Junior Management Science 7(5) (2022) 1326-1360

Junior Management Science

journal homepage: www.jums.academy

The Effect of Micro-Entrepreneurship on Migration Plans of Young Adults in Rural Sub-Saharan Africa and the Mediating Role of Subjective and Economic Well-Being

Christian Stöhr

Technische Universität München

Abstract

Entrepreneurship can make a valuable contribution to global poverty reduction. However, poverty is often narrowly defined in terms of income and gross domestic product. Thus, a deep understanding of the impact of entrepreneurship on the development of the Global South cannot be obtained. To address this issue and uncover the transformative potential of entrepreneurship, this paper proposes a model in which both economic and subjective well-being mediate the relationship between micro-entrepreneurship and migration plans of young adults in rural sub-Saharan Africa. The results provide tentative evidence of a negative impact of micro-entrepreneurship on migration plans. Further, it is shown that subjective well-being explains part of the negative association between micro-entrepreneurship and migration plans. While those results hold for entrepreneurs in low-income countries and agricultural entrepreneurs, no evidence is found for entrepreneurs in middle/high-income countries and non-farm entrepreneurs. Contrary to expectations, the mediating role of economic well-being is not significant for either the entire group of micro-entrepreneurs or its subgroups. Finally, economic and subjective well-being as measures of poverty alleviation are found to be positively correlated.

Keywords: Entrepreneurship; Migration; Subjective well-being; Sub-saharan africa.

1. Introduction

Despite strong economic growth in many African countries in recent decades (Beegle, Christiaensen, Dabalen, & Gaddis, 2016), a large share of the young population sees emigration from their home country as the best option to break the cycle of unemployment and poverty (Milasi, 2020). Instead of migrating, however, people are increasingly trying to escape their lack of prospects through entrepreneurship. This is reflected in a large number of existing micro-enterprises in sub-Saharan Africa (SSA), as well as the high willingness to start an own business there (Kew, 2015). Although some entrepreneurs fail in the early stages of their business due to insufficient support, misplaced incentives, and lack of skills (GEM, 2013), entrepreneurship can offer a way out of unemployment (Kew, 2015). By providing both access to a regular income and increasing the perceived quality of life, entrepreneurship can drive poverty alleviation (Tobias, Mair, & Barbosa-Leiker, 2013) and ultimately even reduce young adults' migration plans (Cai, Esipova, Oppenheimer, & Feng, 2014; Chindarkar, 2014).

To better understand such transformative potential of entrepreneurship (Tobias et al., 2013), an integrative model is developed that takes a holistic view of microenterprise outcomes in rural SSA. Using linear and logistic regression, it is first estimated how micro-entrepreneurs differ from unemployed in terms of subjective well-being (SWB), economic well-being (EWB), and migration plans. Subsequent application of the quasi-experimental method Propensity Score Matching (PSM) controls for the influence of confounding variables and reduces selection bias. Structural Equation Modeling (SEM) is finally conducted to simultaneously determine the direct and indirect effects of entrepreneurship in explaining migration plans.

The thesis adds to the existing literature on outcomes of entrepreneurship by examining its impact in poverty-stricken regions of the Global South. The extensive analysis of Afrobarometer data counteracts the underrepresentation of quantitative empirical work in the research field. By including subjective well-being, the exclusively economic focus on assessing poverty based on income or gross domestic product (GDP) is countered. Moreover, the comprehensive investigation of the relationship between micro-entrepreneurship and migration plans in rural SSA contributes to an area of research that is still sparsely studied. Finally, by looking at

DOI: https://doi.org/10.5282/jums/v7i5pp1326-1360

EWB, SWB, and migration plans in an interconnected way, this paper shows how poverty has been overcome from the perspective of the ordinary entrepreneur, thereby illustrating the transformative potential of entrepreneurship.

Essentially, the purpose of this thesis is to study the effect of micro-entrepreneurship on migration plans of rural sub-Saharan youth and to analyze the role of EWB and SWB in this relationship. To this end, the central research questions are:

1. *How does micro-entrepreneurship affect the migration plans of rural, young sub-Saharan Africa?*
2. *What function do subjective and economic well-being have in this relation?*

The thesis proceeds as follows. Section 2 reviews previous literature on the impact of (micro-)entrepreneurship in the context of socio-economic constraints. Based on theoretical and empirical findings, Section 3 establishes the theoretical model and formulates four hypotheses. Section 4 presents the data, variables, and research approach on which the empirical analysis in Section 5 builds. Section 6 discusses the results of the thesis in terms of relevance to theory and practice, as well as their limitations. The final section concludes from this research.

2. Literature Review

The thesis deals with the broad field of (micro-)entrepreneurship and its outcomes in the context of socio-economic constraints, specifically the rural region of SSA. The section below defines important terms and summarizes what is already known about the research field. Moreover, it is explained to what extent the study can contribute to the previous research.

2.1. Terminology of Rural Micro-Entrepreneurship

The Global Entrepreneurship Monitor (GEM) defines entrepreneurship as “any attempt at new business or new venture creation, such as self-employment, a new business organization, or the expansion of an existing business, by an individual, a team of individuals, or an established business” (Reynolds, Hay, & Camp, 1999, p.3). A similar classification is made by the Organization for Economic Co-operation and Development (OECD). Accordingly, entrepreneurs are "people who sense opportunities, innovate, take risks, and develop new goods and services. They drive business dynamics [...] and fuel overall economic growth" (OECD, 2000, p.3). Micro-entrepreneurs, as distinguished from entrepreneurs, are those who engage in entrepreneurial activities using the services of no more than five people (Jayachandran, 2020; Quagrainie, Adams, Kabalan, & Dankwa, 2021).

In rural SSA, these micro-enterprises are generally mostly owner-operated with no other employees (Gough & Langevang, 2016). If micro-entrepreneurship takes place in rural areas, it is also often referred to as rural entrepreneurship (Koyana & Mason, 2017). The empirical unit of observation in the thesis is precisely this microentrepreneur or rural entrepreneur. Those people engage either in income-generating activities within agriculture, i.e. farming as a business instead of subsistence farming (Gough & Langevang, 2016), or outside agriculture as non-farm entrepreneurs (Alemu & Adesina, 2017; Nagler & Naudé, 2017). Non-agricultural activities comprise mainly handicraft production, trade in goods, and provision of services (Gough & Langevang, 2016). It should be noted that most micro-entrepreneurs in developing countries are part of the informal sector. This usually means that they are not formally registered with the government (Gough & Langevang, 2016; Jayachandran, 2020; Nagler & Naudé, 2014).

Entrepreneurship literature often distinguishes between the terms opportunity entrepreneurship (pull) and necessity entrepreneurship (push), among them for instance Reynolds, Camp, Bygrave, Autio, and Hay (2001), Z. Acs (2006) and Dencker, Bacq, Gruber, and Haas (2021). While in the first case one actively decides to start a venture to take advantage of a potential business opportunity, in the second one acts out of lack of alternatives (Z. Acs, 2006). Notwithstanding, such a distinction plays a minor role in answering the research questions. Indeed, strict divisions into necessity and opportunity or push and pull bear the risk of obscuring the dynamics of entrepreneurship (Langevang, Namatovu, & Dawa, 2012; Welter, Baker, Audretsch, & Gartner, 2017) and limiting its theoretical development (Dencker et al., 2021). Furthermore, previous literature confirms that both necessity and opportunity entrepreneurs operate in rural SSA (Gough & Langevang, 2016; Nagler & Naudé, 2017). For these reasons, this paper accepts heterogeneity and diversity in entrepreneurship instead of defining it strictly according to existing concepts (Dencker et al., 2021; Welter et al., 2017).

2.2. Outcomes of Entrepreneurship in the Global South

To date, there is little research on the impact of entrepreneurship in developing countries (Dencker et al., 2021; Kolk, Rivera-Santos, & Rufín, 2014; Vivarelli, 2013). Especially SSA has been poorly researched (George, Corbishley, Khayesi, Haas, & Tihanyi, 2016; Igwe & Icha-Ituma, 2020; Sheriff & Muffatto, 2015). Moreover, the focus of the entrepreneurship literature has so far been on influencing factors rather than outcomes (Dencker et al., 2021; Shepherd, Parida, & Wincent, 2021), and on institutions or countries rather than ordinary entrepreneurial participants, which it has largely ignored (Tobias et al., 2013).

In the last decade, however, the outcomes of (micro-) entrepreneurship in the context of poverty or resource constraints have attracted growing attention among researchers. The relevant literature on this, including studies in SSA, is presented in Table 1 to provide a quick overview. The impact of entrepreneurship has been studied mainly from a European and North American perspective, both representing the Global North (Bruton, Ahlstrom, & Obloj, 2008). Surprisingly, so little research exists on the poor in the developing world. First, low-income countries tend to have higher

levels of entrepreneurial activity than advanced economies (Z. J. Acs, Desai, & Hessels, 2008). Second, especially in developing countries, economic performance and employment situation depend on entrepreneurship, which is mostly informal (Bruton, Ireland, & Ketchen Jr, 2012).

Third, a deep understanding of the impact of entrepreneurship in developing countries or poverty-stricken regions can make an important contribution to theory and practice (Bruton et al., 2008; Naudé, 2010). Because context plays a critical role in studying the consequences of entrepreneurship (Wiklund, Nikolaev, Shir, Foo, & Bradley, 2019), researchers must also gain their insights within developing countries. Ultimately, this could impact the overall understanding of the theory. In fact, the boundary conditions in developing countries seem to influence the entrepreneurship theory of developed countries (Reid, Roumpi, & O'Leary-Kelly, 2015; West, Bamford, & Marsden, 2008).

2.3. Economic Outcomes

More than 650 million people are living in extreme poverty, meaning each of them has to get by on less than 1.90 USD per day (Roser & Ortiz-Ospina, 2019). Eradicating this poverty is therefore one of the greatest challenges facing humanity (Chliova et al., 2015). The UN has written out this challenge as goal number 1 in its Sustainable Development Goals (SDGs): "End Poverty in All Its Forms Everywhere" (UN, 2020, p.6). Research increasingly sees entrepreneurship as a means for sustainable and economic development (Adusei, 2016; Bruton et al., 2013; Johnson & Schaltegger, 2020; London & Hart, 2010; Shepherd & Patzelt, 2017). This is partly because at the core of entrepreneurship is opportunity and wealth creation (Drucker, 1998; Hitt, Ireland, Camp, & Sexton, 2001; Schumpeter, 1934; Venkataraman, 2004). Under these aspects, numerous scientists are further interested in poverty alleviation through entrepreneurship (Alvarez & Barney, 2014; Bradley et al., 2012; Chliova et al., 2015; Kimmitt et al., 2020; Shepherd et al., 2021; Sutter et al., 2019; Vermeire & Bruton, 2016).

The theoretical and practical insights on the economic impacts of entrepreneurship under socio-economic constraints are still incomplete and controversial (Sutter et al., 2019). This is particularly true for SSA (Vermeire & Bruton, 2016) and its rural population (Tobias et al., 2013). Tobias et al. (2013) address this research gap with a quantitative examination of poverty alleviation from the perspective of coffee farmers in rural Rwanda. They report a significant increase in personal wealth as a result of entrepreneurial activity. Some qualitative studies indicate that at least some of the rural population sees entrepreneurship as a way to improve their livelihoods (Adewumi, 2020; Kolawole & Ajila, 2015; Okeke & Nwankwo, 2017). However, other studies are doubtful about the contribution of entrepreneurship to income growth and rural development (Kew, 2015; Nagler & Naudé, 2014, 2017). This is because most youth enterprises are undifferentiated, low-growth businesses that essentially offer employment only to the owner (Kew, 2015) and primarily serve for risk diversification (Nagler & Naudé, 2014). Beyond that, it was found that rural non-farm enterprises mostly leave the market due to lack of profitability, finance, or idiosyncratic shocks (Nagler & Naudé, 2017).

2.4. Non-Economic Outcomes

2.4.1. Outcomes on Subjective Well-Being

The widely used concept of SWB depicts the presence of positive affect, the absence of negative affect, and the experience of happiness (Diener, 1984). The SWB builds on two different well-being accounts. First, there is cognitive-evaluative well-being. It describes general life satisfaction, i.e. what people think about their living (Diener, Emmons, Larsen, & Griffin, 1985). Second, there is hedonic-experienced well-being, which expresses how people experience their lives. Hedonic well-being is measured with positive affect, which involves feelings of happiness or joy, and negative affect, which reflects stress, depression, anger, or sadness (Diener, 1984). With the eudaimonic approach, another stream of research has emerged. It suggests that psychological functioning is a critical component of a fulfilling life (Nikolaev, Boudreaux, & Wood, 2020). Specifically, it outlines a dynamic process in which the fulfillment of psychological needs and desires should enable positive feelings and life satisfaction (Ryan & Deci, 2017; Seligman, 2012). The hedonic approach and the eudaimonic approach of SWB are not covered in the thesis since the available data do not allow them to be accurately represented. Instead, the emphasis lies on the evaluative approach because it can be well replicated with available survey data (Abdallah, Thompson, & Marks, 2008) and there is already sufficient academic evidence of its link to entrepreneurship (Nikolaev et al., 2020) and migration (Chindarkar, 2014). Usually, evaluative well-being is captured with life satisfaction scales by retrospectively assessing life or individual life domains. According to the evaluative concept, people can best judge their own lives and well-being by assigning relative weights to various hedonic experiences over time (Kahneman, Diener, & Schwarz, 1999; Kahneman & Krueger, 2006).

The exploration of well-being in entrepreneurship literature is still in its nascent stage (Wiklund et al., 2019). In the last decade, however, well-being as a significant cause or effect of entrepreneurship has received increasing attention from management, entrepreneurship, and economics scholars (Andersson, 2008; Binder & Coad, 2013; Nikolaev et al., 2020; Shepherd & Patzelt, 2017; Shir, 2015; Shir, Nikolaev, & Wincent, 2019; Stephan, 2018; Uy, Foo, & Song, 2013; Wiklund et al., 2019; Wiklund, Yu, Tucker, & Marino, 2017). There is already some knowledge on this in the context of socio-economic constraints. For example, Nikolova (2019) studies the relationship between entrepreneurship and the mental health of necessity entrepreneurs. According to her article, not only opportunity entrepreneurs but also necessity entrepreneurs benefit health-wise from their activity. Abreu et al. (2019) find that self-employed people from deprived neighborhoods have higher life satisfaction than self-employed people from wealthier neighborhoods.

Table 1: Research on Outcomes of (Micro-)Entrepreneurship under Socio-economic Constraints

Authors (Year)	Journal/Issuer	Arcticle Summary
Bradley, McMullen, Artz, and Simiyu (2012)	J. Manag. Stud.	combine prior research on poverty alleviation, which focuses on the allocative view of opportunity with the creation and discovery views of opportunity
Binder and Coad (2013)	Small Bus. Econ.	apply a matching approach to self-employment and life satisfaction
Bruton, Ketchen Jr, and Ireland (2013)	JBV	review extant knowledge about entrepreneurship as a solution to poverty and discuss future research
Tobias et al. (2013)	JBV	examine poverty alleviation and conflict resolution in rural Ruanda's entrepreneurial coffee sector
Alvarez and Barney (2014)	ETP	explore the extent to which people in poverty are capable of forming and exploiting different entrepreneurial opportunities
Nagler and Naudé (2014)	IZA	provide a comparative empirical analysis of non-farm entrepreneurship in rural Africa in terms of patterns and determinants
Chliova, Brinckmann, and Rosenbusch (2015)	JBV	conduct a meta-analysis towards the impact of microcredit on outcomes of client entrepreneurs
Kolawole and Ajila (2015)	WJEMSD	present a practical approach for enhancing rural entrepreneurship development as a driver of transformation and development
Vermeire and Bruton (2016)	Afr.J.Bus.Manage.	provide a review and agenda for entrepreneurial opportunities and poverty in SSA
Nagler and Naudé (2017)	Food Policy	report on the prevalence, patterns and performance of non-farm enterprises SSA
Okeke and Nwankwo (2017)	APSDPR	determine the perceptions of rural entrepreneurs on the role of entrepreneurship in rural economic development
Sutter, Bruton, and Chen (2019)	JBV	analyze entrepreneurship literature to poverty alleviation over the period from 1990 to 2017
Abreu, Oner, Brouwer, and van Leeuwen (2019)	JBV	investigate how entrepreneurial well-being varies across urban-rural continuum and wealthy-deprived neighbourhoods
Nikolova (2019)	JBV	provides causal evidence of physical and mental health consequences of self-employment
Bhuiyan and Ivlevs (2019)	JBV	investigate subjective well-being of microcredit-funded entrepreneurs in rural Bangladesh
Adewumi (2020)	IJBMS	assesses the challenges and outcomes of rural entrepreneurship in Nigeria
Kimmitt, Munoz, and Newbery (2020)	JBV	revisit the relationship between poverty and entrepreneurship under a eudaimonic perspective
Giambra and McKenzie (2021)	World Bank	examine the relation between self-employment or entrepreneurship and migration
Shepherd et al. (2021)	ETP	explore entrepreur's beliefs about how entrepreneurship can alleviate poverty

Note: The full titles of abbreviated journals or issuers are given in the List of Abbreviations.

Likewise, there exists evidence on entrepreneurship and well-being in a context similar to that of the present work. Tobias et al. (2013) find an improvement in quality of life through entrepreneurship for specialty coffee farmers in rural Rwanda. Bhuiyan and Ivlevs (2019) examine the extent to which microcredit-supported entrepreneurship affects the SWB of entrepreneurs in rural Bangladesh. They note higher levels of worry and depression, which indirectly reduces life

satisfaction. It should be emphasized, though, that the findings of Bhuiyan and Ivlevs (2019) cannot be generalized to micro-entrepreneurs. Instead, they are due to microcredit borrowing by entrepreneurs. Overall, the evaluation of research in the Global South shows that the evidence is not yet sufficient to gain a comprehensive understanding of outcomes on SWB.

2.4.2. Outcomes on Migration Plans/Intentions

Before the entrepreneurial impacts on migration aspirations are addressed, there is a conceptual classification and an introduction to the main causes of migration. First of all, actual migration has to be differentiated from migration plans or intentions. In short, migration intentions or plans describe the step between migration preferences and actual migration (Carling & Schewel, 2018). Migration aspirations do not necessarily lead to actual migration, partly due to missing ability to migrate (Carling & Schewel, 2018), over-reporting (Etling, Backeberg, & Tholen, 2020; Migali & Scipioni, 2019) and the dynamics of migration considerations (De Jong, Root, Gardner, Fawcett, & Abad, 1985). In fact, about 20% of the world's population considered emigration in the recent past, but less than 1% actually migrated (Abel, 2018). Hence, as with Ozaltin, Shakir, and Loizides (2020), the thesis does not aim to test the robustness of migration aspirations in predicting actual migration. Section 4 explains why it is additionally necessary to distinguish between plans and intentions to answer the research questions.

Although it has been demonstrated that people choose to emigrate primarily at a young age, there is still little evidence on the factors that drive the migration behavior of young people worldwide (Milasi, 2020). A comprehensive, empirical study of young people's migration intentions and plans was conducted by Milasi (2020) using data from 139 countries over the period 2010-2016. He finds that unemployment, involuntary part-time work, and post-secondary school completion increase both migration intentions and the likelihood of turning these intentions into concrete plans.

Most of the literature distinguishes between push factors, which induce people to leave their place of residence, and pull factors, which attract people to a new place of residence (Ozaltin et al., 2020; Salameh, 2019). From migration and sociology research, the crucial push and pull factors are economic conditions (Neumayer, 2005; Schmeidl, 1997), violence (Moore & Shellman, 2007; Steele, 2009; Weiner, 1996), as well as cultural networks (Davenport, Moore, & Poe, 2003; Schmeidl, 1997; Wood, 2008). Since entrepreneurship serves as an employment opportunity, it is seen primarily as a pull factor (Dako-Gyeke, 2016; Ozaltin et al., 2020).

Besides migration causes, a significant part of previous research on migration and entrepreneurship deals with the so-called refugee or immigrant entrepreneurship (Desai, Naudé, & Stel, 2021; Kachkar, 2019; Kerr & Kerr, 2020; Wauters & Lambrecht, 2008). This research field examines entrepreneurs after their migration. Howbeit, those who do not migrate, although previously intending to do so, will not appear in such studies. Hence, they are subject to a selection bias (Ozaltin et al., 2020). The direct impact of entrepreneurship on migration plans has been insufficiently studied in the context of the Global South. While there is research that delves into the relationship between rural entrepreneurship and rural-urban migration in SSA (Adewumi, 2020; Bello-Bravo, 2015; Okeke & Nwankwo, 2017), migration across borders is only marginally addressed. Giambra and McKenzie (2021) provide descriptive and causal insights into the relationship between self-employment and migration. Nonetheless, their focus is not on rural SSA but on a variety of countries around the world, and the theoretical relationship between the two variables remains unclear. Moreover, there are doubts about equating self-employment with entrepreneurship, since essentially a distinction is made between the two (Parker, 2004; Shir et al., 2019).

