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Analysis of current potentials and constraints to Entrepreneurship and Innovation using New Institutional Economics

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Contents

1. Introduction ......................................................................................................................... 1

2. Methodology and sources ................................................................................................... 3

3. Concepts and definitions ..................................................................................................... 5

   3.1 Entrepreneurship and innovation .................................................................................. 5

       3.1.1 Critics .................................................................................................................. 13

       3.1.2 Characteristics of entrepreneurship and innovation in developing countries ..... 16

       3.1.3 How to measure entrepreneurship and innovation ...................................... 19

   3.2 Economic development ............................................................................................... 23

4. Institutions ......................................................................................................................... 27

   4.1 Criticisms .................................................................................................................... 32

   4.2 How to measure institutions ....................................................................................... 33

5. Entrepreneurship and Innovation in Mozambique ............................................................ 35

   5.1 History ........................................................................................................................ 36

   5.2 Social development ..................................................................................................... 37

       5.2.1 Demographic outlook .......................................................................................... 44

   5.3 Economic development in Mozambique .................................................................... 45

       5.3.1 Market size in Mozambique ................................................................................ 48

       5.3.2 Size and structure of firms .............................................................................. 49

       5.3.3 Informal sector ..................................................................................................... 51

       5.3.4 Sectorial analysis ................................................................................................. 53

       5.3.5 State participation ................................................................................................. 64

   5.4 Government policies and programs and legal framework .......................................... 64

   5.5 Skills and education .................................................................................................... 67

   5.6 Access to finance ........................................................................................................ 68

   5.7 Access to infrastructure .............................................................................................. 69
<table>
<thead>
<tr>
<th></th>
<th>Title</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>5.8</td>
<td>Corruption and bureaucracy</td>
<td>71</td>
</tr>
<tr>
<td>5.9</td>
<td>Innovation and entrepreneurship</td>
<td>75</td>
</tr>
<tr>
<td>5.10</td>
<td>Culture</td>
<td>76</td>
</tr>
<tr>
<td>5.11</td>
<td>Gender</td>
<td>77</td>
</tr>
<tr>
<td>5.12</td>
<td>Other aspects</td>
<td>78</td>
</tr>
<tr>
<td>5.13</td>
<td>Studies on constraints to entrepreneurship in Mozambique</td>
<td>78</td>
</tr>
<tr>
<td>6</td>
<td>Results and discussion</td>
<td>83</td>
</tr>
<tr>
<td>7</td>
<td>References</td>
<td>86</td>
</tr>
<tr>
<td>8</td>
<td>Appendix</td>
<td>96</td>
</tr>
<tr>
<td>9</td>
<td>Executive summary</td>
<td>104</td>
</tr>
<tr>
<td>10</td>
<td>Zusammenfassung</td>
<td>105</td>
</tr>
<tr>
<td>11</td>
<td>Resumo</td>
<td>106</td>
</tr>
</tbody>
</table>
List of Figures

Figure 1: Measurement framework of the Innovation Union Scoreboard ................................................. 21
Figure 2: Pillars of competitiveness .......................................................................................................... 25
Figure 3: Value Human Development Index 2012 .................................................................................... 38
Figure 4: Human Development Index trends, 1980-2012 .................................................................... 38
Figure 5: Age pyramid 2013 and 2030 (estimations, based on Census 2007) ........................................ 44
Figure 6: Urban and rural population 2013 and 2030 ............................................................................ 45
Figure 7: Annual GDP per capita (based on constant 2005 US$) and annual GDP growth per capita in % (based on constant 2005 US$) in Mozambique ........................................................................ 46
Figure 8: Annual GDP per capita and annual GDP growth per capita in % (both based on constant 2005 US$) in Mozambique and Sub-Saharan Africa ........................................................................ 47
Figure 9: Inflation, consumer prices (annual %) in Mozambique ............................................................. 48
Figure 10: Contribution of sectors (in %) to GDP of Mozambique in 2012 ............................................. 55
Figure 11: Agriculture, industry and services, value added (%of GDP), 2000-2012 ............................. 55
Figure 12: Agriculture value added per worker, annual growth rate agriculture (in %), value added, and annual growth rate agriculture (in %) per worker (all in US$ constant 2005), 2000-2012 ...................................................................................... 57
Figure 13: Annual gross value-added per capita by economic activity in Mio. Meticais 2009 ............ 58
Figure 14: Foreign direct investment, net inflows (% of GDP), 190-2012 ............................................. 62
Figure 15: Annual growth rate of tax revenues ......................................................................................... 63
Figure 16: National S & T System of Mozambique .................................................................................. 65
Figure 17: Percentage of respondents who felt these institutions were corrupt or extremely corrupt in Mozambique in 2013 ............................................................................................................ 72
Figure 18: Constraints to doing business, 2013 (World Economic Forum) ......................................... 79
Figure 19: constraints to entrepreneurship, 2009 (Krause et al.) ......................................................... 80
Figure 20: Constraints to doing business, 2007 (The World Bank) ........................................ 80
Figure 21: Constraints to doing business 2008 and 2013 (World Economic Forum) ............ 81
Figure 22: Constraints to doing business in Mozambique and sub-Saharan-Africa, 2007 (The World Bank) .................................................................................................................. 82
Figure 23: Constraints to doing business for small, medium, and large firms 2007 (The World Bank) ........................................................................................................................................ 82
Figure 24: Map of Mozambique ............................................................................................. 96
Figure 25: Overview of regions in Mozambique .................................................................. 97
List of Tables

Table 1: Possession of durable goods (per household) by income-quintiles 2007 .................................... 39
Table 2: Incidence of poverty in Mozambique, 1996-2009 ...................................................................... 40
Table 3: Incidence of inequality (Gini index) in Mozambique, 1996-2009 .............................................. 41
Table 4: How do you compare the economic situation of your household in relation to the last year? .......................................................................................................................................... 42
Table 5: Illiteracy rates in Mozambique .................................................................................................... 43
Table 6: Number of enterprises, persons employed and annual value of business (in Mio. Meticais) by size of enterprises, Mozambique 2002 ................................................................. 50
Table 7: Contribution of sectors (in %) to GDP of Mozambique in 2009-2012 ....................................... 54
Table 8: GDP annual growth rate by sector in Mozambique (in %), 2001-2012 ........................................ 56
Table 9: Gross value added per worker 2009 by sector in Mio. Meticais ................................................. 60
Table 10: Employees 2009 by sector ......................................................................................................... 60
Table 11: Getting electricity in Mozambique, Doing Business .................................................................. 70
Table 12: Starting a business in Mozambique ........................................................................................... 74
Table 13: Overview of Classification of Economic Activities (CAE Rev. 2 Mozambique) ..................... 98
Table 14: Overview Rankings Mozambique ........................................................................................... 103
List of Abbreviations

CEMPRE  Census de empresas (Firm census)
FDI  Foreign direct investment
GDP  Gross domestic product
GEM  Global Entrepreneurship Monitor
GNI  Gross national income
GVA  Gross value added
IAF  Inquéritos aos Agregados Familiares
ICT  Information and communications technology
INE  Instituto Nacional de Estatística (National Statistical Institute)
OECD  Organization for Economic Co-operation and Development
PARP  Plano de Acção para Redução da Pobreza (Poverty Reduction Action Plan)
PPP  Purchasing power parities
R&D  Research and Development
UNDP  United Nations Development Programme
UNIDO  UN Organization
WB  World Bank
WIPO  World Intellectual Property Organization
1. Introduction

Mozambique’s economic growth has been strong over the last decade. In 2012, the annual GDP growth rate was 7.4%\(^1\), although the economic growth was based on a few megaprojects, particularly coal, gas and aluminum. These megaprojects were financed by FDI inflows and had no significant impact on either employment creation or government revenues or economic diversification (African Development Bank Group et al. 2013: 258; Becker 2009: 203). The actual economic model is characterized by high social inequalities and a high external dependency (Becker 2009: 203). Despite the good economic performance in recent years, Mozambique remains a country with many challenges, especially the reduction of poverty, a present unstable political situation, 300,000 people facing famine and a high dependency on primary products.

According to data from the National Statistical Institute of Mozambique, the youth population in Mozambique – aged 15 to 24 years – is expected to rise from 4.8 million in 2013 to 7.8 million by 2030 (Instituto Nacional de Estatística 2010a: 30), meaning that job creation plays an important role for the country. The African Development Bank Group considers the creation of micro, small and medium-sized enterprises the best way to reduce the “youth bulge, poverty and regional disparities, and avoid social and economic calamities” (African Development Bank Group 2012: 5). Moreover, according to Adesida, and Karuri-Sebina, “creativity, innovation and entrepreneurship are the keys to Africa’s socioeconomic transformation” (Adesida/Karuri-Sebina 2013: 1).

Interest in entrepreneurship and innovation has been growing over the years, with a considerable number of studies analyzing the link between entrepreneurship, job creation and economic growth. At the same time, little is known about the business environments that promote entrepreneurship and innovation in low-income developing countries like Mozambique. While most studies focus on western countries, little attention has been paid to

\(^1\) According to data of the World Bank Group, Mozambique had in 2012 with an annual GDP growth of 7.4% out of 182 countries the 23\(^{th}\) highest growth rate (The World Bank 2013e).

Following the Poverty Reduction Action Plan (PARP) 2011-2014, the Mozambican Government wants to foster a culture of innovation, entrepreneurship and technological development as an instrument for reducing poverty and promoting development in the country (República de Moçambique 2011: 47).

The purpose of my thesis is to contribute to a better understanding of the institutional potentials of and constraints to entrepreneurship and innovation in Mozambique, as well as the roles that entrepreneurship and innovation can play in the country. In addition to economic aspects, social aspects will also be taken into account. The central question that I seek to answer in my thesis is: What are the potentials and constraints of the promotion of entrepreneurship and innovation in Mozambique? To answer my research questions, I have chosen a transdisciplinary approach. The analytical framework of my thesis will be based on Williamson’s framework for institutional economic analysis. This theory allows the analysis of institutions through the lens of several disciplines, including economics, policy, sociology, law and cultural studies.

The remainder of this thesis is organized as follows. Chapter 2 provides a description of the methodology and data sources. Subsequently, relevant literature concerning entrepreneurship, innovation and economic development is reviewed to locate the thesis within the context of existing literature and offer an overview of different ways of understanding and thinking on the subject.

Chapter 4 deals with institutions and provides the analytical framework for the following chapter, in which the theory will be applied to entrepreneurship and innovation in Mozambique. Based on the findings set out in chapters 3 and 4, formal and informal institutions will be discussed to answer the research question, including a presentation of the economic development over recent years (2000-2012), as well as analysis of the status quo of entrepreneurship and innovation in Mozambique. In the final chapter, the main results will be summarized and discussed and research gaps will be identified.
2. Methodology and sources

The theoretical part of the present work (chapters 3 and 4) is entirely literature-based. Different definitions and views of entrepreneurship and innovation as well as institutions will be discussed, and a comparison of different approaches will be made. Therefore, different secondary sources were used. A central book – upon which the title of the present work is based – is *Entrepreneurship, Innovation, and Economic Development*. Focusing on the relationship between entrepreneurship, innovation and development, it is one of the few books that present empirical evidence from developing countries. A central author for the definition of entrepreneurship and innovation is Joseph Alois Schumpeter. Two of his books, namely *The Theory of Economic Development* (first published under the German title *Theorie der wirtschaftlichen Entwicklung* in 1911) and *Capitalism, Socialism and Democracy* (published 1942), serve as a basis for the definition of entrepreneurship and innovation. Papers from Williamson (2000) and North (1994) are essential in terms of the chapter about institutions.

The analytical framework used to answer the research question of the present work is based on Williamson’s (2000) framework for institutional economic analysis and the Global Entrepreneurship Monitor (GEM), which aims to quantify differences in terms of entrepreneurial activity between countries. While Mozambique is not included in the list of countries covered by the Global Entrepreneurship Monitor, the framework is very useful and applicable to Mozambique. The following topics are covered in GEM country-studies:

(1) Financial support
(2) Government Policies
(3) Government Programs
(4) Education and Training
(5) Research and Development (R&D) Transfer
(6) Commercial and Professional Infrastructure
(7) Market Openness/Barriers to Entry
(8) Access to Physical Infrastructure
(9) Social and Cultural Norms (Global Entrepreneurship Research Association 2010: XV)
This structure will be adjusted slightly. For analyzing the constraints and potentials of entrepreneurship and innovation in Mozambique, a significant amount of quantitative data will be used, such as data from the National Statistical Institute of Mozambique, the World Bank's Doing Business project, data from the Global Competitiveness Report (World Economic Forum), and the Corruption Perceptions Index. These data show that the topic of the present work requires a transdisciplinary approach to answer the research question.

Finally, the results of three qualitative studies with a focus on constraints to entrepreneurship in Mozambique will be compared (The World Bank 2013g; World Economic Forum 2013; Krause et al. 2010).

Moreover, other information from secondary data such as official documents of the Mozambican Government, journal articles, published reports and academic publications will additionally be used.

Some data, such as the results of a survey on innovation (Inquérito Nacional de Inovação 2009), are unavailable in Austria. It is not possible to draw conclusions from other countries. Within Sub-Saharan countries, the new density\(^2\) rate shows significant differences between countries. For example, in Botswana in 2012, the rate amounted 12.3\%, and in Burkina Faso in the same year 0.15\% (The World Bank 2014c).

Overall, it can be stated that in comparison to other countries, little literature focusing on Mozambique exists.

\(^2\)“New Density: Is the number of newly registered companies with limited liability per 1,000 working-age people (those ages 15-64).” (The World Bank 2014c)
3. Concepts and definitions

Entrepreneurship and innovation are discussed in many disciplines, including economics, sociology, and psychology. The multidimensionality and complexity of entrepreneurship and innovation lead to a diversity of approaches and theories regarding these topics. These two closely related issues will be discussed accordingly in the following pages.

3.1 Entrepreneurship and innovation

It is important to define what is meant by entrepreneurship and innovation. Indeed, the meaning of these two terms is often unclear (Stam 2008: 1). As will be shown in the following pages, a clear definition of what entrepreneurship or an entrepreneur is does not exist (Licht/Siegel 2009: 512). It is difficult to define innovation (Voeten et al. 2011: 98).

According to Acs and Virgill, many authors use the terms entrepreneurship and small and medium-sized enterprises (SMEs) synonymously (Acs/Virgill 2010: 490). According to Drucker, “not every new small business is entrepreneurial or represents entrepreneurship” (Drucker 1985: 19). Carland et al. emphasize the difference between small business and entrepreneurship as follows:

“Although there is considerable overlap between small business and entrepreneurship, the concepts are not the same. Entrepreneurial firms may begin at any size level, but key on growth every time. The entrepreneur is characterized by preference for creating activity, manifested by some innovative combinations of resources for profit.” (Carland et al. 1984: 357)

This definition is similar to Schumpeter’s definition of entrepreneurship. Joseph Alois Schumpeter (1883-1950) plays an important role concerning literature on entrepreneurship and innovation. While he was not the first to think about the role of an entrepreneur in society, in his book he developed a new theory of economics whereby the entrepreneur plays the key role in the development of an economy.

Schumpeter suggests that self-employed workers are not mandatory entrepreneurs, unlike what is usually understood by entrepreneurs (Schumpeter 1993 [1911]: 111 f.). Moreover, ownership of an enterprise is also not a criterion for the definition of entrepreneur. For him, an
entrepreneur is a person that introduces new combinations (Schumpeter 1993 [1911]: 116). It is important to note that Schumpeter uses the phrase “introduction of new combinations” and not “invention of new combinations”. According to him, an entrepreneur can be an inventor, although this is most often not the case (Schumpeter 1993 [1911]: 129). Other authors such as Rogers define innovation as a new idea (Rogers 2003: 12). According to Voeten et al., the role of an entrepreneur cannot be understood without the background of innovation (Voeten et al. 2011: 99 f.) and the authors consider “newness, value creation, and process as the key elements of innovation” (Voeten et al. 2011: 99). What does Schumpeter mean by the “introduction of new combinations”?

In his book *The Theory of Economic Development*, he lists the following five cases of new combinations (Schumpeter 1993 [1911]: 100 f.):

1. The production of a new good.
2. The introduction of a new method of production.
3. The opening up of new markets.
5. The implementation of a reorganization, such as the creation of a monopoly.

Schumpeter was not the first economist to describe these new combinations (Kurz 2012: 69). Innovation being described as a process of combinations can already be found in Adam

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3 The original title of the book is *Theorie der wirtschaftlichen Entwicklung*


“All the improvements in machinery, however, have by no means been the inventions of those who had occasion to use the machines. Many improvements have been made by the ingenuity of the makers of the machines, when to make them became the business of a peculiar trade; and some by that of those who are called philosophers or men of speculation, whose trade it is not to do anything, but to observe everything; and who, upon that account, are often capable of combining together the powers of the most distant and dissimilar objects.” (Smith 1776: 12)

Rogers defines innovation in such way that “[i]f an idea seems new to the individual, it is an innovation” (Rogers 2003: 12). This reflects a broader definition of innovation. The spatial aspect of innovation is important. Following Szirmai and his colleagues, worldwide new innovations are mainly found in advanced economies (Szirmai/Naudé/Goedhuys 2011: 6). These innovations result from research and development. By contrast, innovations in developing countries mostly only represent an innovation for the market or a particular firm (Szirmai/Naudé/Goedhuys 2011: 6).

For Drucker, innovation is an instrument (Drucker 1985: 27): “Innovation is the specific tool of entrepreneurs, the means by which they exploit change as an opportunity for a different business or a different service” (Drucker 1985: 17).

According to Schumpeter’s definition, entrepreneurship and innovation are almost the same, given that entrepreneur is characterized by innovation. Entrepreneurship cannot exist without innovation. According to Schumpeter, the basis of economic development is the function of entrepreneurs in a society (Schumpeter 1993 [1911]: 110). The function of entrepreneurs is to revolutionize the structures of production (Schumpeter 1946 [1942]: 214). An entrepreneur prevails against resistance in his environment and acts in areas that are unfamiliar to him; an entrepreneur swims against the tide (Schumpeter 1993 [1911]: 118 ff.; Schumpeter 1946 [1942]: 215). An entrepreneur is a leader and his function is to realize opportunities and ideas and implement them and is able to infect other people with his enthusiasm (Schumpeter 1993 [1911]: 128). An entrepreneur or a firm destroys an existing structure and creates a new one, in a process that Schumpeter calls *creative destruction* (Schumpeter 1946 [1942]: 137 f.), meaning that an entrepreneur damages an equilibrium in a positive sense. While doing so, he
has authority and commands obedience. In his book *Capitalism, Socialism and Democracy* from 1942, Schumpeter mentions that the social function of an entrepreneur decreases over time, because it becomes increasingly simpler to do something outside the ordinary course. Furthermore, he describes more large enterprises as entrepreneurs as the motor of progress (Schumpeter 1946 [1942]: 174) and no longer focuses on individuals as innovators. In contrast, other authors such as Kirzner see entrepreneurs as persons that restore an economic equilibrium (Kirzner 1978: 73). In Kirzner’s view, the entrepreneur the only actor that can bring changes in a society, as in Schumpeter’s opinion, although Kirzner considers these changes as equilibrating (Kirzner 1978: 73). Kirzner takes the view that the entrepreneur “brings into mutual adjustment those discordant elements which resulted from prior market ignorance” (Kirzner 1978: 73).

In his paper from 1968, *Entrepreneurship and Development*, Leibenstein presents a theory of economy whereby the entrepreneur “has a unique and critical role” (Leibenstein 1968: 72). The author distinguishes between two types of entrepreneurship: “routine entrepreneurship” (Leibenstein 1968: 72) and the “new type” (Leibenstein 1968: 72) of entrepreneurship. The first type of entrepreneurship involves the coordination and management of entrepreneurial activities on markets that are well-established and clearly defined (Leibenstein 1968: 73). In contrast, the new type of entrepreneurship refers to Schumpeter’s definition of this term, relating to entrepreneurial activities on unknown and not well-defined markets. According to Leibenstein, the entrepreneur

> “is an individual or group of individuals with four major characteristics: he connects different markets, he is capable of making up for market deficiencies (gap-filling), he is an ‘input-completer,’ and he creates or expands time-binding, input-transforming entities (i.e., firms).” (Leibenstein 1968: 75)

In their paper *The Superstar Inventors and Entrepreneurs: How Were They Educated*, Baumol and his colleagues define entrepreneurs as persons who demonstrate in their economic activities “initiative, imagination and willingness to expend effort in the pursuit of wealth, power and prestige” (Baumol/Schilling/Wolff 2009: 712). Accordingly, the authors divide entrepreneurs into two groups: innovative and replicative. This reflects the authors’ belief that an entrepreneur can be characterized by innovation, but innovation is not a necessary
condition for being defined as an entrepreneur. Indeed, Baumol already uses this definition in earlier papers (Baumol 1990: 897).

