



# **NAVAL POSTGRADUATE SCHOOL**

**MONTEREY, CALIFORNIA**

## **THESIS**

**ENTREPRENEURSHIP AS A SOURCE OF ECONOMIC,  
POLITICAL, AND SOCIAL IMPROVEMENT IN SUB-  
SAHARAN AFRICA**

by

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June 2015

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**ENTREPRENEURSHIP AS A SOURCE OF ECONOMIC, POLITICAL, AND  
SOCIAL IMPROVEMENT IN SUB-SAHARAN AFRICA**

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## **ABSTRACT**

A three-country case study was used to analyze the economic, political, and social impacts of entrepreneurship, and the development of entrepreneurship in Sub-Saharan Africa was studied through the lens of five entrepreneurial factors (freedom, labor, infrastructure, governance, and business environment). An increase of foreign direct investments, growing economic freedom for citizens, and a higher gross domestic product per capita were among the economic benefits of entrepreneurship. Politically, stronger democracy, political rights, and civil liberties can be obtained from a growing level of entrepreneurship. Reduced unemployment, better education, higher health expenditures per capita, and development of the communications infrastructure were some of the social benefits. Lower cost for starting a new business and easier access to capital were the chief reasons behind Botswana's greater level of entrepreneurship. Better governance, regulatory quality, infrastructure, and trade freedom have also helped to attract entrepreneurs for Botswana. For Zambia and Malawi, the coordination of entrepreneurial programs, business freedom, and the amount of corruption are better indicators to predict their levels of entrepreneurship instead of their measures of the rule of law or the regulatory quality. Botswana and Zambia are expected to march toward a virtuous cycle while Malawi appears to be in a vicious cycle.

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## **LIST OF ACRONYMS AND ABBREVIATIONS**

|       |                                            |
|-------|--------------------------------------------|
| EDBI  | ease of doing business index               |
| FDI   | foreign direct investment                  |
| GDP   | gross domestic product                     |
| GEM   | global entrepreneurship monitor            |
| GNI   | gross national income                      |
| HDI   | human development index                    |
| ISI   | import substitution industrialization      |
| LLC   | limited liability corporation              |
| MMD   | Movement for Multiparty Democracy          |
| MSME  | micro, small, and medium enterprise        |
| PF    | patriotic front                            |
| PPP   | power purchasing parity                    |
| R&D   | research and development                   |
| SIDO  | small industries development organization  |
| SME   | small and medium enterprise                |
| SSA   | Sub-Saharan Africa                         |
| TEA   | total early-stage entrepreneurial activity |
| WBGES | World Bank group entrepreneurship survey   |
| WGI   | worldwide governance index                 |
| YB    | young business                             |
| ZDA   | Zambia Development Agency                  |

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## **I. INTRODUCTION**

The current economic, political, and social struggles of Africa relative to other parts of the world are hard to imagine given that prosperity and innovation have been found throughout the history of Africa going back thousands of years.<sup>1</sup> The introductory chapter of this thesis starts with two major research questions and their significances. Then, it presents the hypothesis and the methodology of the thesis. Lastly, it ends with a brief overview of the rest of the chapters.

### **A. MAJOR RESEARCH QUESTION**

Can entrepreneurship increase gross domestic product (GDP) per capita in sub-Saharan Africa (SSA)? Moreover, can it deliver tangible political and social progress for the region? This thesis primarily explores the possibilities of entrepreneurship to first improve GDP per capita in SSA, and second to bring practical political and social development. Furthermore, this thesis assesses the state of five key entrepreneurial factors in developing countries using three southern African countries—Botswana, Zambia, and Malawi—with a relatively high, medium, and low level of entrepreneurship as case studies to understand the conditions under which entrepreneurship can thrive in Africa and generate necessary reform recommendations to overcome shortcomings.

### **B. SIGNIFICANCE OF THE RESEARCH QUESTION**

SSA countries can benefit from a growing economy, a stable political environment, and a developed social environment after a long period of negative results since the end of the colonization era. The implementation of the import substitution industrialization (ISI) strategy failed to develop African economies because governments were extensively involved in the production decisions, which burdened industries with inefficiencies.<sup>2</sup> Export promotion improved the productivity better than ISI, but fell short

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<sup>1</sup> John Iliffe, *Africans: the History of a Continent*, 2<sup>nd</sup> edition (New York: Cambridge University Press, 2007), 17.