Even though the direct effects of entrepreneurship on migration plans remain largely unexplored, there is some evidence of the indirect effects of entrepreneurship on migration via economic and non-economic factors. Studies looking at the influence of EWB or SWB on migration plans or intentions include those by Tartakovsky and Schwartz (2001) in the Urals in Russia, Chindarkar (2014) in 18 Latin American countries, Cai et al. (2014) across 154 countries worldwide, Salameh (2019) in Arab Spring countries, Bhoojedhur and Isbell (2019) in Malawi, and Ozaltin et al. (2020) in the Baghdad region of Iraq.

2.5. Transformative Entrepreneuring and Reform Perspective

According to Tobias et al. (2013), entrepreneurship can unleash potential for transformation in regions characterized by poverty and conflict. The authors present a model that follows the change-oriented idea of entrepreneurship to remove economic and social constraints through entrepreneurial processes (Mair, Battilana, & Cardenas, 2012; Rindova, Barry, & Ketchen Jr, 2009). The model by Tobias et al. (2013) consists of intentional and unintentional mechanisms with the participation of various entrepreneurial players. Critically depending on region-specific characteristics, these mechanisms can then generate both social and economic value, in turn extending the concept of transformative entrepreneurship by Venkataraman (2004). In the study of Tobias et al. (2013), the generated value consists of increased perceived quality of life and the reduction of prejudice against other ethnic groups. Ultimately, this can lead to sustainable, economic development (Tobias et al., 2013).

The thesis adopts the idea of transformative entrepreneuring by examining the mechanisms through which entrepreneurship can change the lives of ordinary entrepreneurs in poverty-stricken rural SSA. The transformative effect is obtained by looking at the intertwining of poverty alleviation with migration plans, comparable to the intertwining of poverty alleviation with conflict resolution found in Tobias et al. (2013). This work thus explores a new form of the transformative potential of entrepreneurship and responds to the request of Tobias et al. (2013) for new research on

its various components. An important difference, however, is that the longitudinal study by Tobias et al. (2013) examines entrepreneuring, and this views entrepreneurship as a process rather than a state. The thesis, in contrast, deals with entrepreneurship as a state. Therefore, it is not possible to examine how the transformative potential unfolds over time. Only an assessment can be made by comparing entrepreneurs with a control group, the unemployed. This is the reason, why a static model is formed instead of a process model.

Sutter et al. (2019) review the literature on entrepreneurship and poverty alleviation from three perspectives: remediation, reform, and revolution. The thesis examines entrepreneurship from the reform perspective. This is in part because it assumes that entrepreneurship can overcome poverty by enabling social change (Sutter et al., 2019). In the assumption of the thesis, this change is achieved by increased SWB and EWB and reduced migration plans. By contrast, the reform perspective is characterized by the fact that one is primarily interested in the lived experiences and views of those living in poverty. Consequently, one takes a more subjective view than in the remediation or revolution perspective (Sutter et al., 2019). In this work, the interest is in just those, namely the perceptions of young rural entrepreneurs.

2.6. Contribution to the Previous Literature

The thesis contributes to the existing literature on the impacts of entrepreneurship in poverty-stricken regions (see Table 1) by examining the outcomes of entrepreneurship for young adults in rural SSA. In doing so, it responds to calls from academia for more context-specific entrepreneurship research (Wiklund et al., 2019), particularly in developing countries (Bruton et al., 2008). In this way, it also reflects the need for more empirical and conceptual management research on the African continent (George et al., 2016).

To date, most entrepreneurship research on poverty has been qualitative. This is largely due to the difficulty of obtaining reliable, quantitative data in impoverished settings (Bruton et al., 2013). Now that a solid foundation of theoretical evidence is available, calls for more quantitative work on entrepreneurship and poverty are getting louder (Bruton et al., 2013; Tobias et al., 2013). This paper answers this call with a comprehensive empirical analysis of 31 countries using data from the pan-African research institute Afrobarometer.

The focus of entrepreneurship research has so far been on firm-level outcomes being growth and performance. In recent years, other outcomes like well-being have received increasing attention (Wiklund et al., 2019). The thesis ties in with the idea of Johannisson (2011) of liberating entrepreneurship research from an exclusively economic position and instead regard it as a practice of everyday life. A combination of economic indicators such as individual wealth with non-economic indicators such as perceived quality of life allows a better understanding of social and economic growth in developing countries (Tobias et al., 2013). This approach is taken up by combining EWB and SWB as outcomes of entrepreneurial action.

Research on the relationship between entrepreneurship and migration plans or intentions has been sparse. In particular, the literature review revealed that the direct impact of entrepreneurship on migration plans in the context of rural SSA has been insufficiently studied. In this regard, this work aims to provide new insights. Furthermore, SWB is not only a desirable outcome but may itself generate other outcomes just as future life events (Diener, 2012; Wiklund et al., 2019). Nevertheless, research to date on the drivers of international migration has concentrated on objective factors such as income (Cai et al., 2014). Since not only EWB but also SWB may have an impact on migration decisions (Cai et al., 2014), an investigation of both constructs in a still under-researched context can offer new insights. Further, while the relationship between income and migration and life satisfaction and migration has previously been studied separately, there is a lack of studies connecting the three concepts (Chindarkar, 2014). In this regard, the thesis also adds to the existing literature. Additionally, one picks up the thoughts of Ozaltin et al. (2020) and circumvents the selection bias that the literature around refugee entrepreneurship often faces. This is made possible by examining the plans of entrepreneurs before a potential migration rather than surveying them after the actual migration.

Last but not least, the thesis is a response to Bruton et al. (2013), who argue that entrepreneurship is a long-term solution to poverty when scholars understand how to help people in poverty start their businesses. Thus, it takes a different perspective than the one that has been widely used. The common one is based on the fact that people in poverty are seen as a large potential market for the sale of a variety of goods and services (Bruton et al., 2013). The view of the thesis, on the contrary, is whether entrepreneurs can break the cycle of poverty on their own, and consequently is consistent with the reform perspective (Sutter et al., 2019). So, the focus shifts to impacts on the micro-entrepreneur himself rather than on effects at the country or regional level. This is in response to the claims of Tobias et al. (2013), that previous literature is primarily limited to the latter two, neglecting local and community levels. For example, entrepreneurship to overcome poverty has often been viewed from the perspective of governmental organizations, government agencies, or individual heroic entrepreneurs (Rindova et al., 2009; Tobias et al., 2013). Now, comparable to coffee farmers in rural Rwanda, young entrepreneurs in rural SSA form the empirical unit of study. For these same people, entrepreneurship might have the effect of unleashing a transformative potential (Tobias et al., 2013). In addition to the benefits for EWB and SWB, this could even lead to a reduction in migration considerations. With this, a new type of transformation may be integrated into the theory of transformative entrepreneuring. Ultimately, it becomes easier to understand whether poverty has been eliminated from the perspective of an ordinary entrepreneur.

3. Theoretical Model and Hypotheses Development

The purpose of this chapter is to develop a testable theoretical model with corresponding hypotheses based on the literature presented earlier. The model will then be used to explore the relationship between micro-entrepreneurship and migration plans of young people in rural SSA.

3.1. Entrepreneurship of Young Adults in Rural SSA as Research Context

SSA generally provides a wide range of opportunities for entrepreneurship research (George et al., 2016). Economically, it is one of the fastest-growing regions in the world (Igwe & Icha-Ituma, 2020). That aside, the population is expected to increase by about one billion people between 2019 and 2050, which is half of the global population growth during that period (UN, 2019). With the recent reduction in the fertility rate, the young, working-age population is growing faster than other age groups. In 2015, 62% of the population was already under 25 years old (Kew, 2015). From 2010 to 2035, about 450 million people are expected to join the labor force (George et al., 2016). This demographic dividend offers the opportunity for accelerated economic growth (UN, 2019).

The flip side of this demographic, however, is an increasing threat of being affected by youth unemployment (Bommes, Fassman, & Sievers, 2014). The likelihood of becoming unemployed is already three times higher for young Africans than for adults (Kew, 2015). The opportunities in the formal sector are decreasing and the proportion engaging in informal entrepreneurship, in turn, is rising (Gough & Langevang, 2016). The labor shortage and widespread extreme poverty (Beegle et al., 2016) leave many with no choice but to flee their home countries (Milasi, 2020). In global refugee flows, this is noticeable in that a large proportion of migrants are coming from sub-Saharan countries (UNHCR, 2021). According to the Pew Research Center, 8 out of 10 of the fastest-growing international migrant populations since 2010 have come from SSA. More than that, the number of emigrants from SSA has increased by at least 50% between 2010 and 2017 (Connor, 2018).

On top of the strong growth of the young population, there are other reasons to focus on this age group. Partly because the entrepreneurial propensity is stronger among young Africans than older Africans. In Uganda, for example, it is 1.8 times as high (Kew, 2015). Even if the entrepreneurial tendency does not automatically mean that the respondents then actually start a business, it demonstrates a generally positive attitude towards entrepreneurship as a career choice. This openness is also demonstrated by the fact that young Africans are less concerned about the failure of their business than older ones (Kew, 2015).

In terms of migration, young people are the ones most likely to leave the home country (IOM, 2020; Migali & Scipioni, 2019; Milasi, 2020). Global estimates show that between 2010 and 2015, the net migration of young migrants (15-29 years) was five times higher than that of older people (30-64 years). This is partly due to the high mobility of young people (Milasi, 2020). Another point in favor of focusing on the young population is that tackling unemployment has a stronger impact on young people's intentions to migrate than it does for older people (Milasi, 2020).

In the context of this work, it is necessary to distinguish between rural and urban regions. The share of entrepreneurship in rural areas is similar to that in urban areas, however, opportunities and constraints for youth entrepreneurship differ (Gough & Langevang, 2016). Rural areas are more affected by extreme poverty than urban areas. They are often characterized by low incomes, low productivity, lack of infrastructure, high unemployment, and high population density (Adewumi, 2020; Gough & Langevang, 2016; Kew, 2015). In addition, farmland is becoming scarcer due to population growth, mineral exploitation, and commercial farming (Gough & Langevang, 2016). Entrepreneurship offers the potential to change such deplorable conditions especially in rural settings (Tobias et al., 2013). For all these reasons, the context of the thesis is set on the young, rural population of SSA.

3.2. Theoretical Model

The scientific evidence discussed previously, the idea of the transformative potential of entrepreneurship in SSA (Tobias et al., 2013), and the view from the reform perspective (Sutter et al., 2019) provide the essential components of the logic underlying the link between micro-entrepreneurship and migration plans. According to the thesis' assumption, this link is mediated by economic and subjective well-being. In this way, EWB and SWB form the construct of poverty alleviation, comparable to Tobias et al. (2013). The individual relationships are illustrated in Figure 1.

As the model shows, the basis is the direct relationship between microentrepreneurship and migration plans. Rural micro-entrepreneurs are included in the thesis as such if they live in the rural region and are engaged in full-time self-employment that generates an income. Section 4 will give a detailed description of the variables.

3.3. Hypotheses Development

3.3.1. Micro-Entrepreneurship and Migration Plans

Throughout this section, it is discussed how the migration plans of young entrepreneurs and young unemployed people differ in SSA's rural areas. Unemployment affects many young people in SSA and is seen as a major driver of migration. It is relevant to the thesis in that a reduction of unemployment through entrepreneurship could mitigate this key driver of migration. The following empirical findings first explain the role of unemployment as a reason for emigration. Unemployment does not have to mean that people are simply inactive. Instead, it might also mean housework, irregular piecework and, illegal activities such as prostitution or robbery (Gough & Langevang, 2016). According to Bhoojedhur and Isbell (2019), turning to the migration plans and

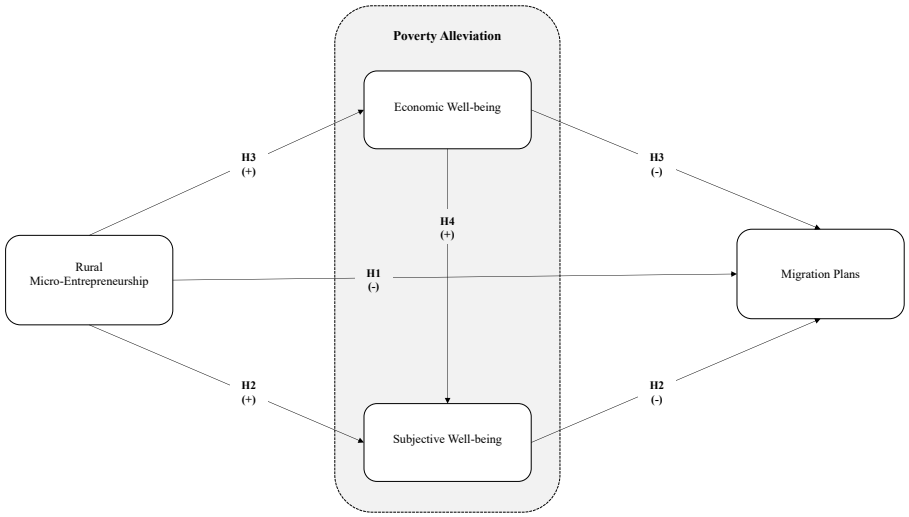

Figure 1: Hypothesized Model Predicting Migration Plans of Rural Micro-Entrepreneurs

Note: own illustration, following the mediation model of Nikolaev et al. (2020).

intentions of Malawians, 40% of respondents cite the search for work as a motive for considering emigration. Similar findings were obtained in the Arab Spring countries. Bommes et al. (2014) argue that the limited labor opportunities result mainly from the strong population growth combined with slow economic growth. Migali and Scipioni (2019) find that across different country groups, the unemployed are more likely to want to migrate than the people in employment, i.e., employees and the self-employed. The migration-inducing effect of unemployment has also been observed specifically among the young population (Milasi, 2020).

Regarding unemployment as a cause of migration, the thesis differentiates between intended unemployment and unintended unemployment. People outside the employment phase, i.e., with intended unemployment, appear to have a lower desire to emigrate than individuals in the employment phase (Migali & Scipioni, 2019). This is particularly true for young people, most of whom have not yet reached the labor force phase. Milasi (2020) reasons that young people away from the labor market are usually students and have fewer concrete plans about permanent emigration at this stage of their lives than later in their working lives.

In addition to unemployment, uncertainty about employment status is also seen as a driver of migration intentions (Bhoojedhur & Isbell, 2019; Milasi, 2020). Those in uncertain employment conditions, such as involuntary part-time employment, are particularly likely to migrate. Low pay and poor working conditions play a major role in this (Milasi, 2020). The fraction of those who strongly consider emigration is 43% for part-time employment, but only 23% each for full-time employment or voluntary unemployment (Bhoojedhur & Isbell, 2019). Full-time entrepreneurship without dependence on the existing employer could reduce such uncertainty about employment status (Nikolova, 2019).

The question is whether entrepreneurial activity per se can reduce migration plans. Studies examining the relationship between self-employment and migration confirm that the self-employed in developing and emerging economies are less likely to migrate than the inactive or wage earners. This is the case regardless of age, gender, education, and income (Giambra & McKenzie, 2021; Milasi, 2020). Using randomized experiments to estimate causal effects, Giambra and McKenzie (2021) also find that programs that lead to more self-employment and entrepreneurship reduce actual migration. Although these effects are rather modest and take several years to materialize, there is at least no evidence that self-employment-enhancing policies would increase migration (Giambra & McKenzie, 2021).

There are different attempts to explain this negative relationship. For example, self-employment may increase employment opportunities in the home country and thus the opportunity costs of migration abroad. This argument is also usually invoked by policy-makers, who advocate more jobs in the home country to prevent emigration (Giambra & McKenzie, 2021). Moreover, self-employment may entail a lock-in effect, which means one has already invested money and other resources in the own business and this capital could be lost in the event of migration. In addition to physical capital, this also affects intangible capital such as customer or supplier relationships or the value of the brand. Such capital would be difficult to monetize in the event of emigration (Giambra & McKenzie, 2021). Furthermore, there is a risk that the skills learned through self-employment are less transferable to other places than the skills learned through wage labor. This in turn may reduce career prospects abroad (Giambra & McKenzie, 2021).

According to the studies, it is still unclear whether self-employment per se is the cause of weaker migration plans or whether it is more a problem of self-selection. After all, self-employment is often the last resort for people in poverty,

and the poor simply do not have the means to migrate (Giambra & McKenzie, 2021; Milasi, 2020). In addition, some factors might make self-employed people even more likely to migrate, such as increased risk-taking and the ability to discover new business opportunities (Giambra & McKenzie, 2021; Naudé, Siegel, & Marchand, 2017; Williamson, 1965). Overall, the research findings do not yet allow for theoretical clarity on the actual effect of self-employment or entrepreneurship on migration, thus showing that further research is needed (Giambra & McKenzie, 2021). However, when the unintentionally unemployed and entrepreneurs are contrasted, evidence to date suggests that the latter are likely to have a lower propensity to migrate.

Based on the evidence presented, it is hypothesized that rural young microentrepreneurs have fewer migration plans than rural young unemployed. Last, it should be emphasized that the thesis is more concerned with identifying microentrepreneurship as a meaningful indicator of migration plans but less concerned with obtaining a concrete causal effect.

> ***Hypothesis 1:*** *Micro-entrepreneurs experience lower levels of migration plans than those who are unemployed.*

3.3.2. Subjective Well-Being as a Pathway to Migration Plans

The following section presents findings comparing entrepreneurs and the unemployed in terms of SWB and its influence on migration plans. Essentially, work has a positive impact on people's life satisfaction or happiness, whereas unemployment has a negative impact. This is true regardless of any selection effects, which would imply that people deliberately choose unemployment because of their dissatisfaction (Binder & Coad, 2013). In a recent study, Nikolova (2019) finds positive health effects of entrepreneurship, among both opportunity and necessity entrepreneurs. Regardless of whether they have employees or work alone and regardless of income, risk preferences, and personality traits, entrepreneurs benefit health-wise from their activities (Nikolova, 2019). Several factors must be considered to identify the underlying route cause. Among other things, one can escape the stigma of unemployment and gain full control over one's job. In addition, one can achieve more flexibility and experience an identity boost (Nikolova, 2019). Besides, the procedural utility theory (Benz & Frey, 2008) implies that health benefits can result solely from the process of entrepreneurial activity (Nikolova, 2019).

Apart from the health benefits, there are also indications of higher life satisfaction through entrepreneurship. Especially in underprivileged areas, where there are greater restrictions on wage employment, self-employment represents a viable alternative for the labor market. Abreu et al. (2019) find an increased life satisfaction in such deprived areas, as also present in rural SSA. On top of that, the entrepreneurial experience helps young people develop new skills, such as discovering new business opportunities, training innovative and critical thinking, and embracing teamwork and leadership skills. Finally, entrepreneurship gives young people the opportunity to be involved in society (Kew, 2015). Such potentials indicate why life satisfaction may be higher among self-employed young people in SSA (Kew, 2015). Based on previous findings, it is hypothesized that young micro-entrepreneurs have higher SWB relative to the unemployed in rural SSA.

The question arises whether SWB increased by entrepreneurship in turn influences migration plans and consequently acts as a mediator. Tartakovsky and Schwartz (2001) find a significant link between SWB and various motivations for migration, but do not establish a direct link between SWB and migration itself. Salameh (2019) states that migration is influenced by social factors, including social and psychological aftereffects of economic factors. Further empirical evidence indeed shows that the desire for international migration is negatively associated with SWB and that this is especially true for individuals with high levels of education (Cai et al., 2014; Chindarkar, 2014). It should be noted that the studies are not looking for a causal relationship, but a correlation. Complementing this, greater dissatisfaction with living situations and a pessimistic view of future living conditions are associated with a stronger propensity to migrate (Migali & Scipioni, 2019).

Overall, research shows that entrepreneurial activity can increase SWB. Especially when compared to the unemployed, micro-entrepreneurs seem to have a higher SWB. And the latter seems to mediate, at least in part, the effect on migration plans. Based on the predominantly empirical findings explained above, the following second hypothesis is formulated.