The term *entrepreneurship* comes from the French term *entreprendre*, “which means ‘to do something’” (Swedberg 2000: 1). According to many authors, Richard Cantillon (1680-1734) was the first to use the term entrepreneur in an economic context (Swedberg 2000: 11). Indeed, the word entrepreneur can be found in his book *Essai sur la nature du commerce en général* (Cantillon 1755: 62 ff.). In the English version, the term undertaker is used. According to Cantillon, an undertaker is a risk-taking businessman. Schumpeter believes that both entrepreneurs and managers run risks, but in conformity with him, the distinguishing element between them is innovation. In most cases, the capitalist, whom Schumpeter calls the creditors capitalists (Schumpeter 1993 [1911]: 104 f.), bears the risk of innovations (Schumpeter 1993 [1911]: 112). Schumpeter agrees more with the definition of entrepreneurs offered by Jean-Baptiste Say, who defined the function of an entrepreneur as the combinations of factors of production (Schumpeter 1993 [1911]: 113). Carland et al. support Schumpeter’s opinion, writing that “[p]erhaps the most important factor from a societal perspective is the characteristic of innovation” (Carland et a. 1984: 355). For Ludwig von Mises (1881-1973), who knew Joseph Schumpeter, “the entrepreneur is always a speculator. He deals with the uncertain conditions of the future” (Von Mises 1998: 288).

What are the motivations for entrepreneurs to swim against the tide? Smith suggested that the “establishment of any new manufacture, of any new branch of commerce, or of any new practice in agriculture, is always a speculation, from which the projector promises himself extraordinary profits” (Smith 1776: 142). Schumpeter also tries to explain the motivation of entrepreneurs, suggesting that an entrepreneur wants to create a private empire, where it is possible to exercise power. The desire to succeed can also be a motivation, as well as the desire to become rich and the pleasure of shaping society (Schumpeter 1993 [1911]: 132 ff.). In summary, money and power are the main motivations for entrepreneurs to implement new

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5 In English: Essays on the Nature of Commerce in General
combinations. However, in most cases, an entrepreneur will not be an entrepreneur for their lifetime, because after introducing an innovation, the combination is no longer a new one and the entrepreneur is no longer an entrepreneur (Schumpeter 1993 [1911]: 116).

In the Mozambican Government’s publication *Estratégia para o Desenvolvimento das Pequenas E Médias Empresas em Moçambique* (Strategy for the Development of Small and Medium Sized Enterprises in Mozambique), entrepreneurship is characterized by risk (Conselho de Ministros 2007: 32). Moreover, this paper associates entrepreneurship with positive effects on economic growth.

There are divergent findings on the relationship between entrepreneurial activities and economic growth. The empirical study from Wong concludes that there are entrepreneurial activities “that do not contribute to growth” (Wong/Ho/Autio 2005: 344). Acs notes that the different definitions of entrepreneurship have to be taken into account, analyzing the results of different studies that examine the link between economic development and entrepreneurship (Acs 2007: 12). Based on Acs and his colleagues, a distinction between opportunity entrepreneurship and necessity entrepreneurship is important in the context of developing countries. Opportunity entrepreneurship means “starting a business to exploit a perceived business opportunity” (Acs/Desai/Hessels 2008: 222), whereas necessity entrepreneurship involves “starting a business because you were pushed into it” (Acs/Desai/Hessels 2008: 219). According to the authors, opportunity-driven entrepreneurship has positive effects on economic development, while necessity-driven entrepreneurial activities have no impact on the economic development (Acs/Desai/Hessels 2008: 219). Moreover, Acs and his colleagues state that the stage of economic development (more on this in chapter 3.2) is important for the nexus between entrepreneurship and economic development. In an early stage of economic development, entrepreneurial activities are much more necessity-driven than opportunity-driven, but then with an increasing GDP per capita, increasingly more entrepreneurial activities are opportunity-driven. Erik Stam and André van Stel support this statement (Stam/van Stel 2011: 81). They also analyze the link between entrepreneurship and economic growth, making a distinction between high-income, transition and medium-income countries. Their empirical research is based on data of the GEM and analyzes the link of entrepreneurship and average rates of economic growth between 2002 and 2005 in 36
countries (the study does not include low-income countries such as Mozambique). They define entrepreneurship “as the factor that creates wealth by combining existing production factors in new ways” (Stam/van Stel 2011: 79). In some cases, they use the word entrepreneurship as equal to self-employment (Stam/van Stel 2011: 81). The authors emphasize that the role of an entrepreneur in a developing country takes on a different role than in a developed country. According to them, the role of entrepreneurs in developing countries “is to discover that a certain good, already well-established in world markets, can be produced at home at low cost” (Stam/van Stel 2011: 80). Furthermore, they mention that large firms are not that important for innovation in developing countries and transition countries; rather, small firms are the drivers of innovation (Stam/van Stel 2011: 80 f.). The result of their empirical study is that entrepreneurship in medium-income countries has no impact on economic growth, unlike in high-income and transition countries.

A study from Audretsch and his colleagues shows that there is a positive link between entrepreneurship and economic performance (Audretsch/Keilbach/Lehmann 2006: 78). However, the authors mention that there are contradictory results in earlier studies.

Baumol shows that entrepreneurial activities can be unproductive and even damage an economy (Baumol 1990: 898 ff.). For example, he lists rent seeking, tax evasion and illegal economic activities (Baumol 1990: 915).

It can be summarized that entrepreneurs influence economic development, either positively or negatively. It seems that there is no avoiding the need to conduct an empirical study, especially for Mozambique. Results from other countries cannot be easily transferred to Mozambique. Even if the result was that small firms in Mozambique do not contribute to economic growth, they provide employment and ensure income for many people.

According to Amorós and Cristi, few papers exist about the linkage between poverty reduction and entrepreneurship (Amorós/Cristi 2011: 210). This statement is supported by the poor result of literature research on this relationship. In his paper “Entrepreneurship, job creation, income empowerment and poverty reduction in low-income economies”, Adenutsi argues that entrepreneurship supports the social development of a country through job creation, income
empowerment and poverty reduction (Adenutsi 2009). However, one problem with this paper is that the author does not underpin his statements with literature.

While mainly economic approaches to entrepreneurship have been presented thus far, sociology, psychology, anthropology and economic history have also made an important contribution to the analysis of entrepreneurship and innovation (Swedberg 2000: 7). Works of these social sciences are more descriptive than economic works and are based more on empirical research and practical theory and are nearer to the reality than economics (Swedberg 2000: 24). While these approaches are rather irrelevant in the context of thesis, they should not be neglected. Swedberg presents the contribution of Max Weber (1864-1920) to entrepreneurship. For example, Max Weber describes in his book *The Protestant Ethic and the Spirit of Capitalism* how religion can influence an entrepreneurial culture. Swedberg remarks that “Weber’s ideas are surely innovative and brilliant – but they do not seem to have any obvious practical implications” (Swedberg 2000: 27).6

Within the context of this thesis, a distinction will be made between the two types of entrepreneurship: firstly the meaning of *entrepreneurship* as defined by Schumpeter; and secondly, entrepreneurship as the activity of a person or a group aiming to start economic activities in the formal sector.

The reason for these two definitions is that if the potentials and constraints to entrepreneurship were analyzed as described by Schumpeter, it would be impossible to answer the research question – *What are the potentials and constraints of the promotion of entrepreneurship and innovation in Mozambique?* – due to a lack of data. In 2009, the Ministry of Science and Technology launched a survey on innovation (Inquérito Nacional de Inovação 2009), although the results are only available in a printed version in Mozambique.7

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6 For more information regarding influence of social sciences on entrepreneurship, see Swedberg 2000: 24 ff.

7 According to an e-mail of an author of the study.
3.1.1 Critics

The above-mentioned definitions of entrepreneurship and innovation have not been without criticism. Furthermore, these definitions show that economists have focused on the influence of entrepreneurship on economic development, such as GDP, employment and productivity, while disregarding the effects on human development (Gries/Naudé 2010: 216). Gries and Naudé note that economic growth, innovation and increased productivity do not automatically mean human development (Gries/Naudé 2010: 216). They list three possible explanations for the ignored relationship between entrepreneurship and human development:

“(i) an adequate theoretical framework for thinking about entrepreneurship in development has been lacking, or not been properly utilised, (ii) the measurement of human development, being multidimensional, is complex and still at the cutting edge of poverty research […] and (iii) management scholars, who constitute the largest body of researchers into entrepreneurship, are mainly interested in the who, what and how of entrepreneurship, rather than on the impact of entrepreneurship.” (Gries/Naudé 2010: 216)

Steyaert and Katz make it clear too that they see entrepreneurship as a “process or interaction” (Steyaert/Katz 2004: 196). This point of view focuses on the social aspects of entrepreneurship and shows that entrepreneurship is dynamic. Entrepreneurial activities can affect all fields of a society and vice versa. According to them, entrepreneurs can co-create the society they live in and not only play a key role for job creation and economic growth, but also for social development. Vázquez et al. are among the few authors to note that entrepreneurial activities “act as one of the main driving forces for economic and social development of the world” (Vázquez et al. 2012: 24).

Leff writes:

“Entrepreneurship clearly refers to the capacity for innovation, investment, and activist expansion in new markets, products, and techniques. As such, entrepreneurship may reflect superior information and, perhaps more importantly, imagination, which subjectively reduces the risks and uncertainties of new opportunities, which are ignored or rejected by other investors.” (Leff 1979: 47)

Leff argues that risk and uncertainty are crucial aspects for entrepreneurs, especially in developing countries (Leff 1979: 47). He emphasizes that Schumpeter’s concept of entrepreneurship was developed in “the context of the more-developed economies” (Leff
1979: 48) and mentions that Schumpeter’s assumptions are usually only conditionally transferable to developing countries. For example, regarding the statement of Schumpeter that the entrepreneur does not bear the risk, Leff raises the question “[b]ut what if, as in the case of the LDC’s [Least Developed Countries], well-developed capital markets do not exist, so that the entrepreneur must be his own banker? (Leff 1979: 47) Furthermore, Leff mentions negative effects of entrepreneurship caused by successful entrepreneurs, such as social inequalities (Leff 1979: 60).

Referring to Baumol, Domar points out that “[i]f the entrepreneur is defined as an exceptional person who sees in the future what other people do not see, then he obviously cannot fit into economic models” (Domar/Hagen/Gerschenkron 1968: 93) and that if the entrepreneur behaved according to a model, Baumol would not define him as an entrepreneur. In general, economists have the challenge of fitting entrepreneurs to their models (Swedberg 2000: 11); this is why many economists exclude entrepreneurship in their theories. Ludwig von Mises puts it even more drastically: according to him, the mathematical economist “hates the entrepreneur as a disturbing element” and “eliminates the entrepreneur from his thoughts” (Von Mises 1998: 698). Domar adds that “perhaps the entrepreneur is not as important a person as Baumol suggests” (Domar/Hagen/Gerschenkron 1968: 93). Domar remarks that it is not known how much positive economic development is caused proportionally by entrepreneurs and “ordinary workmen” (Domar/Hagen/Gerschenkron 1968: 93).

Hagen criticizes Leibenstein’s terminology of the functions of entrepreneurs as gap-fillers and input-completers (Domar/Hagen/Gerschenkron 1968: 94), arguing that the “use of these terms is likely to convey the impression that there exists a virtual set of arrangements, which the entrepreneur in a low-income country does not need to invent, but merely to discover or make actual” (Domar/Hagen/Gerschenkron 1968: 94). The author holds the opinion that it is not mandatory for low-income countries to imitate high-income countries and consequently Hagen finds the terms gap-filler and input-completer a rather unfortunate choice of words.

None of the described different approaches to entrepreneurship consider the differences between entrepreneurship in different countries with different economic stages (Lingelbach/de la Viña/Asel 2005: 2), with Voeten et al. stating “in economic theory today, innovation is a
very broad concept, largely defined in terms of Western economics” (Voeten et al. 2011: 97). For Lingelbach and his colleagues, “entrepreneurship in developing countries is arguably the least studied significant economic and social phenomenon in the world today” (Lingelbach/de la Viña/Asel 2005: 1).

The Council of Ministers of Mozambique mentions in its *Science, Technology and Innovation Strategy* that Schumpeter’s definition of innovation is only applicable for advanced industries. Since the majority of enterprises in Mozambique are informal and many people are living in poor conditions, they do not consider Schumpeter’s definition adequate for Mozambique and thus they offer an alternative definition of innovation: innovation is a process and result through which individuals and groups invent new ways of solving immediate problems and improve their quality of life (Conselho de Ministros 2006: 76).

A controversial discussion is ongoing regarding under which conditions people or firms innovate. Two influential 20th century economists, Kenneth Arrow (who won the Nobel Memorial Prize in Economics in 1972) and the previously mentioned Joseph Schumpeter have divergent views concerning the environments of new innovations. Schumpeter argues that the introduction of new production processes within a competitive framework would hardly be imaginable in most cases (Schumpeter 1946 [1942]: 172). Temporary limited monopolies and patents can protect innovations and enable the construction of the demand curve and provide security in planning for firms with innovations (Schumpeter 1946 [1942]: 168 ff.).

In contrast to that view, Arrow argues that the incentives to invention under monopolistic conditions are less than under competitive conditions (Arrow 1962: 619). He shows that monopolists do not have incentives to invest in innovation due to the lack of an additional benefit. With an improvement of products, the monopolist cannot gain greater market share. For the investor, cost reduction is the aim in a competitive environment and, according to Arrow, the incentive to reduce cost is higher for an investor in a competitive environment than

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8 Original quote: “A inovação é o processo e os resultados pelos quais os indivíduos e grupos inventam novos modos de resolução de problemas imediatos e melhoram a sua qualidade de vida.” (Conselho de Ministros 2006: 76).
in a monopoly (Arrow 1962: 621). In his view, the “only ground for arguing that monopoly may create superior incentives to invent is that appropriability may be greater under monopoly than under competition” (Arrow 1962: 622). As already mentioned, Schumpeter does not consider an invention as an innovation.9

It has been shown that entrepreneurship and innovation are controversial topics. It must always be considered that the social and historical background of a work and the empirical results of a study cannot be transferred without question to all countries.

Swedberg concludes his introductory chapter about entrepreneurship in economic theory with the words: “[...] it is utopian to believe that practical entrepreneurship and the economic theory of entrepreneurship one day will merge” (Swedberg 2000: 24). Indeed, for him, “this is not even desirable” (Swedberg 2000: 24), because both, theoretical and practical knowledge, have advantages and disadvantages. In his article “The Use of Knowledge in Society”, published in 1945, Hayek argues that scientists have to combine theoretical with practical knowledge (Hayek 1945: 522). Moreover, Swedberg also wants to get them closer. It is interesting in this respect to note that most of the famous theoreticians of entrepreneurship, like Schumpeter and Cantillon, had practical experience as businessmen (Swedberg 2000: 22).

3.1.2 Characteristics of entrepreneurship and innovation in developing countries

While some characteristics of developing countries concerning entrepreneurship and innovation were mentioned in the previous chapter, this chapter provides a more detailed summary of these characteristics.

One characteristic of developing countries is the small size of the market (Altenburg 2011: 42; Polcuch 2005: 2); indeed, it is not only a characteristic, but also a problem. The small market-size and lack of diversification can constrain the opportunities for business (Altenburg 2011: 42), hindering firms from exploiting economies of scale (World Economic

9 For more information about the relationship between innovation and competition, see Baker 2007.
Forum 2013: 8). Small markets result due to a small population and low incomes (Altenburg 2011: 42). People with low income can only demand a limited range of products (Altenburg 2011: 42), which limits domestic markets’ weak innovation, as Szirmai and his colleagues note:

“Developing country markets are often small, fragmented, and imperfect due to lack of infrastructure, low per capita incomes, misguided policies, and institutional constraints. The political stability, predictability and transparency, peace and other institutional prerequisites for the functioning of markets are often absent. With fragmented, small and uncertain markets there is insufficient incentive for entrepreneurs to innovate. Where markets are restricted because of barriers to trade (either natural barriers such as lack of infrastructure or man-made barriers), it is difficult for innovations to spread.” (Szirmai/Naudé/Goedhuys 2011: 11)

Apart from the domestic market, the international market size also plays a role.

Another characteristic of developing countries is the structure and size of firms (Polcuch 2005: 2). It is important to have an overview over the structure and size of firms (OECD/EUROSTAT 2005: 136), as well as informality, given that it has a negative impact on innovation. According to Stam and van Stel, large firms are not very important for innovation in developing countries, because small firms are the drivers of innovation (Stam/van Stel 2011: 80 f.).

State participation is another aspect that should be analyzed. Large state-owned firms may have a monopoly and, due to such lack of competition, there are no incentives for these firms to invest in innovation (Polcuch 2005: 2). As shown in chapter 3.1.1, there is no agreement between economists concerning whether a monopoly is good or bad for innovations. According to Elsenhans, public enterprises that were founded due to the lack of expected profits can be advantageous for an economy if the firm acts in the interest of the society; for example, by investing into infrastructure (Elsenhans 1991: 97). Furthermore, unproductive firms are also a source of employment.

In developing countries, innovations are especially important for the agricultural sector; due to the economic importance of this sector (OECD/EUROSTAT 2005: 132; Polcuch 2005: 3). According to Elsenhans, “[a] fact of central importance to the issue of poverty is the low productivity of agriculture” (italics in original) (Elsenhans 1991: 55). The development of
productivity by worker in the agricultural sector will be presented in chapter 5.3.4. In Elsenhans’ view, an increase in food production and yields per hectare is necessary for developing countries.

In summary, the following characteristics are important for the analysis of entrepreneurship and innovation in Mozambique:

1. Analysis of the market-size in Mozambique
2. Analysis of informality in Mozambique
3. Analysis of the size and structure of firms
4. Analysis of state participation
5. Analysis of the economic sectors, with a focus on the agricultural sector

All such aspects are analyzed in chapter 5.3.1 to 5.3.5.

In conformity with the literature, entrepreneurship and innovation are drivers for economic development. However, is innovation relevant for any country? According to the Global Competitiveness Report 2013-14, innovation is mostly relevant for advanced economies. For factor-driven economies such as Mozambique, institutions, infrastructure, the macroeconomic environment, health and primary educations are more important than innovations (World Economic Forum 2013: 7). Based on the report, this means that innovation does not yet play an important role for countries like Mozambique. An earlier Global Competitiveness Report suggests that innovation should be only significantly undertaken once a country is an innovation-driven country (Porter/Schwab 2008: 7). In contrary, Szirmai and his colleagues write that “it is often mistakenly suggested that innovation by entrepreneurs is less important for growth in low-income developing countries than in more advanced economies” (Szirmai/Naudé/Goedhuys 2011: 3). Following them, along with innovation, the capability to absorb technology developed by others is important (Szirmai/Naudé/Goedhuys 2011: 9). Following Çapoğlu, countries like Mozambique “lacks the critical level of capital accumulation even for sustainable development let alone for growth of innovation and entrepreneurship” (Çapoğlu 2009: 89). “Innovation and entrepreneurship in this case corresponds to creative ways of mobilizing human resources, transforming institutional structures, and adapting technological developments to local needs.” (Çapoğlu 2009: 89 f.)
3.1.3 How to measure entrepreneurship and innovation

The so-called Oslo Manual, published by OECD and EUROSTAT, provides information about how to collect and analyze data concerning product, process, organizational and marketing innovation on a firm level (OECD/EUROSTAT 2005: 16). While the manual was designed for developed countries, it can help to understand how innovation can be measured. Furthermore, in the third edition, an annex with the title *Innovation Surveys in Developing Countries* was attached to the manual. The publishers of the manual admit that their knowledge about how innovation influences economic development “is still deficient” (OECD/EUROSTAT 2005: 10). They see innovation as a dynamic process and according to the authors, it is difficult to measure dynamic processes (OECD/EUROSTAT 2005: 15). The manual only covers innovations in the business enterprise sector, which is problematic, because there is no data available in Austria for Mozambique on a firm level. Following the manual, a sectorial analysis is important, since innovation processes are not the same in every sector. For example, Research and Development (R&D) plays an important role in high-technology sectors, whereas the adoption of knowledge is more important in other sectors (OECD/EUROSTAT 2005: 37). Competitiveness in developing countries is mostly based on cheap labor-force and natural resources (OECD/EUROSTAT 2005: 2). In the manual, qualitative questions are proposed for the measurement of effects of innovations (OECD/EUROSTAT 2005: 20). However, what if there is no qualitative data available for a country, as is the case for Mozambique?

