Blantyre as their destination compared to Lilongwe as they seek to broaden their skills horizon and take advantage of increased entrepreneurial opportunities. According to Démurger (2012), migrants tend to take on long distance migration and from the results, a majority of migrants are northerners¹⁰ and possibly that would explain why most of them would want to go longer distance and choose Blantyre over Lilongwe.

The results also show that awareness of entrepreneurial opportunities and expectation of such entrepreneurial opportunities increases the probability of an individual choosing Zomba over Blantyre as their destination. This finding explains why individuals with skills are more likely to choose Zomba over Blantyre. Therefore, it is apparent that as long as individuals know that there are entrepreneurial opportunities in Zomba, chances are that they will migrate to Zomba regardless. This finding pertains to the flow of information and suggests that individuals are more likely to receive information about Zomba than any other destination area since awareness and expected entrepreneurial opportunities have no significant effect on decision to migrate to Lilongwe or Mzuzu. To further establish why there is such easy flow of information for migrants who decided to go to Zomba, there is a positive impact of social ties, (family and friends), on the decision to migrate to Zomba.

¹⁰ This is far from Blantyre and Zomba (southern region) where more migrant youth are reported to have been going

This implies that individuals who migrate to Zomba have family ties that give them information about entrepreneurial opportunities and easy integration. This information and relationships makes it easy for young migrants to Zomba compared to Blantyre.

These findings are in line with what Siar (2013) found that people will tend to migrate to areas they perceive will utilize their skills, harness their knowledge and skills as well as good opportunities for family life.

Family ties and expected or awareness of entrepreneurial opportunities do not have statistical significant effect in decisions to migrate to either Mzuzu or Lilongwe over Blantyre. In many occasions, migration involves the desire of a person to take on risky action of moving from there known surrounding to a totally new area with own rules of the game (Malchow-Møller et al., 2009). This may explain why family ties and expected opportunities are not significant in explaining decision to migrate to Lilongwe or Mzuzu.

Conforming to most migration literature (such as, de Haan, 1999; Narman, 1995) that hypothesize that age follows an inverted U shape in migration, results for migrant youth in Zomba and Mzuzu also show an inverted U shape. However, the result for migrant youth in Lilongwe shows that age follows a U shape. The peculiar result for Lilongwe can be explained by understanding that young people will tend to go to Blantyre because Blantyre has the commercial hub with more business opportunities, however, as they grow older and with the urge to explore more in life and seek broader experiences, people may tend to prefer Lilongwe to Blantyre in addition to the fact Lilongwe is the fastest growing urban center.

The results also show that the larger the household size, the more likely an individual will migrate to Lilongwe and less likely would they migrate to Mzuzu, while as the number of dependents increases, the probability of going to Lilongwe reduces. This can be explained by looking at the fact that Lilongwe is a bigger city and still growing, an increase in the household size would mean a reduction in the land per capita and as such individuals are more likely to move to Lilongwe compared to Blantyre to access a bigger land. Likewise in Mzuzu, compared to Blantyre, individuals will migrate to Blantyre because it is bigger and has more opportunities. However, an increase in number of dependents will less likely lead to a higher probability of migrating to Lilongwe compared to Blantyre, as individuals will aim at increasing their incomes to meet the demands of increasing dependents. Furthermore, the higher the number of dependents the more likely they will choose entrepreneurship and less likely will they stick to wage employment.

The also study shows that, compared to matrilineal tribes, those of patrilineal descent are more likely to migrate to Mzuzu than Blantyre and less likely to migrate to Lilongwe than Blantyre. This finding is intriguing, for the choice of Blantyre, in the sense that one would expect more matrilineal tribes in Lilongwe compared to Blantyre because of distance, however, this result confirms what in literature is referred to as long distance migration as people have the tendency to take upon migration of long distance from home (see for example Démurger, 2012). Availability of better social services has been found to positively impact the choice of Lilongwe as migration destination compared to Blantyre and negatively impact the choice of Mzuzu.

This tells a story that given better social services in the Capital City (Lilongwe), people will tend to migrate into Lilongwe, as they may seem to be more opportunities coming up. In addition, on a gender dimension, females are more likely to migrate to Mzuzu and Zomba compared to Blantyre, but less likely to migrate to Lilongwe and this association is also not significant.