> ***Hypothesis 2:*** *Micro-entrepreneurs experience higher levels of subjective well-being than those who are unemployed, which partially mediates the negative relationship between entrepreneurship and migration plans.*

3.3.3. Economic Well-Being as a Pathway to Migration Plans

This section discusses scientific evidence on how the EWB of micro-entrepreneurs differs from the unemployed and how this relates to migration plans. The review of youth businesses by Kew (2015) reveals that the economic impact of entrepreneurship varies across sub-Saharan countries. Accordingly, the proportion of entrepreneurs expressing a positive impact rather than a negative or no impact on their livelihood varies significantly. In Malawi, Angola, Uganda, Ghana, and Nigeria, about half of youth businesses have a positive impact on livelihoods. In contrast, in Botswana, Namibia, Zambia, and South Africa, the rate is only around 30% (Kew, 2015). Notwithstanding the heterogeneity, such figures are suggestive of the economic potential of entrepreneurship for young adults.

Qualitative studies reinforce the role of entrepreneurship as a solution to mass unemployment and underemployment (Kolawole & Ajila, 2015). They point to the potential for wealth and income, and hence overall living standards, among the rural population (Okeke & Nwankwo, 2017). A

survey in rural Nigeria shows for instance that entrepreneurship empowers residents to generate at least enough income for a proper meal (Adewumi, 2020). Quantitative evidence allows drawing further conclusions about the economic impact for the ordinary entrepreneur in SSA. Tobias et al. (2013) find that the income and personal wealth of specialty coffee farmers in Rwanda have increased significantly since they began to produce.

Since previous empirical insights suggest that entrepreneurs have a higher EWB than the unemployed, the question arises to what extent the EWB is related to migration plans. The following research assumes that higher EWB is associated with reduced migration plans. According to Bhoojedhur and Isbell (2019), 51% of Malawian respondents cite economic hardship or escaping poverty as a reason to consider migration. Respectively, those least affected by poverty would be least likely to migrate. That income levels play a crucial role in determining migration flows also emerges from the study by Kandemir (2012). It says that people in 25 of the 27 largest migration corridors worldwide migrate to countries with a higher Human Development Index (HDI). Only in two cases, the decision falls on countries with a lower HDI. Survey results from Ozaltin et al. (2020) in the conflict-ridden Baghdad region underscore the importance of income levels for migration intentions. Alongside this, evaluations of surveys in Arab Spring states reveal that, in addition to violence and persecution, fleeing economic hardship and the desire for a better living situation are major reasons for emigrating (Salameh, 2019). Overall, the great importance of materialism, wealth, financial well-being, or control over material resources for migration intentions is widely accepted by researchers (Chindarkar, 2014; Dako-Gyeke, 2016; Milasi, 2020; Tartakovsky & Schwartz, 2001).

In contrast to the above insights, however, some studies report a strengthening effect of higher EWB on migration. As such, people living in extreme poverty seem more likely to emigrate after a certain improvement in income (Adhikari & Gentilini, 2018; Clemens, 2020; UNDP, 2009). Especially budget constraints seem to discourage young people in low-income countries from turning their migration intentions into concrete plans (Milasi, 2020). Self-employment might be one reason for overcoming such budget restrictions (Giambra & McKenzie, 2021). Also, uncontrolled, improperly designed cash transfers to poor people can overcome such income constraints on migration (Adhikari & Gentilini, 2018). Logically, the relationship between EWB and migration plans could also run in the opposite direction once a certain income threshold is exceeded. This, in turn, suggests a non-linear relationship (Dao, Docquier, Parsons, & Peri, 2018; Friebel, Gallego, & Mendola, 2013). The above evidence shows that the relationship between EWB and migration efforts is still controversial in the literature. Therefore, it is worthwhile to examine the role of EWB in the context of the thesis. Altogether, the discoveries of previous literature outweigh the cognition that higher EWB through entrepreneurial activity is negatively correlated with migration plans. The following third hypothesis is put forward.

> ***Hypothesis 3:*** *Micro-entrepreneurs experience higher levels of economic well-being than those who are unemployed, which partially mediates the negative relationship between entrepreneurship and migration plans.*

3.3.4. Economic Well-Being and Subjective Well-Being

Finally, the thesis addresses the question of whether the increased EWB resulting from entrepreneurial activity in turn positively influences SWB. According to Tobias et al. (2013), the linkage between economic and social value creation is initially triggered by the economic value created. Specifically, the increased personal wealth of specialty coffee farmers in rural Rwanda is associated with a positive change in the quality of life and thus higher SWB (Tobias et al., 2013). Since the study context of Tobias et al. (2013) is very similar to that of the underlying thesis, it is assumed that this connection also applies to young, rural entrepreneurs in other countries of SSA. Furthermore, it is demonstrated that poverty alleviation consists not only of economic factors but also of life satisfaction (Tobias et al., 2013).

Apart from this, Tobias et al. (2013) find that increased SWB, in turn, reduces outgroup prejudice. Specifically, only when higher income leads to higher SWB are entrepreneurs more likely to engage with people from other ethnic backgrounds. Income, therefore, does not unfold its effect alone, but in conjunction with SWB. In the context of the thesis, this would mean that only if higher EWB leads to higher SWB, entrepreneurs are less likely to emigrate. If so, the SWB would at least partially explain the impact of the EWB on migration plans.

Salameh (2019) also points to the close linkage of social factors with economic factors as causes of migration. Economic factors such as poverty, hunger, unemployment, and low living standards promote social and psychological constraints such as social exclusion and inequality, and alienation. For this reason, one should not look at EWB and SWB independently of each other, but rather take a closer look at possible linkages. Based on this knowledge, the final hypothesis is therefore that increased EWB due to micro-entrepreneurship leads to higher SWB.

> ***Hypothesis 4:*** *Economic well-being of micro-entrepreneurs is expected to have a positive effect on their subjective well-being.*

4. Methodology

This chapter first presents the selected data set and the relevant characteristics of the sample. It then explains how the different variables are constructed and which challenges are involved. Finally, the procedure of the subsequent empirical analysis is introduced.

4.1. Data and Sample

The empirical analysis is conducted with data from Afrobarometer. This is a panAfrican, non-partisan research

project that has been running surveys since 1999. The cross-national surveys are intended to examine the social, economic, and political conditions in Africa. Furthermore, they should be representative of a country's population in a given year (Mattes, Dulani, & Gyimah-Boadi, 2016). By drawing primary samples randomly from the population, every adult citizen has an equal chance of being selected for an interview (Afrobarometer, 2021). The database provides comprehensive crosssectional data for more than 30 countries of SSA. This allows the region to be largely mapped as the context of the study. Besides, the data are publicly available and can be considered up-to-date due to their recent collection. Beyond that, the specific questions on migration preferences and the economic and social situation of the respondents are suitable for approximating the required variables. Taking all aspects into consideration, Afrobarometer is the preferred database over alternatives such as Global Entrepreneurship Monitor, World Bank, or Gallup World Poll.

Having chosen Afrobarometer as its database, the thesis draws on the seventh round of surveys conducted between 2016 and 2018 (Mattes, 2020). Only this survey round contains the specific migration module needed to study the dependent variables migration plans and intentions. The Afrobarometer data set is processed and analyzed using the statistical software RStudio. As a first step, unneeded variables are dropped. Then the countries Morocco and Tunisia are removed, as they do not belong to SSA due to their geographical classification (UNDP, 2013). Kenya is also excluded, as migration plans were not surveyed there. This leaves 41,825 observations from 31 of the total 46 SSA countries (UNDP, 2013). Thereupon, the dataset is restricted to the rural sampling units. Lastly, to reflect the young population, only respondents between the ages of 18 and 35 are included in the analysis. This classification is comparable to that of Kew (2015) and Milasi (2020). The proportion of young adults in the sample is 52.61%, accounting for about half of the rural working-age population. Overall, after limiting to the rural youth population and deleting missing values, the dataset consists of 10,106 individual-level observations.

A common measure of entrepreneurial engagement is the Total Early-Stage Entrepreneurial Activity (TEA). This metric indicates participation in new or nascent businesses (Gough & Langevang, 2016) and averages 26.6% for 18-64-year-olds (Amoros & Bosma, 2014) and around 20% for 18-34-year-olds in SSA (Kew, 2015). The TEA of 18-35-year-olds in the present rural sample is a relatively low 10.33%. The difference in proportions might be due to several reasons. First of all, this thesis considers only rural entrepreneurs. However, the TEA may be higher in urban areas than in rural areas (Amha, Woldehanna, Tamrat, & Gebremedhin, 2015). In addition, the identification of micro-entrepreneurs in the thesis might differ from that by Amoros and Bosma (2014) and Kew (2015). Possibly, they use a less restrictive definition of micro-entrepreneurs and thus obtain a higher TEA. Third, large heterogeneity in TEA rates exists across SSA countries (Kew, 2015; Nagler & Naudé, 2017). For example, the minimum TEA is 13% in South Africa, whereas the maximum is 56% in Uganda (Kew, 2015). Last but not least, the results of the above studies are limited to only eight (Amoros & Bosma, 2014) and nine (Kew, 2015) instead of 31 countries, which might lead to further discrepancies.

4.2. Variables

4.2.1. Rural Micro-Entrepreneur

The empirical analysis compares the micro-entrepreneurs as the treatment group with the unemployed as the control group. The two groups are mapped with a dummy variable. Rural micro-entrepreneur is given the value 1 if the respondent lives in the rural region (Gough & Langevang, 2016; Koyana & Mason, 2017), has a full-time job that generates an income (Nikolova, 2019) and is self-employed (Dale, 2015; Hébert & Link, 1989; Sohns & Diez, 2018).

Rural micro-entrepreneur receives the value 0 if the respondent is unemployed. To this end, the respondent states that he lives in the rural region and is involuntary without work, so is looking for a job (Kew, 2015; Klasen & Woolard, 2009). The Afrobarometer statements for the variable are listed in Table 12 in Annex A.1. The dummy mapping in the rural sample yields a total of 1,044 micro-entrepreneurs and 3,386 involuntarily unemployed. Thus, the N for the two groups in the empirical analysis is 4,430. Table 2 shows the country-specific partitioning of the sample groups.

4.2.2. Subjective Well-Being

As already mentioned in Section 2, the concept of evaluative well-being, i.e. life satisfaction and basic happiness, is utilized to approximate SWB. Hedonic well-being and eudaimonic well-being are likely to be imprecisely captured by the available data and are therefore not considered. The components of SWB including their weighting are presented in Table 3. The modeling of SWB follows a similar procedure in the study of Abdallah et al. (2008) on the estimation of global life satisfaction. The authors also use Afrobarometer data and follow the evaluative well-being approach to frame the SWB. Specifically, their SWB is based on statements about satisfaction with personal and national economic and political conditions. In addition, it considers assertions about fear of crime and violence, family life, and how often respondents have gone without food in the past year. As with Abdallah et al. (2008), the SWB index builds on the Hierarchy of Needs by Maslow (1943). The relevance and applicability of Abraham Maslow's model in the context of entrepreneurship in developing countries has already been confirmed in further studies (Dencker et al., 2021; Hagerty, 1999; Sirgy, 1986).

The variable SWB attempts to replicate the five levels of the Hierarchy of Needs, consisting of physiological, safety, love/belongingness, esteem, and self-actualization (Maslow, 1943). To replicate the pyramidal structure of the Hierarchy of Needs, the components are first scaled and then weighted accordingly. Nevertheless, the methodology is not without limitations. For the top level of self-actualization, as with Abdallah et al. (2008), no matching variable was found in the Afrobarometer dataset. Thus, the index is restricted to

Table 2: Number of Observations by Country for Different Sample Groups

		N (Number of Observations)			
#	Country	SSA Sample	Rural Youth	Rural Micro-Entrepr.	Rural Unemployed
1	Benin	1,200	338	26	149
2	Botswana	1,198	116	3	71
3	Burkina Faso	1,200	422	12	115
4	Cabo Verde	1,200	177	16	71
5	Cameroon	1,202	260	9	90
6	Côte d'Ivoire	1,200	248	25	59
7	Eswatini	1,200	448	13	203
8	Gabon	1,199	123	1	58
9	Gambia	1,200	214	27	67
10	Ghana	2,400	460	172	118
11	Guinea	1,194	323	5	44
12	Lesotho	1,200	219	2	117
13	Liberia	1,200	344	2	228
14	Madagascar	1,200	331	33	69
15	Malawi	1,200	512	24	95
16	Mali	1,200	191	16	27
17	Mauritius	1,200	192	20	32
18	Mozambique	2,392	656	6	277
19	Namibia	1,200	229	3	103
20	Niger	1,200	468	22	177
21	Nigeria	1,600	565	86	178
22	São Tomé & Príncipe	1,200	189	15	70
23	Senegal	1,200	256	23	77
24	Sierra Leone	1,200	320	40	149
25	South Africa	1,840	242	3	133
26	Sudan	1,200	389	13	116
27	Tanzania	2,400	672	308	93
28	Togo	1,200	333	13	127
29	Uganda	1,200	405	79	132
30	Zambia	1,200	271	15	69
31	Zimbabwe	1,200	193	12	72
		41,825	10,106	1,044	3,386

Note: based on Afrobarometer survey round 7 conducted within 2016-2018.

the other four levels. Further, the seventh round of the Afrobarometer survey does not include any questions on physical or mental health. So, the safety level is shaped solely by personal economic conditions, which slightly overweights them in the index. The remaining three levels of Maslow's Hierarchy of Needs are modeled identically to Abdallah et al. (2008).

Given the poor data availability on SWB in SSA, there is no better alternative in the context of the thesis. Apart from that, Abdallah et al. (2008) are convinced of the basic appropriateness of their methodology in measuring the subjective quality of life. Moreover, the sample of the thesis with a total of 31 countries represents SSA far more completely than the sample of Abdallah et al. (2008). Beyond that, the ranking of the countries in terms of their median SWB seems plausible. An overview of the country ranking in the sample can be found in Figure 5 in Annex A.2. Over the survey period from 2016 to 2018, less fragile countries with a higher HDI, such as Mauritius or São Tomé and Príncipe, perform significantly better than more fragile, less developed countries such as Guinea or Madagascar (TheGlobalEconomy, 2021; UNDP, 2016).

4.2.3. Economic Well-Being

The concept of lived poverty is applied to reflect EWB. Specifically, the EWB variable is based on an experiential measure developed by Afrobarometer, the Lived Poverty Index (LPI). The LPI measures the frequency with which people experience shortages of basic needs. It complements official poverty and development statistics because information on

the scarcity of basic needs is a core concept of poverty and this is often inadequately captured by other measures (Mattes, 2020). In its original form, the higher the value, the higher the experienced poverty. The scale of the original variable is therefore reversed. Consequently, higher values mean lower lived poverty and, hence, higher EWB. Apart from reports published by Afrobarometer (Dulani, Mattes, & Logan, 2013; Mattes, 2020; Mattes et al., 2016), other studies use the LPI in identical (Hodler, Srisuma, Vesperoni, & Zurlinden, 2020; Odhiambo, 2019) or modified form (Cheeseman, 2015) as a measure of personal wealth.

The LPI is considered to have an acceptable degree of reliability and validity with a Cronbach's alpha of 0.71 to 0.77 (Meyer & Keyser, 2016). Individual income is not asked in the Afrobarometer surveys because, among other reasons, there are doubts about the reliability of such data (Cheeseman, 2015). Due to limited data and the advantage over a purely asset-based wealth index (Odhiambo, 2019), the thesis, therefore, relies on the LPI as an approximation for the EWB. As with the SWB, there are significant differences between the countries. The country-specific EWB-ranking is highlighted in Figure 6 in Annex A.3. For example, while the young, rural population in Mauritius rarely experiences shortages in basic needs, they quite often suffer deprivation in Gabon and Togo (Mattes, 2020).

4.2.4. Migration Plans/Intentions

In the empirical analysis, both variables migration plans and migration intentions serve to depict emigration aspirations. Despite their essentially similar classification (Carling & Schewel, 2018), migration intentions and plans must be distinguished from each other. The crucial difference between the two terms is their concreteness (Carling & Schewel, 2018; Tjaden, Auer, & Laczko, 2019; Van Dalen & Henkens, 2008). Migration plans describe concrete planning already undertaken, possibly even preparation for emigration, and not just the mere idea or consideration of emigration described by migration intentions (Carling & Schewel, 2018). If they are more abstract, they tend to reflect dissatisfaction with the personal situation in the country. If they are more concrete, they express specific plans to emigrate (Tjaden et al., 2019).

The Afrobarometer items including the description of both dependent variables can be found in Table 3. Migration plans become more and more concrete on a fourpoint scale from "Considering migration not at all", through "You are not currently making any specific plans or preparations" and "You are planning to move in the next year or two but not yet making preparations" to "You are currently making preparations to move, like getting a visa" (Afrobarometer, 2020, p.49). Migration intentions are increasingly ranked on a four-point scale from "Not at all", through "A little bit" and "Somewhat" to "A lot" (Afrobarometer, 2020, p.48). Similar to the distinction in the thesis, (Milasi, 2020, p.5) uses the variables "Plan", whether the respondent has already made plans to emigrate within the next 12 months, and "Desire", whether the respondent would like to emigrate permanently if possible.

The difference becomes clearer if one compares the number of similar answers to both questions. The number of answers with concrete emigration plans is significantly lower than the number of answers with only emigration considerations (Carling & Schewel, 2018). According to the Gallup World Poll, 32% of respondents in SSA had the desire to emigrate, but only 4% planned to do so in the next year. Only 1% have already made preparations (OECD, 2015). In other words, only a fraction of the people who wish to emigrate actually become active. Tjaden et al. (2019) strengthen this by claiming that the exact wording in the question about migration aspirations is crucial to interpreting the answer. The more abstract the question, the more likely people might show a desire to migrate.

The literature review revealed a research preference for migration intentions over migration plans. Based on those findings, more research should be done on the latter. Hence, the main model relies on migration plans. Migration intentions are then used to test the main model for robustness. This way, migration aspirations can be captured both in their non-binding and concrete form.

4.2.5. Challenges in Variable Measurement

The empirical analysis is restricted to Afrobarometer data, which were not specifically collected to test the hypotheses. This implies that the explanatory and mediating variables, meaning micro-entrepreneurship, SWB, and EWB, do not emerge directly from the survey. The definition of micro-entrepreneurship lacks information on entrepreneurial motivation, type of business, and the number of employees. Such information might have been useful, as it would enable more accurate classification of entrepreneurs and non-entrepreneurs. In the case of SWB, the dataset does not contain specific questions on mental and physical health. Thus, unlike the methodology of Abdallah et al. (2008), the safety level cannot be fully replicated along the lines of Maslow (1943). The low internal consistency of the SWB index with a Cronbach's alpha of 0.5 is therefore not surprising. For comprehensive measurement, one should also consider hedonic and eudaimonic aspects of well-being.

Similar challenges are faced in the construction of EWB. Carter (2011) points out that it is important to use multidimensional constructs to measure EWB, as previous studies have often been limited to static measures such as income. This means that other measures such as assets, savings, pensions, or consumption estimates should be taken into account in order to capture relative wealth over a longer period of time. The restriction to static measures, however, bears the risk that some economic outcomes for entrepreneurs are not included in the EWB (Carter, 2011). Whether the LPI is therefore suitable as an approximation for a multidimensional measure has been sparsely studied. Meyer and Keyser (2016), for instance, classify the LPI as a unidimensional construct controlling for different samples and countries. Therefore, other measures may be needed instead of LPI to capture

Table 3: Variable Description for Poverty Alleviation and Migration Plans/Intentions

Variable Name Need level	*Afrobarometer Item* & Description	Weighting
Economic Well-being (EWB)	*Lived Poverty Index (reversed)* "... an experiential measure that is based on a series of survey questions about how frequently people actually go without basic necessities during the course of a year." (Mattes, 2020, p.3)	
Subjective Well-being (SWB)		
Physiological Needs	*Access to food* "Over the past year, how often, if ever, have you or anyone in your family: Gone without enough food to eat?"	40%
Safety Needs	*Personal economic conditions* "In general, how would you describe: Your own present living conditions?"	30%
Love/Belongingness Needs	*Violence in the family* "[...] It can always be justified, sometimes be justified, or never be justified for... ... parents to use physical force to discipline their children? ... a man to beat his wife?" *Experience of crime* "Over the past year, how often, if ever, have you or anyone in your family... ... felt unsafe walking in your neighbourhood? ... feared crime in your own home?"	20%
Esteem Needs	*Satisfaction with democracy* "Overall, how satisfied are you with the way democracy works in [country]?" *Optimism* "Looking ahead, do you expect economic conditions in this country to be better or worse in 12 months' time?"	10%
Migration Plans	*Planned emigration to other country* "How much planning or preparation have you done in order to move to another country to live?"	
Migration Intentions	*Considered emigration to other country* "How much, if at all, have you considered moving to another country to live?"	