Researchers can measure the quantitative output of innovation (for example, number of patents), or the input (for example, Research and Development expenditures) (Wong/Ho/Autio 2005: 336). Expenditures for Research and Development (R&D) and cross national comparison of number of patents have certain disadvantages:

“Not all firms that perform R&D or patent actually innovate. The propensity to conduct R&D is related to the size of the firm; smaller firms may innovate, but they may not necessarily have the resources to perform R&D. The same could be said of
patenting, and the activity of patenting is also industry dependent. Some industries patent more than others.” (AU-NEPAD 2010: 79)

However, in the report of the African Union-New Partnership for Africa’s Development, which compares the performance of 19 African countries – including Mozambique – regarding innovation, no alternative indicators are proposed. In the report, the following indicators are used for the measurement of innovation:

(1) Gross domestic expenditure on R&D (GERD): GERD in million PPP$, GERD per capita in PPP$, GERD as % of GDP, GERD by sector of performance, GERD by source of funding, GERD by type of R&D
(2) R&D personnel and researchers: researchers as a % of R&D personnel, research personnel per million inhabitants, researchers per million inhabitants
(3) Female R&D personnel and researchers and shares of total (headcount): female R&D personnel, female researchers, female share of total research personnel, female share of total researchers
(4) Researchers by sector of employment (headcount) percentage shares
(5) R&D personnel by level of education (headcount) percentage shares
(6) Researchers by field of science (headcount) percentage shares
(7) Scientific output by country (1990-2009)
(8) Average annual growth rate of scientific papers by country, for total period and five-year periods (1990-2009)
(9) Scientific papers per million population (comparing the periods 1990-1994 and 2005-2009)
(10) Scientific papers per number of researchers per year (2005-2009)
(11) Shape of research output by group and country (2005-2009)
(12) Research output by field of science and country grouping (1990-1997)

(AU-NEPAD 2010)

Many innovation indexes and publications regarding innovation do not include Mozambique, either because the country is not a member of the publishing organization (which is the case, for example, with the European innovation Scoreboard by the European Commission and the
Science, Technology and Industry Scoreboard 2009 by OECD) or because there is no data available for Mozambique.

However, the structure of the Innovation Union Scoreboard can help to analyze innovation in Mozambique. The Index includes three main indicators, namely enablers, firm activities and outputs, as shown in Figure 1 (European Union 2014: 8). The figure clearly shows the complexity of innovation. As noted above, data on the innovation activities of firms in Mozambique is unavailable in Austria.

**Figure 1: Measurement framework of the Innovation Union Scoreboard**

![Innovation Union Scoreboard Diagram](image)


The Global Innovation Index includes Mozambique and covers institutions, human capital & research, infrastructure, market sophistication, business sophistication, knowledge & technology outputs and creative outputs, including many sub-indexes (Cornell University/INSEAD/WIPO 2013).
The Global Competitiveness Report, published by the World Economic Forum, lists the following indicators for the measurement of innovation: capacity for innovation, quality of scientific research institutions, company spending on R&D, university-industry collaboration in R&D, government procurement of advanced tech products, availability of scientists and engineers, PCT patents, and applications/million population (World Economic Forum 2013).

Regarding the measurement of entrepreneurial activity, Justo et al. write: “While most scholars concur on the need to measure entrepreneurial activity, there is no consensus on how to do it or on the adequacy of previous and current measures” (Justo/De Castro/Maydeu-Olivares 2008: 606). One problem is the diversity of definitions of entrepreneurship, which makes it difficult to measure it. In particular, this renders a cross-country-analysis impossible. Distinction can be made between analysis on a firm level and on an individual level (Justo/De Castro/Maydeu-Olivares 2008: 607). The Global Entrepreneurship Monitor (GEM) covers the following key indicators concerning entrepreneurial activities:

1. Established Business Ownership Rate
2. Improvement-Driven Opportunity Entrepreneurial Activity: Relative Prevalence
3. Informal Investors Rate
4. Nascent Entrepreneurship Rate
5. Necessity-Driven Entrepreneurial Activity: Relative Prevalence
6. New Business Ownership Rate
7. Total early-stage Entrepreneurial Activity (TEA)
8. Total early-stage Entrepreneurial Activity for Male Working Age Population
9. Total early-stage Entrepreneurial Activity for Female Working Age Population (Global Entrepreneurship Research Association 2013)

Given that Mozambique is not part of the GEM project, there are no data available for Mozambique concerning these activities. The following chapter deals with economic development.
3.2 Economic development

Acs and his colleagues state that the “dynamics of entrepreneurship can be vastly different depending on institutional context and level of economic development.” (Acs/Desai/Hessels 2008: 219) The current chapter deals with economic development, while the following chapter focuses on institutions.

“Economic development means something more than just economic growth.” (Cho/Moon 1998: 5) Cho and Moon distinguish between economic growth (quantitative growth, measured in GDP or GNI per capita) and economic development. They define economic development as a combination of economic growth and qualitative change (Cho/Moon 1998: 6). This qualitative change can involve the increasing importance of industry, increasing urbanization, and “the protection of life opportunities” (Cho/Moon 1998: 6). However, it is difficult to measure these life opportunities. By contrast, economic growth is an easy measurable indicator and one of the best indicators to compare cross-national economic development (Stam/van Stel 2011: 79). Nonetheless, GDP is no indicator of well-being or social development (Gadrey/Jany-Catrice 2006: 17). Gadrey and Jany-Catrice illustrate this notion based on the following example: a society with many road accidents needs more medical care, emergency services and vehicle repairs than a society without these accidents. Assuming that everything else is equal in these two societies, the society with more accidents has a higher GDP than the society without accidents, although the well-being of the society will be lower in the society with a high rate of accidents (Gadrey/Jany-Catrice 2006: 19). Cho and Moon add the GDP per capita in purchasing power parities (PPP) as an indicator, which adjusts the local cost of living and evaluates the Human Development Index (HDI), which has three sub-indexes. The Human Development Index is a combination of quantitative and qualitative measures that reflect economic and social development, combining indicators of income (GNI per capita in PPP), long and healthy life (life expectancy at birth) and knowledge (mean years of schooling and expected years of schooling) (UNDP 2013c). However, the social performance of a country is not necessarily reflected in its economic performance (Gadrey/Jany-Catrice 2006: 17). Cho and Moon elaborate two problems of this index. According to them, life expectancy at birth “is not a direct measure for economic development” (Cho/Moon 1998: 7), since factors that influence longevity are not of an
economic nature. They list medicine, climate, geography and further possible influential factors on longevity. They consider the indicator knowledge as an inappropriate indicator for measuring economic development. Gadrey and Jany-Catrice also raise criticism regarding the HDI, showing that there are barely visible differences between developed countries in the index according to this method (Gadrey/Jany-Catrice 2006: 30). Accordingly, they recommend the construction of two human development indexes, one for developed countries and one for developing countries.

Authors have tried to classify societies into different stages of economic development. In 1960, Walt Whitman Rostow published his book *The Stages of Economic Growth. A Non-Communist Manifesto*, in which he presents five linear stages of economic development, namely:

1. Traditional society
2. Preconditions to take-off
3. Take-off
4. Drive to maturity
5. Age of high mass consumption (Rostow 2008 [1960]: 40).

These five stages of economic development will be shortly outlined. According to Rostow, the central characteristic of a traditional society is the limitation of productivity per capita, due to a lack of science and technic. The economy is based on agriculture products (Rostow 2008 [1960]: 40 f.). In the second stage of development, the preconditions for the take-off are taken through new methods of production in the agricultural sector. In this stage, according to Rostow, entrepreneurs start to invest and run risks (Rostow 2008 [1960]: 41). In his opinion, society recognizes that economic development is desirable. The third stage is a turnaround point for societies, whereby economic progress pervades the whole society and new industries spring out of the ground. Society accepts new production methods and the economy is restructured (Rostow 2008 [1960]: 45 f.). During the drive to maturity, an economy finds its place in the international environment and includes technological advanced products. The real GDP per capita increases and increasingly more sections of the population have money for consumer products. The economy does not need any more exogenous inputs. In the stage of
high mass consumption, the majority lives in property and can choose upon what they spend their money. The economy is characterized by abundance (Rostow 2008 [1960]: 49 ff.).

In the Global Competitiveness Report 2008-2009, Michael Porter and Klaus Schwab present a similar model with three stages of development. However, in contrast to Rostow, these stages of economic development focus on knowledge and innovation. According to Porter and Schwab, every stage of economic development is based on different pillars (in total, they identify 12 pillars for competitiveness). Figure 2 shows the three stages of economic development (factor-driven economy, efficiency-driven economy, and innovation-driven economy) with their corresponding most important pillars (Porter/Schwab 2008: 7).

**Figure 2: Pillars of competitiveness**


The first stage – the factor-driven economy – is characterized by “primarily unskilled labor and natural resources” (Porter/Schwab 2008: 7) with low wages and low productivity. In the second stage of economic development (efficiency-driven), wages start to rise, prompting companies to increase the productivity and quality of products to be competitive. To reach
this, they have to invest in higher education and training. In the last level – the innovation-driven-economy – companies can only be competitive through innovation; for example, they introduce new products, or new processes of production (Porter/Schwab 2008: 7). In the Global Competitiveness Report 2013-2104, Mozambique is classified as a factor-driven economy, along with 37 other countries (World Economic Forum 2013: 11). 20 economies are between the first and the second stage, 31 countries in the second stage, 22 economies in transition from the second to the third stage of economic development and 37 economies are classified as innovation-driven (World Economic Forum 2013: 11).

Andre Gunder Frank criticizes the assumption that underdeveloped countries have to pass the same stages of economic and social development as developed countries (Frank 2008: 148 f.). Moreover, in his book *The Theory of Economic Development*, Schumpeter criticizes the opinion of others authors who believe that cultural areas have to follow a common line of development (Schumpeter 1993 [1911]: 88). Cho and Moon mention that all countries are unique and that an aggregation of countries could lead to neglecting their diversification (Cho/Moon 1998: 6). This is why the authors are not satisfied with stage theories of economic development and add two more critical aspects. They mention that these stage models do not show different stages of economic, but rather societal and industrial development. According to them, Rostow only focuses on investments and social aspects, and Porter only on “sources of competitiveness” (Cho/Moon 1998: 10). Furthermore, they are critical of the difficulties with the operationalization of the models, due to the lack of consistent measures in different stages. Regarding Porter’s model, they ask “[w]hat if a country has both more investment and innovation than the other country?” (Cho/Moon 1998: 11) Accordingly, Cho and Moon propose a new and multidirectional model of economic stages (Cho/Moon 1998: 10 ff.). Nonetheless, Porter’s model is useful in the context of this thesis, since it focuses on innovation.
4. Institutions

“While institutional improvement is vital for factor-driven countries to step up to the next level of development, the enhancement of individual characteristics is increasingly critical for innovation-driven economies.” (Acs/Szerb 2009: 18). Since Mozambique is classified as a factor-driven economy, as shown in sub-chapter 3.2, the institutional framework of entrepreneurship and innovation plays an important role for the country and will be analyzed in the present work. The New Institutional Economics helps to identify influencing factors.

As with the terms entrepreneurship and innovation, the word institutions is also complex and not clearly defined. As Oliver Williamson (2000: 595) states\textsuperscript{10}, pluralism of the theory should be accepted. For him, NIE is a dynamic theory; it “is a boiling cauldron of ideas” (Williamson 2000: 610). What is meant by institutions? In the present work, institutions refer to what North describes as “rules of the game in a society” (North 1990: 3). Numerous writers refer to this expression; for example, Baumol mentions: “How the entrepreneur acts at a given time and place depends heavily on the rules of the game” (Baumol 1990: 894). However, what is meant by rules of the game?

Douglass North – one of the most famous economists to have dealt with institutions, and a Nobel Prize winner as well – distinguishes between two forms of institutions: informal and formal institutions. They can be created or they can evolve over time (North 1994: 360). According to North, formal institutions are rules, laws and constitutions, while informal institutions are conventions or norms of conduct (North 19994: 360). Institutions influence transaction costs, which in turn influence production costs. Ronald Coase was another famous economist who wrote about institutions\textsuperscript{11}. He showed why a market transaction is very costly:

“In order to carry out a market transaction it is necessary to discover who it is that one wishes to deal with, to inform people that one wishes to deal and on what terms, to conduct negotiations leading up to a bargain, to draw up the contract, to

\textsuperscript{10} In 2009, he won the Nobel Prize.

\textsuperscript{11} In 1991, he won the Nobel Prize. He died in September 2013.
undertake the inspection needed to make sure that the terms of the contract are being observed, and so on.” (Coase 1960: 15).

According to Coase, transactions do not take place when the costs are higher than the expected gains. This point is important for entrepreneurs, given that if transactions costs for innovation are higher than the expected advantages, entrepreneurs will not invest in innovation.

In an interview in 1997 with Tawni Ferrarini, he explains what is new about NIE: “The old institutionalists were concerned in the main with describing institutions rather than with analyzing them, that’s basically the difference” (Ferrarini 1997: without page numbers).

Voigt distinguishes between “internal and external institutions,” (Voigt 2009: 8). If the breaking of a rule is sanctioned by the state, according to him it is an external institution, whereas if it is not sanctioned, it is an internal one.

Williamson (2000) categorizes institutions into four levels, which will be briefly summarized with essential elements singled out for application in the institutional analysis of entrepreneurship and innovation in Mozambique. All levels are related to each other. The first level is called social embeddedness and includes customs, practices, traditions, beliefs, codes, social norms and religion (Williamson 2000: 596). According to North, it is related to social theories. Religion plays an important role for this level. Changes in this level occur very slowly, taking between one hundred and one thousand years. This level is often taken as given (Williamson 2000: 596). For North, this level would be informal institutions. Based on Swedberg, Williamson argues that this level needs further theoretical research. This level is important for entrepreneurship and innovation. The social environment can influence people to start entrepreneurial activities (Sine/David 2010). The second level, named the institutional environment, is where the “formal rules of the game” (Williamson 2000: 597) are located. For this level, economics of property rights and political theories are important. Williamson refers to North, explaining what these formal rules are and naming constitutions, laws and property rights (Williamson 2000: 598). Key changes on this level happen within decades and centuries (Williamson 2000: 598). Williamson calls the third level institutions of governance, the play of the game (Williamson 2000: 599), by which he particularly refers to contracts. The third level is based on transaction costs economics, while the fourth level – resource allocation and
employment – is based on neoclassical economics and agency theories. The fourth and final level deals with “[o]ptimality apparatus, often marginal analysis, is employed, and the firm, for these purposes, is often described as production function” (Williamson: 2000: 600). Agency theories are more often made ex ante regarding “incentive alignment and efficient risk bearing” (Williamson 2000: 600). This means that NIE is not just an economic theory, but also a transdisciplinary one. For Williamson, the nature of the human being is important for NIE, as is the internal structure of firms. According to him, firms are more than a production function; they are an organizational construction and the structure of their organization can influence their decisions (Williamson 2000: 602).

Nonetheless, who are the players of this game? North offers an answer to this question: “[O]rganizations and their entrepreneurs are the players [of the rules of the game]” (North 1994: 361). Organizations consist of economic (e.g. firms), social (e.g. churches), educational (e.g. universities, schools) and political (e.g. political parties) bodies (North 1994: 361).


Institutions create incentives (Acemoglu/Johnson/Robinson 2005: 389), they influence future investments, the development of technologies, create human capital and the organization of production processes (Acemoglu/Johnson/Robinson 2005: 389) and provide information to actors in the economy, so that they can take a based decision (North 1994: 360). Acemoglu and his colleagues take the view that different institutional frameworks cause the main differences in economic growth between countries (Acemoglu/Johnson/Robinson 2005: 389).

There are different types of efficiency, namely that institutions can be socially and economical efficient (North 1994: 360). According to North, not all people have an incentive to inform themselves of relevant topics. In politics, they get promises in turn for their votes, in case there are elections (North 1994: 361). In view of many votes, a single vote has little influence on political institutions. This is why the competition of politics is not as efficient as in the
economy (North 1994: 361). In turn, political power and political institutions have a significant impact on economic institutions. Small elites often rule a country, controlling its institutions and representing their interests, with the consequence that the majority of the society cannot influence these institutions (Acemoglu/Johnson/Robinson 2005: 406 f.; 427 f.). As Acemoglu et al. illustrate with reference to property rights in the Middle Ages, and with the example of North Korea, people with great power want to keep their privileges for the future and therefore only act in their own interest. Consequently, institutions are often founded and influenced by those who have more power than others (Acemoglu/Johnson/Robinson 2005: 378). This may be rulers of the same society, or even rulers from other societies, as Acemoglu et al. illustrate by colonialism. Institutional changes often meet resistance (Boettke/Coyne 2003: 19).

Some societies adopt institutions of other societies that do not match their informal norms and therefore do not support the economic performance of a country (North 1994: 366). Not all societies choose flexible institutional structures and can therefore remain caught in old institutional structures (North 1994: 364). While laws can change overnight, informal norms cannot change within a short period of time; rather, they undergo a process of change (North 1994: 366). Institutions establish a connection between the past, the present and the future (Acemoglu u.a. 2005: 390). This means that experiences from the past – including experiences from earlier generations (North 1994: 364) – and expectations for the future can influence institutions.

Economic and political institutions have an impact on one another, as Acemoglu et al. describe using several examples (Acemoglu/Johnson/Robinson 2005: 393). Economic institutors are for example slavery and forced labor (Acemoglu/Robinson 2006: 55). Voigt sees differences between economic and political institutions (Voigt 2009: 8). According to him, economic institutions are more flexible than political institutions. The more complex that structures of a society are, the more complex are its institutions (North 1994: 363). Moreover, religion and culture, with its shared values of a society, shape institutions. According to Williamson, values are already institutions, meaning that institutions have an impact on one another. According to North, language, economy, politics, technology and demographic determinants such as population density and grade of urbanization, as well as incentives for knowledge, have an

What is the function of institutions? Institutions have the role of reducing or eliminating uncertainty and simplifying social interactions (Boettke/Coyne 2003: 18; North 1990: 3). The role of institutions is to establish a “stable (but not necessarily efficient) structure to human interaction” (North 1990: 6). North argues that institutions do not have to be social efficient, because formal rules are made by people with the power to enforce new rules (North 1994: 361).

For Shirley, institutions are “the product of international human efforts to give structure to an uncertain world“(Shirley 2008b: 615). Institutions only change when the dominant belief system of a society also changes (Shirley 2008b: 615).

According to Shirley, technical innovation or a higher number of schooling years do not contribute to economic growth; in her view, “missing or perverse institutions are the roots of underdevelopment” (Shirley 2008b: 611). The author argues that for developing countries, it is essential to have an institutional framework that reduces transaction costs, encourages trust and protects private property (Shirley 2008b: 611). Poor countries need incentives to comply with the law and require rules and norms for commerce. When the property rights are not secure and transaction costs are very high, people prefer to invest their money into activities with rapid revenues, such as rent seeking or war lording (Shirley 2008b: 611), because it is not worth investing in innovation, education or the production of goods or learning. According to Shirley, it is even more difficult to build up these institutions nowadays, due to globalization and the related brain drain and capital flight (Shirley 2008b: 612). In countries where “information is costly and property rights are poorly protected, contracts become hard to specify and enforce and transaction costs are high. Societies with persistently higher transaction costs have less trade, fewer firms, less specialization, less investment, and lower productivity” (Shirley 2008b: 613).
How are institutions related to entrepreneurship? According to Sine and David, “institutional theory has often ignored entrepreneurship” (Sine/David 2010: 2), with many studies focusing on the entrepreneur as an individual, rather than paying attention to his environment. “An institutional approach to entrepreneurship shifts attention away from the personal […] background of individual entrepreneurs toward how institutions shape entrepreneurial opportunities and actions” (Sine/David 2010: 2). According to Boettke and Coyne, “[t]he two most important ‘core’ institutions for encouraging entrepreneurship are well-defined property rights and the rule of law” (Boettke/Coyne 2003: 15).

It has been shown that institutions are a complex yet also interesting topic. Indeed, many famous economists and Nobel Prize winners like Oliver Williamson, Douglass North and Ronald Coase have focused their research on institutions.

### 4.1 Criticisms

Williamson concluded in 2000 that “the best days [of NIE] lie ahead” (Williamson 2000: 611). He shows the strength and weakness of NIE. Ankarloo and Palermo criticize that markets are seen as given in the New Institutional Economics. Furthermore, they criticize that the NIE is based on neoclassical economies and that markets are seen as given (Ankarloo/Palermo 2004: 413). Therefore, this criticism addresses the third level of Williamson’s. Ankarloo and Palermo conclude that Williamson’s “definition stems from a process of superficial idealisation of reality, not from a deep-going examination of the history and logical relations of capitalist institutions” (Ankarloo/Palermo 2004: 426). According to them, Williamson’s approach “does not even try to explain the present as the result of the process of the past” (Ankarloo/Palermo 2004: 426) and “tells a fairy whose happy ending is the present” (Ankarloo/Palermo 2004: 427).

Moreover, according to Resch, the New Institutions Economics (NIE) cannot explain where development comes from (Resch 2013: 64). In contrast, Shirley mentions that while the NIE presents some approaches to explain underdevelopment, she does not consider these explanations satisfactory (Shirley 2008b: 616). What are reasons for the underdevelopment of countries, according to the New Institutions Economics? Shirley summarizes the literature in
four categories: (i) colonial heritage, (ii) colonial heritage plus, (iii) political conflict and (iv) beliefs and norms (Shirley 2008b: 617). The first approach, colonial heritage, means that colonized countries like Mozambique inherited only poor institutions from the colonial power, in Mozambique’s case Portugal. For example, Mozambique only inherited one higher education institution. Colonial heritage plus means that colonized countries had resources that were in the interests of the colonial power and consequently they created institutions for the exploitation of these resources. Political conflict refers to a lack of political competition, whereby rulers could build institutions for their own interest. Finally, the fourth explanation is that countries have institutions that do not encourage a favorable environment for trade and investment due to their belief and norms (Shirley 2008b: 617).