<sup>2</sup> Zoltan J. Acs and Nicola Virgill, “Chapter 18: Entrepreneurship in Developing Countries,” in *Handbook of Entrepreneurship Research: An Interdisciplinary Survey and Introduction*, edited by Zoltan J. Acs and David B. Audrestch, 2<sup>nd</sup> ed. (New York: Springer, 2010), 487.

of developing most African economies due to the continued engagement of governments in the production process and the lack of a private sector.<sup>3</sup> The United States, other developed countries, and international organizations have used programs such as the African Growth Opportunity Act (AGOA) and the Millennium Challenge Corporation (MCC) to strengthen African economies.<sup>4</sup> However, this approach produced minimal gains, depending on the African countries, and foreign assistance is not a reliable plan to achieve a long-term and vibrant economic success in Africa.<sup>5</sup> On the other hand, entrepreneurship has shown to be a catalyst for positive economic growth in India, Poland, and the Czech Republic.<sup>6</sup> As these countries' economies improved, so did their respective political and social structures, which could serve as an alternative strategy for development in SSA.

In addition, strong SSA economies are needed to meet the various challenges in Africa, such as the rapid population growth, security threats, and health epidemics. The United Nations International Children's Emergency Fund (UNICEF) estimated the African population would reach 39% of the world population in 2100 (only 4% lower than the Asian share), yet Africa will have to meet the needs of its people with 32% fewer land resources than its Asian counterpart.<sup>7</sup> By only relying on natural resources and without a robust economy, SSA countries will have no chance to deal with the different types of security threats on the continent, such as piracy, violent extremism, organized

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<sup>3</sup> Acs and Virgill, "Entrepreneurship in Developing Countries," 488.

<sup>4</sup> Brock R. Williams, "African Growth and Opportunity Act (AGOA): Background and Reauthorization," Congressional Research Service, Report no. R43173 (2013): 2, <http://www.fas.org/sgp/crs/row/R43173.pdf> ; Curt Tarnoff, "Millennium Challenge Corporation," Congressional Research Service, Report no. RL32427 (2014): 2, <http://www.fas.org/sgp/crs/row/RL32427.pdf>.

<sup>5</sup> Williams, "African Growth and Opportunity Act," 2; Tarnoff, "Millennium Challenge Corporation," 2.

<sup>6</sup> Gurcharan Das, "The India Model," *Foreign Affairs* 85, no. 4 (2006): 2, <http://www.foreignaffairs.com/articles/61728/gurcharan-das/the-india-model> ; Robert Looney, "Entrepreneurship and the Process of Development: A Framework for Applied Expeditionary Economics in Pakistan," Kauffman Foundation Research Series: Expeditionary Economics, February 5, 2012, 43, [http://www.kauffman.org/~media/kauffman\\_org/research%20reports%20and%20covers/2012/02/pakistan\\_ee\\_framework.pdf](http://www.kauffman.org/~media/kauffman_org/research%20reports%20and%20covers/2012/02/pakistan_ee_framework.pdf).

<sup>7</sup> "Generation 2030 Africa," UNICEF, accessed August 15, 2014, <http://data.unicef.org/gen2030/>.

crime, and narcotics, on their own.<sup>8</sup> Health epidemics, such as the latest outbreak of Ebola, also threaten the economic future of Africa and will require significant national resources to control.<sup>9</sup> In short, to meet its own adversities, Africa needs a solid economy, which could be attained in full or part through an entrepreneurship-led strategy. The result would benefit the African people, the United States, and the rest of the world with reduced security and health threats and increased global trades.

### C. HYPOTHESIS

An increase of entrepreneurship was accompanied by a growth of GDP per capita in a few SSA countries, and progress in the political and social sectors was also seen in SSA countries with a high-level of entrepreneurship. Using the combination of new limited liability corporation (LLC) firms from the World Bank group entrepreneurship survey (WBGES), the total early-stage entrepreneurial activity (TEA) rate, and a linear extrapolation, one can deduce the estimated origin-of-entrepreneurship year—the year that serious efforts to develop entrepreneurship started—for a given country. Figure 1 shows 1990 as the estimated origin-of-entrepreneurship year for South Africa. The “new density”—the ratio of new firms per 1,000 workers per year—is an additional indicator (along with numbers of new LLC firms) to measure the relative level of entrepreneurial activities in a given country.<sup>10</sup> SSA countries with relatively high levels of entrepreneurship, such as South Africa, Botswana, and Mauritius, achieved a better or equivalent GDP per capita growth since their respective estimated origin-of-entrepreneurship years compared to the period without serious entrepreneurship.<sup>11</sup> Furthermore, the GDP per capita growth of the high-entrepreneurship countries nearly doubled compared to countries with relatively low levels of entrepreneurship, such as

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<sup>8</sup> “Security Issues,” Africa Center for Strategic Studies, Accessed on October 10, 2014, <http://africacenter.org/security/topic/>.