Note: All items are extracted from Afrobarometer survey round 7 conducted within 2016-2018 (Afrobarometer, 2020).

EWB in a multidimensional way.

4.2.6. Control Variables

To take other socio-economic conditions into account that may influence (micro-) entrepreneurship, SWB, EWB, and migration plans or intentions, several control variables are

included in the empirical analysis, in line with the existing evidence. The variable age squared is added to capture for non-linearity in the relationship of age and other correlating variables (Theodossiou, 1998). The literature on control variables in the research context is summarized in Table 4. For simplicity and clarity, literature on control variables relating to EWB is not included in the table. However, it is found that EWB or LPI are also influenced to some extent by factors such as gender, age, or education (Beegle et al., 2016; Kew, 2015; Mattes, 2020). EWB is therefore controlled just like the other variables. The individual variable descriptions for the control variables can be found in Table 12 in Annex A.1.

4.3. Research Design and Methods

The thesis performs a quantitative analysis using secondary data from Afrobarometer. For this purpose, both a cross-sectional research design and a quasi-experimental design are used. To answer the first research question and to gain initial insights for the second research question, the models on the relationships of the variables are estimated using Linear Regression (SWB, EWB) and Logistic Regression (Migration Plans, Migration Intentions).

The first research question is further answered by reducing bias due to potential confounders. A Randomized Controlled Trial (RCT) would be useful for this, as one could additionally infer a causal effect of entrepreneurship on migration plans (Hariton & Locascio, 2018). Because the restriction to observational data does not allow an RCT, it is a methodological challenge to obtain credible causal effects. First, unobserved factors such as risk tolerance or other personality traits may influence both the decision to engage in entrepreneurial activity and to emigrate (Nikolova, 2019). Second, individuals prone to migration may consciously choose to engage in entrepreneurial activity. That raises the problem of self-selection. Third, it can not be ruled out that stronger migration plans, in turn, affect entrepreneurial outcomes, implicating reverse causality (Nikolova, 2019).

Besides randomized experiments, such challenges of endogeneity in observational data can also be tackled by instrumental variable analysis or matching techniques (Nikolova, 2019). Finding adequate instrumental variables that correlate with entrepreneurship but do not influence the outcomes is usually difficult to realize (Nikolova, 2019). Accordingly, the application of a matching technique remains an option. Consequently, the quasi-experimental approach PSM, pioneered by Rosenbaum and Rubin (1983), is implemented with the *MatchIt* package in RStudio (**?**).

To answer the second research question, the theoretical model from Section 3 is tested using SEM analysis. The analysis is carried out with the *Lavaan* package in RStudio (Rosseel, 2012). SEM offers the advantage of estimating all parameters of a mediation model simultaneously. It is considered a powerful technique for mediation analysis and provides a robust language for expressing causal relationships (Gunzler, Morris, & Tu, 2016). Since the SWB and EWB indices were already formed before the SEM estimation, no latent variables exist in the SEM model. Therefore, one can also speak of a path analysis that only uses observed variables (Grapentine, 2000). SEM is a confirmatory rather than exploratory technique. This is because a model is first specified, then estimated and analyzed, and eventually modified (**?**). Since the theoretical model was derived from previous scientific findings, its validity can now be tested by SEM. The model fit is finally assessed using various measures such as the Chi-square, p-value, CFI, RMSEA, NFI, and GFI (Hoyle, 2012). However, due to the sensitivity to sample size, the Chi-squared test plays a subordinate role (Hu & Bentler, 1999).

Overall, the entire empirical analysis, consisting of linear and logistic regression, PSM, and SEM, borrows from the methodology applied by Nikolaev et al. (2020). Like in the thesis, the researchers establish an integrative mediation model for entrepreneurship outcomes including SWB, explore the direct and indirect pathways therein, and rely on cross-sectional data.

5. Empirical Evidence

The chapter first reviews the main descriptive statistics including the most highly correlated variables. The first part of the results section presents the linear regression, logistic regression, and PSM estimates. In the second part, the SEM results are discussed and finally tested for robustness.

5.1. Descriptive Statistics

The summary statistics of the variables included in the empirical analysis can be found in Table 5.

To highlight the most strongly correlated variables in the sample, the relationships of the variables are visualized by a correlation plot in Figure 2. In this plot, the correlation coefficients are colored according to their Pearson's r. It is shown that rural micro-entrepreneurship positively correlates with both EWB and SWB. The relationship of micro-entrepreneurship with migration plans or migration intentions, however, is slightly negative. Migration plans and migration intentions have a strong positive correlation in the young, rural population. Aside from that, there is a relatively strong positive link between EWB and SWB. The correlations between rural micro-entrepreneurs and the remaining variables are relatively weak, though present to some extent, as indicated by the bottom row of the correlation plot. Lastly, the noticeably blue box in the plot signifies that the head of the household is usually male.

The exact values and significance levels are reported in the correlation matrix in Table 6. The matrix suggests, in line with previous literature, that the young, rural micro-entrepreneurs are typically older (Liang et al., 2018) and lower educated (Kew, 2015) compared to the unemployed. They also tend to be male (Fairlie & Robb, 2009), albeit with weaker significance ($p < .01$). Regarding migration plans and intentions, it is notable that stronger migration tendency

Table 4: Control Variables

	Research on the Relationship of the Control Variable with:		
	Entrepreneurship	SWB	Migration Plans/Intentions
Age and Age Squared	Liang, Wang, and Lazear (2018)	Blanchflower and Oswald (2004)	Migali and Scipioni (2019); Ozaltin et al. (2020)
Gender	Fairlie and Robb (2009)	Stevenson and Wolfers (2009)	Ruyssen and Salomone (2018); Migali and Scipioni (2019)
Education	Brown, Farrell, and Harris (2011); Kew (2015)	Nikolaev and Rusakov (2016)	Migali and Scipioni (2019); Ozaltin et al. (2020)
Head of Household	Bhuiyan and Ivlevs (2019)	Bhuiyan and Ivlevs (2019)	De Jong and Steinmetz (2006); Friebel et al. (2013)
Household Size	Bhuiyan and Ivlevs (2019)	Bhuiyan and Ivlevs (2019)	Friebel et al. (2013); Manchin and Orazbayev (2018)
Remittances Dependency	Naudé et al. (2017)	Ivlevs, Nikolova, and Graham (2019)	Van Dalen, Groenewold, and Fokkema (2005)
Migration Experience	Black and Castaldo (2009)	Ivlevs et al. (2019)	Manchin and Orazbayev (2018); Migali and Scipioni (2019)
Perceived Safety	Fatoki and Chindoga (2011)	Wills-Herrera, Orozco, Forero-Pineda, Pardo, and Andonova (2011)	Weiner (1996); Moore and Shellman (2007); Steele (2009)
Country Income Group	Z. J. Acs et al. (2008)	Diener, Diener, and Diener (2009)	Milasi (2020)

Note: The variable *Country Income Group* distinguishes between low-income and middle/high-income countries according to GNI per capita in USD 2016-2018 (WorldBank, 2021).

Table 5: Summary Statistics

Variable	N	Mean	SD	Min	Max
Rural Micro-Entrepreneur	4,430	0.24	0.42	0	1
Economic Well-Being (LPI Reversed)	4,430	-1.34	0.89	-4	0
Subjective Well-Being	4,430	0.00	0.83	-3.52	1.77
Migration Plans	4,430	1.62	0.84	1	4
Migration Intentions	4,430	1.93	1.23	1	4
Age	4,430	26.08	5.09	18	35
Gender (Female=2)	4,430	1.52	0.50	1	2
Education Level	4,430	2.46	0.86	1	4
Head of Household (Yes=1)	4,430	0.31	0.46	0	1
Household Size (Number of Adults)	4,430	3.95	2.75	1	20
Remittances Dependency	4,430	1.32	0.74	1	4
Migration Experience (Yes=2)	4,430	1.25	0.43	1	2
Perceived Personal Safety	4,430	4.25	1.05	2	6
Country Income Group (Middle/High-income=1)	4,430	0.43	0.49	0	1

Note: based on Afrobarometer survey round 7 conducted within 2016-2018.

is expressed by younger, better educated (Giambra & McKenzie, 2021) and male respondents (Milasi, 2020) who consider themselves as head of household (De Jong & Steinmetz, 2006). Those willing to emigrate typically receive regular remittances from relatives or friends abroad (Van Dalen et al., 2005). They tend to have spent a long time outside the country (Migali & Scipioni, 2019) or have family members with migration experience (Manchin & Orazbayev, 2018). In addition, the correlations suggest that the perception of higher personal security is associated with a lower willingness to emigrate. This in turn underlines the role of violence and crime as drivers of migration (Moore & Shellman, 2007;

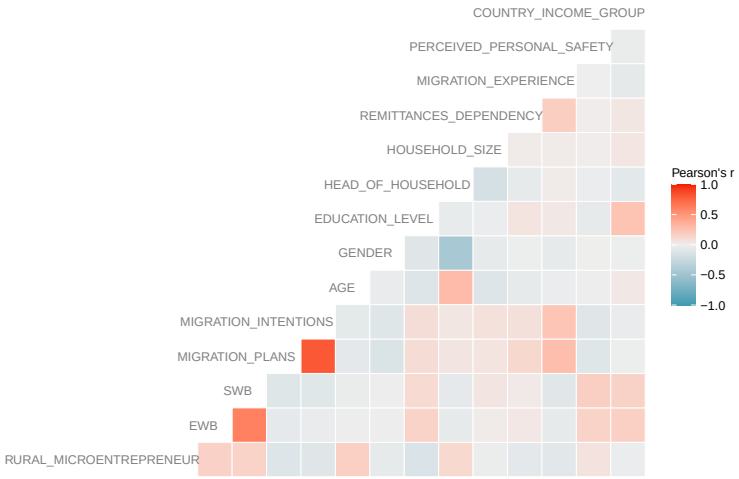

Figure 2: Correlation Plot

Note: own illustration based on Afrobarometer survey round 7 conducted within 2016-2018.

Steele, 2009; Weiner, 1996).

5.2. Main Results

5.2.1. Linear Regression for SWB and EWB

The empirical analysis begins with linear regression in the form of OLS estimations of the relationship between micro-entrepreneurship and SWB (Model 1) and microentrepreneurship and EWB (Model 2). The linear regression models predict the values for the dependent variables EWB and SWB using the independent variable rural microentrepreneur plus the control variables. To run OLS, some assumptions must be met. The first is the linearity assumption, which states there must be a linear dependence between the predictors and the outcome variables (Poole & O'Farrell, 1971). Since the scale level of EWB and SWB is continuous and the residual plot, as well as the QQ-Plot, do not indicate a fitted pattern, linearity is assumed to be given (Cohen, Cohen, West, & Aiken, 2013).

The second assumption to be checked involves a normally distributed error term. As the sample size is sufficiently large, the central limit theorem ensures that the error term approaches a normal distribution (Cohen et al., 2013). Hence, the assumption is met. Subsequently, it is tested for homoscedasticity by checking the residual plot. In other words, the variance of the error term has to remain constant. If heteroscedasticity is present instead, the OLS estimates would still be valid but the standard errors would not (Hayes & Cai, 2007). While the assumption of homoscedasticity is satisfied in Model 1, it might be violated in Model 2, since in the latter the variance seems to follow a pattern. To address this, heteroscedasticity-robust standard errors are estimated using the HC3 method that weights each squared OLS residual (Hayes & Cai, 2007). HC3 is seen by Cribari-Neto, Ferrari, and Oliveira (2005) as the most reliable estimator. The robust standard errors take into account a potential correlation between the variation in the outcome variable with the explanatory variables (Hayes & Cai, 2007). Finally, it is controlled for multicollinearity. If two or more variables move together, it may result in estimation instability and structural misspecification (Farrar & Glauber, 1967). By obtaining variance inflation factors (VIF) significantly smaller than four, multicollinearity can be ruled out (O'Brien, 2007). The results of the OLS regressions are presented in Table 7.

It is found that the surveyed micro-entrepreneurs have both higher SWB (ß= .344, $p < .01$) and EWB (ß= .406, $p < .01$) than unemployed respondents. Both coefficients are statistically significant. The correlations are robust to the inclusion of the control variables age, age squared, gender, education level, head of household, household size, remittances dependency, migration experience, perceived personal safety as well as country income group. The models each explain about 10-11% of the variance in the measurement of SWB and EWB. According to Cohen (1992), these results imply a small to medium effect size. This is not surprising as there might be other factors influencing SWB and EWB that have not been measured. Overall, the obtained positive significant correlations of entrepreneurship with both EWB and SWB provide initial evidence for hypotheses 2 and 3.

5.2.2. Logistic Regression for Migration Plans/Intentions

The next part of the empirical analysis examines the direct relationship between micro-entrepreneurship and migration plans (Model 3) and intentions (Model 4). The variables migration plans and migration intentions are originally ordinal and categorically scaled. This allows for interpretation of the rank of the values, but not the distance between the values. Howbeit, linear regression requires both. For this to happen, continuous dependent variables would be needed (Wu & Leung, 2017). Since this assumption is violated, binary logistic regression is performed for Model 3 and Model 4.

Table 6: Correlation Matrix

	Variable	1	2	3	4	5	6	7	8	9	10	11	12	13
1	Rural Micro-Entrepren.	1												
2	Economic Well-Being	0.169*	1											
3	Subjective Well-Being	0.157*	0.610*	1										
4	Migration Plans	-0.102*	-0.055*	-0.093*	1									
5	Migration Intentions	-0.090*	-0.033	-0.087*	0.803*	1								
6	Age	0.175*	-0.009	-0.025	-0.065*	-0.061*	1							
7	Gender	-0.046	0.004	0.004	-0.128*	-0.096*	-0.030	1						
8	Education Level	-0.123*	0.159*	0.115*	0.098*	0.097*	-0.102*	-0.091*	1					
9	Head of Household	0.123*	-0.047	-0.057*	0.055*	0.048	0.291*	-0.435*	-0.038	1				
10	Household Size	-0.017	0.021	0.052	0.060*	0.076*	-0.103*	-0.045	-0.022	-0.158*	1			
11	Remittances Dependency	-0.064*	0.043	0.029	0.127*	0.082*	-0.047	-0.014	0.058*	-0.043	0.023	1		
12	Migration Experience	-0.077*	-0.046	-0.084*	0.275*	0.237*	-0.023	-0.050	0.040	0.021	0.024	0.187*	1	
13	Perceived Personal Safety	0.068*	0.159*	0.181*	-0.096*	-0.091*	-0.008	0.002	-0.043	-0.020	0.012	0.011	0.000	1
14	Country Income Group	-0.052	0.178*	0.141*	-0.028	-0.044	0.045	-0.009	0.275*	-0.057*	-0.006	0.084*	-0.042	-0.019

Note: Correlation based on 4,430 observations. *Significance at the <.001 level.

For this purpose, the coefficients are calculated with Maximum likelihood (ML) instead of OLS. The main difference to OLS regression is that probabilities for the categories of the dependent variable are estimated (Hosmer & Lemeshow, 2013). To begin with, the two outcome variables are transformed into binary variables. For migration plans, this means that the variable is given the value 1 if migration plans or preparations have already been undertaken, and 0 otherwise. In the case of migration intentions, the variable is given the value 1 if migration considerations are expressed, and 0 otherwise. Before the logistic regression is performed, the main assumptions are checked.

After the transformation, the binarity of the dependent variable is given. Second, the observations are independent of each other. This means that the observations do not come from repeated measurements of the same person or are in any way related to each other (Peng, Lee, & Ingersoll, 2002). Third, there is no multicollinearity among the explanatory variables. Fourth, there is presumably linearity between the independent variables and the log odds (Peng et al., 2002). In addition to the met assumptions, there is a relatively large sample size, which is advantageous for the regression (Peng et al., 2002). Hence, the logistic regression is performed using heteroscedasticityrobust standard errors and keeping the control variables constant.

The results are summarized in Table 7. The estimation of the coefficient for rural micro-entrepreneurship returns a negative significant value (ß = -.346, $p < .01$). The micro-entrepreneurs thus seem to be less likely to have migration plans than the unemployed.

For further interpretation, the coefficients are exponentiated to receive odds ratios. The odds ratio represents the ratio of the probability of an event (migration plans=1) occurring in the presence of predictor x (rural micro-entrepreneur=1) compared to the probability of the event occurring in the absence of this predictor (rural micro-entrepreneur=0) (Peng et al., 2002). In terms of the study, this means that for the micro-entrepreneur, the odds of having migration plans are 0.708 times as high as the odds for an unemployed person. Similar results are obtained when Model 4 is estimated (ß = -.414, $p < .01$; odds ratio = .661).

Model fit is assessed by various metrics. The Akaike Information Criterion (AIC) can be used to compare the model fit between different models. As a lower AIC indicates a better model fit, Model 3 has an advantage over Model 4. The Area under the ROC Curve (AUC) indicates the probability that the model correctly classifies pairs of observations. The AUC is 0.71 for Model 3 and 0.69 for Model 4. These values testify to an acceptable discrimination level (Hosmer & Lemeshow, 2013). Finally, McFadden's pseudo R2 as a measure of the overall effect size is 0.09 for Model 3 and 0.08 for Model 4. Again, the values are considered acceptable (McFadden, 1978). The results of the logistic regression give initial support for hypothesis 1, which will be strengthened in the next step.

5.2.3. Propensity Score Matching

Now, PSM is employed to estimate the average marginal effect of microentrepreneurship on migration plans, taking into account confounding by the included covariates (Austin, 2011). PSM is an essential component of Propensity Score Analysis which was pioneered by Rosenbaum and Rubin (1983). It is considered one of the most widely accepted causal inference methods for observational studies (Nikolaev et al., 2020). As the core of PSM, matching attempts to balance the covariates. This means that the distributions of the covariates in the two groups are about the same as they would be in a successful randomized experiment (Austin, 2011). After matching, a treatment effect is estimated. Based on the matched sample, this treatment effect reveals the difference in the value of the outcome (migration plans) between treatment (micro-entrepreneurs) and control group (unemployed) (Nikolaev et al., 2020). The PSM follows the five steps recommended by Olmos and Govindasamy (2015):

Preliminary Analysis.
By estimating the standardized/normalized difference (Imbens & Wooldridge, 2009) and performing an omnibus test (Hansen & Bowers, 2008), it is first checked whether the two groups of micro-entrepreneurs and unemployed are unbalanced. The standardized differences of the covariates age, age squared, education level, and head of household are greater than 0.25, which suggests an imbalance for these specific variables. Plus, the omnibus test yields a statistically significant chi-square, verifying that at least one variable in the model causes an imbalance. Thus, matching seems appropriate (Olmos & Govindasamy, 2015). *Estimation of the Propensity Scores.* The propensity score reveals the probability of belonging to the treatment group of micro-entrepreneurs under the condition of the observed covariances age and age squared, gender, education level, head of household, household size, remittances dependency, migration experience, perceived personal safety, and country income group. The propensity score is estimated with logistic regression. The Back-to-Back Histogram before matching in Figure 7 in Annex B.1 visualizes the imbalance in the number of observations at similar propensity scores between the treatment and control groups (Olmos & Govindasamy, 2015). *Propensity Score Matching.* The nearest neighbor matching method is used to match the propensity scores. Participants from the control group are matched with participants from the treatment group based on the smallest distance to each other. The procedure is carried out 1:1 without replacement. In other words, one participant in the control group is always matched with exactly one participant in the treatment group (Olmos & Govindasamy, 2015). Figure 8 in Annex B.1 reveals that the unmatched individuals in the control group were evenly distributed across the propensity-score-continuum. The matching yields a reasonable balance, which is confirmed visually by the Back-to-Back Histogram after matching in Figure 7 in Annex B.1. As can be

Table 7: Linear and Logistic Regression Results

	Linear Regression		Logistic Regression			
	(1)	(2)	(3)		(4)	
Variables	**SWB**	**EWB**	**Migration Plans**		**Migration Intentions**	
	ß(SE)	ß(SE)	ß(SE)	Odds Ratio	ß(SE)	Odds Ratio
Rural Micro-Entrepreneur	0.344***	0.406***	-0.346***	0.708	-0.414***	0.661
	(0.028)	(0.029)	(0.112)		(0.081)	
Age	-0.017	0.000	-0.094	0.910	0.042	1.043
	(0.026)	(0.028)	(0.094)		(0.071)	
Age Squared	0.000	0.000	0.001	1.001	-0.001	0.999
	(0.000)	(0.001)	(0.002)		(0.001)	
Gender						
Female	0.000	0.014	-0.562***	0.570	-0.321***	0.725
	(0.028)	(0.029)	(0.094)		(0.074)	
Education Level						
Primary	0.035	0.090**	-0.034	0.967	0.271***	1.311
	(0.039)	(0.040)	(0.135)		(0.103)	
Secondary	0.169***	0.267***	-0.025	0.975	0.533***	1.704
	(0.038)	(0.039)	(0.129)		(0.100)	
Post-Secondary	0.329***	0.454***	0.375**	1.455	0.756***	2.129
	(0.051)	(0.055)	(0.174)		(0.140)	
Head of Household	-0.081***	-0.075**	0.202*	1.224	0.209**	1.233
	(0.031)	(0.032)	(0.105)		(0.083)	
Household Size	0.013***	0.006	0.038***	1.039	0.045***	1.046
	(0.004)	(0.005)	(0.015)		(0.012)	
Remittances Dependency						
A Little Bit	-0.001	0.050	0.260*	1.297	0.107	1.113
	(0.042)	(0.045)	(0.135)		(0.111)	
Somewhat	0.150***	0.095*	0.559***	1.748	0.403***	1.496
	(0.047)	(0.051)	(0.145)		(0.128)	
A Lot	0.025	0.119	0.640***	1.896	0.172	1.187
	(0.070)	(0.075)	(0.208)		(0.186)	
Migration Experience	-0.155***	-0.080***	1.126***	3.085	1.087***	2.967
	(0.029)	(0.030)	(0.088)		(0.076)	
Perceived Personal Safety	0.139***	0.130***	-0.174***	0.840	-0.175***	0.840
	(0.012)	(0.013)	(0.040)		(0.031)	
Country Income Group	0.197***	0.259***	-0.053	0.948	-0.297***	0.743
	(0.025)	(0.027)	(0.090)		(0.070)	
Observations	4,430	4,430	4,430		4,430	
R^2 adjusted	0.100	0.109	x		x	
McFadden's Pseudo R2	x	x	0.087		0.080	
AIC	x	x	3,663		5,563	
AUC	x	x	0.708		0.685	

Note: Models (1) and (2) are estimated with OLS regressions. Models (3) and (4) are estimated with Log regressions. Robust standard erros (HC3) are shown in parentheses. ***p < 0.01, **p < 0.05, *p < 0.1.

seen, the two groups are significantly more similar in terms of their propensity scores than they were before matching. Statistically, the good balance is verified by low standardized differences and a non-significant chi-square (Olmos & Govindasamy, 2015). After matching, all standardized mean differences for the covariates are below 0.1. These results provide sufficient evidence for a significant reduction of the previous selection bias (Austin, 2009). Table 8 summarizes the balancing diagnostics for the matching estimates.