Furthermore, according to Resch, entrepreneurship would become redundant if the ideal situation of the theory – a market without transaction costs – had been reached. Indeed, further criticism of NIE exists, but since the theories are very complex and not easy to understand for non-economists, it is not examined further in the present work.

All the mentioned authors support the idea that there is a need for further research on institutions. Shirley mentions that especially non-aggregated analyses for developing countries are necessary (Shirley 2008b: 633).

### 4.2 How to measure institutions

According to Mary Shirley, “[t]he measurement of institutions is still in its infancy” (Shirley 2008: 98) and it is more difficult to measure institutions than it is assumed (Shirley 2008: 79). She argues that it is unclear whether significant correlations exist between GDP growth per capita and institutional variables. Voigt distinguishes between subjective and objective measurements and de jure and de facto institutions (Voigt 2009: 3). He mentions that an objective measurement of specific institutions is desirable, because the measurement of aggregates does not contain important information (Voigt 2009: 3). Sometimes, institutions are not visible, with Voigt providing an example of legislations that are published with delay (Voigt 2009: 15). Shirley provides an overview of indexes that measure institutions, including the International Country Risk Guide of The PRS Group. The index reflects a measurement
of political, economic, and financial risks to international business in 140 countries. The indexes include Mozambique, although the data are not available for free. Furthermore, she mentions the civil liberties index, the political liberties index, Transparency Corruption Perception Index of Transparency International and the Doing Business ranking of the World Bank (Shirley 2008a: 82 f.).

In the Global Innovation Index, the following institutions are measured: the political environment (political stability, government effectiveness, and press freedom), regulatory environment (regulatory quality, rule of law, and cost of redundancy dismissal, salary weeks) and business environment (ease of starting a business, ease of resolving insolvency, and ease of paying taxes) (Cornell University/INSEAD/WIPO 2013). In The Global Competitiveness Report, the following institutions are measured: property rights, intellectual property protection, diversion of public funds, public trust in politicians, irregular payments and bribes, judicial independence, favoritism in decisions of government officials, wastefulness of government spending, burden of government regulation, efficiency of legal framework in settling disputes, efficiency of legal framework in challenging regulations, transparency of government policymaking, business costs of terrorism, business costs of crime and violence, organized crime, reliability of police services, ethical behavior of firms, strength of auditing and reporting standards, efficacy of corporate boards, protection of minority shareholders’ interests and strength of investor protection (World Economic Forum 2013).

Certain problems have to been taken into account when analyzing these indexes. Indexes are based on experts’ opinions and thus can be influenced by their personal view of the country (Shirley 2008a: 89). Opinion surveys also are influenced by several factors, such as the order of the questions, and they reflect personal assessments. The problem with rankings is that countries can improve their performance but do not change rank. Small changes of indicators can be traced back to changes of the data sources. Moreover, indicators such as days to start a business are theoretical and do necessarily reflect reality (Shirley 2008a: 91).
5. Entrepreneurship and Innovation in Mozambique

The purpose of this chapter is to answer the following research question: *What are the potentials and constraints of the promotion of entrepreneurship and innovation in Mozambique?* Therefore, a slightly amended structure of the Global Entrepreneurship Monitor (Global Entrepreneurship Research Association 2010: XV) and the framework of New Institutional Economies (NIE) of Williamson (2000) will be used, which has been presented in chapter 4. At the beginning of the chapter, rankings of Mozambique in several indexes are presented. Subsequently, the results of three studies with a focus on constraints to entrepreneurship in Mozambique (World Bank 2013; World Economic Forum 2013; Krause et al. 2010) will be compared. Finally, insights gained from the rankings of Mozambique and the three studies will be presented. An overview of rankings of Mozambique can be found in the annex (Table 13 on page 103). The structure of this chapter is as follows:

(1) History
(2) Social development
   - Demographic outlook
(3) Economic development
   - Market size
   - Informality
   - Size and structure of firms
   - Sectorial analysis
   - State participation
(4) Government policies and programs and legal framework
(5) Skills and education
(6) Access to finance
(7) Access to infrastructure
(8) Corruption and bureaucracy
(9) Innovation and entrepreneurship
(10) Culture
(11) Gender
5.1 History

Some preliminary historical background is necessary to understand and analyze today’s situation of Mozambique. Schumpeter argues in his book *The Theory of Economic Development* that history plays an important role in the study of economy and entrepreneurship. According to him, the economic situation of a country cannot be explained solely by its economic development; moreover, historical, social and other aspects have to be taken into account (Schumpeter 1993 [1911]: 90). Andre Gunder Frank argues that economic, political, social and cultural institutions are the product of historic development (Frank 2008: 150).

After ten years of armed conflict, Mozambique became independent from Portugal in 1975, following more than 450 years of colonialism. The political independence was signed between Portugal and Mozambique one year before (Acordo de Lusaka 1974). Even retail trade and administration on a lower level were in the hands of Portuguese; consequently, the opportunities of the local population to become traders were limited (Becker 2009: 189). After gaining political independence from Portugal, Mozambique suffered a decline in economic activity due to the emigration of many Portuguese from Mozambique (Becker 2009: 197). The first Mozambique Government established a strategy of socialist transformation, which ended in 1989 (Instituto Nacional de Estatística/Ministério da Saúde/Measure DHS/ICF International 2013: 2).

Only a few years after gaining independence from Portugal, Mozambique suffered a civil war, costing the lives of numerous people and destroying infrastructure. In 1992, a peace agreement
awas signed between FRELIMO (Frente de Libertação Nacional de Moçambique)\textsuperscript{12} and RENAMO (Resistência Nacional de Moçambique)\textsuperscript{13}.

Unnoticed by European media, in 2013, RENAMO, the main opposition party of Mozambique declared the end of the peace agreement from 1992. Peace seems to be fragile in Mozambique. Little public information is available about the current situation in Mozambique. The conflict is not only a constraint to entrepreneurship and innovation, but also a threat for the whole population. These periods of colonialism, war of independence, civil war and socialism still influence the society and economy of the country. Moreover, it remains unclear what are the consequences of Nelson Mandela’s death at the end of 2013.

\section*{5.2 Social development}

Mozambique occupies the antepenultimate place in the Human Development Index (185 out of 187 countries in HDI). Figure 3 and 4 show the results of Mozambique in the HDI 2012 in comparison to other countries/regions, where 1 is the highest human development. The figures illustrate that Mozambique lies well below the average of Sub-Saharan-Africa, with only Democratic Republic of the Congo and Niger ranked behind Mozambique. The country performs especially poorly in the sub-index education. Nonetheless, the development since 1990 is positive for Mozambique.

According to latest available data from the World Bank, 59.6\% of the population in Mozambique was living below the poverty line of $1.25 \textit{(in purchasing power parity terms)} a day in 2008. The percentage of the rural population living below the national rural poverty line in 2009 was almost 57\%, with 49.6\% living under the national urban poverty line (The World Bank 2013d).

\begin{footnotesize}
\begin{itemize}
\item \textsuperscript{12} The Mozambique Liberation Front
\item \textsuperscript{13} The Mozambican National Resistance
\end{itemize}
\end{footnotesize}
The conceptualization and definition of poverty is complex and can vary across countries. According to the national poverty line of Mozambique, 54.7% of the population was living in poverty in 2009 (as seen in Table 2 on page 40). The incidence of poverty is higher in rural than urban regions. The lowest rates of incidence of poverty in 2008/2009 were found in the
province of Niassa (a map of Mozambique can be found in the annex). UNDP has published since a Multidimensional Poverty Index (based on household surveys) since 2010, according to which 60.7% of the population was living in severe poverty in 2009 (UNDP 2011).

The Gini index measures the distribution of income or consumption expenditure among individuals or households, reflecting the extent to which an economy deviates from a perfectly equal distribution. A Gini index of 0 implies a total equal distributed income; an index of 1 means perfect inequality. Table 3 displays the development of the Gini index in Mozambique by provinces between 1996 and 2009. There are wide disparities among provinces, with the income in rural areas distributed more unequally than in urban areas.

Social inequalities can also be seen in the distribution of the possession of durable goods divided into quintiles (Table 1). The poorest three quintiles do not have any car, while only every tenth person in the richest quintile owns a car. Every twentieth person in the poorest income-quintile has a mobile phone, in comparison to 60% of the richest quintile.

**Table 1: Possession of durable goods (per household) by income-quintiles 2007**

<table>
<thead>
<tr>
<th>Durable good</th>
<th>Quintile 1</th>
<th>Quintile 2</th>
<th>Quintile 3</th>
<th>Quintile 4</th>
<th>Quintile 5</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bed</td>
<td>16.8%</td>
<td>28.8%</td>
<td>36.9%</td>
<td>45.4%</td>
<td>67.4%</td>
</tr>
<tr>
<td>Car</td>
<td>0.0%</td>
<td>0.0%</td>
<td>0.0%</td>
<td>0.5%</td>
<td>9.4%</td>
</tr>
<tr>
<td>Moto-cycle</td>
<td>0.9%</td>
<td>0.6%</td>
<td>1.6%</td>
<td>4.7%</td>
<td>10.4%</td>
</tr>
<tr>
<td>Bicycle</td>
<td>24.9%</td>
<td>35.4%</td>
<td>42.4%</td>
<td>48.8%</td>
<td>39.8%</td>
</tr>
<tr>
<td>Radio</td>
<td>25.5%</td>
<td>39.1%</td>
<td>47.1%</td>
<td>58.1%</td>
<td>60.6%</td>
</tr>
<tr>
<td>Mobile phone</td>
<td>5.1%</td>
<td>9.9%</td>
<td>14.3%</td>
<td>27.8%</td>
<td>60.0%</td>
</tr>
</tbody>
</table>

Table 2: Incidence of poverty in Mozambique, 1996-2009

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Cabo Delgado</td>
<td>57.4%</td>
<td>63.2%</td>
<td>37.4%</td>
</tr>
<tr>
<td>Gaza</td>
<td>64.6%</td>
<td>60.1%</td>
<td>62.5%</td>
</tr>
<tr>
<td>Inhambane</td>
<td>82.6%</td>
<td>80.7%</td>
<td>57.9%</td>
</tr>
<tr>
<td>Manica</td>
<td>62.6%</td>
<td>43.6%</td>
<td>55.1%</td>
</tr>
<tr>
<td>Maputo City</td>
<td>47.8%</td>
<td>53.6%</td>
<td>36.2%</td>
</tr>
<tr>
<td>Maputo Province</td>
<td>65.6%</td>
<td>69.3%</td>
<td>67.5%</td>
</tr>
<tr>
<td>Nampula</td>
<td>68.9%</td>
<td>52.6%</td>
<td>54.7%</td>
</tr>
<tr>
<td>Niassa</td>
<td>70.6%</td>
<td>52.1%</td>
<td>31.9%</td>
</tr>
<tr>
<td>Sofala</td>
<td>87.9%</td>
<td>36.1%</td>
<td>58.0%</td>
</tr>
<tr>
<td>Tete</td>
<td>82.3%</td>
<td>59.8%</td>
<td>42.0%</td>
</tr>
<tr>
<td>Zambézia</td>
<td>68.1%</td>
<td>44.6%</td>
<td>70.5%</td>
</tr>
<tr>
<td>Urban</td>
<td>62.0%</td>
<td>51.5%</td>
<td>49.6%</td>
</tr>
<tr>
<td>Rural</td>
<td>71.3%</td>
<td>55.3%</td>
<td>56.9%</td>
</tr>
<tr>
<td><strong>National</strong></td>
<td><strong>69.4%</strong></td>
<td><strong>54.1%</strong></td>
<td><strong>54.7%</strong></td>
</tr>
</tbody>
</table>

Source: República de Moçambique 2011: 8.

\textsuperscript{14} IAF=Inquérito aos Agregados Familiares (Income and Expenditure Household Survey)
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Cabo Delgado</td>
<td>0.44</td>
<td>0.44</td>
<td>0.35</td>
</tr>
<tr>
<td>Gaza</td>
<td>0.41</td>
<td>0.41</td>
<td>0.43</td>
</tr>
<tr>
<td>Inhambane</td>
<td>0.44</td>
<td>0.44</td>
<td>0.38</td>
</tr>
<tr>
<td>Manica</td>
<td>0.40</td>
<td>0.40</td>
<td>0.35</td>
</tr>
<tr>
<td>Maputo City</td>
<td>0.52</td>
<td>0.52</td>
<td>0.51</td>
</tr>
<tr>
<td>Maputo Province</td>
<td>0.43</td>
<td>0.43</td>
<td>0.39</td>
</tr>
<tr>
<td>Nampula</td>
<td>0.36</td>
<td>0.36</td>
<td>0.42</td>
</tr>
<tr>
<td>Niassa</td>
<td>0.36</td>
<td>0.36</td>
<td>0.43</td>
</tr>
<tr>
<td>Sofala</td>
<td>0.43</td>
<td>0.43</td>
<td>0.46</td>
</tr>
<tr>
<td>Tete</td>
<td>0.40</td>
<td>0.40</td>
<td>0.32</td>
</tr>
<tr>
<td>Zambézia</td>
<td>0.35</td>
<td>0.35</td>
<td>0.37</td>
</tr>
<tr>
<td>Urban</td>
<td>0.47</td>
<td>0.47</td>
<td>0.48</td>
</tr>
<tr>
<td>Rural</td>
<td>0.37</td>
<td>0.37</td>
<td>0.37</td>
</tr>
<tr>
<td><strong>National</strong></td>
<td><strong>0.40</strong></td>
<td><strong>0.42</strong></td>
<td><strong>0.41</strong></td>
</tr>
<tr>
<td>Income shared by the highest 10%</td>
<td>35.9%</td>
<td>39.2%</td>
<td>36.7%</td>
</tr>
<tr>
<td>Income shared by the lowest 10%</td>
<td>2.2%</td>
<td>2.1%</td>
<td>1.9%</td>
</tr>
</tbody>
</table>

Source: República de Moçambique 2011: 8; The World Bank 2013d.

Households were asked to compare their economic situation in relation to the year before. There are positive signs of improvements, although these signs are still small.
Table 4: How do you compare the economic situation of your household in relation to the last year?

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Much worse</td>
<td>28.0%</td>
<td>14.0%</td>
</tr>
<tr>
<td>Worse</td>
<td>22.0%</td>
<td>27.4%</td>
</tr>
<tr>
<td>The same</td>
<td>29.0%</td>
<td>30.4%</td>
</tr>
<tr>
<td>Better</td>
<td>19.0%</td>
<td>26.0%</td>
</tr>
<tr>
<td>Much better</td>
<td>2.0%</td>
<td>2.2%</td>
</tr>
</tbody>
</table>


In 2012, life expectancy at birth in Mozambique was 50.7 years (UND 2013b). This is low compared to other countries, and can be partly attributed to high prevalence rates of Malaria and HIV (Instituto Nacional de Estatística et al. 2013) and poor access to the health care system for the majority of the Mozambican population. In 2011, only every fifth person in Mozambique had access to improved sanitation facilities, while only 47% had access to an improved drinking water source (The World Bank 2013h). In urban areas, 78% of the population had access, while in rural areas every third person had access to an improved drinking water source.

In 2009, Mozambique had a high illiteracy rate (almost 50%), with strong variations between its provinces. As seen in Table 5, every third man could not read in 2009, and almost two in every three women were unable to read and write (Instituto Nacional de Estatística 2013). Again, there are striking differences between rural and urban areas.

The net enrolment rate\textsuperscript{15} for primary school in Mozambique was 86.2% in 2012 (The World Bank 2013d). At 83.9%, the female rate was lower than the male rate (88.6%). The problem is that the majority does not finish primary school (The World Bank 2013d) and there are again

\textsuperscript{15} “Total is the ratio of children of the official primary school age who are enrolled in primary school to the total population of the official primary school age.” (The World Bank 2013d)
high differences at the province level. For example, 46.2% of the population of Nampula Province aged five and above had never attended school. 82% of the population aged five or above had no school-leaving qualification; for 12%, primary school was the highest level of schooling completed; and for 5.2%, secondary school (Instituto Nacional de Estatística 2010c: 20). In the whole country, the net enrolment rate for secondary school was 17.8% in 2012, and only every twentieth person attended tertiary education (The World Bank 2013d).

Table 5: Illiteracy rates in Mozambique

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Total</td>
<td>53.6%</td>
<td>49.9%</td>
</tr>
<tr>
<td>Men</td>
<td>36.7%</td>
<td>33.2%</td>
</tr>
<tr>
<td>Women</td>
<td>68.0%</td>
<td>63.9%</td>
</tr>
<tr>
<td>Rural</td>
<td>65.7%</td>
<td>61.2%</td>
</tr>
<tr>
<td>Urban</td>
<td>30.3%</td>
<td>26.8%</td>
</tr>
</tbody>
</table>


While the official language of Mozambique is Portuguese, according to last census, 85% of the population speaks a Bantu language as their mother tongue. The most spoken language in daily conversation is Emakhuwa (25.4%), followed by Portuguese (12.8%). Half of the population is proficient in Portuguese (Instituto Nacional de Estatística/Ministério da Saúde/Measure DHS/ICF International 2013: 7). Official documents are often translated from Portuguese in English, but not in Bantu languages. This could be a barrier for many people, since registering firms requires much paperwork.

Catholicism and Islam are the most practiced religions in Mozambique, while nearly 20% of the population is without religion (28.4% of believers are Catholics, 17.9% belong to Islam). Within the framework of the present work, it cannot be said whether there exists a difference between religions in terms of entrepreneurial activities (Instituto Nacional de Estatística/Ministério da Saúde/Measure DHS/ICF International 2013: 7).
5.2.1 Demographic outlook

According to the last (2007) census, Mozambique registered a total population of 24.4 million persons in 2013, more than 8 million persons more than the 1997 census count of 16.1 million. Figure 5 illustrates age information in 5-year age groups by sex. As shown in Figure 5, the population of Mozambique is very young. According to the forecast of the last census (2007), 56% of the population of Mozambique was aged under 20 in 2013, while 52% of the population was female.

Figure 5: Age pyramid 2013 and 2030 (estimations, based on Census 2007)

In 2013, the largest 5-year age group was 0-to-4 year olds with 4.2 million people, representing 17.4% of the total population of Mozambique. According to estimates of the Instituto Nacional de Estatística, the population of Mozambique will reach a population of 37.2 million persons in 2030 (Instituto Nacional de Estatística 2010a: 30). The youth population – aged 15 to 24 years – in Mozambique is expected to rise from 4.8 million in 2013 to 7.8 million by 2030, meaning that job creation plays an important role for Mozambique.

In 2013, 31.5% of the population lived in urban regions, which is expected to increase to 37% by 2030.
Mozambique has 24.5 million inhabitants, with a median age of 17.8 years. The median age in Mozambique is below the Sub-Saharan Africa median age (18.5 years) and remains well below the average in Europe and Central Asia (34.9 years), as well as the world average (29.2 years) (UNDP 2013b).

Figure 6 shows how many people live in urban and rural regions in 2013, as well as how many estimated people will live there in 2030.

**Figure 6: Urban and rural population 2013 and 2030**

Source: Own diagram, based on estimates of the Instituto Nacional de Estatística 2010a.

### 5.3 Economic development in Mozambique

This chapter provides an overview of the development of Mozambique’s economy in recent years (2000-2012).

Mozambique is classified by the World Bank as a low-income economy. The World Bank classifies countries into low-income, lower middle income, higher middle-income and high-income, based on the countries’ GNI (gross national income) per capita in current prices, using the World Bank Atlas method. The most recent World Bank classification with data for 2011 is as follows: a country is classified as a low-income country if its gross national income (GNI) per capita is US$ 1,025 or less; a lower middle-income if its GNI per capita lies between
US$ 1,026 and US$ 4,035; an upper middle-income if its GNI per capita lies between US$ 4,036 - US$ 12,475; and belongs to the high income group if its GNI per capita is US$ 12,276 or above. In July 2012, 36 out of 215 countries were classified as low-income, 54 lower middle-income, 54 upper middle-income and 71 high-income (The World Bank 2013b). This means that the highest income of a middle-income country has a per capita income 12 times higher than that of the lowest. With a number of 108 countries, the middle-income countries are not a homogeneous group; they have different economic, political, demographical, social and cultural environments.

As seen in chapter 3.2, the analysis of economic development includes quantitative (such as GDP per capita) and qualitative indicators. While the quantitative indicators are easier to measure, they also have certain disadvantages, as shown in chapter 3.2. Figure 7 shows the real annual GDP per capita in US$ and the annual GDP growth per capita in percent (based on constant 2005 US$, which means that it is inflation-adjusted), based on data of the World Bank. The vertical axis to the right (blue line) of Figure 7 represents the real annual GDP growth per capita (in %), while the left axis represents the real GDP per capita (in US$).

**Figure 7: Annual GDP per capita (based on constant 2005 US$) and annual GDP growth per capita in % (based on constant 2005 US$) in Mozambique**

![Graph showing annual GDP per capita and growth in Mozambique](Source: Own illustration, based on data of The World Bank 2013d.)
The figure shows a continuous growth of the real GDP per capita between 2000 and 2012. In 2000, the GDP per capita growth rate was negative. After a large swing between 2000 and 2001, the annual GDP growth rate remains stable between 5.81% and 3.48%. Data from the National Statistical Institute show that there are significant differences between provinces, with GDP per capita by far the highest in Cidade de Maputo and Maputo Province.