<sup>9</sup> Andrew England and Sonia Jenkins, “African Leaders Warn on Ebola Threat to Continent’s Economies,” *Financial Times*, last updated October 6, 2014, <http://www.ft.com/intl/cms/s/0/e8db31c0-4d70-11e4-9683-00144feab7de.html#axzz3FmE1S2pY>.

<sup>10</sup> Doing Business, “Entrepreneurship,” *The World Bank*, accessed September 5, 2014, <http://www.doingbusiness.org/data/exploretopics/entrepreneurship/methodology>.

<sup>11</sup> World Bank, “GDP per Capita,” Data, accessed September 5, 2014, <http://data.worldbank.org/indicator/NY.GDP.PCAP.CD>.

Niger and Togo (since their origin-of-entrepreneurship year). Using the Freedom Index from Freedom House, all five countries experienced varying degrees of improved political rights and civil liberties since their respective origin-of-entrepreneurship years.<sup>12</sup>

High-entrepreneurship countries also acquired a noticeable difference in social benefits, such as health, transportation, communications, and unemployment, since their origin-of-entrepreneurship years and compared to low-entrepreneurship countries. South Africa, Botswana, and Mauritius recorded triple-digit growth in their health expenditures per capita, more than twenty vehicles per 1,000 people in their countries since their origin-of-entrepreneurship years; they also did much better in these two areas compared to Togo and Niger.<sup>13</sup> Additionally, Botswana and Mauritius's average unemployment rate since the beginning of their entrepreneurship era dropped by more than 1% while Togo and Niger's unemployment virtually remained the same.<sup>14</sup> All five countries involved with some measure of entrepreneurship also improved their mobile cellular subscriptions per 100 people by more than five times since their own origin-of-entrepreneurship years.<sup>15</sup>

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<sup>12</sup> "Freedom in the World," Country Ratings and Status by Year, Random House, accessed September 5, 2014, [http://www.freedomhouse.org/report-types/freedom-world#.VApUb\\_1dXTo](http://www.freedomhouse.org/report-types/freedom-world#.VApUb_1dXTo).

<sup>13</sup> World Bank, "Health Expenditure per Capita," Data, accessed September 5, 2014, <http://data.worldbank.org/indicator/SH.XPD.PCAP>; World Bank, "Motor Vehicles (per 1,000 People)," Data, accessed September 5, 2014, <http://data.worldbank.org/indicator/IS.VEH.NVEH.P3>.

<sup>14</sup> World Bank, "Unemployment Rate," Data, accessed September 5, 2014, <http://data.worldbank.org/indicator/SL.UEM.TOTL.ZS>.

<sup>15</sup> World Bank, "Mobile Cellular Subscriptions per 100 People," Data, accessed September 5, 2014, <http://data.worldbank.org/indicator/IT.CEL.SETS.P2>.

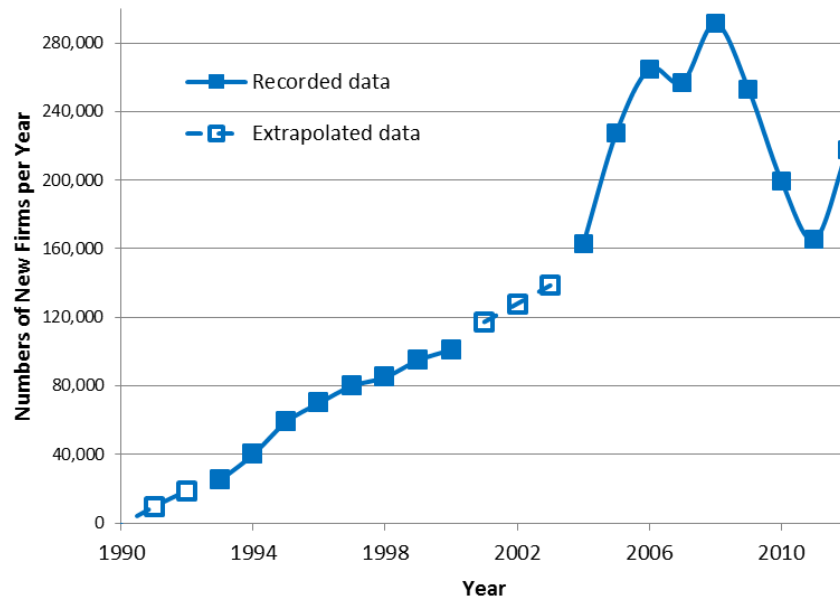


Figure 1. Recorded and extrapolated data of new firms in South Africa.<sup>16</sup>