Outcomes Analysis.

To estimate the treatment effect and its standard error, a logistic regression model is fitted with the binary variable migration plans as an outcome and micro-entrepreneurship

with covariates as additive predictors. As matching is done without replacement, clustered standard errors are applied instead of regular robust standard errors to obtain valid estimations (Abadie & Spiess, 2021). Additionally, full matching weights are included in the estimation. Table 9 contains the Average Treatment Effect on the Treated (ATT) for the corresponding migration plans. The ATT has the advantage of being explicitly restricted to the treatment group sample, hence to the micro-entrepreneurs. This helps to examine the effect of the treatment applied (Ho, Imai, King, & Stuart, 2007), namely the pursuit of entrepreneurial activity, and is thereby in line with the aim of the thesis. The estimated effect is -0.253 ($p < .10$, odds ratio = .777). Compared to the simple logistic regression in Model 3, the effect is weaker and only slightly significant. Nonetheless, the direction of the effect has not changed. Therefore, micro-entrepreneurship is assumed to reduce migration plans. The same applies to migration intentions.

Sensitivity Analysis.
Finally, it is tested how sensitive the results are to hidden bias. For this purpose, the Wilcoxon signed-rank test according to Rosenbaum (2002) is applied. It checks how large the bias must become for the results to change their status from significant to non-significant. The results suggest that even a relatively small unobserved difference in a covariate would change the statistical inference. Thus, it cannot be ruled out that crucial variables are missing. That is why the results of the PSM should be viewed with caution (Olmos & Govindasamy, 2015). Nevertheless, the results of the linear and logistic regression are underpinned and hypothesis 1 is further substantiated.

5.2.4. Main SEM Model

SEM is conducted to test hypotheses 2, 3, and 4. Therefore, the exogenous variable is used to compare the group of micro-entrepreneurs with the unemployed. The SEM examines both the direct path from micro-entrepreneurship to migration plans and the indirect paths via poverty alleviation, consisting of SWB and EWB. This allows us to deduce to what extent SWB and EWB mediate the relationship between micro-entrepreneurship and migration plans. Since migration plans are ordinally scaled, Diagonally Weighted Least Squares (DWLS) are implemented to estimate the parameters (Rosseel, 2012). The estimated model is illustrated in Figure 3.

Overall, the results of the SEM analysis bolster hypotheses 2 and 4, but not hypothesis 3. Table 10 summarizes the direct, indirect, and total effects of microentrepreneurship on migration plans. A direct, negative, and statistically significant effect of micro-entrepreneurship on migration plans is found (ß= -.282, $p < .01$). Besides, a positive, also statistically significant effect of micro-entrepreneurship on SWB (ß= .110, $p < .01$) is identified, which is then associated with weaker migration plans (ß = -.124, $p < .01$).

The combined indirect effect of micro-entrepreneurship via SWB on migration plans is therefore a reduction of -0.014 ($p < .01$), supporting hypothesis 2. On the other hand, there is an effect running from micro-entrepreneurship to EWB (ß = .352, $p < .01$). EWB in turn is positively associated with migration plans, though not statistically significant (ß = .028, $p > 0.1$). The combined indirect effect via EWB on migration plans is 0.010 ($p > 0.1$) and thus cannot provide evidence for hypothesis 3. In the end, one finds a positive direct effect of EWB on SWB (ß = .566, $p < .01$), which strengthens hypothesis 4. This positive effect of EWB on SWB indirectly leads to a reduction of migration plans by -0.025 ($p < .01$). Hence, the total indirect effect on migration plans across the paths of SWB and EWB amounts to -0.029 ($p < .01$). The total effect on migration plans ultimately reflects the sum of the direct (-.282) and indirect effects (-.029) and is -0.310 ($p < .01$).

The results in Table 10 indicate that the direct effect of micro-entrepreneurship on migration plans accounts for about 91% of the total effect[1]. The total indirect effect via poverty alleviation makes up the remaining 9% of the total effect[2]. It follows that the negative effect of micro-entrepreneurship on migration plans works mainly direct and is possibly influenced by omitted variables. Moreover, a slight mediating role of SWB in the relationship between entrepreneurship and migration plans can be observed, which is also called partial mediation. However, no mediating role of EWB is found in this relation. Instead, EWB seems to influence migration plans only indirectly through the path of SWB.

Overall, the main model provides evidence for hypotheses 2 and 4, but not for hypothesis 3. Hypothesis 1 is enhanced by the positive path of micro-entrepreneurship on migration plans. Since the SEM model has no degrees of freedom, the model is saturated or just-identified (Hoyle, 2012). That implies that the hypotheses about the paths in the model can be tested, but not the adequacy of the model itself (**?**).

5.2.5. Adapted SEM Model

Because the path from EWB to migration plans is not statistically significant and thereby hypothesis 3 is not supported, a modified model is proposed. The nonsignificant path via EWB is deleted and the analysis is performed again. Figure 4 presents the adapted model without the direct association of EWB with migration plans.

The only way EWB can now be associated with migration plans is indirectly through SWB. Table 11 shows the indirect and direct effects of the SEM analysis based on the adapted model.

The differences to the main model are only marginal and all effects are significant ($p < 0.01$). Since the model now has one degree of freedom, it becomes an overidentified model (Hoyle, 2012). At this point, the adequacy of the model

[1] derived by dividing direct effect (-0.282) by total effect (-0.310).
[2] derived by dividing total indirect effect (-0.029) by total effect (-0.310).

Table 8: Balance Diagnostics for Matching Estimates

	Sample	Treated	Control	SMD	% Bias-Reduction
Age	Unmatched	27.68	25.59	0.42	
	Matched	27.68	27.52	0.03	92.1
Age Squared	Unmatched	791.15	679.95	0.41	
	Matched	791.15	781.31	0.04	91.1
Gender	Unmatched	1.48	1.53	-0.11	
	Matched	1.48	1.47	0.00	96.4
Education Level	Unmatched	2.27	2.52	-0.31	
	Matched	2.27	2.27	0.00	100.0
Head of Household	Unmatched	0.42	0.28	0.27	
	Matched	0.42	0.42	-0.01	97.1
Household Size	Unmatched	3.87	3.98	-0.04	
	Matched	3.87	3.85	0.01	83.2
Remittances Dependency	Unmatched	1.24	1.35	-0.17	
	Matched	1.24	1.21	0.04	76.0
Migration Experience	Unmatched	1.19	1.27	-0.20	
	Matched	1.19	1.19	0.00	98.8
Perceived Personal Safety	Unmatched	4.37	4.21	0.17	
	Matched	4.37	4.37	0.00	98.9
Country Income Group	Unmatched	0.38	0.44	-0.12	
	Matched	0.38	0.35	0.06	50.6

Note: SMD=Standardized Mean Difference. Treated and control columns report the means for each group.

Table 9: PSM Estimates

Dependent Variable	Matching Method	ATT (SE)	Odds Ratio
Migration Plans	1:1 nearest neighbor matching without replacement	-0.253* (0.137)	0.777
Migration Intentions	1:1 nearest neighbor matching without replacement	-0.400*** (0.097)	0.670

Note: Estimates report the average treatment effect on the treated (ATT) with cluster-robust standard errors including all covariates. Sample size: N(Matched)=2,088; N(Treatment)=1,044; N(Control)=1,044. ***p < 0.01, **p < 0.05, *p < 0.1.

can be tested. The global goodness-of-fit measures are Chi-square=0.618, p-value=0.432, CFI=1.000, RMSEA=0.000, NFI=0.999, GFI=1.000. Being aware of the positive influence of having a large sample, these measures suggest a very good fit (Sivo, Fan, Witta, & Willse, 2006). The relevance of the model as an alternative to the main model is discussed in Section 6.

5.3. Robustness Checks for SEM

A number of checks are carried out to verify the robustness of the SEM results. The tables and figures are gathered in Annex B.2.

Replication with Bootstrap Standard Errors.
If non-normal data are present, which cannot be ruled out in this setting, ordinary non-parametric bootstrapping is useful (Hoyle, 2012; Rosseel, 2012). In this case, random samples, called replications, are generated from the available sample to obtain corresponding standard errors. Based on those standard errors, bootstrap-based confidence intervals are created (Hoyle, 2012). Consequently, the proposed main model is computed using 5,000 replications (Hayes & Preacher, 2013) to receive the new standard errors and confidence intervals. The effects are listed in Table 13 in Annex B.2.1 and underpin the previous findings.

Including Control Variables.
Next, the control variables are added to the main model. The SEM is structured in such a way that the control variables have a connection both to the exogenous (micro-

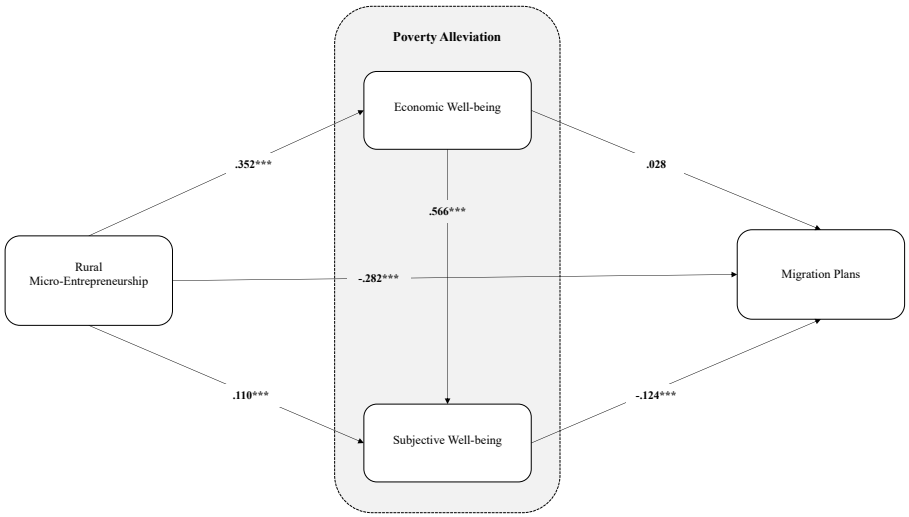

Figure 3: Main SEM Model

Note: own illustration based on Nikolaev et al. (2020).
Estimator: DWLS. N=4,430. ***p < 0.01, **p < 0.05, *p < 0.1.

Table 10: Direct and Indirect Effects of Micro-Entrepreneurship on Migration Plans

						95% Conf. Int.	
	ß	std.est	SE	z	p>z	LLCI	ULCI
Direct effects							
ME → MP	-0.282***	-0.119	0.043	-6.529	.000	-0.366	-0.197
ME → SWB	0.110***	0.056	0.026	4.167	.000	0.058	0.162
ME → EWB	0.352***	0.169	0.033	10.553	.000	0.286	0.417
SWB → MP	-0.124***	-0.103	0.025	-4.898	.000	-0.174	-0.075
EWB → MP	0.028	0.025	0.024	1.179	.238	-0.019	0.075
EWB → SWB	0.566***	0.601	0.012	47.318	.000	0.543	0.590
Indirect effects							
ME → SWB → MP	-0.014***	-0.006	0.004	-3.102	.002	-0.022	-0.005
ME → EWB → MP	0.010	0.004	0.008	1.174	.240	-0.007	0.026
ME → EWB → SWB → MP	-0.025***	-0.01	0.006	-4.479	.000	-0.036	-0.014
Total indirect effect							
ME → MP	-0.029***	-0.012	0.008	-3.509	.000	-0.045	-0.013
Total effect (dir.+indir.)							
ME → MP	-0.310***	-0.131	0.042	-7.306	.000	-0.394	-0.227

Note: ME=Micro-Entrepreneur. MP=Migration Plans. std.est.=standardized estimate. LLCI=Lower Limit Confidence Interval. ULCI=Upper Limit Confidence Interval. Results are based on SEM model from Figure 3. Estimation Method: DWLS. ***p < 0.01, **p < 0.05, *p < 0.1.

entrepreneur) and endogenous variables (SWB, EWB, migration plans). The variable country income group is omitted because it is controlled separately in another check. The results in Table 14 in Annex B.2.2 confirm the findings of the main model. The significance and direction of the effects remain the same. It is noteworthy that the direct effects of micro-entrepreneurship on SWB and EWB are larger than before. While the other direct and indirect effects, including the total effect on migration plans, are smaller. However, due to their small magnitude, the differences to the main model seem negligible.

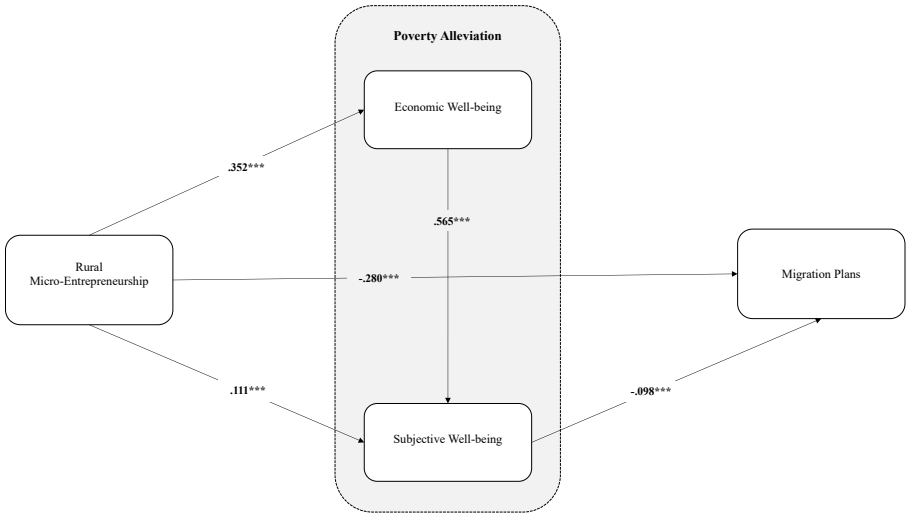

Figure 4: Adapted SEM Model

Note: own illustration based on Nikolaev et al. (2020).
Estimator: DWLS. N=4,430. ***p < 0.01, **p < 0.05, *p < 0.1.

Table 11: Adapted Model: Direct and Indirect Effects of Micro-Entrepreneurship

						95% Conf. Int.	
	ß	std.est	SE	z	p>z	LLCI	ULCI
Direct effects							
ME → MP	-0.280***	-0.118	0.043	-6.500	.000	-0.364	-0.196
ME → SWB	0.110***	0.056	0.026	4.179	.000	0.059	0.163
ME → EWB	0.352***	0.169	0.033	10.553	.000	0.286	0.417
SWB → MP	-0.098***	-0.081	0.022	-4.470	.000	-0.141	-0.055
EWB → SWB	0.565***	0.599	0.012	46.898	.000	0.542	0.589
Indirect effects							
ME → SWB → MP	-0.011***	-0.005	0.004	-3.069	.002	-0.018	-0.004
ME → EWB → SWB → MP	-0.020***	-0.008	0.005	-4.106	.000	-0.029	-0.010
Total indirect effect							
ME → MP	-0.030***	-0.013	0.007	-4.074	.000	-0.045	-0.016
Total effect (dir.+indir.)							
ME → MP	-0.310***	-0.131	0.042	-7.306	.000	-0.394	-0.227

Note: ME=Micro-Entrepreneur. MP=Migration Plans. std.est.=standardized estimate. Results are based on SEM model from Figure 4. Estimation Method: DWLS. ***p < 0.01, **p < 0.05, *p < 0.1.

Using Migration Intentions as Dependent Variable.
The next check aims to control for a difference in SEM results when the dependent variable is migration intentions instead of migration plans. As already explained in Section 4, the two outcome variables differ concerning the concreteness and prevalence of migration aspirations. Such differences could influence the measured correlations and should therefore be checked. Annex B.2.3 shows the model in Figure 9 and the effects in Table 15. The results are similar to the ones of the main model, even though a small positive effect is found for the direct path from EWB to migration intentions (ß = .057, p < .05). This, in turn, may account for the significant indirect effect of entrepreneurship on migration intentions via EWB (ß = .020, p < .05). In other words, with higher EWB, the migration intentions of micro-entrepreneurs might even be stronger. This is in contrast to both hypothesis 3, according to which one would expect a negative mediating role, and the main model, which finds no mediating role.

Apart from this, the other hypotheses are strengthened.

Subset to Low-income Countries & Middle/High-income Countries.
To control for country-specific differences such as income grouping, the main model is estimated separately for low-income countries and middle/high-income countries. After subsetting, the two country income groups each account for about half of the sample size. The findings are listed in Table 16 and 17 in Annex B.2.4. It can be seen that when limiting to low-income countries, the effects differ only marginally from the main model and the same hypotheses are supported. Notably, the direct effect of entrepreneurship on migration plans (ß = -.452, $p < .01$) and the total effect (ß = -.488, $p < .01$) are even stronger for the low-income subset compared to main model. However, the effect of entrepreneurship on EWB is slightly smaller. After limiting to middle/high-income countries, the deviations from the main model are stronger. The negative, direct effect of entrepreneurship on migration plans is significantly weaker and no longer significant (ß = -.051, $p = .468$). As such, hypothesis 1 is not confirmed for middle/high-income countries. The indirect effects likewise shrink and are no longer significant. Hypotheses 2 and 3 would consequently not apply either. Solely hypothesis 4 is still valid.