Figure 8 compares the annual GDP per capita development and growth with the average of Sub-Saharan-Africa.

**Figure 8: Annual GDP per capita and annual GDP growth per capita in % (both based on constant 2005 US$) in Mozambique and Sub-Saharan Africa**

![Graph comparing GDP per capita and GDP growth per capita in Mozambique and Sub-Saharan Africa](image)

Source: Own illustration, based on data of The World Bank 2013e.

Figure 8 shows that the GDP per capita in Mozambique is far lower than the GDP per capita of Sub-Saharan-Africa. In 2012, the GDP per capita of Mozambique was 41% of the GDP per capita off the average of Sub-Saharan-Africa. However, in terms of GDP growth per capita, the rates are higher in Mozambique than in Sub-Saharan-Africa since 2007.

The average annual inflation rate (Figure 9) in Mozambique was 2.1% in 2012. In recent years, Mozambique has had strongly fluctuating annual inflations rates.
The World Bank and UNDP do not provide unemployment data of Mozambique. According to the African Economic Outlook, the rate was 27% in 2011 (African Development Bank Group et al. 2012: 2). In 2007, the economically active population in Mozambique was 71.2%. The economically active population includes all persons of either sex, aged 15 years and above, who furnish the supply of labor (Instituto Nacional de Estatística 2010a: 17).

Qualitative development of the economy of Mozambique is shown in the anterior chapter, which provides an overview of the social development of Mozambique. In the theoretical part of the present work, it has been shown that the analysis of the market-size, the structure and size of firms and analysis of the informal sector are important (see chapter 3.2).

5.3.1 **Market size in Mozambique**

With 24.4 million inhabitants in 2013, Mozambique’s market is small. Nonetheless, the population of Mozambique is growing, with population of 37.2 million persons expected in 2030 (Instituto Nacional de Estatística 2010a: 30) (see the demographic outlook in chapter 5.2.1). The GDP per capita is also rising, albeit on a low level compared to other countries. Since the poverty remains high and the poorest 20% of the population spends more than 90%
on food, housing and fuel (Instituto Nacional De Estatística 2010b: 25), there is not a large market in Mozambique.

Mozambique ranks in 103rd place in terms of domestic market size and 111th place in terms of foreign market size (World Economic Forum 2013: 287). Exports could be an opportunity for some firms to expand the market size, but as shown later, many firms are illegal and thus do not have this possibility. The export costs per container are 1,100 US$. In Tajikistan, the export of a container costs 8,650 US$, and in Malaysia 450 US$. The average in Sub-Saharan-Africa per container is 2,108 US$, and seven documents are needed in Mozambique for export (the average in Sub-Saharan-Africa is eight documents) (The World Bank 2013f).

5.3.2 Size and structure of firms

Independent of whether or not the definition of entrepreneurship means small and medium-sized enterprises, they are important for an economy (Acs/Virgill 2010: 490), given that they create job opportunities and therefore income. As seen in chapter 3.1, entrepreneurship can be equated to SMEs, although not every author agrees with this definition of entrepreneurship. In this sub-chapter, the terms entrepreneur and businessmen are used synonymously.

In 2004, the National Statistical Institute of Mozambique published results of a firm census. It should be mentioned that the results of this census represent the formal economy of the country and that informal firms are not registered in this census. The following chapter deals with the informal sector.

Table 6 shows that almost 90% of enterprises in Mozambique in 2002 were small-sized enterprises, while a further 9% percent were medium-sized enterprises. Although the results are not current, this underlines the importance of small and medium-sized enterprises in Mozambique. In terms of jobs, the large-sized enterprises played an important role for employment, accounting for 57%, while 23% of the Mozambican population was employed in medium-sized enterprises and 20% in small-sized enterprises. The highest turnover was generated by large firms. The highest turnover per employee was produced by enterprises between 500 and 999 employees, followed by enterprises with five to nine employees.
Table 6: Number of enterprises, persons employed and annual value of business (in Mio. Meticais) by size of enterprises, Mozambique 2002

<table>
<thead>
<tr>
<th>Size of enterprises</th>
<th>Number of employees</th>
<th>Total of enterprises %</th>
<th>Persons employed %</th>
<th>Value of business (in Mio. Meticais) %</th>
</tr>
</thead>
<tbody>
<tr>
<td>Small</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>0</td>
<td>69</td>
<td>0.24%</td>
<td>0</td>
<td>296</td>
</tr>
<tr>
<td>1</td>
<td>10,579</td>
<td>36.64%</td>
<td>10,579</td>
<td>3,217,858</td>
</tr>
<tr>
<td>2-4</td>
<td>12,426</td>
<td>43.04%</td>
<td>31,984</td>
<td>6,548,480</td>
</tr>
<tr>
<td>5-9</td>
<td>2,779</td>
<td>9.63%</td>
<td>17,586</td>
<td>6,185,747</td>
</tr>
<tr>
<td>Medium</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>10-19</td>
<td>1,330</td>
<td>4.61%</td>
<td>17,392</td>
<td>2,998,259</td>
</tr>
<tr>
<td>20-49</td>
<td>950</td>
<td>3.29%</td>
<td>28,248</td>
<td>4,832,781</td>
</tr>
<tr>
<td>50-99</td>
<td>341</td>
<td>1.18%</td>
<td>23,436</td>
<td>3,818,379</td>
</tr>
<tr>
<td>100-199</td>
<td>202</td>
<td>0.70%</td>
<td>27,403</td>
<td>5,540,930</td>
</tr>
<tr>
<td>200-499</td>
<td>120</td>
<td>0.42%</td>
<td>36,244</td>
<td>4,875,910</td>
</tr>
<tr>
<td>500-999</td>
<td>43</td>
<td>0.15%</td>
<td>29,015</td>
<td>20,815,172</td>
</tr>
<tr>
<td>1,000+</td>
<td>31</td>
<td>0.11%</td>
<td>79,258</td>
<td>7,610,442</td>
</tr>
<tr>
<td>Total</td>
<td>28,870</td>
<td>100%</td>
<td>301,145</td>
<td>66,444,254</td>
</tr>
</tbody>
</table>

Source: Own table, based on Instituto Nacional de Estatística 2004.

Furthermore, the firm census shows that half of the large-sized firms were located in the City of Maputo, 44% of medium-sized firms and 26% of small-sized firms and hence most firms were found in the Cabo Delgado province. The World Bank uses another classification of small- medium- and large-sized enterprises. According to the World Bank, a small-sized enterprise has between 1 and 19 employees, a mediums-sized enterprise 20 to 99 employees and a large enterprise more than 100 employees (The World Bank 2007: 14).
In 2012, another study on the structure of firms in Mozambique was published by the national Statistical Institute (Instituto Nacional de Estatística 2012). According to this study, small-sized firms represented 89% of the active firms in 2009, whereas large-sized firms, representing 1% of the active firms, secured 54% of workplaces (Instituto Nacional de Estatística 2012: 2). This means that the firm structure of Mozambique did not undergo significant changes between 2002 and 2009. While it would be interesting to have more recent data, it can be assumed that with growing FDI, the structure of firms in Mozambique has changed.

5.3.3 Informal sector

Large parts of the Mozambican economy are informal. Informality is very costly to firms. Firstly, they live in a climate of uncertainty, and

“they cannot do business with the government or with larger firms; they cannot export through formal channels or raise funds through the banking system; they are more vulnerable to police harassment and bribery; they cannot enforce contracts through courts” (Shirley 2008a: 14).

According to Shirley, in poor countries,

“the transaction costs of starting, operating or liquidating a business are inflated by corrupt and inefficient bureaucracies, weak enforcement of law against crime and expropriation, lax enforcement of contracts, uncooperative and exclusionary business norms, the absence of political mechanism to hold bureaucrats and politicians accountable for their actions, and a general lack of credible protection of property. As a consequence: (i) business success is determined more by who you know than by what you do, and (ii) a large number of business operate informally” (Shirley 2008a: 12 f.).

This means that the majority of firms in Mozambique do not have opportunities to expand. According to a study on the informal sector in Mozambique, almost 91% (2004) of informal workers work in the agriculture sector (Instituto Nacional de Estatística 2006: 93). This underlines the importance of the agricultural sector in Mozambique. 52% of the workers in the agriculture sector work informally, and in the construction sector this rate is even 96% (Instituto Nacional de Estatística 2006: 94). In rural areas, the rate of informality is higher than in urban areas. 58% of the informal workers are women (Instituto Nacional de Estatística 2006: 91).
“[F]ormality is associated with several costs, especially with regard to licensing, taxes and labour regulations” (Krause et al. 2010: 87). The authors base their definition of formality “on the legal status of the business” (Krause et al. 2010: 2). They classify enterprise in four categories. Firms that hold an operating license, are registered with tax authorities and are registered with the National Institute for Social Security are entirely formal, firms that do not meet any of these three criteria are informal, and the other categories reflect something between informal and formal firms (Krause et al. 2010: 5).

Concerning the ability of firms to formalization, the authors propose allocating firms into three categories:

(1) Enterprises that can choose between formalization and informality, comparing the cost and benefits of formalization. Formalization would bring certain benefits for the firms, such as having access to formal clients like the government, multination enterprises, state-owned enterprises, access to finance and renting a visible location. These benefits have to be greater than the costs for the formalization of a firm.

(2) Enterprises that cannot operate on an informal basis. For some economic activities it is obliged to be a formal firm, and some activities are subject to inspections; thus, firms cannot avoid being formal. This is the case for firms that are visible in the public, are operated by foreigners or have customers who insist on a formal documentation.

(3) Firms that cannot comply the necessary conditions for formalization. This kind of firms is characterized by a small size, lack of finance, owners with a low level of education and low experience in running a business. The firms do not have enough money for the registration, or lack the necessary skills (Krause et al. 2010: 8).

Byiers calls the process of the first type of enterprises “the Formal/Informal Cost-Benefit Tradeoff” (Byiers 2009: 11). According to him, costs of formality are:

(1) Costs for initial business registration regulations
(2) Taxes
(3) Costs for the labor legislation
(4) Costs for license
(5) Costs for health and safety legislation (Byiers 2009: 11 f.)
On the other hand, the following benefits are evident:

1. Ability to operate at a larger scale
2. Access to credit
3. Legal protection
4. Right of entry to government and large firm contracts (Byiers 2009: 11 f.)

This is consistent with the listing of costs and benefits for formalization by Krause et al. (2010: 8).

Gelb et al. compare the reasons of informality of micro-enterprises in Southern (South Africa, Botswana and Namibia) and Eastern Africa (Kenya, Tanzania, Uganda, and Botswana). They find in their study that in “[i]nformal firms in Southern Africa […] have very low labor productivity, as little as one-tenth that of the formal sector” (Gelb et al. 2009: 23). According to the authors, the educational level of the entrepreneur is low and they have a lack of managerial abilities, while many do not know the advantages of running a formal firm (Gelb et al. 2009: 23). In contrast, informal firms in Eastern Africa also are managed by persons with a high educational level, and their productivity is not lower than formal firms. This is why the incentives to run a formal business are low in Eastern Africa.

This means that the government has to facilitate and reduce the costs of the process of formalization (for example, reducing the costs of registration).

5.3.4 Sectorial analysis

In chapter 3.1.2, it was shown that the agricultural sector plays an important role in developing countries. Is this also the case in Mozambique, and what sectors have contributed the most to the GDP of Mozambique in recent years? The source of the following data is the Bank of Mozambique (Banco de Moçambique), which in turn used data of the National Statistical Institute. Table 7 shows that the contribution of the agriculture, livestock and forestry sector on the GDP remains high.
Table 7: Contribution of sectors (in %) to GDP of Mozambique in 2009-2012

<table>
<thead>
<tr>
<th>Sector</th>
<th>2009</th>
<th>2010</th>
<th>2011</th>
<th>2012</th>
</tr>
</thead>
<tbody>
<tr>
<td>Agriculture, livestock production, forestry</td>
<td>25.2</td>
<td>23.6</td>
<td>23.5</td>
<td>23.4</td>
</tr>
<tr>
<td>Fisheries</td>
<td>-</td>
<td>1.4</td>
<td>1.4</td>
<td>1.4</td>
</tr>
<tr>
<td>Construction</td>
<td>-</td>
<td>3.4</td>
<td>3.3</td>
<td>3.4</td>
</tr>
<tr>
<td>Electricity and water</td>
<td>-</td>
<td>4.8</td>
<td>4.8</td>
<td>4.5</td>
</tr>
<tr>
<td>Financial services</td>
<td>-</td>
<td>5.4</td>
<td>5.4</td>
<td>5.6</td>
</tr>
<tr>
<td>Trade</td>
<td>11.3</td>
<td>11.2</td>
<td>11.0</td>
<td>11.1</td>
</tr>
<tr>
<td>Hotels and restaurants</td>
<td>-</td>
<td>1.6</td>
<td>1.6</td>
<td>1.4</td>
</tr>
<tr>
<td>Manufacturing</td>
<td>12.3</td>
<td>12.4</td>
<td>11.9</td>
<td>12.0</td>
</tr>
<tr>
<td>Extractive industry</td>
<td>-</td>
<td>1.2</td>
<td>1.3</td>
<td>1.7</td>
</tr>
<tr>
<td>Rental of real estate</td>
<td>6.7</td>
<td>6.5</td>
<td>6.2</td>
<td>5.8</td>
</tr>
<tr>
<td>Transport and communications</td>
<td>9.8</td>
<td>11.6</td>
<td>12.0</td>
<td>12.3</td>
</tr>
<tr>
<td>Others</td>
<td>-</td>
<td>16.8</td>
<td>17.6</td>
<td>17.4</td>
</tr>
</tbody>
</table>

Source: Banco de Moçambique 2009: 79; Banco de Moçambique 2012: 75.

In 2009, one-quarter of GDP was generated in the agriculture sector. Between 2009 and 2012, this sector’s contribution to GDP decreased slightly. Compared to 2009, the manufacturing sector lost 0.3 percentage points in 2012. In the same period, the contribution of the transport and communications sector grew by 2.5 percentage points. Between 2010 and 2012, the extractive sector increased its contribution to 0.5 percentage points. Figure 10 shows the contributions of the sectors to the Mozambican GDP in 2012.
Figure 10: Contribution of sectors (in %) to GDP of Mozambique in 2012

Source: Banco de Moçambique 2012: 75.

Figure 11 illustrates the development of contribution of sectors over time, distinguishing between agriculture, industry and services, based upon data from the World Bank. According to these data, the service sector is the most important, followed by the agriculture sector since 2002.

Figure 11: Agriculture, industry and services, value added (% of GDP), 2000-2012

Source: The World Bank 2013d.
As seen in Table 8, the annual GDP growth rates of the extractive and construction sectors between 2001 and 2012 reported the greatest volatility. In 2012, the GDP growth of six sectors was higher than the average real GDP growth. The highest sectorial GDP growth rate was generated in the extractive industry (40.7%), followed by financial services (12.8%), whereas the lowest growth rate can be observed in the hotel and restaurant sector (-4.4%).

Table 8: GDP annual growth rate by sector in Mozambique (in %), 2001-2012

<table>
<thead>
<tr>
<th></th>
<th></th>
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<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>GDP real</td>
<td>13.0</td>
<td>8.3</td>
<td>7.0</td>
<td>4.6</td>
<td>8.1</td>
<td>9.2</td>
<td>7.6</td>
<td>7.7</td>
<td>6.3</td>
<td>7.1</td>
<td>7.3</td>
<td>7.4</td>
</tr>
<tr>
<td>Agriculture, livestock production, forestry</td>
<td>13.4</td>
<td>7.5</td>
<td>8.4</td>
<td>9.1</td>
<td>1.8</td>
<td>10.4</td>
<td>9.8</td>
<td>9.4</td>
<td>7.1</td>
<td>6.6</td>
<td>6.8</td>
<td>7.1</td>
</tr>
<tr>
<td>Fisheries</td>
<td>9.0</td>
<td>0.1</td>
<td>5.0</td>
<td>12.8</td>
<td>0.7</td>
<td>7.7</td>
<td>6.1</td>
<td>4.5</td>
<td>-9.9</td>
<td>8.0</td>
<td>6.0</td>
<td>7.0</td>
</tr>
<tr>
<td>Construction</td>
<td>9.6</td>
<td>15.6</td>
<td>-3.5</td>
<td>-14.6</td>
<td>25.8</td>
<td>10.4</td>
<td>7.3</td>
<td>13.0</td>
<td>5.8</td>
<td>5.4</td>
<td>4.6</td>
<td>9.8</td>
</tr>
<tr>
<td>Electricity and water</td>
<td>13.9</td>
<td>20.9</td>
<td>-5.3</td>
<td>5.7</td>
<td>9.8</td>
<td>13.1</td>
<td>8.7</td>
<td>-2.6</td>
<td>13.0</td>
<td>5.6</td>
<td>6.7</td>
<td>-0.4</td>
</tr>
<tr>
<td>Financial services</td>
<td>9.2</td>
<td>8.7</td>
<td>12.7</td>
<td>0.9</td>
<td>2.9</td>
<td>3.7</td>
<td>10.9</td>
<td>12.9</td>
<td>9.8</td>
<td>12.4</td>
<td>6.5</td>
<td>12.8</td>
</tr>
<tr>
<td>Trade</td>
<td>5.7</td>
<td>2.4</td>
<td>22.0</td>
<td>-0.1</td>
<td>1.7</td>
<td>21.3</td>
<td>7.2</td>
<td>6.9</td>
<td>6.1</td>
<td>3.9</td>
<td>5.7</td>
<td>8.2</td>
</tr>
<tr>
<td>Hotels and restaurants</td>
<td>19.1</td>
<td>12.1</td>
<td>3.8</td>
<td>3.8</td>
<td>6.1</td>
<td>10.1</td>
<td>15.2</td>
<td>6.1</td>
<td>2.2</td>
<td>5.9</td>
<td>9.7</td>
<td>-4.4</td>
</tr>
<tr>
<td>Manufacturing</td>
<td>27.2</td>
<td>13.0</td>
<td>-2.8</td>
<td>12.7</td>
<td>3.6</td>
<td>3.0</td>
<td>1.3</td>
<td>2.9</td>
<td>2.4</td>
<td>4.4</td>
<td>3.0</td>
<td>7.9</td>
</tr>
<tr>
<td>Extractive industry</td>
<td>12.4</td>
<td>2.1</td>
<td>5.5</td>
<td>215.7</td>
<td>11.1</td>
<td>27.8</td>
<td>34.6</td>
<td>13.1</td>
<td>3.0</td>
<td>12.6</td>
<td>16.1</td>
<td>40.7</td>
</tr>
<tr>
<td>Rental of real estate</td>
<td>7.9</td>
<td>4.5</td>
<td>2.0</td>
<td>2.5</td>
<td>2.4</td>
<td>0.8</td>
<td>0.6</td>
<td>0.1</td>
<td>2.0</td>
<td>2.0</td>
<td>1.7</td>
<td>0.3</td>
</tr>
<tr>
<td>Transport and communications</td>
<td>21.6</td>
<td>9.3</td>
<td>11.0</td>
<td>16.4</td>
<td>19.5</td>
<td>10.4</td>
<td>10.6</td>
<td>18.3</td>
<td>10.2</td>
<td>14.5</td>
<td>11.3</td>
<td>10.4</td>
</tr>
<tr>
<td>Others</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>2.4</td>
<td>2.4</td>
</tr>
</tbody>
</table>

Source: Banco de Moçambique 2002: 41; Banco de Moçambique 2006: 31; Banco de Moçambique 2008: 75; Banco de Moçambique 2010: 78; Banco de Moçambique 2012: 75.
Elsenhans sees poverty related to the low productivity of agriculture (Elsenhans 1991: 55). Figure 12 shows that the productivity per worker in the agriculture sector (blue line, the corresponding vertical axis is the left one) in Mozambique raised constantly between 2000 and 2012.

**Figure 12: Agriculture value added per worker, annual growth rate agriculture (in %), value added, and annual growth rate agriculture (in %) per worker (all in US$ constant 2005), 2000-2012**

![Graph showing agriculture value added per worker, annual growth rate agriculture (in %), value added, and annual growth rate agriculture (in %) per worker.](image)

Source: The World Bank 2013d.

The data of the table are based on data of the World Bank and cover gross value added (GVA) per worker from forestry, hunting, fishing, as well as the cultivation of crops and livestock production (World Bank 2013d). The gross value added is the production value of goods and services minus intermediate demand. The green constant line represents the annual growth rate (in %) of the value added in the agriculture sector, while the dotted line shows the same per worker. The green lines correspondent to the right vertical axis and run parallel to each other. In 2000, the growth rate of value added in the agriculture sector was negative, while it was positive thereafter. In comparison to other countries, the productivity per worker, measured by the annual value added, is low in Mozambique. In 2010, the productivity per worker in Austria was almost 125 times higher than in Mozambique. In 2012, only three countries of countries
from which data were available had a lower productivity per worker than Mozambique, namely Nepal, Ethiopia and the Democratic Republic of the Congo (The World Bank 2013d). The increased productivity in the agriculture sector has played an important role in Mozambique. Cunguara et al. argue that the agriculture sector should be the key sector in Mozambique in this state of development (Cunguara et al. 2013: iv). They attribute the low productivity in this sector to several reasons, including irregular rainfall, the low use of new and improved technologies, the poor infrastructure of roads in the country and low investments in this sector, compared to other sectors (Cunguara et al. 2013: 1).