This thesis primarily discusses the factors of entrepreneurship necessary to achieve economic, political, and social advancement in SSA. It also seeks to understand the levels of five key entrepreneurial factors that contribute to the development of entrepreneurship in SSA. The Legatum Institute indicates that governance, infrastructure, and business environment factors are fundamental to the growth of entrepreneurship, while Robert Looney emphasizes the overwhelming positive relationship between the freedom factor and entrepreneurship.<sup>17</sup> Both Looney and the Legatum Institute suggest that labor also plays a critical role for the growth of entrepreneurship.<sup>18</sup>

<sup>16</sup> GEM 2001 Executive Report provided the number of newly registered firms from 1993 to 2000 in South Africa, Paul D. Reynolds, Michael S. Camp, William D. Bygrave, Erkkö Autio, and Michael Hay, "Global Entrepreneurship Monitor-2001 Executive Report," 16, last updated November 8, 2011, <http://gemconsortium.org/docs/255/gem-2001-global-report>; WBGES supplied the number of new firms from 2004 to 2012 in South Africa, World Bank Group, "Entrepreneurship," Doing Business, The World Bank, accessed September 5, 2014, <http://data.worldbank.org/indicator/NY.GDP.PCAP.CD>.

<sup>17</sup> Legatum Institute, "Entrepreneurship in Sub-Saharan Africa: A Regional Analysis Based upon the 2011 Legatum Prosperity Index," 4–5, <http://www.scribd.com/doc/76417013/Legatum-Prosperity-Index-2011>; Legatum Institute, "The 2013 Legatum Prosperity Index," 40, [http://media.prosperity.com/2013/pdf/publications/PI2013Brochure\\_WEB.pdf](http://media.prosperity.com/2013/pdf/publications/PI2013Brochure_WEB.pdf); Looney, "Entrepreneurship and the Process of Development," 32.

<sup>18</sup> Legatum Institute, "Entrepreneurship in Sub-Saharan Africa 2011," 4; Looney, "Entrepreneurship and Process of Development," 32.

Nevertheless, entrepreneurship is not a guarantee of success. Oleh Havrylyshyn and Thomas Wolf reiterated that if the new class of entrepreneurs, who have gained influences in society due to their gains from the first sets of reforms, become rent-seeking and corrupted, further reforms would be jeopardized.<sup>19</sup> As a result, the growth of the shadow economy would overpower the formal economy, and the vicious circle of development would lead the country into downward spiral.<sup>20</sup>

#### **D. METHODOLOGY**

This study uses quantitative and qualitative approaches and is divided in three phases. First, it uses available quantitative data to determine the economic, political, and social impacts of entrepreneurship in SSA. Second, it uses a comparative case study approach to evaluate the five key entrepreneurial factors to better understand entrepreneurship development in SSA. Third, the thesis uses the analysis to draw conclusions and provide targeted reform recommendations, building on the current academic and professional entrepreneurship literature. The research draws data from primary and secondary sources, including books, scholarly articles, credible journalistic reports, and documents from private and public organizations dealing with economic, political, and social indices in SSA. Examples of potential sources include the World Bank Indicators, the World Economic Forum (WEF) Global Competitiveness Index, the Legatum Institute Prosperity Index, the Milken Institute Capital Access and Global Opportunity Indices, the Freedom House Index, the Global Entrepreneurship Monitor (GEM) project, the Heritage Foundation Economic Freedom Index, and the Center for Systemic Peace Polity IV rankings.

Three levels of entrepreneurship emerged among African countries when the World Bank ease of doing business index (EDBI) ranking in 2013 was plotted against the

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<sup>19</sup> Oleh Havrylyshyn and Thomas Wolf, "Determinants of Growth in Transition Countries," *Finance & Development* 36, no. 2 (1999): 15, <http://search.proquest.com.libproxy.nps.edu/docview/209416121/fulltextPDF/6103F056231F4389PQ/1?accountid=12702>.

<sup>20</sup> Havrylyshyn and Wolf, "Determinants of Growth in Transition Countries," 15.