Distinction between Non-farm and Agricultural Entrepreneurs.
The entrepreneurs in the sample are predominantly active in the agriculture sector, followed by the trade, retail, and craft sectors (Kew, 2015; Okeke & Nwankwo, 2017). However, the main model does not distinguish between agricultural and nonfarm entrepreneurs. It may be useful to consider them explicitly, such as Nagler and Naudé (2014, 2017) who focused on outcomes of non-farm entrepreneurs. For simplification, the sector "Agriculture/Farming/Fishing/Forestry" (Afrobarometer, 2020, p.61) within the sample is referred to as agricultural sector. Removing this sector from the sample leads to a significant reduction in the number of micro-entrepreneurs from N=1,044 to N=469. Anyways, the share of non-farm entrepreneurs remains substantial (Nagler & Naudé, 2017). The SEM is calculated again and the results are summarized in Table 18 in Annex B.2.5. Overall, limiting to non-farm entrepreneurs has a strong impact on the results. It is noted that the negative, direct effect of entrepreneurship on migration plans is no longer significant (ß = -0.050, $p = .401$). Besides, the direct effect of entrepreneurship on SWB shrinks and loses its significance. Hypotheses 1, 2, and 3 are no longer sustained in this way. There is only a marginally significant effect measured across the path from EWB to SWB on migration plans (ß = -0.026, $p < .01$). This might be the reason for the small, indirect effect on migration plans (ß = -0.032, $p < .01$). Hypothesis 4 still holds. As the last step, the sample is limited to the agricultural sector. The number of micro-entrepreneurs is now N=575. The effects in Table 19 reconfirm the results of the main model, strengthening hypotheses 1, 2, and 4. Compared to non-agricultural entrepreneurs, migration plans of agricultural entrepreneurs are reduced more, while EWB and SWB are increased more. Remarkably, the direct (ß = -0.481, $p < .01$) and total effects (ß = -0.527, $p < .01$) on migration plans are even stronger than in the main model.

6. Discussion

Drawing on the idea of transformative entrepreneuring in entrenched poverty zones (Tobias et al., 2013), the thesis presents a mediation model in which subjective and economic well-being explain partially the relationship between engagement in micro-entrepreneurship and migration plans. The model is tested using a sample of 10,106 young adults from rural areas of 31 sub-Saharan countries by distinguishing between micro-entrepreneurs and the unemployed. It can be noted that the group of micro-entrepreneurs expresses migration plans to a lesser extent than the group of unemployed. In addition, a positive relationship is detected between engagement in micro-entrepreneurship and both subjective and economic well-being. Moreover, EWB seems to increase SWB, at least there is sufficient evidence for a positive association. While SWB is negatively related to migration plans, no significant results are found for the relationship between EWB and migration plans. Different robustness checks largely confirm the results. This applies, in particular, to the alternative examination of migration intentions and the restriction to low-income countries and agricultural businesses. However, for the subgroups of middle/highincome countries and non-farm entrepreneurs, micro-entrepreneurship does not seem to contribute to reducing migration plans.

6.1. Interpretation of Results

The first part of the empirical analysis examined the direct relationships between micro-entrepreneurship and its potential outcomes EWB, SWB, and migration plans. Linear regression was applied to compare the EWB and SWB for microentrepreneurs and the unemployed. Considering various control variables, microentrepreneurship was found to be positively related to SWB. The same was identified for the relation of micro-entrepreneurship and EWB. In this way, young microentrepreneurs seem to benefit from their job not only economically, but also in terms of their evaluative well-being, comparable to the Rwandan coffee farmers in the article of Tobias et al. (2013).

Logistic regression was then conducted to contrast the migration plans of the two groups. The estimates revealed that micro-entrepreneurs have a lower level of migration plans than the unemployed. Utilizing PSM, tentative conclusions were made about the effect of entrepreneurship on migration plans. The bias-reduced results suggested, albeit with low significance, the negative effect that entrepreneurial activity seems to have on migration plans. On the one hand, this complements Milasi (2020) and Giambra and McKenzie (2021), whose results point to a negative relationship between self-employment and migration aspirations. On the other hand, the weak significance might reveal confounding

through other variables. This first part of the analysis was additionally implemented with migration intentions as the dependent variable. Only marginal differences were noted, strengthening the previous results.

In the second part of the analysis, SEM was used to test the integrative model of micro-entrepreneurship, EWB, SWB, and migration plans. It was found that SWB partially mediates the negative relationship between entrepreneurship and migration plans. This is in line with Chindarkar (2014) and Cai et al. (2014), who claim that higher SWB associates with lower migration aspirations. In contrast, the path via EWB was found to be not significant. Specifically, EWB would affect migration plans only indirectly via the path of SWB. For this reason, an alternative model was proposed that does not include a link from EWB to migration plans.

Having found similar results and a convincing model fit, the question is whether the adapted model could even be superior to the main model. For one thing, it was affirmed that SWB can explain variations in international migration preferences better than established objective measures like income (Cai et al., 2014). For another, the empirical evidence such as by Kandemir (2012), Salameh (2019) or Ozaltin et al. (2020), which suggested a correlation between personal wealth and migration aspirations, is too extensive to fully abandon it in the integrative model. Plus, the stronger mediating role of SWB might arise because it captures both evaluative factors (i.e. life satisfaction) and economic factors (i.e. living conditions) (Cai et al., 2014). EWB instead only covers economic factors. For these reasons, the adapted model does not seem to be the superior one, and the link between EWB and migration plans should not be ignored. Anyway, the unclear direction of this relationship highlights the need for further investigation. The use of migration intentions as a dependent variable suggested that a positive effect of EWB on migration aspirations cannot be ruled out either, especially in less developed countries (Adhikari & Gentilini, 2018; Dao et al., 2018). In such cases, entrepreneurship could serve to overcome the budget constraints that young adults face when they emigrate (Giambra & McKenzie, 2021). More broadly, the unclear link between EWB and migration considerations may result from the non-linear relationship attributed to the two variables (Friebel et al., 2013).

The ensuing differentiation between country income groups signaled that countryspecific differences appear to have a considerable impact on the outcomes of rural entrepreneurship (Nagler & Naudé, 2014). Restricting the sample to lowincome countries initially revealed a weaker positive relationship between microentrepreneurs and EWB. It is therefore assumed that in poorer countries the income of entrepreneurs differs less strongly from unemployed people than in more developed countries. Besides, migration plans for entrepreneurs in low-income countries were even lower than in the main model. In contrast, for middle/high-income countries the effect of entrepreneurship on migration plans was insignificant. This is consistent with Milasi (2020) who argued that the negative effect of young people's self-employment on migration intentions is stronger in developing countries than in emerging countries. It also underscores the argument of Clemens (2020) that emigration increases as low-income countries evolve into middle-income countries, and decreases again as they continue to evolve into high-income countries.

The non-farm sector in SSA's rural areas has grown steadily in recent decades, attracting mostly younger people, while the agricultural sector appears more and more unpopular among youth (Gough & Langevang, 2016). Sohns and Diez (2018) and Giambra and McKenzie (2021) suggested that the causal effects of farm work on migration may be different from those of non-farm self-employment. Furthermore, it was alleged that agricultural activities can only be classified as entrepreneurial to a limited extent since one is not involved in the creation of new businesses and they are often carried out on a subsistence basis (Gough & Langevang, 2016).

From these points of view, the question arose to what extent the non-farm and agricultural businesses would differ in their outcomes. Restricting to the non-farm sector lead to effects that were significantly weaker and non-significant compared to the main model. Restricting to the agricultural sector, on the other hand, confirmed the results of the main model with even lower migration plans and higher EWB and SWB for the group of entrepreneurs. This would mean that the agricultural sector would be preferable to the non-farm sector in terms of the transformative potential proposed in the thesis. It cannot be denied that agriculture plays an essential role as a source of livelihood for rural youth (AFI, 2014; Gough & Langevang, 2016; Kolawole & Ajila, 2015). Nevertheless, the data in this work are not sufficient to fully justify why agricultural entrepreneurship yields better returns than non-farm entrepreneurship. The lower migration plans for the agriculture sector will even raise the question of increased self-selection bias. For example, the portability of the business for a farmer in the case of emigration might be significantly lower than for someone who only sells clothes or cooks food (Giambra & McKenzie, 2021). This could already explain why farmers want to emigrate less frequently.

In the main model, a separation between the two sectors was intentionally not undertaken. Agriculture provides a resilient livelihood strategy when combined with other economic activities. Therefore, many young people engage in farming as a supplementary activity (Gough & Langevang, 2016). Often, in the agricultural off-season, the non-farm business is targeted and vice versa. This underscores the high degree of connectedness between the rural non-farm sector and agriculture (Gough & Langevang, 2016). Further, both non-farm and agriculture activities can be considered entrepreneurial according to the thesis if they serve to generate an income (Gough & Langevang, 2016). This blending makes it difficult to distinguish between non-farm and agricultural entrepreneurship, especially if only limited data is available.

Overall, only the positive effect from EWB to SWB remained significant for all robustness checks. Those results are in line with Tobias et al. (2013), thereby implying that

micro-entrepreneurs' increased personal wealth might improve their satisfaction with life. It should be noted that the empirical methodology is only sufficient to confirm a correlation, but not causality.

6.2. Implications for Theory and Practice

6.2.1. Implications for Theory.

The theoretical contribution of this work lies mainly in studying the outcomes of micro-entrepreneurship for young people in rural SSA. It describes a context that is particularly characterized by socio-economic constraints and has been little researched to date. Hereby, the thesis responds to the demand for more context-specific entrepreneurship research (Wiklund et al., 2019) in developing countries (Bruton et al., 2008) and specifically the African continent (George et al., 2016).

By investigating Afrobarometer data, the underrepresentation of quantitative studies in entrepreneurship research is countered (Bruton et al., 2013; Tobias et al., 2013). With the consideration of a total of 31 countries, the thesis is thereby able to map SSA comprehensively. In addition to looking at SSA as an entire geographic region, the sample is divided into low-income countries and middle/high-income countries by GNI per Capita. Withal, the quantitative analysis is extended by a distinction between agricultural and non-agricultural sectors and migration intentions rather than plans.

The proposed model enables a holistic view of the impact of microentrepreneurship. This view is not limited to personal wealth but also takes into account non-economic factors such as SWB and migration plans. In this sense, one embraces the idea of freeing entrepreneurship research from an exclusively economic focus or heroic achievements (Johannisson, 2011; Rindova et al., 2009; Tobias et al., 2013) and tackles an overly narrow definition of poverty.

As a core of the work, the thesis delivers new insights into the so-far poorly studied relationship between entrepreneurship and migration plans under conditions of poverty. First, the direct relationship between the two variables is to be deciphered. Then one empirically demonstrates the extent to which SWB and EWB mediate this relationship. Understanding such linkages can be important for both practice and theory (Diener, 2012). As requested by Chindarkar (2014), economic, non-economic factors and migration plans are linked to better understand the influencing factors of migration plans.

To date, post-migration studies help to better define the potential and the challenges for refugees who engage in entrepreneurship after leaving the country (Kachkar, 2019). One key limitation exists, though. The studies only screen entrepreneurs who have factually emigrated. Those who decided against emigration despite migration plans are left out. With this selection bias, it is difficult to fully grasp the impact of entrepreneurship on migration plans. Asking people before they might emigrate, and therefore ex-ante, reduces selection bias and also allows understanding people's decision-making phase (Ozaltin et al., 2020). In this way, those who have considered emigration, or perhaps even had a strong tendency to do so but ultimately decided against it, will also be heard. By extension, focusing on migration plans rather than actual migration flows helps reduce biases that persist due to reliance on data from receiving countries (Ozaltin et al., 2020).

The thesis responds to the call for more research on the role of entrepreneurship in poverty reduction, for instance by Sutter et al. (2019) and Vermeire and Bruton (2016). Entrepreneurship can be a long-term solution to poverty if science understands how to help people in poverty start their business (Bruton et al., 2013). So, the view of research should move away from seeing people in poverty as a potential market for goods and instead focus on how people can overcome poverty through their efforts. To this end, the impact from the perspective of ordinary entrepreneurs is examined (Bruton et al., 2013; Tobias et al., 2013). Like the specialty coffee farmers in rural Rwanda (Tobias et al., 2013), the young rural entrepreneurs of SSA form the empirical unit of study. As such, one moves to the micro-level rather than analyzing entrepreneurship at the mesoor macro-level (Johnson & Schaltegger, 2020). Once poverty is alleviated at the micro-level, development at the macro-level is spurred in the next step to ultimately achieve sustainable development (Kolawole & Ajila, 2015).

By and large, entrepreneurship in developing countries is often disparaged as having little impact, when in fact it can lead to growth (Welter et al., 2017). Therefore, failing to understand the potential of various entrepreneurial opportunities can be detrimental to the success of poverty reduction efforts (Alvarez & Barney, 2014). This paper shows that micro-entrepreneurship in particular, which is widespread in just such developing countries, can unleash transformative spirit (Tobias et al., 2013) by reducing migration plans. With the awareness that entrepreneurship cannot be equated with entrepreneuring, the thesis can serve as a support to the theorybuilding of Tobias et al. (2013). At last, after the detailed exploration of the SDG of poverty reduction, research may have been inspired to explore the achievement of other UN goals in SSA, for example, Goal 4: Quality Education, Goal 5: Gender Equality, or Goal 10: Reduce Inequalities (UN, 2020).

6.2.2. Implications for Practice.

Wage and salary employment is limited in most developing countries (Cho, 2015). Usually, the only alternative to unemployment is self-employment. The thesis demonstrates that entrepreneurship as a form of selfemployment can help to overcome poverty by having a positive impact on EWB and SWB. This is in response to Sutter et al. (2019)'s advice that intensive research can provide critical insights for entrepreneurs, policymakers, and organizations on the extent to which poverty can be overcome through entrepreneurship. It also helps to assess whether the entrepreneurial potential of young people in rural areas should be nurtured and whether it is worthwhile to improve their financial access (Cho, 2015). Especially when it comes to achieving the UN

goals of poverty eradication and sustainable economic development by 2030, new insights as those given in this work can be valuable for the various stakeholders.

The results are also interesting in light of the political and social relevance of migration, to name for example the 2015 refugee crisis, drownings in the Mediterranean, and right-wing populism (Sekeris & Vasilakis, 2016). The effects of growing migration are felt by both the countries of origin and the countries of destination. Truly, beyond positive influences such as filling labor shortages in destination countries (Rapoza, 2017) and providing financial support to the family in the home country through remittances (FAO, IFAD, IOM, & WFP, 2018), increased migration brings several challenges. For instance, countries of origin lose the capable workforce, known as brain-drain (Capuano & Marfouk, 2013). Meanwhile, in destination countries, immigration is perceived by populist movements as a threat to domestic jobs, security, and culture (Brubaker, 2017). The results of the thesis suggest that rural entrepreneurship opens up opportunities to improve living conditions in the home countries. This could potentially reverse the brain-drain (Sriram & Mersha, 2006) and, at the same time, counteract populism in the recipient countries by reducing refugee flows.

The thesis can give policymakers a means of discouraging people from emigrating by offering them prospects for the future in their country of origin. First, focusing on migration plans instead of actual migration can help make laws to manage, restrict, or prevent migration flows more effective. This is because one then identifies factors that turn desires into actions before a migration occurs (Ozaltin et al., 2020). Second, positive economic development in countries causing emigration (Salameh, 2019) rather than uncontrolled monetary payments from abroad may ultimately be an effective means of preventing migration. Of course, it is known that migration plans and intentions increase with higher levels of education among youth (Milasi, 2020). 46% of those who intend to migrate have at least a university degree and 63% have secondary education (Ozaltin et al., 2020). While raising educational attainment is important, it is not the only policy challenge. Job opportunities, a positive economic outlook, and upward mobility - all signs of positive economic development - are also crucial factors in reducing migration and retaining the young, willing, and partly well-educated population in the country (Milasi, 2020). Promoting entrepreneurship through technological support, access to capital and training in job-specific and soft skills can increase the likelihood of success for young people (Kluve et al., 2017) and thus corresponds very well to such crucial factors. Ultimately, the results of the paper highlight that such entrepreneurship support could be valuable not only for well-educated young people in cities (Milasi, 2020) but also for less well-educated young people in rural areas.

On a final note, the assumption behind policy efforts to promote self-employment to curb emigration is that there is a causal effect through which engaging in self-employment lowers individuals' migration intentions (Giambra & McKenzie, 2021; Kluve et al., 2017). While the thesis cannot provide concrete causal effects for policy, it confirms that entrepreneurial activities are negatively related to migration plans, especially in low-income countries and for agricultural entrepreneurs. Furthermore, both income and life satisfaction tend to be higher for entrepreneurs than for the unemployed. Even though causal derivations were not feasible, those results could be explained with existing logical considerations. The most obvious assumption is that a new job opportunity increases the income one earns at home and thus increases the opportunity cost of migration (Giambra & McKenzie, 2021). Moreover, the lower migration considerations could be attributed to the lock-in effect that entrepreneurship entails. This is demonstrated by the fact that the investments made in the company cannot be fully reversed and would lead to a loss of the invested capital in the event of a migration (Koelle, 2019). Last, the portability of acquired skills might be stronger through self-employment than through wage employment, which again would drive migration (Giambra & McKenzie, 2021).

6.3. Limitations and Future Research

In the course of the study, several limitations emerged which point to important directions for future research.

First, to keep the dynamics of entrepreneurship (Langevang et al., 2012; Welter et al., 2017) and avoid limiting its theoretical development (Dencker et al., 2021), it was not distinguished between entrepreneurship by necessity and entrepreneurship by opportunity. Thus, it is not possible to determine the entrepreneur's motivation for running a business. Instead, the data only allow defining the micro-entrepreneur as a self-employed person with a job that generates an income. At this point, the question arises to what extent the measured effects on SWB, EWB, and migration plans would differ between different entrepreneur types. According to Binder and Coad (2013), a lack of distinction between entrepreneurial motivations may affect the robustness of the results. Then again, a distinct consideration could help to better specify and conceptualize the impact of entrepreneurship in developing countries (Chliova et al., 2015). Nagler and Naudé (2017), for example, find that necessity businesses in SSA are less productive than opportunity businesses. Such findings are of high importance for rural development because more productive businesses are better able to grow, survive, and create new jobs, which is fundamental to rural development (Nagler & Naudé, 2017). In future studies, one could build on the suggested model and control for entrepreneurial motivation. Depending on how the results differ, new insights for theory and practice may be gained. If only opportunity entrepreneurs were shown to have higher subjective and economic well-being and lower migration plans, they would likely become the focus of policymakers.

Furthermore, the empirical analysis is performed with cross-sectional data. Such do not allow to study the proposed relationships in their full dynamic (Nikolaev et al., 2020). For example, a relationship between entrepreneurship and well-being measured at a particular point in time does not

necessarily exist in the medium and long term (Abreu et al., 2019). This dynamic might also occur in the context of entrepreneurship and migration plans. In the same way, the entrepreneurs in the sample are likely to find themselves at different stages of their business lives. Indeed, entrepreneurs often have to go through various business paths to increase their income (Vermeire & Bruton, 2016). It is therefore possible that the proposed relationships vary at different stages of the entrepreneurial journey. Additionally, there is evidence that entrepreneurs do not always seek revenue for themselves, but also their future family generation (Shepherd et al., 2021). To fully understand the benefits of entrepreneurship for individuals, a longer time horizon is needed. Future research could adopt the model presented in the thesis and re-examine the effects of entrepreneurship using longitudinal data. This would complement the growing longitudinal studies of the relationship between entrepreneurship and well-being (Abreu et al., 2019; Binder & Coad, 2013, 2016; Shir, 2015).

The restriction to cross-sectional data ultimately makes it challenging to measure causal effects. The PSM method is insufficient for this purpose because it only allows adjustment for observed confounders, not for unobserved confounders (Rubin, 1997). A further limitation is reflected in the fact that well-being and migration plans are only compared between the treatment group of entrepreneurs and the control group of unemployed. However, the data do not reveal what the employment status was before starting with entrepreneurship. Direct effects of a transition from unemployment to entrepreneurship cannot be examined in this way (Binder & Coad, 2013). With data on this, the effect of entrepreneurship could be isolated to a greater extent and causality assumptions would be easier to achieve.

In addition to the complicated measurability of the variables, which was discussed in Section 4, the restriction to Afrobarometer data leads to further empirical challenges. Since a study of individual countries would drastically reduce the sample size, robust results would be difficult to obtain (Kline, 2015). Thereby, the empirical studies are not carried out for individual countries, but for SSA as a whole. This lack of distinction does not allow accounting for the country-specific heterogeneity of entrepreneurship in SSA (Nagler & Naudé, 2014). Moreover, other control variables may have been forgotten, that may play a role in the studied relations. For example, it would make sense to control for the effects of climate change, such as intensification of droughts and floods, on microentrepreneurs' migration plans (Naudé, 2008). Additionally, one could control for violent conflicts before and within the survey period, such as the Boko Haram insurgency in Nigeria (Mukhtar, Rose, Choy, & Bibi-Farouk, 2018) or the Northern Mali conflict (Hoogeveen, Rossi, & Sansone, 2019). It makes sense because the influence of coercion causes people to emigrate regardless of their abilities and desires (Ozaltin et al., 2020). On these grounds, future research should collect appropriate primary data or rely on other databases to accurately obtain the desired information. This would enable to specifically answer the research questions, acquire a larger sample, and ultimately increase statistical power.