While there is no data available from the World Bank for other sectors, the National Statistical Institute provides data about workers per sector and the gross value added per sector. Based upon this information, the average of annual value added per worker can be calculated (see Figure 13).

**Figure 13: Annual gross value-added per capita by economic activity in Mio. Meticais 2009**

![Figure 13: Annual gross value-added per capita by economic activity in Mio. Meticais 2009](image)

16 The gross value added is the production value of goods and services minus intermediate demand.
It is unclear whether the number of worker corresponds to full-time-equivalent; accordingly, an analysis of gross value added per hour per worker by sector would be more precise, although the existing data are a good approach for a comparison between the sectors. The highest gross value added per worker can be found in the sector relating to the manufacture of basic metals. The agricultural sector has a very low gross value added, compared to other sectors, and the forestry and logging sector is even negative. A negative value added will drive a firm to the wall over the long term.

Table 9 shows in detail the ten sectors with the highest gross value added per worker in 2009. It uses a special type of classifications to classify companies: the Classification of Economic Activities, called NACE\(^\text{17}\) in the EU and CAE\(^\text{18}\) in Mozambique. In this classification, enterprises are classified by type, according to their most important produced goods; for example, chemical companies. According to this classification, a company that is classified into the agriculture sector might also offer other products such as accommodation. While this classification is inaccurate, there is no data available in the CPA classification\(^\text{19}\) where firms are classified by products and their goods and services are divided into different product sectors. The two classifications correspond to each other, whereby each type of product in the CPA generally has a corresponding type of company in NACE. The classification used can be found on page 98.

Table 10 shows in which sector the majority of formal workers are employed. The retail trade sector has the most workers, followed by the manufacture of food goods. However, as seen in the chapter about the informal sector, agriculture remains the most important sector.

\(^{17}\) Nomenclature statistique des activités économiques dans la Communauté Européenne.

\(^{18}\) Classificação de Actividades Económicas de Moçambique.

\(^{19}\) Classification of Products by Activity.
Table 9: Gross value added per worker 2009 by sector in Mio. Meticais

<table>
<thead>
<tr>
<th>Code</th>
<th>Sector</th>
<th>GVA per worker in Mio. Meticais</th>
</tr>
</thead>
<tbody>
<tr>
<td>24</td>
<td>Manufacture of basic metals</td>
<td>6.10</td>
</tr>
<tr>
<td>46</td>
<td>Wholesale trade, except of motor vehicles and motorcycles</td>
<td>5.44</td>
</tr>
<tr>
<td>61</td>
<td>Telecommunications</td>
<td>4.85</td>
</tr>
<tr>
<td>35</td>
<td>Electricity, gas, steam and air conditioning supply</td>
<td>3.42</td>
</tr>
<tr>
<td>78</td>
<td>Employment activities</td>
<td>2.59</td>
</tr>
<tr>
<td>92</td>
<td>Gambling and betting activities</td>
<td>2.45</td>
</tr>
<tr>
<td>6</td>
<td>Extraction of crude petroleum and natural gas</td>
<td>2.43</td>
</tr>
<tr>
<td>11</td>
<td>Manufacture of beverages</td>
<td>2.17</td>
</tr>
<tr>
<td>20</td>
<td>Manufacture of chemicals and chemical products</td>
<td>1.67</td>
</tr>
<tr>
<td>23</td>
<td>Manufacture of other non-metallic mineral products</td>
<td>1.59</td>
</tr>
</tbody>
</table>

Source: Instituto Nacional de Estatística 2012: 50 ff., own illustration and analysis.

Table 10: Employees 2009 by sector

<table>
<thead>
<tr>
<th>Code</th>
<th>Sector</th>
<th>Employees</th>
</tr>
</thead>
<tbody>
<tr>
<td>47</td>
<td>Retail trade, except of motor vehicles and motorcycles</td>
<td>45,761</td>
</tr>
<tr>
<td>10</td>
<td>Manufacture of food products</td>
<td>44,780</td>
</tr>
<tr>
<td>1</td>
<td>Crop and animal production, hunting and related service activities</td>
<td>24,222</td>
</tr>
<tr>
<td>56</td>
<td>Food and beverage service activities</td>
<td>20,372</td>
</tr>
<tr>
<td>80</td>
<td>Security and investigation activities</td>
<td>13,702</td>
</tr>
<tr>
<td>41</td>
<td>Construction of buildings</td>
<td>13,267</td>
</tr>
<tr>
<td>46</td>
<td>Wholesale trade, except of motor vehicles and motorcycles</td>
<td>10,395</td>
</tr>
<tr>
<td>42</td>
<td>Civil engineering</td>
<td>10,372</td>
</tr>
<tr>
<td>55</td>
<td>Accommodation</td>
<td>9,815</td>
</tr>
<tr>
<td>49</td>
<td>Land transport and transport via pipelines</td>
<td>7,826</td>
</tr>
</tbody>
</table>

Source: Instituto Nacional de Estatística 2012: 50 ff., own illustration and analysis.
Andre Gunder Frank argues that economies of underdeveloped countries are often focused on the export of one product, which rules over society and economy (Frank 1980: 142). The ownership of the means of production is in the hands of few people and workers have to work for low wages (Frank 1980: 143). This monopolistically concentration of property and income means that the income is uneven distributed and prevents the development of an internal market (Frank 1980: 143). This is especially the case when foreign firms spend the gains in another country. As data from *The Atlas of Economic Complexity* confirm, Mozambique does not have a complex producer structure, ranking 109th out of 128 countries in the Economic Complexity Index (Hausmann/Hidalgo et al. 2011).

Table 8 underlines this statement, indicating that the annual GDP growth rate of the extractive industry was very high, at 40.7%. The statement of André Gunder Frank that firms of export industries are in the hands of few can be underlined with data from the aforementioned sectorial analysis. According to the data, (mining of coal relates to sector 5), only one firm was operating in this sector in 2009. In sector 6 – extraction of crude petroleum and natural gas – only three firms existed and in sector 7 – mining of metal ores (including aluminum) – five firms were operating in this time. In the sector of mining metal ores, few a people were employed in 2009 (296 workers), as well in the sector of extraction of crude petroleum and natural gas (306 workers) and mining of coal and lignite (210 workers). This means that the initial statement that these sectors do not contribute to job creation and taxes for the government is true. However, it should also be mentioned that the wages in the sector extraction of crude petroleum and natural gas are the third highest in Mozambique (mining of metal ores the fifth highest, mining of coal and lignite at an average level). For the analysis of wages, the costs for workers were divided by the number of workers per sector. The sector of crop and animal production, hunting and related service activities pays the lowest wages (although it is ranked behind three other sectors that cannot be included in the analysis, because the costs for personal were indicated with 0). Sector 14 – manufacture of wearing apparel – has the highest personal costs per worker; which are 58 times higher than in the agriculture sector.

Over recent years, the contribution of foreign direct investment (FDI) flows to the Mozambican GDP has increased significantly, as seen in Figure 14.
Moreover, FDI net flows have risen strongly in absolute terms; for instance, the FDI net inflows in 2012 were 84% higher than in 2011 (The World Bank 2013d). “[V]ariables that play a key role in attracting capital are the stability and certainty of the tax structure, macroeconomic stability (including controlled inflation and stable monetary policy)” (Boettke/Coyne 2003: 17). Nonetheless, can this increasing FDI contribute to innovation in Mozambique?

Winkler finds in a comparison of low-income countries (including Mozambique) that

“the FDI spillover potential via global value chains depends on the extent, durability, and quality of linkages between foreign investors and the local economy. Investment promotion alone is not sufficient to benefit from FDI spillovers. It is important to embed foreign investors into the local economy to increase the amount and quality of linkages, and therefore the possibility for supplier assistance and the potential for FDI spillovers in the long-term. In order to integrate foreign investors into local value chains, government agencies could identify potential domestic suppliers, and encourage foreign investors to participate in supplier development and assistance, and give incentives to multinationals to collaborate with local universities, research institutes or other firms which would improve the local skill and innovation capacity” (Winkler 2013: 33).

Chen finds an insignificant correlation between FDI and Regional Innovation Capability. According to him, investment in Research and Development “is the most important factor to
enhance the innovation capabilities” (Chen 2006: 590). Chen adds that “FDI has no direct
significant effect to the level of entrepreneurship. The more of FDI will not necessarily bring
the higher innovation spirits and entrepreneurial level” (Chen 2006: 590). However, perhaps
FDI inflows can be used by the government of Mozambique to spend upon R&D.

The Mozambican government has attempted to create new investments from national and
international firms; for example, through tax reduction. According to the investment law,
investors with the aim of promoting the infrastructure of the country can save 80% of
Corporate Income Tax in the first five years under certain conditions (Article 22. 1a), 60% of
Corporate Income Tax during the following five years (Article 22. 1b) and 20% in the
subsequent five years (Article 22. 1c).

Taxes from income and profits rose between 2000 and 2011, as shown in Figure 15 (Banco de
Moçambique 2013b). The figure shows the annual growth rate of taxes from income and
profits and taxes on goods and services in Mozambique. However, higher “tax revenues do not
guarantee that governments will use them effectively and wisely to provide the public goods
needed for business environments that support private sector development” (Krause et al.
2010: 46).

**Figure 15: Annual growth rate of tax revenues**

![Graph showing annual growth rate of tax revenues](image-url)
5.3.5 **State participation**

Since there is no consensus of opinion concerning the impact of state-owned firms on innovation, the topic will not be analyzed. It suffices to briefly mention that Mozambique has state-owned firms, such as Telecomunicações de Moçambique.

5.4 **Government policies and programs and legal framework**

The Ibrahim Index of African Governance (IIAG) combines indicators in a standardized way to provide a statistical instrument of governance performance in African countries (Mo Ibrahim Foundation 2012). The index covers four main areas, i.e. Sustainable Economic Development, Human Development, Safety & Rule of Law and Participation & Human Rights. Mozambique scores above the continental average in the aggregated index (21st out of 52).

While many reports highlight the country’s political stability (African Development Bank Group 2008: 15), due to the recent political developments it can be assumed that the current political situation is fragile.

What is the role of the government of Mozambique in assessing and fostering entrepreneurship in society? Are there any efforts in Mozambique to transform the factor-driven economic growth of the country into an efficiency driven growth and later into an innovation-driven growth? Two distinct phases in the Mozambican approach to entrepreneurship and innovation can be identified. The first phase is characterized by a lack of entrepreneurship and innovation policies, before a growing interest in entrepreneurship and innovation can be observed. In 2005, the Ministry of Science and Technology of Mozambique was founded, while a Mozambique strategy for Science, Technology and Innovation was established in 2006. The Ministry of Science and Technology (MCT) is the central player for the coordination, planning, regulation, development, and evaluation of science, technology and innovation in Mozambique. Figure 16 shows the nation science and technology system of Mozambique. The different players are all connected to the Ministry, as well as with one another. Furthermore, the Investment Promotion Centre has the objective of promoting innovation in the economy of Mozambique.
In the Poverty Reduction Action Plan (PARP) 2011-2014, as already mentioned in the introduction, the lack of entrepreneurship and innovation are not listed explicitly as main challenges in reducing poverty (República de Moçambique 2011: 13 ff.). According to the paper, the most important challenges are the transformation of the structure of production and economic productivity; for example, in the farming and fisheries sectors (República de Moçambique 2011: 14). The terms entrepreneurship and innovation are not defined in this document. A problem is that many expressions are not defined and objectives are not expressed clearly. Furthermore, evaluations of strategies cannot be found.
Many programs exist concerning entrepreneurship and innovation, including Agenda 2025, Plano de Acção para a Redução da Pobreza Absoluta II (Action Plan for the Reduction of Absolute Poverty), Política e Estratégia Industrial (industrial strategy), Estratégia da Propriedade intelectual (Intellectual Property Strategy), Estratégia das Pequenas e Médias Empresas – XXII (SME strategy), and the Programme of Cooperation in Science, Technology and Innovation between Finland and Mozambique (STIFIMO) (Ministry of Science and Technology/Ministry for Foreign Affairs of Finland 2012). Perhaps Mozambique can benefit from the cooperation with Finland, an innovation leader of the European Union.

The World Bank lists the following as relevant laws for Mozambique concerning entrepreneurship: Tourism Law, Constitution of Mozambique, Labor Law, Land Regulation, Ministerial Diploma 123/2006 on Minimum Wage Levels, Corporate Income Tax Code and the Personal Income Tax Code (The World Bank 2014b). The constitution of Mozambique guarantees in article 82 the right of property and the by the state.20 Only in the case of public interests or necessity is expropriation allowed (Constitution of Mozambique Article 82 (1)). Land is property of the state (Constitution of Mozambique Article 109 (1)) and cannot be sold. This is a significant problem for many people, given that land cannot be taken as a guarantee for a loan. According to Williamson, all these aspects are the “formal rules of the game” (Williamson 2000: 597), meaning the second level of his institutional framework.

However, an analysis of formal rules is not sufficient; rather, it is also important to analyze how rules are implemented de facto (Krause et al. 2010: 25). A corrupt bureaucracy can hinder good regulations and bad regulations can be avoided by paying a bribe (Krause et al. 2010: 25 f.). Indeed, Martini claims that many laws in Mozambique are not “enforced in practice” (Martini 2012: 2).

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20 “O Estado reconhece e garante o direito de propriedade”. (Article 82 (1)).
5.5 Skills and education

“Innovation requires not only highly knowledgeable, experienced, and skilled entrepreneurs, but also highly skilled labourers” (Szirmai/Naudé/Goedhuys 2011: 11).

According to Drucker, entrepreneurship is not a personality trait, but rather a behavior (Drucker 1985: 23); consequently, everyone can learn this behavior (Drucker 1985: 23). However, this means that people should have the opportunity to learn it. In 2007, with the support from UNIDO and Norway, the Government of Mozambique introduced an entrepreneurship curriculum in secondary schools (Ott/Pitassi/Promberger 2011: 2). Perhaps this can represent a possibility to improve the entrepreneurial skills of the Mozambican population.

In 2007, 22% of surveyed firms by the World Bank offered a formal training to their workers (The World Bank 2013g). 12.4% of small firms offered such training, 29.3% of medium-sized firms and 71% of large firms. Especially in large firms, the workforce is seen as inadequately educated.

As seen in the chapter about the social development in Mozambique, education is a significant challenge for the country. In terms of the availability of scientists and engineers, Mozambique ranks 143rd out of 148 countries (World Economic Forum 2013: 287). Compared to other countries, the quality of the primary and higher education is low (World Economic Forum 2013: 287).

Krause et al. find in a quantitative analysis that the higher the educational level and age, the higher the rate of formality of business. The processes of “formalities linked to registration, licensing, tax and labour requirements etc. [are complex] which all require at least reading and writing skills and, in addition, some notion of legal and administrative procedures” (Krause et al 2010: 86). They interpret that young entrepreneurs do not have the experience with business and are often not well-informed about their opportunities.
5.6 Access to finance

Schumpeter states that financing is necessary for the introduction of new combinations (Schumpeter 1993 [1911]: 105). An entrepreneur can only become an entrepreneur after becoming a debtor. “Innovative entrepreneurs in Africa experience a lack of financial support and underdeveloped financial systems” (Lahimer/Dash/Zaiter 2013: 19).

In terms of the ease of access to loans, Mozambique ranks 139th out of 148 countries (World Economic Forum 2013: 287), and 110th out of 142 countries regarding the ease of getting credit (Cornell University/INSEAD/WIPO 2013: 218). Mozambique performs poorly in availability and affordability of financial services (World Economic Forum 2013: 287).

According to the Bank of Mozambique, there were 546 authorized one-stop-shops (Balcão Único) in Mozambique in 2013, of which 506 were running. Furthermore, there were 222 providers of microcredits and 1,047 ATMs in the country. 167 out of 222 providers of microcredits were locates in Maputo City or the province of Maputo. In the province of Manica, only one provider of microcredits was operating. Moreover, in the province of Niassa, there were only 28 ATMs and 10 running one-stop-shops for a population of more than one million people (Banco de Moçambique 2013a: 4). This means that physical access to finance is difficult.

Since land belongs to the Mozambican state, it cannot be used as collateral (African Development Bank Group 2008: 7).

High illiteracy rates, high interest rates (for current interest rates, see Banco De Moçambique 2014), informality rates and a lack of information (OECD 2010: 249) make it even more difficult for people to gain access to finance. Indeed, most people do not know how to write a business plan.

For some people, remittances from migrants employed in South Africa are a source of finance (African Development Bank Group 2008: 8).
5.7 Access to infrastructure

Despite Mozambique having a favorable geographic location, its opportunities have not been exhausted (Bertelsmann Stiftung 2014: 29). For Zimbabwe, Zambia and Malawi, Mozambique provides access to the sea. In comparison to other countries, the country’s infrastructure receives a weak assessment in the Global Competitiveness Report. Regarding the quality of overall infrastructure, Mozambique ranks 126th out of 148 countries (World Economic Forum 2013: 287). According to the Global Competitiveness Report, the telecommunication sector in particular is very weak. Moreover, the quality of roads also has considerable room for improvement (ranked 142 out of 148 countries). With rank 88, the quality of railroad infrastructure is the best ranked regarding infrastructure. The access to electricity also is costly. Mozambique’s infrastructure has been destroyed during civil wars and floods. After the war, only 10% of the roads were in good conditions (African Development Bank Group 2008: 11). Currently, 40% of the county’s roads are in a good condition, 32% in an average condition, 15% in a poor condition, 8% in a very bad condition and the remaining 5% of roads are impassable (Administração Nacional de Estradas 2013: 14). There are wide disparities among regions. For example, in the Zambézia province, only 15% of the streets are in good conditions, while 10% are unpassable (Administração Nacional de Estradas 2013: 21). In 2009, every fifth road of Mozambique was paved (The World Bank 2013d); ten years before, 18.7% of the roads were paved (The World Bank 2013d). In general, it can be said that the infrastructure in Maputo and Maputo Province is far better than in other provinces.

Between 2000 and 2010, prices for the construction of roads increased by over 200%. The reasons for this are “inefficiencies procurement process: delays in procurement and payments, inadequate pre tender investigations and resulting inaccurate tender documentation, and erroneous preconstruction quantitative and financial estimates” (OECD 2013: 19).

Regarding the development of infrastructure in Mozambique, the often criticized mining companies have positive effects, because they invest in ports and railways.

Firms in the agriculture sector suffer from a lack of storage facilities (OECD 2013: 38). Without an adequate infrastructure, it is difficult to distribute the produced food within the country or promote tourism. A better infrastructure of information and communications
technology could facilitate farmers obtaining “real-time information on commodity prices, consumer trends, weather forecasts, and pest and disease control” (OECD 2013: 149).

A good ICT infrastructure reduces transaction and communication costs, improves the availability of information, simplifies access to global markets, reduces the barriers for firm entry and offers new sources of revenue (Legatum Institute 2011: 4). Getting electricity in Mozambique continues to cost a lot of time and money, as illustrated in Table 11.

**Table 11: Getting electricity in Mozambique, Doing Business**

<table>
<thead>
<tr>
<th>Year</th>
<th>Rank</th>
<th>Procedures (number)</th>
<th>Time (days)</th>
<th>Cost (% of income per capita)</th>
</tr>
</thead>
<tbody>
<tr>
<td>DB2010</td>
<td>-</td>
<td>5</td>
<td>77</td>
<td>3,276.70</td>
</tr>
<tr>
<td>DB2011</td>
<td>-</td>
<td>5</td>
<td>77</td>
<td>2,773.70</td>
</tr>
<tr>
<td>DB2012</td>
<td>-</td>
<td>7</td>
<td>107</td>
<td>2,869.10</td>
</tr>
<tr>
<td>DB2013</td>
<td>168</td>
<td>7</td>
<td>107</td>
<td>2,666.90</td>
</tr>
<tr>
<td>DB2014</td>
<td>171</td>
<td>7</td>
<td>107</td>
<td>2,857.70</td>
</tr>
</tbody>
</table>


In 2012, only 0.08 per 100 habitants subscribed fixed (wired) broadband (ITU 2014) and only 4.8% of the population were internet users (The World Bank 2013d). Every 14th small firm of Mozambique has an own internet page, every 5th medium firm, and almost every second large firm is running an own web site. There are considerable differences between small, medium and large firms using e-mail to interact with clients or suppliers. 12.3% of small firms use e-mail, almost 42% of medium firms and 89% of large firms. The percentage of companies using technology licensed from foreign firms is the highest among large firms (59.6%), and the lowest is small firms (28.5%). Medium firms are in between with 41.3% (The World Bank 2013g). As previously shown in the chapter about social development, poor people in particular do not have mobile phones.
5.8 Corruption and bureaucracy

“Corruption manifests itself through various forms, including political, petty and grand corruption, embezzlement of public funds, and a deeply patronage system” (Martini 2012: 1). Based on surveys and assessments of institutions (North calls them organizations)\(^\text{21}\), the Corruption Perceptions Index measures the perception of corruption of the public sector. A scale of 0 – 100 is used, where 0 means that a country is perceived as highly corrupt and 100 means it is perceived as very clean. With a rank of 119 out of 177 countries, Mozambique performs relatively poorly in the Corruption Perceptions Index 2013, scoring below 50, implying that it has a grave corruption problem (Transparency International 2013a).