United Nations' human development index (HDI) ranking in 2013.<sup>21</sup> As seen in Figure 2, countries with better (lower) EDBI and HDI rankings have the necessary infrastructure and environment to produce higher levels of entrepreneurship compared to those countries with worse (higher) rankings. Three SSA countries are chosen out of each of the three groups of entrepreneurship levels for the case study: Botswana from the high-entrepreneurship group (with an average annual number of new LLC firms of 9,699 and an average new density of 8.12 from year 2004 to 2012), Zambia from the medium-entrepreneurship group (with an average annual number of new LLC firms of 5,829 and an average new density of 0.90 from year 2004 to 2012), and Malawi from the low-entrepreneurship group (with an average annual number of new LLC firms of 531 and an average new density of 0.08 from year 2004 to 2009).<sup>22</sup> Despite of the difference in their levels of entrepreneurship, these countries have similar "initial conditions" and qualities, which make them a superior choice for this thesis' case study. All three countries are located in the southern part of Africa, which indicates that their respective cultures are somewhat similar to each other. They all received their independences from the United Kingdom in the mid-1960s, which would approximately equate their experiences related to the impact from the colonial legacy.<sup>23</sup> The three countries are all land-locked, which gives them equal access to global trade. More importantly, as seen in Figure 3, all three countries share the same estimated origin-of-entrepreneurship year of 2001, which makes entrepreneurial comparison even.

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<sup>21</sup> United Nations Development Programme, "Human Development Index;" World Bank, "Ease of Doing Business Index."

<sup>22</sup> Doing Business, "Entrepreneurship." The World Bank Group, accessed September 5, 2014, <http://www.doingbusiness.org/data/exploretopics/entrepreneurship>.

<sup>23</sup> Central Intelligence Agency, "The World Factbook for Botswana, Zambia, and Malawi," Library, last updated June 23, 2014, <https://www.cia.gov/library/publications/the-world-factbook/geos/mi.html>.

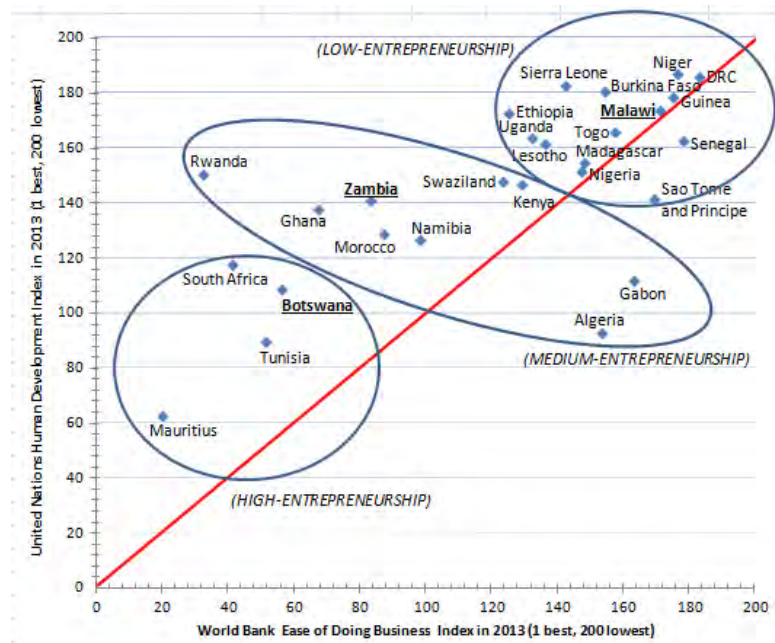


Figure 2. Three groups of entrepreneurship levels in Africa.<sup>24</sup>

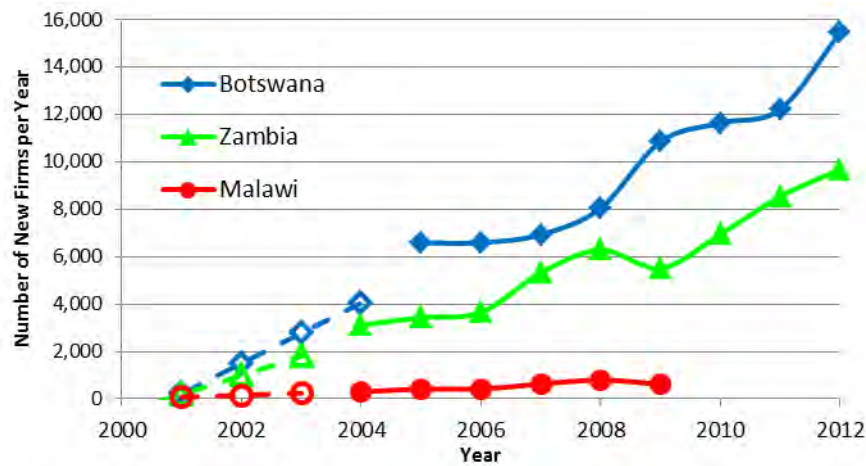


Figure 3. Recorded and extrapolated numbers of new firms in Botswana, Zambia, and Malawi.<sup>25</sup>