A final limitation is the risk of self-selection bias distorting the results. The charge is regularly made that the effects of entrepreneurship reflect people's self-selection into entrepreneurship rather than the actual consequences of entrepreneurial activity (Bhuiyan & Ivlevs, 2019). Consistent with Nikolaev et al. (2020) and Tobias et al. (2013), logical and empirical evidence was provided that entrepreneurship could enable young adults to enhance their well-being. However, especially in terms of the impact on migration plans, entrepreneurs may be more inclined to migrate than employees or the unemployed because of their personality (Giambra & McKenzie, 2021). Accordingly, the entrepreneurial activity would not be the cause of weaker migration plans, but rather, personal characteristics that lead to becoming an entrepreneur in the first place. Such limitations of values-driven job fit (Nikolaev et al., 2020) were attempted to be mitigated through PSM. Focusing on migration considerations rather than actual migration further lessened the self-selection (Ozaltin et al., 2020). Still, this might not be sufficient to completely rule out selection bias.

7. Conclusion

This paper develops a comprehensive model for better understanding the impact of micro-entrepreneurship on young adults' migration plans in rural sub-Saharan Africa. To this end, the study examines the role that both subjective and economic well-being take in this relation. In addition, several hypotheses were tested and confirmed based on survey data collected by Afrobarometer in 31 countries of SSA. Logistic regression and Propensity Score Matching provide evidence of a negative association, possibly even effect of micro-entrepreneurship on migration plans. Structural Equation Modeling subsequently reveals a mediating role of subjective wellbeing in this relationship. Specifically, this holds for the subgroups of low-income countries and agricultural entrepreneurs, but not for middle/high-income countries and non-farm entrepreneurs. Contrary to expectations, economic well-being was not found to play a mediating role between entrepreneurship and migration plans. It may only indirectly influence migration plans via subjective well-being. Finally, a positive correlation is observed between economic and subjective well-being, both of which are argued to be essential components of poverty reduction, with the former well-being presumably conditioning the latter.

The study contributes to the existing entrepreneurship literature by portraying the importance of entrepreneurship for young people's migration plans in the context of socio-economic constraints. By considering evaluative well-being, poverty is defined in more than just economic terms, and examining migration plans from the perspective of the ordinary entrepreneur allows us to conclude about the transformative potential of entrepreneurship for those in abject poverty. However, methodological and data limitations cannot ensure complete robustness and generalizability. Future

studies should test the proposed model using specifically collected and longitudinal survey data to verify the results and derive causal effects. Since entrepreneurial characteristics are considered an important driver of rural development, governments should adopt appropriate policies and provide more incentives for the establishment of an entrepreneurial culture among citizens. It is hoped that the thesis will inspire policymakers and development organizations in their efforts to help unemployed young people become entrepreneurs and ultimately escape poverty.

References

Abadie, A., & Spiess, J. (2021). Robust post-matching inference. *Journal of the American Statistical Association*. (Advance online publication, doi: 10.1080/01621459.2020.1840383)

Abdallah, S., Thompson, S., & Marks, N. (2008). Estimating worldwide life satisfaction. *Ecological Economics*, *65*(1), 35–47.

Abel, G. J. (2018). Estimates of global bilateral migration flows by gender between 1960 and 20151. *International Migration Review*, *52*(3), 809–852.

Abreu, M., Oner, O., Brouwer, A., & van Leeuwen, E. (2019). Well-being effects of self-employment: A spatial inquiry. *Journal of Business Venturing*, *34*(4), 589–607.

Acs, Z. (2006). How is entrepreneurship good for economic growth? *Innovations: Technology, Governance, Globalization*, *1*(1), 97–107.

Acs, Z. J., Desai, S., & Hessels, J. (2008). Entrepreneurship, economic development and institutions. *Small Business Economics*, *31*(3), 219–234.

Adewumi, S. A. (2020). Challenges and prospects of rural entrepreneurship: A discourse analysis of selected local government areas of Osun state, Nigeria. *International Journal of Business and Management Studies*, *12*(2), 544–560.

Adhikari, S., & Gentilini, U. (2018). Should I stay or should I go: do cash transfers affect migration? *World Bank Policy Research Working Paper*.

Adusei, M. (2016). Does entrepreneurship promote economic growth in Africa? *African Development Review*, *28*(2), 201–214.

AFI. (2014). Small and Growing: Entrepreneurship in African Agriculture. *Agriculture For Impact, A Montpellier Panel Report, June 2014*.

Afrobarometer. (2020). *Data Codebook for a Round 7 Afrobarometer Survey.* Retrieved 2021-07-02, from https://afrobarometer.org/sites/default/files/r7_merged.codebook_final_14dec20.pdf

Afrobarometer. (2021). *Sampling principles and weighting.* Retrieved 2021-07-01, from https://afrobarometer.org/surveys-and-methods/sampling-principles

Alemu, A. E., & Adesina, J. O. (2017). In search of rural entrepreneurship: Non-farm household enterprises (NFEs) as instruments of rural transformation in Ethiopia. *African Development Review*, *29*(2), 259–271.

Alvarez, S. A., & Barney, J. B. (2014). Entrepreneurial opportunities and poverty alleviation. *Entrepreneurship Theory and Practice*, *38*(1), 159–184.

Amha, W., Woldehanna, T., Tamrat, E., & Gebremedhin, A. (2015). The characteristics and determinants of entrepreneurship in Ethiopia. *Ethiopian Journal of Economics*, *24*(1), 131–165.

Amoros, J. E., & Bosma, N. (2014). *Global entrepreneurship monitor 2013 global report: Fifteen years of assessing entrepreneurship across the globe* (Tech. Rep.). Global Entrepreneurship Research Association (GERA) and Universidad del Desarrollo and Utrecht University. Retrieved from https://www.gemconsortium.org/report/gem-2013-global-report (accessed: 2021-07-02)

Andersson, P. (2008). Happiness and health: Well-being among the self-employed. *The Journal of Socio-Economics*, *37*(1), 213–236.

Austin, P. C. (2009). Balance diagnostics for comparing the distribution of baseline covariates between treatment groups in propensity-score matched samples. *Statistics in Medicine*, *28*(25), 3083–3107.

Austin, P. C. (2011). An introduction to propensity score methods for reducing the effects of confounding in observational studies. *Multivariate Behavioral Research*, *46*(3), 399–424.

Beegle, K., Christiaensen, L., Dabalen, A., & Gaddis, I. (2016). *Poverty in a Rising Africa*. World Bank Publications.

Bello-Bravo, J. (2015). Rural-urban migration: A path for empowering women through entrepreneurial activities in West Africa. *Journal of Global Entrepreneurship Research0*, *5*(1), 1–9.

Benz, M., & Frey, B. S. (2008). Being independent is a great thing: Subjective evaluations of self-employment and hierarchy. *Economica*, *75*(298), 362–383.

Bhoojedhur, S., & Isbell, T. (2019). *Almost half of Malawians consider emigration; most-educated are most likely to look overseas* (Tech. Rep.). Afrobarometer Dispatch No. 281. Retrieved from https://media.africaportal.org/documents/ab_r7_dispatchno281_malawi_emigration.pdf (accessed: 2021-07-02)

Bhuiyan, M. F., & Ivlevs, A. (2019). Micro-entrepreneurship and subjective well-being: Evidence from rural Bangladesh. *Journal of Business Venturing*, *34*(4), 625–645.

Binder, M., & Coad, A. (2013). Life satisfaction and self-employment: A matching approach. *Small Business Economics*, *40*(4), 1009–1033.

Binder, M., & Coad, A. (2016). How satisfied are the self-employed? a life domain view. *Journal of Happiness Studies*, *17*(4), 1409–1433.

Black, R., & Castaldo, A. (2009). Return migration and entrepreneurship in Ghana and Côte d'Ivoire: the role of capital transfers. *Tijdschrift voor Economische en Sociale Geografie*, *100*(1), 44–58.

Blanchflower, D. G., & Oswald, A. J. (2004). Well-being over time in Britain and the USA. *Journal of Public Economics*, *88*(7-8), 1359–1386.

Bommes, M., Fassman, H., & Sievers, W. (2014). *Migration from the Middle East and North Africa to Europe: Past Developments, Current Status and Future Potentials*. Amsterdam University Press.

Bradley, S. W., McMullen, J. S., Artz, K., & Simiyu, E. M. (2012). Capital is not enough: Innovation in developing economies. *Journal of Management Studies*, *49*(4), 684–717.

Brown, S., Farrell, L., & Harris, M. N. (2011). Modeling the incidence of self-employment: individual and employment type heterogeneity. *Contemporary Economic Policy*, *29*(4), 605–619.

Brubaker, R. (2017). Why populism? *Theory and Society*, *46*(5), 357–385.

Bruton, G. D., Ahlstrom, D., & Obloj, K. (2008). Entrepreneurship in emerging economies: Where are we today and where should the research go in the future. *Entrepreneurship Theory and Practice*, *32*(1), 1–14.

Bruton, G. D., Ireland, R. D., & Ketchen Jr, D. J. (2012). Toward a research agenda on the informal economy. *Academy of Management Perspectives*, *26*(3), 1–11.

Bruton, G. D., Ketchen Jr, D. J., & Ireland, R. D. (2013). Entrepreneurship as a solution to poverty. *Journal of Business Venturing*, *28*(6), 683–689.

Cai, R., Esipova, N., Oppenheimer, M., & Feng, S. (2014). International migration desires related to subjective well-being. *IZA Journal of Migration*, *3*(1), 1–20.

Capuano, S., & Marfouk, A. (2013). African brain drain and its impact on source countries: What do we know and what do we need to know? *Journal of Comparative Policy Analysis: Research and Practice*, *15*(4), 297–314.

Carling, J., & Schewel, K. (2018). Revisiting aspiration and ability in international migration. *Journal of Ethnic and Migration Studies*, *44*(6), 945–963.

Carter, S. (2011). The rewards of entrepreneurship: Exploring the incomes, wealth, and economic well–being of entrepreneurial households. *Entrepreneurship Theory and Practice*, *35*(1), 39–55.

Cheeseman, N. (2015). "No bourgeoisie, no democracy"? The political attitudes of the Kenyan middle class. *Journal of International Development*, *27*(5), 647–664.

Chindarkar, N. (2014). Is subjective well-being of concern to potential migrants from Latin America? *Social Indicators Research*, *115*(1), 159–182.

Chliova, M., Brinckmann, J., & Rosenbusch, N. (2015). Is microcredit a blessing for the poor? a meta-analysis examining development outcomes and contextual considerations. *Journal of Business Venturing*, *30*(3), 467–487.

Cho, Y. (2015). Entrepreneurship for the poor in developing countries. *IZA World of Labor*(167).

Clemens, M. A. (2020). The emigration life cycle: How development shapes emigration from poor countries. *IZA Discussion Paper No. 13614*.

Cohen, J. (1992). A power primer. *Psychological Bulletin*, *112*(1), 155–159.

Cohen, J., Cohen, P., West, S. G., & Aiken, L. S. (2013). *Applied Multiple Regression/Correlation Analysis for the Behavioral Sciences*. Taylor & Francis.

Connor, P. (2018). *International migration from sub-Saharan Africa has grown dramatically since 2010.* Retrieved 2021-07-05, from https://www.pewresearch.org/fact-tank/2018/02/28/international-migration-from-sub-saharan-africa-has-grown-dramatically-since-2010/

Cribari-Neto, F., Ferrari, S. L. P., & Oliveira, W. A. S. C. (2005). Numerical evaluation of tests based on different heteroskedasticity-consistent covariance matrix estimators. *Journal of Statistical Computation and*

Simulation, *75*(8), 611–628.

Dako-Gyeke, M. (2016). Exploring the migration intentions of Ghanaian youth: A qualitative study. *Journal of International Migration and Integration*, *17*(3), 723–744.

Dale, A. (2015). Self-Employment and entrepreneurship: notes on two problematic concepts. In *Deciphering the enterprise culture (routledge revivals)* (pp. 55–72). Routledge.

Dao, T. H., Docquier, F., Parsons, C., & Peri, G. (2018). Migration and development: Dissecting the anatomy of the mobility transition. *Journal of Development Economics*, *132*, 88–101.

Davenport, C., Moore, W., & Poe, S. (2003). Sometimes you just have to leave: Domestic threats and forced migration, 1964-1989. *International Interactions*, *29*(1), 27–55.

De Jong, G. F., Root, B. D., Gardner, R. W., Fawcett, J. T., & Abad, R. G. (1985). Migration intentions and behavior: Decision making in a rural Philippine province. *Population and Environment*, *8*(1-2), 41–62.

De Jong, G. F., & Steinmetz, M. (2006). Migration intentions in South Africa and elsewhere. In *Migration in South and Southern Africa: Dynamics and Determinants* (pp. 249–267). Human Sciences Research Council South Africa.

Dencker, J. C., Bacq, S., Gruber, M., & Haas, M. (2021). Reconceptualizing necessity entrepreneurship: A contextualized framework of entrepreneurial processes under the condition of basic needs. *Academy of Management Review*, *46*(1), 60–79.

Desai, S., Naudé, W., & Stel, N. (2021). Refugee entrepreneurship: context and directions for future research. *Small Business Economics*, *56*, 933–945.

Diener, E. (1984). Subjective well-being. *Psychological Bulletin*, *95*(3), 542–575.

Diener, E. (2012). New findings and future directions for subjective well-being research. *American Psychologist*, *67*(8), 590–597.

Diener, E., Diener, M., & Diener, C. (2009). Factors predicting the subjective well-being of nations. In *Culture and well-being: The collected works of ed diener* (pp. 43–70). Springer Netherlands.

Diener, E., Emmons, R. A., Larsen, R. J., & Griffin, S. (1985). The satisfaction with life scale. *Journal of Personality Assessment*, *49*(1), 71–75.

Drucker, P. F. (1998). The discipline of innovation. *Harvard Business Review*, *76*(6), 149–157.

Dulani, B., Mattes, R. B., & Logan, C. (2013). *After a decade of growth in Africa, little change in poverty at the grassroots* (Tech. Rep.). Afrobarometer Policy Brief No. 1. Retrieved from https://afrobarometer.org/publications/pp1-after-decade-growth-africa-little-change-poverty-grassroots (accessed: 2021-07-10)

Etling, A., Backeberg, L., & Tholen, J. (2020). The political dimension of young people's migration intentions: evidence from the Arab Mediterranean region. *Journal of Ethnic and Migration Studies*, *46*(7), 1388–1404.

Fairlie, R. W., & Robb, A. M. (2009). Gender differences in business performance: evidence from the Characteristics of Business Owners survey. *Small Business Economics*, *33*(4), 375–395.

FAO, IFAD, IOM, & WFP. (2018). *The linkages between migration, agriculture, food security and rural development* (Tech. Rep.). FAO Rome, Licence: CC BY-NC-SA 3.0 IGO. Retrieved from http://www.fao.org/3/ca0922en/ca0922en.pdf (accessed: 2021-07-10)

Farrar, D. E., & Glauber, R. R. (1967). Multicollinearity in regression analysis: the problem revisited. *The Review of Economics and Statistics*, *49*(1), 92–107.

Fatoki, O., & Chindoga, L. (2011). An investigation into the obstacles to youth entrepreneurship in South Africa. *International Business Research*, *4*(2), 161–169.

Friebel, G., Gallego, J. M., & Mendola, M. (2013). Xenophobic attacks, migration intentions, and networks: evidence from the South of Africa. *Journal of Population Economics*, *26*(2), 555–591.

GEM. (2013). *Supporting Africa's young entrepreneurs: an investment in job creation and future prosperity for all: Nigeria* (Tech. Rep.). Global Entrepreneurship Monitor Nigeria. Retrieved from https://www.gemconsortium.org/economy-profiles/nigeria (accessed: 2021-07-10)

George, G., Corbishley, C., Khayesi, J. N. O., Haas, M. R., & Tihanyi, L. (2016). Bringing Africa in: Promising directions for management research. *Academy of Management Journal*, *59*(2), 377–393.

Giambra, S., & McKenzie, D. (2021). Self-employment and Migration. *World Development*, *141*. (105362)

Gough, K. V., & Langevang, T. (2016). *Young Entrepreneurs in sub-Saharan Africa*. Routledge.

Grapentine, T. (2000). Path analysis vs. structural equation modeling. *Marketing Research*, *12*(3), 12–20.

Gunzler, D., Morris, N., & Tu, X. M. (2016). Causal mediation analysis using structure equation models. In *Statistical causal inferences and their applications in public health research* (pp. 295–314). Springer International Publishing.

Hagerty, M. R. (1999). Testing Maslow's hierarchy of needs: National quality-of-life across time. *Social Indicators Research*, *46*(3), 249–271.

Hansen, B. B., & Bowers, J. (2008). Covariate balance in simple, stratified and clustered comparative studies. *Statistical Science*, *23*(2), 219–236.

Hariton, E., & Locascio, J. J. (2018). Randomised controlled trials–the gold standard for effectiveness research. *BJOG: An International Journal of Obstetrics and Gynaecology*, *125*(13), 1716–1716.

Hayes, A. F., & Cai, L. (2007). Using heteroskedasticity-consistent standard error estimators in OLS regression: An introduction and software implementation. *Behavior Research Methods*, *39*(4), 709–722.

Hayes, A. F., & Preacher, K. J. (2013). Conditional process modeling: Using structural equation modeling to examine contingent causal processes. In *Structural Equation Modeling: A Second Course (2nd ed.)* (pp. 219–266). IAP Information Age Publishing.

Hébert, R. F., & Link, A. N. (1989). In search of the meaning of entrepreneurship. *Small Business Economics*, *1*(1), 39–49.

Hitt, M. A., Ireland, R. D., Camp, S. M., & Sexton, D. L. (2001). Strategic entrepreneurship: Entrepreneurial strategies for wealth creation. *Strategic Management Journal*, *22*(6-7), 479–491.

Ho, D. E., Imai, K., King, G., & Stuart, E. A. (2007). Matching as nonparametric preprocessing for reducing model dependence in parametric causal inference. *Political Analysis*, *15*(3), 199–236.

Hodler, R., Srisuma, S., Vesperoni, A., & Zurlinden, N. (2020). Measuring ethnic stratification and its effect on trust in Africa. *Journal of Development Economics*, *146*.

Hoogeveen, J. G., Rossi, M., & Sansone, D. (2019). Leaving, Staying or Coming Back? Migration Decisions During the Northern Mali Conflict. *The Journal of Development Studies*, *55*(10), 2089–2105.

Hosmer, D. W., & Lemeshow, S. (2013). *Applied Logistic Regression (Second Edition)*. John Wiley & Sons, Inc.

Hoyle, R. H. (2012). *Handbook of Structural Equation Modeling*. Guilford Press.

Hu, L.-t., & Bentler, P. M. (1999). Cutoff criteria for fit indexes in covariance structure analysis: Conventional criteria versus new alternatives. *Structural Equation Modeling: A Multidisciplinary Journal*, *6*(1), 1–55.

Igwe, P. A., & Icha-Ituma, A. (2020). A review of ten years of African entrepreneurship research. In *Research handbook on entrepreneurship in emerging economies* (pp. 325–353). Edward Elgar Publishing.

Imbens, G. W., & Wooldridge, J. M. (2009). Recent developments in the econometrics of program evaluation. *Journal of Economic Literature*, *47*(1), 5–86.

IOM. (2020). *International Dialogue on Migration No. 29: Youth and Migration* (Tech. Rep.). International Organization for Migration. Retrieved from https://publications.iom.int/books/international-dialogue-migration-no-29-youth-and-migration (accessed: 2021-07-02)

Ivlevs, A., Nikolova, M., & Graham, C. (2019). Emigration, remittances, and the subjective well-being of those staying behind. *Journal of Population Economics*, *32*(1), 113–151.

Jayachandran, S. (2020). Microentrepreneurship in developing countries. *National Bureau of Economic Research*.

Johannisson, B. (2011). Towards a practice theory of entrepreneuring. *Small Business Economics*, *36*(2), 135–150.

Johnson, M. P., & Schaltegger, S. (2020). Entrepreneurship for sustainable development: A review and multilevel causal mechanism framework. *Entrepreneurship Theory and Practice*, *44*(6), 1141–1173.