But how is corruption experienced by firms? In 2007, 12.3% of the surveyed enterprises in Mozambique (Sub-Saharan-Africa, 23.1%) experienced at least one bribe payment request. 13.5% of the small firms experienced a bribe payment request, 10% of the medium-sized firms and 12.4% of the large firms. Gifts were especially important for securing a contract with the government. 43.1% of small firms, 28.4% of medium firms, and 22.4% of large firms were expected to offer gifts (The World Bank 2013g).

Moreover, how is the population affected by corruption? 1,086 people were interviewed in Mozambique (Transparency International 2013b: 29), with the key findings emerging as follows. In response to the question of how the level of corruption in Mozambique had changed over the past two years, 2% of respondents said that it had decreased a lot, 15% of the respondents answered that the level of corruption had decreased a little in the past two years, 24% said that it had stayed the same, 27% it increased a little and 32% stated a high increase of corruption (Transparency International 2013c). Figure 17 shows the percentage of respondents who felt that the shown institutions were corrupt or extremely corrupt in Mozambique. At 89%, the police was considered the most corrupt institution, followed by the education system (79%) and public officials and civil servants (74%).

\(^{21}\) Data for Mozambique are based for example on Governance Ratings of the African Development Bank, the Transformation Index of the Bertelsmann Foundation, the executive Opinion Survey of the World Economic Forum, and the Country Risk Assessment of the Economist Intelligence Unit.
45% of respondents stated that corruption was a serious problem in Mozambique, while 29% of survey participants said it was a problem and 4% of those questioned did not see a problem at all (Transparency International 2013c).

In response to the question of how effective the government's measures are in the fight against corruption, 2% of respondents considered these activities as very effective, 19% as effective, 31% as neither effective nor ineffective, 30% as ineffective, and 18% as very ineffective (Transparency International 2013c).

The Bertelsmann Stiftung considers “[l]ow salary levels, complicated and complex judicial procedures, and inefficiencies in the system” (Bertelmann Stiftung 2014: 11) as main reasons for corruption in Mozambique and criticizes a “widespread culture of impunity” (Bertelmann Stiftung 2014: 11) concerning corruption.

**Figure 17: Percentage of respondents who felt these institutions were corrupt or extremely corrupt in Mozambique in 2013**

According to Martini, the government of Mozambique tries to combat corruption; for example, in the form of a public sector reform strategy in 2001, the anti-corruption law of 2004, an anti-corruption strategy that was introduced in 2006, the ratification of the African Union Convention on Preventing and Combating Poverty in 2006 and of the United Nations
Convention Against Corruption two years later, and an anti-corruption package that was adopted in 2011. Nonetheless, “Mozambique’s legal and institutional framework remains inadequate” (Martini 2012: 1). The Central Office for Combating Corruptions lacks sufficient technical expertise, need more financial resources and is influenced by politics. A key problem is that corruption is treated as disciplinary cases and not as criminal cases (Martini 2012: 5).

In the justice sector, corruption is high “due to low salaries and human resources shortages” (Martini 2012: 5). In response to this, salaries increased in 2006, although Mozambique still needs more qualified juridical personal (Martini 2012: 5).

Bureaucracy and corruption are often interrelated. Table 12 indicates how bureaucratic it is in terms of time and costs to open a firm in Mozambique, with data based on the Doing Business project. As seen in chapter 4.2, the Doing Business “measures legal inputs rather than performance outputs, a country can improve its rating just by changing its rules on the books, without reducing the burden on firms” (Shirley 2008a: 92). The theoretical time to start a business in Mozambique and the corresponding costs have decreased over recent years.

At present it takes nine procedures and requires at least 13 days to open a formal business in Mozambique. According to Doing Business 2014, the following steps are involved:

1. Obtain certification of uniqueness name (certidão de reserva de nome) at the Legal Entities Registrar (Conservatória do Registo das Entidades Legais)
2. Open a provisional bank account and obtain a verification of deposit with a commercial bank
3. Register with the Legal Enities Registrar of Maputo (Conservatória do Registo das Entidades Legais); request a commercial registry certificate; publish company statutes in the official gazette (Bolhetim da República)
4. Register for taxes and obtain NUIT from Tax Department (Repartição de Finanças)
5. Apply for a simplified operating license with the Municipal Council President (Presidente do Conselho Municipal)
6. Declare the beginning of activity at the tax department (Repartição de Finanças)
(7) Declare the beginning of activity and register job candidates at the provincial employment center
(8) Register workers with the social security system
(9) Subscribe a workmen’s compensation insurance coverage (The World Bank 2013c: 20 f.)

Table 12: Starting a business in Mozambique

<table>
<thead>
<tr>
<th>Year</th>
<th>Rank</th>
<th>Procedures (number)</th>
<th>Time (days)</th>
<th>Cost 22 (% of income per capita)</th>
</tr>
</thead>
<tbody>
<tr>
<td>DB2004</td>
<td>...</td>
<td>14</td>
<td>153</td>
<td>112.1</td>
</tr>
<tr>
<td>DB2005</td>
<td>...</td>
<td>14</td>
<td>153</td>
<td>93.4</td>
</tr>
<tr>
<td>DB2006</td>
<td>...</td>
<td>14</td>
<td>153</td>
<td>94.7</td>
</tr>
<tr>
<td>DB2007</td>
<td>...</td>
<td>13</td>
<td>113</td>
<td>85.7</td>
</tr>
<tr>
<td>DB2008</td>
<td>...</td>
<td>10</td>
<td>29</td>
<td>21.6</td>
</tr>
<tr>
<td>DB2009</td>
<td>...</td>
<td>10</td>
<td>26</td>
<td>22.9</td>
</tr>
<tr>
<td>DB2010</td>
<td>...</td>
<td>10</td>
<td>26</td>
<td>19.3</td>
</tr>
<tr>
<td>DB2011</td>
<td>...</td>
<td>9</td>
<td>13</td>
<td>25.2</td>
</tr>
<tr>
<td>DB2012</td>
<td>...</td>
<td>9</td>
<td>13</td>
<td>21.2</td>
</tr>
<tr>
<td>DB2013</td>
<td>97</td>
<td>9</td>
<td>13</td>
<td>19.7</td>
</tr>
<tr>
<td>DB2014</td>
<td>95</td>
<td>9</td>
<td>13</td>
<td>18.7</td>
</tr>
</tbody>
</table>


22 The cost excludes bribes.
To obtain a construction permit, 12 procedures are needed and it takes 130 days to receive them, and costs. Mozambique made dealing with construction permits easier by improving internal processes at the Department of Construction and Urbanization, although it also increased the fees for building permits and occupancy permits (The World Bank 2013c: 29).

In 2010, Mozambique simplified business startup by eliminating the requirements of the minimum capital and bank deposit requirements. Moreover, in 2011, “Mozambique eased business start-up by introducing a simplified licensing process” (The World Bank 2013c: 19). For example, Mozambique facilitated dealing with construction permits through improvements of “internal processes at the Department of Construction and Urbanization” (The World Bank 2013c: 29). However, at the same time, fees for building and occupancy permits have risen. Furthermore, “Mozambique made trading across borders easier by implementing an electronic single-window system” (The World Bank 2013c: 78).

5.9 Innovation and entrepreneurship

The African Innovation Outlook 2010 compares African countries. In Mozambique, only the government sector and private non-profit organizations were included in surveys, while there is no data available about the business enterprise sector and the higher education sector. Mozambique is highly dependent on foreign donors, with 50% of its R&D spending financed from abroad (AU-NEPAD 2010: 41). According to data from The Global Innovation Index 2013, Mozambique is the leader in terms of R&D financed by abroad, with 64.3%. Concerning the type of expenditure, the greatest proportion of spending was expended upon applied research, with 83.2%, followed by basic research (9.5%) and experimental research (7.2%) (AU-NEPAD 2010: 42). In 2007, Mozambique spent 0.25% of its GDP on R&D (AU-NEPAD 2010: 37).

In the Global Innovation Index, Mozambique is ranked 121st out of 142 countries (Cornell University/INSEAD/WIPO 2013: 218). The country performs poorly in creative outputs (place 139), and human capital and research (rank 132). The country’s performance in knowledge and technology outputs is not bad, ranked 60, although this can be attributed to the good performance of the growth rate of the GDP per worker. The rank in business
sophistication is even better (49), but this category includes R&D financed abroad, where Mozambique is the leader and high FDI net inflows. The 134th rank concerning ICT access and use confirms the problems mentioned in the chapter about infrastructure. In terms of capacity for innovation, Mozambique is ranked 132nd out of 148 countries (World Economic Forum 2013: 287).

The Ease of Doing Business Index from the World Bank ranks economies from 1 to 185, with the first place having the most business-friendly regulations. A country's rank indicates its position relative to the other countries included in the index. Many criteria are considered, ranging from getting electricity, getting credit, paying taxes, getting construction permits, registering property, enforcing contracts, protecting investors to starting a business (The World Bank 2013a). In 2012, Singapore occupies the top of the aggregated index, while Mozambique is ranked 146th place in terms of doing business. This means that there is still much potential in the field of entrepreneurship in the country. Mozambique is performing very poor in comparison to other countries, especially in terms of getting electricity (174th place) and doing well in protecting investors (49th place).

5.10 Culture

Cultural aspects – informal institutions – also should not be forgotten. Culture and norms “affect the way individuals perceive the social role of the entrepreneur and how much individuals desire to become one” (Licht/Siegel 2009: 512). One of the main reasons why people do not become an entrepreneur is the fear of failure. Many people fear economic loss, shame and social exclusion (Bañón/Aragón Sánchez/Sastre Vivaracho 2012: 47). As Gouvin explains, failures do not carry a weighty social stigma in the USA (Gouvin 2012: 36). In the Science, Technology and Innovation Strategy of Mozambique, a culture of innovation is described as followed: all economic sectors recognize and appreciate innovation as a pillar for the improvement of the quality of life, and every single person of the society knows that it can and should get involved in innovation in work and life (Conselho de Ministros 2006: 76). There are no specific proposals in the strategy concerning how these objectives can be reached, while no data were found about the entrepreneurial and innovative culture in Mozambique.
According to Williamson, culture changes slowly, but through the implementation of several programs, the culture of innovation and entrepreneurial activities will grow by itself.

### 5.11 Gender

Entrepreneurship has historically man’s domain (Brush 2009: 611), while the role of women in entrepreneurship has long been neglected. According to Brush, the study of women’s entrepreneurial activities “lacks legitimacy, institutional support and funding” (Brush 2009: 615). Furthermore, it was long assumed that men and women do not have different entrepreneurial behavior (Brush 2009: 615). Brush highlights the major areas of similarities and differences between female and male entrepreneurs. According to the author, there are similarities concerning demographics, motivations and business practices (Brush 2009: 617). Independence, personal satisfaction and achievement are motives for men and women (Brush 2009: 618). However, the motivation can vary from country to country. In contrast, the access to resources, the entrepreneurial process and representation in the business sector represent the main differences between men and women (Brush 2009: 618). Allen and Langowitz (2011) show that gender differences in entrepreneurship exist in all 39 countries of their country sample. However, it should be noted that the authors focus on developed countries. How is the situation in Mozambique?

In accordance with the actual Constitution of Mozambique (in 2004 the Constitution of 1990 was revised), women and men are equal before the law in all political, social, cultural and economic spheres (Article 36). Nonetheless, reality shows another picture, whereby the majority of informal workers are women (58%) (Instituto Nacional de Estatística 2006: 91), women are affected more to poverty than men and do not have the same access to education (FIDH/LDH 2007: 13). In particular, women in rural areas are vulnerable. The International Federation for Human Rights and The Mozambique Human Rights League note that norms and social costumes do not change as quickly as laws (FIDH/LDH 2007: 9). Although if according to the law, women and men can be holder of the house and goods, in practice men own goods and the house (FIDH/LDH 2007: 9).
One third of researchers in Mozambique are female (AU-NEPAD 2010:44). In comparison to other African countries, the participation ratio of women in Research and Development activities is high. Only in South Africa and Tanzania, the percentage lies over 40%, and in Uganda it is 38.3% (AU-NEPAD 2010:44).

5.12 Other aspects

As Gouvin shows, a country’s healthcare system and medical insurance play an important role in the development of entrepreneurship. The author argues that people fear initiating entrepreneurial activities due to losing their healthcare coverage. According to him, having healthcare coverage through a partner can support the creation of entrepreneurial activities (Gouvin 2012: 44). Moreover, the prohibition of non-competition agreements influences entrepreneurial activities (Gouvin 2012: 46). “Other factors considered are related to specific individual differences in family background, education, age, sex or personal attributes”(Bañón/Aragón Sánchez/Sastre Vivaracho 2012: 42) Accordingly, it seems that every single aspect of our daily life is important for entrepreneurship and innovation.

5.13 Studies on constraints to entrepreneurship in Mozambique

In this section, three studies focusing on burdens to entrepreneurship in Mozambique are compared (The World Bank 2013g; World Economic Forum 2013; Krause et al. 2010).

In the following, Figure 18 details the constraints to doing business, according to data of the World Economic Forum. The figure is based on information from the Global Competitiveness Report 2013-2014, whereby respondents had to select the five most challenging out of 16 factors and rank them from the most problematic to the least problematic (World Economic Forum 2013: 97 f.). In Mozambique, access to finance (18.4%) and corruption (18.3%) are seen as the highest obstacles to entrepreneurship, followed by inefficient government bureaucracy (12.9%) and inadequately educated workforce (10.6%). Every tenth respondent stated that infrastructure is the biggest problem to entrepreneurship.
Krause et al. conducted 174 quantitative and qualitative interviews with entrepreneurs (in the sense of businessmen) and 30 with experts (they do not provide a definition of entrepreneur) in Mozambique. Their key findings are that constraints to entrepreneurship for the interviewed entrepreneurs are: “access to and cost of credit, transport infrastructure, access to a location for business operation, and availability of skilled labour.” (Krause et al. 2010: 8). In Figure 19, the results of the study are presented (with one possible response), highlighting that access to credit (19%) and cost of credits (8%) are problems of financing. As Krause et al. show in their study, informal entrepreneurs do not have access to finances; rather, they spend their savings and loans from the family and friends (Krause et al. 2010: 95). The weak transport infrastructure is another constraint to business for many firms (18%).

Furthermore, the World Bank conducted surveys with firms in Mozambique (479 firms were surveyed) in 2007 to ascertain the main constraints to entrepreneurship, with the results displayed in Figure 20. Again, access to finance is seen as the biggest burden to entrepreneurship, followed by practices of the informal sector (this category does not exist in the two other surveys). The results of the three different surveys form the World Bank, the Economic Forum, and Krause et al. provide a clear picture of the main constraint to business in Mozambique: access to finance is the main problem in all three surveys. In respect of
corruption, the three surveys show an inconclusive result. According to the World Economic Forum, 18.3% of respondents said that corruption was the main limitation to entrepreneurship, whereas according to the answers of the World Bank, only 4.1% named corruption as a main obstacle. It must be remembered that the data from the World Bank are from 2007, while the data form the Economic Forum are from 2013.

**Figure 19: constraints to entrepreneurship, 2009 (Krause et al.)**

Source: Own diagram, based on Krause et al. 2010.

**Figure 20: Constraints to doing business, 2007 (The World Bank)**

Source: Own illustration, based on The World Bank 2013g.
Nonetheless, a comparison between data from the Economic Forum between and 2008 and 2013 (see Figure 21) show that there were no significant changes concerning the evaluation of constraints to business. In both years, access to financing was regarded the main obstacle to entrepreneurship. In 2013, the inefficiency of bureaucracy was viewed less problematic than in 2008, while contrast, corruption, inadequately educated workforce and a weak infrastructure were perceived as bigger problems than in 2008.

**Figure 21: Constraints to doing business 2008 and 2013 (World Economic Forum)**

Source: Own illustration, based on World Economic Forum 2008; World Economic Forum 2013.

Figure 22 compares obstacles to entrepreneurship in Mozambique with the average of all Sub-Saharan-Africa. Access to finance is also a problem in other countries of Sub-Saharan-Africa, even more so than in Mozambique. The practices of the informal sector reflect a lower problem in Sub-Saharan Africa on average than in Mozambique, while access to electricity is a high problem for countries of Sub-Saharan-Africa. The constraints to entrepreneurship are perceived differently in every country. The World Bank provides separate data for small, medium, and large firms. Figure 23 demonstrates that the constraints to entrepreneurship differ across the size of firms. For small firms, the main problem is access to finance, whereas for medium and large firms, practices of the informal sector are seen as main burden to doing business. For small firms, the inadequately educated workforce is not such a burden, unlike for
large firms. Problems with electricity do not play an important role for large firms, while medium and small firms experience problems with access to electricity.

**Figure 22: Constraints to doing business in Mozambique and sub-Saharan-Africa, 2007 (The World Bank)**

![Graph showing constraints to doing business in Mozambique and sub-Saharan-Africa, 2007](image)

Source: Own illustration, based on The World Bank 2013g.

**Figure 23: Constraints to doing business for small, medium, and large firms 2007 (The World Bank)**

![Graph showing constraints to doing business for small, medium, and large firms 2007](image)

Source: Own illustration, based on The World Bank 2013g.
6. Results and discussion

The aim of this thesis was to analyze the current opportunities and constraints to entrepreneurship and innovation in Mozambique, based on New Institutional Economics. These approaches were discussed, determining the extent to which they were applicable to Mozambique. Furthermore, it was examined if and how entrepreneurship, innovation, economic development and institutions can be measured. The New Institutional Economics framework was applied for the second part of the work, where the analysis of various indicators, the potentials and obstacles of entrepreneurship and innovation was developed. Furthermore, results of three studies focusing on barriers to entrepreneurship in Mozambique were presented and compared. The second part of the work consists of the application of the theories to Mozambique, analyzing various indicators and comparing the results of three different qualitative surveys in Mozambique.

Entrepreneurship, innovation and institution are complex topics and can be observed from different viewpoints and according to various definitions. This makes it interesting yet difficult to work with these definitions. Many Nobel Economics Prize winners from different decades, including Kenneth J. Arrow (1972), Ronald H. Coase (1991), Douglass C. North (1993), and Oliver E. Williamson (2009), were cited in the present work, emphasizing that the topic institution has been relevant over many years.

While Mozambique has experienced high economic growth in recent years, not all population groups have benefitted equally. Poverty and social inequalities remain two of the many challenges that the country is facing. In addition, since the end of 2013, political instabilities are not only a barrier to entrepreneurship and innovation, but also pose a threat to the whole society. Moreover, another current challenge for the country is a famine.

The relatively small market in Mozambique, small firms, the informal sector, poorly educated workforce, the importance of the agricultural sector, high economic growth rates and low productivity are key characteristics of the Mozambican economy. Informality is not favorable for the promotion of innovation, given that such firms do not have access to finance and cannot do business with official firms.
While it remains debatable whether entrepreneurship and innovation contribute to economic growth in Mozambique, in any case, they create jobs and income. The agricultural sector plays a major role in the development of the country, with the majority of the population receiving its income from it and the sector contributes the most to the gross domestic product. Low productivity and high informality rates are main characteristics of the sector. Innovation in the agricultural sector could have the highest impact on economic and social development in Mozambique. Innovation in this sector can lead to the stabilization of food prices, as well as increasing its productivity and thus ensuring the supply of food for the population. It can help to better endure periods of weather disasters and scarcity of food, as is actually the case in Mozambique.

Concerning the question of constraints to entrepreneurship and innovation, a clear answer can be given. The analysis of indicators, literature and three qualitative surveys shows that access to finance is the major obstacle to entrepreneurship and innovation in Mozambique. Moreover, other barriers include corruption, poor infrastructure, poorly trained workers and the informal sector. The comparison of three surveys (The World Bank 2013g; World Economic Forum 2013; Krause et al. 2010) with a focus on constraints to entrepreneurship show that the main obstacle is the access to finance. The World Bank provides separate data for small, medium, and large firms, demonstrating that the constraints to entrepreneurship differ across the size of firms. For small firms, the main problem is access to finance, whereas for medium and large firms, practices of the informal sector are seen as main burden to doing business. For small firms, the inadequately educated workforce is not such a burden, while for large firms it is. Problems with electricity do not play an important role for large firms, while medium and small firms experience problems with access to electricity. Especially for women, informal institutions (customs, traditions, and social norms) represent an obstacle to entrepreneurship. While women and men have the same right according to the constitution, in practice women suffer a lack of equal opportunities due to social norms and customs. Moreover, wide disparities among provinces and urban and rural regions have been observed.