5.7 Discussion for Occupation Models

The findings also show a negative statistical significant effect of skills the likelihood for individuals to become entrepreneurs. These results are contrary to *a priori* expectations that individuals with technical skills will more likely look to establish their own place of working and employ others. de Haan, (1999) and Narman, (1995) also found that young migrants choose occupation that matches their skills and education and ,as such, most skilled individuals are perhaps more likely to be entrepreneurs. For this Entrepreneurship has been the agenda of Malawi Government as seen establishing TEVETA to increase skills development in individuals and enhance entrepreneurial activities (De Gobbi & Anang, 2013).

However, this is not the case in this study, the negative relationship however shows that availability of skills only is not an important aspect in someone's decision to become an entrepreneur, but rather provision of necessary tools and startup capital can be a crucial aspect of making technical skill provision as significant. Not only that, according to Malchow-Møller et al. (2009) entrepreneurship involves the desire to take risk and as such it has root in psychology and sociology such that not every person can become an entrepreneur. Some people acquire skills so that they stand a

better chance of finding a better employment and this result has been proven in this study, as skilled migrants are more likely to be in wage employment.

The results also suggest that people of patrilineal tribes are less likely to become entrepreneurs but more likely to be wage employed compared to matrilineal tribes. This is a finding that conforms to the expected results. Many matrilineal tribes such as Yao are naturally business oriented unlike many patrilineal tribes such as Tumbuka who are more inclined towards job search and wage employment. It is therefore apparent that the study found that many matrilineal tribes are more likely to be entrepreneurs as the spirit of entrepreneurship is passed through generation-to-generation and a young age.

On the gender dimensions, the results have shown that females are more likely to be in wage employment than men and less likely to be in entrepreneurship even though this relationship is not statically significant. This result is ambiguous due the fact that entrepreneurship involves a lot of risk taking, purposeful discovery of existing profit opportunity change, which is what most Malawian females do. However, this result can be explained in terms of the typology of businesses that were interviewed. For a country with a predominant cultural belief, there are different types of businesses that male and females do exclusively. For example, females and males predominantly do salon and barbershops respectively. In this regard the typology of businesses that females and males do are an important factor in the determination of significance of sex on entrepreneurship decision.

CHAPTER SIX

CONCLUSIONS AND POLICY IMPLICATIONS

6.1 Introduction

This chapter presents the study's summary, conclusions and policy recommendations that can be drawn from the results of the study. Firstly, the study's summary and conclusions are drawn from the discussions and are presented in subsection 6.2 followed by policy implications in subsection 6.3. Limitations and area for further research are presented in subsection 6.4.

6.2 Summary and Conclusions

The study set out to ascertain the impact of skills and entrepreneurial opportunity on choice of migration and occupation among migrant youth in urban Malawi. The study shows that more skilled migrants are likely to migrate to Zomba compared to Blantyre. There is a statistical significant impact of family or social ties on the decision to migrate to Zomba as well as significant effect of awareness and expected entrepreneurial opportunities. The study also shows that migrant youth are more likely to choose occupations that match their skills, as skilled migrants are likely to be entrepreneurs.

The study also found that perceived entrepreneurial opportunities have statically a significant effect in the decision to join entrepreneurship. This conforms to the *apriori* expected result implied by the definition of an entrepreneur according to

(Kirzner, 1997) which states that an entrepreneur is a person who perceives a profit opportunity and is simulated to act on that opportunity.

Perhaps the most intriguing result is that technical skills and social association reduces the conditional probability for one to become an entrepreneur but increases the conditional probability of being in wage employment. This has been explained in the discussion as an important finding, which pertains to the fact that individual psychology also plays a huge part in the decision to become an entrepreneur.

6.3 Policy Implications

The findings summarized and discussed above have significant policy implications. Firstly, the finding that having technical skills has a statistically significant effect on reducing the conditional probability of being an entrepreneur means emphasis on provision of technical education (through building of technical colleges) on its own, might not be a sufficient way of promoting youth entrepreneurship and self employment. Equipping the youth with both physical capital as well as instilling the entrepreneurship spirit among youth would be an appropriate approach. This is because entrepreneurship is a phenomenon that has roots in psychology and social elements and, as such, national policies should reflect a need to enable public access to entrepreneurial information as well as easy access to start up capital.

Secondly, the finding that individuals who have skills before migrating tend to choose Zomba as their destination compared to Blantyre should act as warning strategy to city planners and administrators of how to deal with and prepare for the influx of migrants youths as many start to earn technical skills and in their places of origin. There might be urbanization changes that they were not accustomed to before.