Kachkar, O. A. (2019). Refugee entrepreneurship: empirical quantitative evidence on microenterprises in refugee camps in Turkey. *Journal of Immigrant & Refugee Studies*, *17*(3), 333–352.

Kahneman, D., Diener, E., & Schwarz, N. (1999). *Well-being: Foundations of Hedonic Psychology*. Russell Sage Foundation.

Kahneman, D., & Krueger, A. B. (2006). Developments in the measurement of subjective well-being. *Journal of Economic Perspectives*, *20*(1), 3–24.

Kandemir, O. (2012). Human development and international migration. *Procedia-Social and Behavioral Sciences*, *62*, 446–451.

Kerr, S. P., & Kerr, W. (2020). Immigrant entrepreneurship in America: Evidence from the survey of business owners 2007 & 2012. *Research Policy*, *49*(3).

Kew, J. (2015). *Africa's Young Entrepreneurs: Unlocking the Potential for a Brighter Future*. International Development Research Centre (IDRC) = Centre de recherches pour le développement international (CRDI).

Kimmitt, J., Munoz, P., & Newbery, R. (2020). Poverty and the varieties of entrepreneurship in the pursuit of prosperity. *Journal of Business Venturing*, *35*(4).

Klasen, S., & Woolard, I. (2009). Surviving unemployment without state support: Unemployment and household formation in South Africa. *Journal of African Economies*, *18*(1), 1–51.

Kline, R. B. (2015). *Principles and Practice of Structural Equation Modeling (Fourth Edition)*. Guilford Press.

Kluve, J., Puerto, S., Robalino, D., Romero, J. M., Rother, F., Stoeterau, J., … Witte, M. (2017). Interventions to improve the labour market outcomes of youth: A systematic review of training, entrepreneurship promotion, employment services and subsidized employment interventions. *Campbell Systematic Reviews*, *13*(1), 1–288.

Koelle, M. (2019). *Microenterprises and the Lure of Wage Work: Theory and Evidence from Mexican Export Manufacturing* (Tech. Rep.). Centre for the Study of African Economies, University of Oxford.

Kolawole, O. D., & Ajila, K. (2015). Driving local community transformation through participatory rural entrepreneurship development. *World Journal of Entrepreneurship, Management and Sustainable Development*, *11*(2), 131–139.

Kolk, A., Rivera-Santos, M., & Rufín, C. (2014). Reviewing a decade of research on the "base/bottom of the pyramid" (BOP) concept. *Business & Society*, *53*(3), 338–377.

Koyana, S., & Mason, R. B. (2017). Rural entrepreneurship and transformation: the role of learnerships. *International Journal of Entrepreneurial Behavior & Research*, *23*(5), 734-751.

Langevang, T., Namatovu, R., & Dawa, S. (2012). Beyond necessity and opportunity entrepreneurship: motivations and aspirations of young entrepreneurs in Uganda. *International Development Planning Review*, *34*(4), 339-459.

Liang, J., Wang, H., & Lazear, E. P. (2018). Demographics and entrepreneurship. *Journal of Political Economy*, *126*(S1), S140–S196.

London, T., & Hart, S. L. (2010). *Next Generation Business Strategies for the Base of the Pyramid: New Approaches for Building Mutual Value*. FT Press.

Mair, J., Battilana, J., & Cardenas, J. (2012). Organizing for society: A typology of social entrepreneuring models. *Journal of Business Ethics*, *111*(3), 353–373.

Manchin, M., & Orazbayev, S. (2018). Social networks and the intention to migrate. *World Development*, *109*, 360–374.

Maslow, A. H. (1943). A theory of human motivation. *Psychological Review*, *50*(4), 370–396.

Mattes, R. (2020). *Lived poverty on the rise: Decade of living-standard gains ends in Africa* (Tech. Rep.). Afrobarometer Policy Paper No. 62. Retrieved from https://afrobarometer.org/publications/pp62-lived-poverty-rise-decade-living-standard-gains-ends-africa (accessed: 2021-07-02)

Mattes, R., Dulani, B., & Gyimah-Boadi, E. (2016). *Africa's growth dividend? lived poverty drops across much of the continent* (Tech. Rep.). Afrobarometer Policy Paper No. 29. Retrieved from https://afrobarometer.org/publications/pp29-africas-growth-dividend-lived-poverty-drops-across-the-continent (accessed: 2021-07-02)

McFadden, D. (1978). Quantitative Methods for Analysing Travel Behaviour of Individuals: Some Recent Developments. In *Behavioural travel modelling* (pp. 279–318). Croom Helm.

Meyer, D. F., & Keyser, E. (2016). Validation and testing of the Lived Poverty Index Scale (LPI) in a poor South African community. *Social Indicators Research*, *129*(1), 147–159.

Migali, S., & Scipioni, M. (2019). Who's about to leave? a global survey of aspirations and intentions to migrate. *International Migration*, *57*(5), 181–200.

Milasi, S. (2020). 7What Drives Youth's Intention to Migrate Abroad? Evidence from International Survey Data. *IZA Journal of Development and Migration*, *11*(1).

Moore, W. H., & Shellman, S. M. (2007). Whither will they go? a global study of refugees' destinations, 1965–1995. *International Studies Quarterly*, *51*(4), 811–834.

Mukhtar, S., Rose, R. A. C., Choy, L. K., & Bibi-Farouk, A. U. I. (2018). Boko Haram and the Geopolitics of Forced Migration in Nigeria. *Journal of International Studies*, *14*, 51–63.

Nagler, P., & Naudé, W. (2014). Non-farm entrepreneurship in rural Africa: Patterns and determinants. *IZA Discussion Paper*.

Nagler, P., & Naudé, W. (2017). Non-farm entrepreneurship in rural sub-Saharan Africa: New empirical evidence. *Food Policy*, *67*, 175–191.

Naudé, W. (2008). Conflict, disasters and no jobs: Reasons for international migration from Sub-Saharan Africa. *WIDER Research Paper*.

Naudé, W. (2010). Entrepreneurship, developing countries, and development economics: new approaches and insights. *Small Business Economics*, *34*(1), 1–12.

Naudé, W., Siegel, M., & Marchand, K. (2017). Migration, entrepreneurship and development: critical questions. *IZA Journal of Migration*, *6*(1), 1–16.

Neumayer, E. (2005). Bogus refugees? The determinants of asylum migration to Western Europe. *International Studies Quarterly*, *49*(3), 389–409.

Nikolaev, B., Boudreaux, C. J., & Wood, M. (2020). Entrepreneurship and subjective well-being: The mediating role of psychological functioning. *Entrepreneurship Theory and Practice*, *44*(3), 557–586.

Nikolaev, B., & Rusakov, P. (2016). Education and happiness: an alternative hypothesis. *Applied Economics Letters*, *23*(12), 827–830.

Nikolova, M. (2019). Switching to self-employment can be good for your health. *Journal of Business Venturing*, *34*(4), 664–691.

O'Brien, R. M. (2007). A caution regarding rules of thumb for variance inflation factors. *Quality & Quantity*, *41*(5), 673–690.

Odhiambo, F. O. (2019). Assessing the predictors of lived poverty in Kenya: A secondary analysis of the Afrobarometer survey 2016. *Journal of Asian and African Studies*, *54*(3), 452–464.

OECD. (2000). *Small and medium-sized enterprises: local strength, global reach* (Tech. Rep.). Public Affairs Division, OECD Policy Brief. Retrieved from https://www.oecd.org/cfe/leed/1918307.pdf (accessed: 2021-07-10)

OECD. (2015). *Connecting with Emigrants: A Global Profile of Diasporas 2015*. OECD Publishing, Paris. Retrieved from https://books.google.de/books?id=UZRmnQAACAAJ

Okeke, C., & Nwankwo, F. (2017). Rural entrepreneurship and rural development in Nigeria. *Africa's Public Service Delivery and Performance Review*, *5*(1).

Olmos, A., & Govindasamy, P. (2015). Propensity scores: a practical introduction using R. *Journal of MultiDisciplinary Evaluation*, *11*(25), 68–88.

Ozaltin, D., Shakir, F., & Loizides, N. (2020). Why do people flee? Revisiting forced migration in post-Saddam Baghdad. *Journal of International Migration and Integration*, *21*(2), 587–610.

Parker, S. C. (2004). *The economics of Self-employment and Entrepreneurship*. Cambridge University Press.

Peng, C.-Y. J., Lee, K. L., & Ingersoll, G. M. (2002). An introduction to logistic regression analysis and reporting. *The Journal of Educational Research*, *96*(1), 3–14.

Poole, M. A., & O'Farrell, P. N. (1971). The assumptions of the linear regression model. *Transactions of the Institute of British Geographers*(52), 145–158.

Quagrainie, F. A., Adams, S., Kabalan, A. A. M., & Dankwa, A. D. (2021). Micro-entrepreneurship, sustainable development goal one and cultural expectations of Ghanaian women. *Journal of Entrepreneurship*

in Emerging Economies, *13*(1), 86–106.

Rapoza, K. (2017). *Here's Why Europe Really Needs More Immigrants*. Retrieved 2021-07-19, from https://www.forbes.com/sites/kenrapoza/2017/08/15/heres-why-europe-really-needs-more-immigrants/?sh=9fda5fb49171

Reid, M., Roumpi, D., & O'Leary-Kelly, A. M. (2015). Spirited women: The role of spirituality in the work lives of female entrepreneurs in Ghana. *Africa Journal of Management*, *1*(3), 264–283.

Reynolds, P. D., Camp, M. S., Bygrave, W. D., Autio, E., & Hay, M. (2001). 2001 Executive Report. *Global Entrepreneurship Monitor*. Retrieved from https://www.gemconsortium.org/report/gem-2001-global-report (accessed: 2021-07-02)

Reynolds, P. D., Hay, M., & Camp, M. S. (1999). *Global Entrepreneurship Monitor: 1999 Executive Report* (Tech. Rep.). Global Entrepreneurship Monitor. Retrieved from https://www.gemconsortium.org/report/gem-1999-global-report (accessed: 2021-07-02)

Rindova, V., Barry, D., & Ketchen Jr, D. J. (2009). Entrepreneuring as emancipation. *Academy of Management Review*, *34*(3), 477–491.

Rosenbaum, P. R. (2002). Overt bias in observational studies. In *Observational studies* (pp. 71–104). Springer.

Rosenbaum, P. R., & Rubin, D. B. (1983). The central role of the propensity score in observational studies for causal effects. *Biometrika*, *70*(1), 41–55.

Roser, M., & Ortiz-Ospina, E. (2019). *Global Extreme Poverty*. Retrieved 2021-05-02, from https://ourworldindata.org/extreme-poverty

Rosseel, Y. (2012). Lavaan: An R package for structural equation modeling and more. Version 0.5–12 (BETA). *Journal of Statistical Software*, *48*(2), 1–36.

Rubin, D. B. (1997). Estimating causal effects from large data sets using propensity scores. *Annals of Internal Medicine*, *127*(8, Pt.2), 757–763.

Ruyssen, I., & Salomone, S. (2018). Female migration: A way out of discrimination? *Journal of Development Economics*, *130*, 224–241.

Ryan, R. M., & Deci, E. L. (2017). *Self-Determination Theory: Basic Psychological Needs in Motivation, Development, and Wellness*. Guilford Publications.

Salameh, M. T. B. (2019). Migration from the Arab Spring Countries to Europe: Causes and Consequences. In *Smart technologies and innovation for a sustainable future* (pp. 243–254). Springer International Publishing.

Schmeidl, S. (1997). Exploring the causes of forced migration: A pooled time-series analysis, 1971-1990. *Social Science Quarterly*, *78*(2), 284–308.

Schumpeter, J. A. (1934). *The Theory of Economic Development*. Cambridge, MA: Harvard University Press.

Sekeris, P., & Vasilakis, C. (2016). The Mediterranean refugees crisis and extreme right parties: Evidence from Greece. *MPRA Paper 72222, University Library of Munich, Germany*.

Seligman, M. E. P. (2012). *Flourish: A Visionary New Understanding of Happiness and Well-being*. Simon and Schuster.

Shepherd, D. A., Parida, V., & Wincent, J. (2021). Entrepreneurship and poverty alleviation: the importance of health and children's education for slum entrepreneurs. *Entrepreneurship Theory and Practice*, *45*(2), 350–385.

Shepherd, D. A., & Patzelt, H. (2017). *Trailblazing in Entrepreneurship: Creating New Paths for Understanding the Field*. Springer Nature.

Sheriff, M., & Muffatto, M. (2015). The present state of entrepreneurship ecosystems in selected countries in Africa. *African Journal of Economic and Management Studies*, *6*(1), 17–54.

Shir, N. (2015). Entrepreneurial Well-Being: The Payoff Structure of Business Creation. *Stockholm School of Economics*.

Shir, N., Nikolaev, B. N., & Wincent, J. (2019). Entrepreneurship and well-being: The role of psychological autonomy, competence, and relatedness. *Journal of Business Venturing*, *34*(5). (105875)

Sirgy, M. J. (1986). A Quality-of-Life Theory Derived from Maslow's Developmental Perspective: 'Quality' Is Related to Progressive Satisfaction of a Hierarchy of Needs, Lower Order and Higher. *American Journal of Economics and Sociology*, *45*(3), 329–342.

Sivo, S. A., Fan, X., Witta, E. L., & Willse, J. T. (2006). The search for" optimal" cutoff properties: Fit index criteria in structural equation modeling. *The Journal of Experimental Education*, *74*(3), 267–288.

Sohns, F., & Diez, J. R. (2018). Explaining micro entrepreneurship in rural Vietnam–a multilevel analysis. *Small Business Economics*, *50*(1), 219–237.

Sriram, V., & Mersha, T. (2006). Facilitating entrepreneurship in Sub-Saharan Africa: what governments can do. *Journal for International Business and Entrepreneurship Development*, *3*(1-2), 136–151.

Steele, A. (2009). Seeking safety: Avoiding displacement and choosing destinations in civil wars. *Journal of Peace Research*, *46*(3), 419–429.

Stephan, U. (2018). Entrepreneurs' mental health and well-being: A review and research agenda. *Academy of Management Perspectives*, *32*(3), 290–322.

Stevenson, B., & Wolfers, J. (2009). The paradox of declining female happiness. *American Economic Journal: Economic Policy*, *1*(2), 190–225.

Sutter, C., Bruton, G. D., & Chen, J. (2019). Entrepreneurship as a solution to extreme poverty: A review and future research directions. *Journal of Business Venturing*, *34*(1), 197–214.

Tartakovsky, E., & Schwartz, S. H. (2001). Motivation for emigration, values, wellbeing, and identification among young Russian Jews. *International Journal of Psychology*, *36*(2), 88–99.

TheGlobalEconomy. (2021). *Compare countries with annual data from official sources: Fragile state index.* Retrieved 2021-07-02, from https://www.theglobaleconomy.com/compare-countries/

Theodossiou, I. (1998). The effects of low-pay and unemployment on psychological well-being: a logistic regression approach. *Journal of Health Economics*, *17*(1), 85–104.

Tjaden, J., Auer, D., & Laczko, F. (2019). Linking migration intentions with flows: Evidence and potential use. *International Migration*, *57*(1), 36–57.

Tobias, J. M., Mair, J., & Barbosa-Leiker, C. (2013). Toward a theory of transformative entrepreneuring: Poverty reduction and conflict resolution in Rwanda's entrepreneurial coffee sector. *Journal of Business Venturing*, *28*(6), 728–742.

UN. (2019). World population prospects 2019: Highlights. *United Nations, Department for Economic and Social Affairs, Population Division*. Retrieved from https://population.un.org/wpp/Publications/Files/WPP2019_Highlights.pdf (accessed: 2021-07-19)

UN. (2020). *The Sustainable Development Goals Report 2020* (Tech. Rep.). United Nations, United Nations Statistics Division (UNSD). Retrieved from https://unstats.un.org/sdgs/report/2020/The-Sustainable-Development-Goals-Report-2020.pdf (accessed: 2021-07-19)

UNDP. (2009). *Bericht Über die menschliche Entwicklung 2009: Barrieren Überwinden: Migration und menschliche Entwicklung* (Tech. Rep.). United Nations, United Nations Development Programme (UNDP). Retrieved from http://hdr.undp.org/sites/default/files/hdr2009-german.pdf (accessed: 2021-07-19)

UNDP. (2013). *UNDP in Sub-Saharan Africa: Supporting a region on the move* (Tech. Rep.). United Nations, United Nations Development Programme (UNDP). Retrieved from https://www.africa.undp.org/content/rba/en/home/library/outreach-material/undp-africa-brochure.html (accessed: 2021-07-19)

UNDP. (2016). *Africa Human Development Report 2016 Accelerating Gender Equality and Women's Empowerment in Africa* (Tech. Rep.). United Nations, United Nations Development Programme (UNDP). Retrieved from https://www.undp.org/sites/g/files/zskgke326/files/publications/AfHDR_2016_lowres_EN.pdf (accessed: 2021-07-19)

UNHCR. (2021). *Global Appeal 2021 Update* (Tech. Rep.). United Nations, United Nations High Commissioner for Refugees (UNHCR). Retrieved from https://reporting.unhcr.org/sites/default/files/ga2021/pdf/Global_Appeal_2021_full_lowres.pdf (accessed: 2021-07-19)

Uy, M. A., Foo, M.-D., & Song, Z. (2013). Joint effects of prior start-up experience and coping strategies on entrepreneurs' psychological well-being. *Journal of Business Venturing*, *28*(5), 583–597.

Van Dalen, H. P., Groenewold, G., & Fokkema, T. (2005). The effect of remittances on emigration intentions in Egypt, Morocco, and Turkey. *Population Studies*, *59*(3), 375–392.

Van Dalen, H. P., & Henkens, K. (2008). *Emigration intentions: Mere words*

or true plans? explaining international migration intentions and behavior (Tech. Rep.). Discussion Paper, Tilburg University, Center for Economic Research.

Venkataraman, S. (2004). Regional transformation through technological entrepreneurship. *Journal of Business Venturing*, *19*(1), 153–167.

Vermeire, J. A. L., & Bruton, G. D. (2016). Entrepreneurial opportunities and poverty in sub-Saharan Africa: a review & agenda for the future. *Africa Journal of Management*, *2*(3), 258–280.

Vivarelli, M. (2013). Is entrepreneurship necessarily good? microeconomic evidence from developed and developing countries. *Industrial and Corporate Change*, *22*(6), 1453–1495.

Wauters, B., & Lambrecht, J. (2008). Barriers to refugee entrepreneurship in Belgium: Towards an explanatory model. *Journal of Ethnic and Migration Studies*, *34*(6), 895–915.

Weiner, M. (1996). Bad neighbors, bad neighborhoods: An inquiry into the causes of refugee flows. *International Security*, *21*(1), 5–42.

Welter, F., Baker, T., Audretsch, D. B., & Gartner, W. B. (2017). Everyday entrepreneurship–a call for entrepreneurship research to embrace entrepreneurial diversity. *Entrepreneurship Theory and Practice*, *41*, 311–321.

West, G. P., Bamford, C. E., & Marsden, J. W. (2008). Contrasting entrepreneurial economic development in emerging Latin American economies: Applications and extensions of resource-based theory. *Entrepreneurship Theory and Practice*, *32*(1), 15–36.

Wiklund, J., Nikolaev, B., Shir, N., Foo, M.-D., & Bradley, S. (2019). Entrepreneurship and well-being: Past, present, and future. *Journal of Business Venturing*, *34*(4), 579–588.

Wiklund, J., Yu, W., Tucker, R., & Marino, L. D. (2017). ADHD, impulsivity and entrepreneurship. *Journal of Business Venturing*, *32*(6), 627–656.

Williamson, J. G. (1965). Regional inequality and the process of national development: a description of the patterns. *Economic Development and Cultural Change*, *13*(4, Pt.2), 1–84.

Wills-Herrera, E., Orozco, L. E., Forero-Pineda, C., Pardo, O., & Andonova, V. (2011). The relationship between perceptions of insecurity, social capital and subjective well-being: Empirical evidences from areas of rural conflict in Colombia. *The Journal of Socio-Economics*, *40*(1), 88–96.

Wood, E. J. (2008). The social processes of civil war: The wartime transformation of social networks. *Annual Review of Political Science*, *11*, 539–561.

WorldBank. (2021). *World Bank Country and Lending Groups: historical classification by income in XLSX format.* Retrieved 2021-07-01, from https://datahelpdesk.worldbank.org/knowledgebase/articles/906519-world-bank-country-and-lending-groups

Wu, H., & Leung, S.-O. (2017). Can Likert scales be treated as interval scales?—A Simulation study. *Journal of Social Service Research*, *43*(4), 527–532.