Positive spillovers from increasing FDI might occur, although it is unclear whether this is the case. The Mozambican government has sought to attract national and international investors with tax incentives, with foreign direct investment net flows having increased significantly in
recent years. While investments of international firms do not contribute to job creation and higher tax revenues of the state, they are an opportunity for innovation spill-overs. Clear evidence of the impact of foreign direct investments on innovation in Mozambique is not yet available; nonetheless, it can be seen as an opportunity for the absorption of innovation in Mozambique. The often criticized mega projects could have a positive impact on the weak infrastructure of the country. Moreover, other positive developments can be observed. For instance, the government has tried to reduce regulatory burden on companies by simplifying the process of registration. Due to the introduction of a simplified licensing process, business startup has become easier. For example, Mozambique facilitated dealing with construction permits and trading across borders. However, at the same time, fees for building and occupancy permits have risen. Furthermore, it has endeavored to reduce corruption and bureaucracy. Perhaps Mozambique can benefit in the innovation process from the cooperation with Finland, an innovation leader of the European Union.

In summary, the thesis has raised more questions than it has answered. Which firms are the driver for economic development and innovation in Mozambique? Is innovation driven by dynamic small and medium-sized firms or by large firms? These questions could not be answered and thus further research is necessary. According to the literature, entrepreneurship and innovation are drivers for economic development. However, is innovation – based upon Schumpeter’s meaning – relevant for any society? Naudé et al argue that innovation is relevant for every economy, while other authors disagree. This is another interesting field for further research. Due to a lack of data, entrepreneurship in the sense of Schumpeter could not be treated in the present work, especially because data on innovation on a firm level is not available in Austria.

Further research has to be conducted regarding theories of entrepreneurship, innovation and institutions, as well as concerning practical experience and field studies. Hayek argues that scientists have to combine theoretical with practical knowledge, meaning that practical examples of innovative entrepreneurship in Mozambique have to be analyzed. It is difficult to assess informal institutions from a distance. Moreover, an additional challenge is that informal institutions do not change overnight as formal institutions can be changed. Interviews could help to understand these informal institutions.
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8. Appendix

Figure 24: Map of Mozambique

Source: Based on African Development Bank/OECD 2008: 460.
Figure 25: Overview of regions in Mozambique

Table 13: Overview of Classification of Economic Activities (CAE Rev. 2 Mozambique)

<table>
<thead>
<tr>
<th>Code</th>
<th>CLASSIFICATION OF ECONOMIC ACTIVITIES</th>
</tr>
</thead>
<tbody>
<tr>
<td>01</td>
<td>Agricultura, produção animal, caça e actividades dos serviços relacionados</td>
</tr>
<tr>
<td></td>
<td>Crop and animal production, hunting and related service activities</td>
</tr>
<tr>
<td>02</td>
<td>Silvicultura e exploração florestal</td>
</tr>
<tr>
<td></td>
<td>Forestry and logging</td>
</tr>
<tr>
<td>03</td>
<td>Pesca e aquicultura</td>
</tr>
<tr>
<td></td>
<td>Fishing and aquaculture</td>
</tr>
<tr>
<td>05</td>
<td>Extração de hulha e lenhite</td>
</tr>
<tr>
<td></td>
<td>Mining of coal and lignite</td>
</tr>
<tr>
<td>06</td>
<td>Extração de petróleo bruto e gás natural</td>
</tr>
<tr>
<td></td>
<td>Extraction of crude petroleum and natural gas</td>
</tr>
<tr>
<td>07</td>
<td>Extração e preparação de minérios metálicos</td>
</tr>
<tr>
<td></td>
<td>Mining of metal ores</td>
</tr>
<tr>
<td>08</td>
<td>Outras indústrias extractivas</td>
</tr>
<tr>
<td></td>
<td>Other mining and quarrying</td>
</tr>
<tr>
<td>09</td>
<td>Actividades dos serviços relacionados com as indústrias extractivas</td>
</tr>
<tr>
<td></td>
<td>Mining support service activities</td>
</tr>
<tr>
<td>10</td>
<td>Indústrias alimentares</td>
</tr>
<tr>
<td></td>
<td>Manufacture of food products</td>
</tr>
<tr>
<td>11</td>
<td>Indústria das bebidas</td>
</tr>
<tr>
<td></td>
<td>Manufacture of beverages</td>
</tr>
<tr>
<td>12</td>
<td>Indústria do tabaco</td>
</tr>
<tr>
<td></td>
<td>Manufacture of tobacco products</td>
</tr>
<tr>
<td>13</td>
<td>Fabricação de têxteis</td>
</tr>
<tr>
<td></td>
<td>Manufacture of textiles</td>
</tr>
<tr>
<td>14</td>
<td>Indústria do vestuário</td>
</tr>
<tr>
<td></td>
<td>Manufacture of wearing apparel</td>
</tr>
<tr>
<td>15</td>
<td>Indústria do couro e dos produtos do couro</td>
</tr>
<tr>
<td></td>
<td>Manufacture of leather and related products</td>
</tr>
<tr>
<td>16</td>
<td>Indústrias da madeira e da cortiça e suas obras, excepto mobiliário; Fabricação de obras de cestaria e de espartaria</td>
</tr>
<tr>
<td></td>
<td>Manufacture of wood and of products of wood and cork, except furniture; manufacture of articles of straw and plaiting materials</td>
</tr>
<tr>
<td>17</td>
<td>Fabricação de pasta, de papel, de cartão e seus artigos</td>
</tr>
<tr>
<td></td>
<td>Manufacture of paper and paper products</td>
</tr>
<tr>
<td>18</td>
<td>Impressão e reprodução de suportes gravados</td>
</tr>
<tr>
<td></td>
<td>Printing and reproduction of recorded media</td>
</tr>
</tbody>
</table>
| 19 | Fabricação de coque, produtos petrolíferos refinados e de aglomerados de combustíveis  
Manufacture of coke and refined petroleum products |
| 20 | Fabricação de produtos químicos e de fibras sintéticas ou artificiais, excepto produtos farmacêuticos  
Manufacture of chemicals and chemical products |
| 21 | Fabricação de produtos farmacêuticos de base e de preparações farmacêuticas  
Manufacture of basic pharmaceutical products and pharmaceutical preparations |
| 22 | Fabricação de artigos de borracha e de matérias plásticas  
Manufacture of rubber and plastic products |
| 23 | Fabrício de outros produtos minerais não metálicos  
Manufacture of other non-metallic mineral products |
| 24 | Indústrias metalúrgicas de base  
Manufacture of basic metals |
| 25 | Fabricação de produtos metálicos, excepto máquinas e equipamentos  
Manufacture of fabricated metal products, except machinery and equipment |
| 26 | Fabricação de equipamentos informáticos, equipamento para comunicações e produtos electrónicos e ópticos  
Manufacture of computer, electronic and optical products |
| 27 | Fabricação de equipamento eléctrico  
Manufacture of electrical equipment |
| 28 | Fabricação de máquinas e de equipamentos, n.e.  
Manufacture of machinery and equipment n.e.c. |
| 29 | Fabricação de veículos automóveis, reboques, semi-reboques e componentes para veículos automóveis  
Manufacture of motor vehicles, trailers and semi-trailers |
| 30 | Fabricação de outro equipamento de transporte  
Manufacture of other transport equipment |
| 31 | Fabrício de mobiliário e de colchões  
Manufacture of furniture |
| 32 | Outras indústrias transformadoras  
Other manufacturing |
| 33 | Reparação, manutenção e instalação de máquinas e equipamentos  
Repair and installation of machinery and equipment |
| 34 | Electricidade, gás, vapor, água quente e fria e ar frio  
Electricity, gas, steam and air conditioning supply |
| 35 | Captação, tratamento e distribuição de água  
Water collection, treatment and supply |
| 36 | Recolha, drenagem e tratamento de águas residuais  
Sewerage |
| 38 | **Recolha, tratamento e eliminação de resíduos; valorização de materiais**  
Waste collection, treatment and disposal activities; materials recovery |
| 39 | **Descontaminação e actividades similares**  
Remediation activities and other waste management services |
| 41 | **Promoção imobiliária (desenvolvimento de projectos de edifícios); construção de edifícios**  
Construction of buildings |
| 42 | **Engenharia civil**  
Civil engineering |
| 43 | **Actividades especializadas de construção**  
Specialised construction activities |
| 45 | **Comércio, manutenção e reparação, de veículos automóveis e motociclos**  
Wholesale and retail trade and repair of motor vehicles and motorcycles |
| 46 | **Comércio por grosso (inclui agentes), excepto de veículos automóveis e motociclos**  
Wholesale trade, except of motor vehicles and motorcycles |
| 47 | **Comércio a retalho, excepto de veículos automóveis e motociclos**  
Retail trade, except of motor vehicles and motorcycles |
| 49 | **Transportes terrestres e transportes por oledutos ou gasodutos**  
Land transport and transport via pipelines |
| 50 | **Transportes por água**  
Water transport |
| 51 | **Transportes aéreos**  
Air transport |
| 52 | **Armazenagem e actividades auxiliares dos transportes(inclui manuseamento)**  
Warehousing and support activities for transportation |
| 53 | **Actividades postais e de courier**  
Postal and courier activities |
| 55 | **Alojamento**  
Accommodation |
| 56 | **Restauração e similares**  
Food and beverage service activities |
| 58 | **Actividades de edição**  
Publishing activities |
| 59 | **Actividades cinematográficas, de vídeo, de produção de programas de televisão, de gravação de som e de edição de música**  
Motion picture, video and television programme production, sound recording and music publishing activities |
| 60 | **Actividades de rádio e de televisão**  
Programming and broadcasting activities |
<table>
<thead>
<tr>
<th></th>
<th>Portuguese</th>
<th>English</th>
</tr>
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<tbody>
<tr>
<td>61</td>
<td>Telecomunicações</td>
<td>Telecommunications</td>
</tr>
<tr>
<td>62</td>
<td><strong>Consultoria e programação informática e actividades relacionadas</strong></td>
<td><strong>Computer programming, consultancy and related activities</strong></td>
</tr>
<tr>
<td>63</td>
<td><strong>Actividades dos serviços de informação</strong></td>
<td><strong>Information service activities</strong></td>
</tr>
<tr>
<td>64</td>
<td><strong>Actividades de serviços financeiros, excepto seguros e fundos de pensões</strong></td>
<td><strong>Financial service activities, except insurance and pension funding</strong></td>
</tr>
<tr>
<td>65</td>
<td><strong>Seguros, resseguros e fundos de pensões, excepto segurança social obrigatória</strong></td>
<td><strong>Insurance, reinsurance and pension funding, except compulsory social security</strong></td>
</tr>
<tr>
<td>66</td>
<td><strong>Actividades auxiliares de serviços financeiros e dos seguros</strong></td>
<td><strong>Activities auxiliary to financial services and insurance activities</strong></td>
</tr>
<tr>
<td>68</td>
<td><strong>Actividades imobiliárias</strong></td>
<td><strong>Real estate activities</strong></td>
</tr>
<tr>
<td>69</td>
<td><strong>Actividades jurídicas e de contabilidade</strong></td>
<td><strong>Legal and accounting activities</strong></td>
</tr>
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<td>70</td>
<td><strong>Actividades das sedes sociais e de consultoria para a gestão</strong></td>
<td><strong>Activities of head offices; management consultancy activities</strong></td>
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<td>71</td>
<td><strong>Actividades de arquitectura, de engenharia e técnicas afins; actividades de ensaios e de análises técnicas</strong></td>
<td><strong>Architectural and engineering activities; technical testing and analysis</strong></td>
</tr>
<tr>
<td>72</td>
<td><strong>Actividades de investigação científica e de desenvolvimento</strong></td>
<td><strong>Scientific research and development</strong></td>
</tr>
<tr>
<td>73</td>
<td><strong>Publicidade, estudos de mercado e sondagens de opinião</strong></td>
<td><strong>Advertising and market research</strong></td>
</tr>
<tr>
<td>74</td>
<td><strong>Outras actividades de consultoria, científicas, técnicas e similares</strong></td>
<td><strong>Other professional, scientific and technical activities</strong></td>
</tr>
<tr>
<td>75</td>
<td><strong>Actividades veterinárias</strong></td>
<td><strong>Veterinary activities</strong></td>
</tr>
<tr>
<td>77</td>
<td><strong>Actividades de aluguer</strong></td>
<td><strong>Rental and leasing activities</strong></td>
</tr>
<tr>
<td>78</td>
<td><strong>Actividades de emprego</strong></td>
<td><strong>Employment activities</strong></td>
</tr>
<tr>
<td>79</td>
<td><strong>Agências de viagem, operadores turísticos, outros serviços de reservas e actividades relacionadas</strong></td>
<td><strong>Travel agency, tour operator and other reservation service and related activities</strong></td>
</tr>
<tr>
<td>80</td>
<td><strong>Actividades de investigação e segurança</strong></td>
<td><strong>Security and investigation activities</strong></td>
</tr>
</tbody>
</table>
|   | **Actividades relacionadas com edifícios, plantação e manutenção de jardins**  
|   | Services to buildings and landscape activities |
|   | **Actividades de serviços administrativos e de apoio prestados às empresas**  
|   | Office administrative, office support and other business support activities |
|   | **Administração Pública e Defesa; Segurança Social Obrigatória**  
|   | Public administration and defence; compulsory social security |
|   | **Educação**  
|   | Education |
|   | **Actividades de saúde humana**  
|   | Human health activities |
|   | **Actividades de apoio social com alojamento**  
|   | Residential care activities |
|   | **Actividades de apoio social sem alojamento**  
|   | Social work activities without accommodation |
|   | **Actividades de teatro, de música, de dança e outras actividades artísticas e literárias**  
|   | Creative, arts and entertainment activities |
|   | **Actividades das bibliotecas, arquivos, museus e outras actividades culturais**  
|   | Libraries, archives, museums and other cultural activities |
|   | **Lotarias e outros jogos de aposta**  
|   | Gambling and betting activities |
|   | **Actividades desportivas, de diversão e recreativas**  
|   | Sports activities and amusement and recreation activities |
|   | **Actividades das organizações associativas**  
|   | Activities of membership Organization |
|   | **Reparação de computadores e de bens de uso pessoal e doméstico**  
|   | Repair of computers and personal and household goods |
|   | **Outras actividades de serviços pessoais**  
|   | Other personal service activities |
|   | **Actividades das famílias empregadoras de pessoal doméstico**  
|   | Activities of households as employers of domestic personnel |
|   | **Actividades de produção de bens e serviços pelas famílias para uso próprio**  
|   | Undifferentiated goods- and services-producing activities of private households for own use |
|   | **Actividades dos organismos internacionais e outras instituições extra-territoriais**  
|   | Activities of extraterritorial organizations and bodies |

### Table 14: Overview Rankings Mozambique

<table>
<thead>
<tr>
<th>Index</th>
<th>Source</th>
<th>Rank (out of)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Human Development</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Human Development Index 2012</td>
<td>United Nations</td>
<td>185 (187)</td>
</tr>
<tr>
<td>Doing Business 2012</td>
<td>The World Bank 2013</td>
<td>146 (185)</td>
</tr>
<tr>
<td><strong>Economic Development</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>The Ibrahim Index 2012</td>
<td>Mo Ibrahim Foundation 2012</td>
<td>21 (52)</td>
</tr>
<tr>
<td>Corruption Perceptions Index 2013</td>
<td>Transparency International 2013</td>
<td>119 (177)</td>
</tr>
<tr>
<td>The Global Competitiveness Index 2013-2014</td>
<td>World Economic Forum</td>
<td>137 (148)</td>
</tr>
<tr>
<td>The Global Innovation Index 2013</td>
<td>World Intellectual Property Organization</td>
<td>121 (142)</td>
</tr>
<tr>
<td>Economic Complexity Index</td>
<td>Hausmann/Hidalgo et al.</td>
<td>109 (128)</td>
</tr>
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</table>

9. Executive summary

The aim of this thesis is to analyze the current opportunities and constraints to entrepreneurship and innovation in Mozambique, based on New Institutional Economics. In the first part of this work, different theoretical approaches and definitions of entrepreneurship, innovation, economic development and institutions are presented. These approaches are discussed, showing the extent to which they are applicable to Mozambique. Furthermore, it is examined whether and how entrepreneurship, innovation, economic development and institutions can be measured. The New Institutional Economics is the framework for the second part of the work, where the analysis of various indicators, the potentials and obstacles of entrepreneurship and innovation will be developed. Furthermore, the results of three studies focusing on barriers to entrepreneurship in Mozambique are presented and compared.

While Mozambique has experienced high economic growth in recent years, not all population groups have benefitted equally. Poverty and social inequality remain two of the many challenges that the country is facing. In addition, since the end of 2013, political instabilities are not only a barrier to entrepreneurship and innovation, but also pose a threat to the whole society.

It remains debate whether entrepreneurship and innovation contribute to economic growth in Mozambique; nonetheless, they create jobs and income. The agricultural sector plays a major role in the development of the country, with the majority of the population receiving its income from it and the sector contributes the most to the gross domestic product. Innovation in this sector can lead to the stabilization of food prices, as well as increasing its productivity and thus ensuring the supply of the population with food. The biggest obstacle for entrepreneurship and innovation is access to finance. Public funding and access to credit are limited. Other barriers include corruption, poor infrastructure, poorly trained workers and the informal sector. Positive spillovers from increasing FDI could be an opportunity in the next years.
10. Zusammenfassung


11. Resumo

O objetivo principal deste trabalho é identificar com base na Nova Economia Institucional as atuais possibilidades e obstáculos referentes ao empreendedorismo e inovação em Moçambique. Na primeira parte do trabalho, são apresentadas diversas definições e abordagens teóricas acerca do empreendedorismo, inovação, desenvolvimento econômico e instituição. A partir da análise desses conceitos, investiga-se em que medida esses são aplicáveis ao caso de Moçambique. Além disso, é tratado como e se o empreendedorismo, inovação, desenvolvimento econômico e instituições podem ser mensurados. A Nova Economia Institucional serve de fundamento para a segunda parte do trabalho, na qual com base em diversos indicadores, são elaboradas as oportunidades e ameaças ao empreendedorismo e à inovação.

Além disso, são apresentados e comparados os resultados de três estudos que tiveram como foco as dificuldades de implementação do empreendedorismo em Moçambique. Moçambique tem experimentado um crescimento econômico elevado nos últimos anos, no entanto, nem todos os grupos da população se beneficiam de forma igualitária dele. A pobreza e a desigualdade social continuam a ser dois dos muitos desafios que o país tem enfrentado, aos quais veio a juntar-se a instabilidade política desde o fim de 2013. Essa instabilidade não representa apenas uma barreira ao empreendedorismo e à inovação, mas também um perigo para toda a sociedade moçambicana.

Não há a certeza de que empreendedorismo e inovação contribuem para o crescimento econômico, mas em todo caso criam emprego e aumentam renda. O setor agrícola tem um papel importante no desenvolvimento do país, por contribuir com a maior parte do produto interno bruto e representar a fonte de renda da maioria da população. Inovações nesse setor podem levar à estabilização dos preços de alimentos, bem como a um aumento na produtividade, e assim garantir o abastecimento da população com suprimentos alimentícios. O maior desafio para o empreendedorismo e inovação é o financiamento dessas atividades. O financiamento público e o acesso ao crédito é limitado. Além disso, existem diversas outras barreiras, tais quais: corrupção, infraestrutura deficiente, trabalhadores mal capacitados e restrições por uma informalidade do empreendedorismo muito difundida.
# Curriculum Vitae

## Personal Information

**SARAH LAPPÖHN**  
e-mail: sarah.lappoehn@googlemail.com

## Education

<table>
<thead>
<tr>
<th>Time</th>
<th>Institution</th>
<th>Course</th>
</tr>
</thead>
<tbody>
<tr>
<td>October 2008-March 2014</td>
<td><strong>University of Vienna, Austria</strong></td>
<td>International Development</td>
</tr>
<tr>
<td>August 2007-January 2008</td>
<td><strong>Universidade Federal do Ceará, Brazil</strong></td>
<td>Exchange semester</td>
</tr>
<tr>
<td>October 2004-August 2008</td>
<td><strong>University of Cologne, Germany</strong></td>
<td>Latin American Area Studies</td>
</tr>
</tbody>
</table>

## Additional Information

<table>
<thead>
<tr>
<th>Time</th>
<th>Institution</th>
<th>Role/Activity</th>
</tr>
</thead>
<tbody>
<tr>
<td>Since June 2011</td>
<td><strong>Institute for Advanced Studies, Austria</strong></td>
<td>Student Assistant in the group Companies, Industries &amp; Regions</td>
</tr>
<tr>
<td>April 2013-October 2013</td>
<td><strong>United Nations Industrial Development Organization (UNIDO), Austria</strong></td>
<td>Intern, assigned to the Rural Entrepreneurship Development and Human Security Unit of the Agri-Business Development Branch</td>
</tr>
<tr>
<td>November 2011-December 2011</td>
<td><strong>German Embassy in Brasilia, Brazil</strong></td>
<td>Intern, assignments mainly in the department of development cooperation</td>
</tr>
</tbody>
</table>

Vienna, 2014