<sup>24</sup> United Nations Development Programme, “Human Development Index,” accessed September 5, 2014, <http://hdr.undp.org/en/content/human-development-index-hdi-table>; World Bank, “Ease of Doing Business Index,” Data, accessed September 5, 2014, <http://data.worldbank.org/indicator/IC.BUS.EASE.XQ>.

<sup>25</sup> World Bank, “Entrepreneurship,” Doing Bussing, The World Bank, accessed September 5, 2014, <http://data.worldbank.org/indicator/NY.GDP.PCAP.CD>.

## **E. THESIS OVERVIEW**

This thesis is divided into five chapters. The first chapter introduces the significance of the research question and the proposed hypothesis, which claims entrepreneurship as a viable tool to improve GDP per capita, and political and social sectors in SSA. The second chapter discusses the background of entrepreneurship and entrepreneurs, the relationship between entrepreneurship and economic growth, and the causes for entrepreneurship. Chapter III elaborates the five vital entrepreneurship factors in the developing world. Chapter IV assesses the status of the five key entrepreneurship facts in each of the three African countries to understand the limiting cause for the expansion of entrepreneurship in Africa. It also evaluates the economic, political, and social impacts of entrepreneurship in each of the three African countries discussed in the case studies. Finally, the fifth chapter discusses the dynamics of entrepreneurship development in Africa using the findings from Chapter IV, and delivers potential policy recommendations to address the shortcomings in each country type as conclusion.

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## **II. ENTREPRENEURSHIP AND ECONOMIC GROWTH IN THE DEVELOPING WORLD**

Much literature and information address entrepreneurship in the developed world; however, there are only limited discussions about entrepreneurship in developing world due to their cultural barriers, weak institutions, a lack of access to capital, and missing infrastructure.<sup>26</sup> Contrary to the idea that entrepreneurship cannot be an effective tool to grow the economy and society in SSA, this research evaluates the available data related to entrepreneurship in this part of the world and determines the various impacts of entrepreneurship (even though the volume of impacts from entrepreneurship in developing countries may not be comparable to the developed world). Depending on the field of research, the definitions of an entrepreneur, the causes of entrepreneurship, and the relationship between entrepreneurship and economic growth greatly differ. To establish a basis to analyze the impact of entrepreneurship on the economy, politics, and society in SSA, this chapter starts with a definition of entrepreneurship, types of entrepreneurship, kinds of entrepreneurs, and categories of entrepreneurship. Then, it looks at the relationship between entrepreneurship and economic growth through historical perspectives and in different economic development stages. Lastly, it investigates the causes of entrepreneurship which can significantly vary for the developed and non-developed world.

### **A. ENTREPRENEURSHIP AND ENTREPRENEURS**

In academia, entrepreneurship can have two meanings: occupation and behavior.<sup>27</sup> Running a personal business of any size is an example of occupational entrepreneurship. While forming a new company represents an active part of the occupational notion of entrepreneurship, owning a business constitutes a passive nature

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<sup>26</sup> Zoltan J. Acs and Nicola Virgill, "Chapter 18: Entrepreneurship in Developing Countries," in *Handbook of Entrepreneurship Research: an Interdisciplinary Survey and Introduction*, ed. by Zoltan J. Acs and David B. Audretsch, 2<sup>nd</sup> ed., (New York: Springer, 2010), 507.

<sup>27</sup> Zoltan J. Acs, "How is Entrepreneurship Good for Economic Growth?," *Innovations* (2006): 105, <http://www.mitpressjournals.org/doi/pdf/10.1162/itgg.2006.1.1.97>.

of occupational entrepreneurship.<sup>28</sup> On the other hand, the bold character of an individual grabbing an economic opportunity in spite of the uncertain consequence of his or her action characterizes the behavioral entrepreneurship.<sup>29</sup> In this case, the individual engaged in entrepreneurial behavior can be a different person from the business owner (such as a lead scientist of the research and development division of a large corporation). The combination of behavioral entrepreneurship and the active part of occupational entrepreneurship results in a new possible “venture creation,” which is the essence of the meaning of entrepreneurship and can manifest itself in terms of start-ups, spin-offs, acquisitions, and corporate ventures.<sup>30</sup>