This also gives signals to owners of technical workshops to introduce their workplaces in Zomba and Blantyre so that they can tap from the increasing number of technically skilled migrant youths at a relatively cheap labour.

Lastly, the role of information, social connections and expectations cannot be overstated in the decision to migrate and integrate. The finding that social connections, perceived and expected entrepreneurship have a positive impact in the decision to migrate to Zomba entails that people are persuaded to choose a migration destination that they feel will be easy to integrate in. In this regard, policies that allow young migrants the freedom should be put in place and the ease of integration regardless of whom they know. Both informal and formal sectors in the urban centers should be organized in such a way that they do not perpetuate barriers to entry into the market.

6.4 Further Research

This current study has not explored much in many aspects related to migration including income differentials, skills differentials among migrant youth, and the gender dimensions on migration and occupation decisions. Future research is needed to incorporate these factors into policies. In addition, the study design did not dwell much on the role of distance as a step-wise migration. Future studies can be conducted to further delve into issues of step-wise migration and the roles of proximal rural growth centers.

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APPENDIX

Figure 1: Population pyramid for Malawi

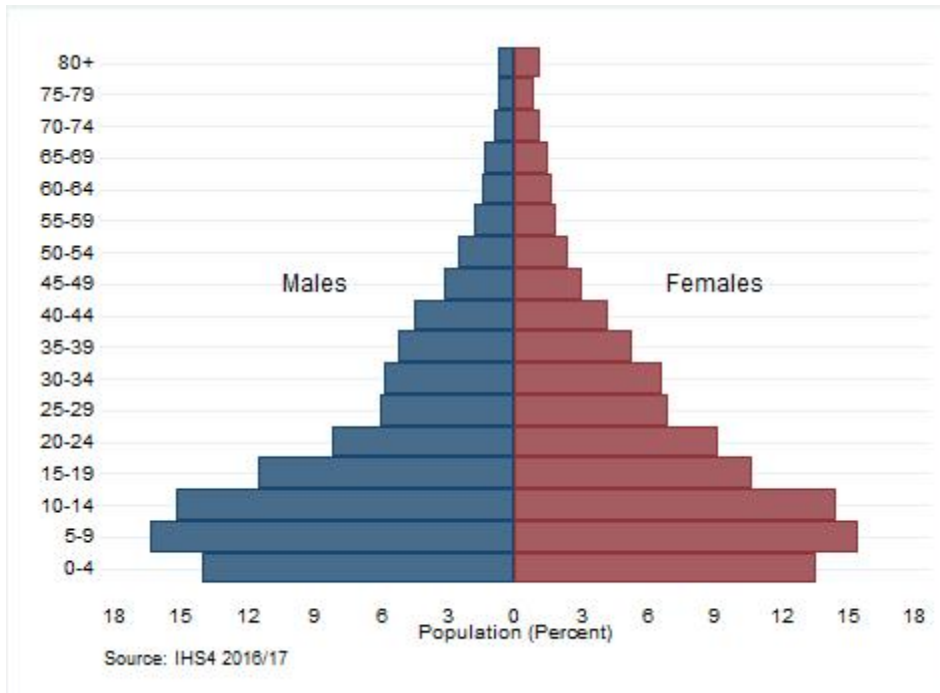


Table 7 Hausman Test for IIA

Hausman (H_0 : Odds (Outcome-J vs. Outcome-K) are independent of other alternatives)

District	Chi2	df	p-value	Decision
Zomba	1.448	42	1.000	Fail to reject H_0
Blantyre	1.955	9	0.992	Fail to reject H_0
Lilongwe	0.796	5	0.977	Fail to reject H_0
Mzuzu	0.616	7	0.999	Fail to reject H_0

Table 8 Wald Test for Destination Model

Wald test (H_0 : The coefficients of the variables are jointly insignificant)		
Chi Square (64)	P-value	Decision
203.15	0.0000	Reject H_0

Table 9 Entrepreneurship goodness of fit

Goodness-of-fit test for Entrepreneurship Model:

Number of observations = 1320
Number of covariate patterns = 343
Pearson chi2(653) = 285.31
Prob > chi2 = 0.656

Table 10 Wage Employment goodness of fit

Goodness-of-fit test for Wage Employment Model:

Number of observations = 1320
Number of covariate patterns = 458
Pearson chi2(653) = 215.26
Prob > chi2 = 0.546