Understanding the different definitions of entrepreneurship in academia also brings forth the wide ranges of influences entrepreneurship has in modern societies. In a general sense, entrepreneurship is defined as the process of discovering, evaluating, and exploiting opportunities for individual gain.<sup>31</sup> Using the microeconomic lens, entrepreneurship is the choice of individuals “to perceive and create new economic opportunities” and “to introduce their ideas to the market” despite the involved risks.<sup>32</sup> At the macroeconomic level, as Schumpeter stressed, entrepreneurship is the heart and soul of economic development through innovation.<sup>33</sup> Although the above definitions have a slight twist depending on the angle from which entrepreneurship is viewed, there are common denominators: opportunities for economic gain are spotted and an actor takes a risk to exploit new ideas in the marketplace.

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<sup>28</sup> Acs, “How is Entrepreneurship Good for Economic Growth,” 105.

<sup>29</sup> Martin A. Carree and A. Roy Thurik, “Chapter 20: The Impact of Entrepreneurship on Economic Growth,” in *Handbook of Entrepreneurship Research: An Interdisciplinary Survey and Introduction*, edited by Zoltan J. Acs and David B. Audretsch, 2<sup>nd</sup> ed., (New York: Springer, 2010), 565.

<sup>30</sup> Acs, “How is Entrepreneurship Good for Economic Growth?” 105.

<sup>31</sup> Ibid.

<sup>32</sup> Carree and Thurik, “Impact of Entrepreneurship on Economic Growth,” 564–65.

<sup>33</sup> Marco Vivarelli, “Is Entrepreneurship Necessarily Good? Microeconomic Evidence from Developed and Developing Countries,” *Industrial and Corporate Change* 22, no. 6 (2013), 1455, <http://icc.oxfordjournals.org/content/23/1/91.full.pdf+html>.

## 1. Types of Entrepreneurship

Different motivations by entrepreneurs produce various types of entrepreneurship. The action of an individual with an entrepreneurial ambition can be seen through three types of entrepreneurship: Schumpeterian, Kirznerian, and Knightian.<sup>34</sup> Schumpeterian entrepreneurship centers on the role of innovation introduced by entrepreneurs.<sup>35</sup> Innovation can focus on new products, new processes, or new markets, and it can be a small or large invention. Kirznerian (or neo-Austrian) entrepreneurship is the “process of acting upon a previously unnoticed profit opportunity.”<sup>36</sup> In this Kirznerian role, entrepreneurs do not have to invent new things before engaging in entrepreneurship; they can use their past skills in a new environment to take advantage of the new situation for economic gain. Knightian entrepreneurship emphasizes the role of risk and uncertainty assumed by entrepreneurs.<sup>37</sup> Even if new ideas or products seem to meet the needs of consumers, the probability of failure cannot be fully dismissed from the entrepreneurial activity before the innovation is tested by the market. For example, the new innovation can be outflanked by a competitor who brought the new product first to the market.

## 2. Kinds of Entrepreneurs

The comprehension of kinds of entrepreneurs suggests the nature of entrepreneurship and the scale of potential economic growth from entrepreneurial activities. Schumpeterian entrepreneurs, “intrapreneurs,” and managerial business owners make up the majority of entrepreneurs.<sup>38</sup> First, Schumpeterian entrepreneurs are self-employed individuals who take on the entrepreneurial and managerial roles in their new small firms as they engage in the business of innovation and creative destruction of the

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<sup>34</sup> Carree and Thurik, “Impact of Entrepreneurship on Economic Growth,” 566.

<sup>35</sup> Ibid.

<sup>36</sup> Randall G. Holcombe, “Entrepreneurship and Economic Growth,” *The Quarterly Journal of Austrian Economics* 1, no. 2 (1998): 46, <http://link.springer.com/article/10.1007%2Fs12113-998-1008-1?LI=true>.

<sup>37</sup> Carree and Thurik, “Impact of Entrepreneurship on Economic Growth,” 566.

<sup>38</sup> Sander Wennekers and Roy Thurik, “Linking Entrepreneurship and Economic Growth,” *Small Business Economics* 13 (1999): 47, <http://link.springer.com/article/10.1023/A:1008063200484>.

current market.<sup>39</sup> Through their disruptive technologies, Schumpeterian entrepreneurs can generate significant value to the economy, which is the case for most developed economies. Second, intrapreneurs (or entrepreneurial managers) are similar to Schumpeterian entrepreneurs, the only difference being the source of their employment. The former is an employee of a corporation while the latter is self-employed. Intrapreneurs receive a mandate from their employers to engage in certain commercial enterprises using their entrepreneurial zeal, which expose them to the risk of losing their reputation, jobs, and time in case of a failure.<sup>40</sup> Third, managerial business owners are self-employed, but they use more of their managerial, instead of entrepreneurial, skills to run their businesses.<sup>41</sup> Examples of this type of entrepreneur include the franchise owners and private firms of professional occupations such as law and medicine. The majority of the household enterprises entrepreneurs, who are prevalent in developing countries, fall into the category of managerial business owners since innovative technology is not found at the basis of their new businesses.<sup>42</sup>

### **3. Categories of Entrepreneurship**

A survey of the academic literature from the entrepreneurship community indicates four major categories of entrepreneurship: social or commercial, informal or formal, illegal or legal, and necessity or opportunity. Social and commercial entrepreneurship share the same use of innovation to achieve their goals, but their differences are related to their respective missions, relations to market failure, resource mobilizations, and performance measurements.<sup>43</sup> The primary goal of social entrepreneurship is to deliver social value to the public while commercial

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<sup>39</sup> Wennekers and Thurik, "Linking Entrepreneurship and Economic Growth," 47.

<sup>40</sup> Ibid., 48.

<sup>41</sup> Wennekers and Thurik, "Linking Entrepreneurship and Economic Growth," 48.

<sup>42</sup> Louise Fox and Thomas P. Sohnesen, "Household Enterprises in Mozambique: Key to Poverty Reduction but Not on Development Agenda?," The World Bank Policy Research Working Paper 6570, last updated August 2013, [http://papers.ssrn.com/sol3/papers.cfm?abstract\\_id=2310451](http://papers.ssrn.com/sol3/papers.cfm?abstract_id=2310451).

<sup>43</sup> James Austin, Howard Stevenson, and Jane We-Skillern, "Social and Commercial Entrepreneurship: Same, Different, or Both?," *Entrepreneurship Theory and Practice* (2006): 2. <http://onlinelibrary.wiley.com/doi/10.1111/j.1540-6520.2006.00107.x/full>.

entrepreneurship aims to increase profit for personal and shareholder's wealth.<sup>44</sup> Entrepreneurship can also be formal or informal which can be determined by the firm's registration status.<sup>45</sup> In addition, new entrepreneurial activity can be legal or illegal depending on the law of the land and the conformity of the firm's operations related to the country's law.<sup>46</sup>

Finally, environmental factors dictate the difference between necessity and opportunity entrepreneurship.<sup>47</sup> Necessity entrepreneurship is usually driven by displeasure with low salary, a fear of unemployment, or pure unemployment, while profitability, technological innovation, and market opportunities are the drivers for opportunity entrepreneurship.<sup>48</sup> Necessity entrepreneurship is widespread in developing countries and tends to be small scale, and often informal, because of the low level of education of the entrepreneurs (and a great means to earn daily living). On the other hand, opportunity entrepreneurship is more common in developed countries, usually integrated in the formal sector, and hires larger number of employees due to the new technology breakthrough as the source of the new venture. Antoinette Schoar rejects a favorite policy assumption to improve the economy of developing country that necessity entrepreneurship (or subsistence entrepreneurship) will evolve into opportunity entrepreneurship (or transformational entrepreneurship) due to overburdened regulation and limited access to capital.<sup>49</sup> Her analysis showed that only a handful of necessity entrepreneurs managed to transition to transformational entrepreneurship over time.<sup>50</sup>

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<sup>44</sup> Austin, Stevenson, and We-Skillern, "Social and Commercial Entrepreneurship," 3.

<sup>45</sup> Sameeksha Desai, "Measuring Entrepreneurship in Developing Countries," United Nations University Research Paper no. 2009/10, March 2009, 2, <http://scar.gmu.edu/publication/measuring-entrepreneurship-developing-countries>.

<sup>46</sup> Desai, "Measuring Entrepreneurship in Developing Countries," 2–3.

<sup>47</sup> Vivarelli, "Is Entrepreneurship Necessarily Good?," 1457.

<sup>48</sup> Ibid.

<sup>49</sup> Antoinette Schoar, "The Divide between Subsistence and Transformational Entrepreneurship," *Innovation Policy and the Economy* 10, no.1 (2010): 71, 75, <http://www.jstor.org/stable/10.1086/6055853>.

<sup>50</sup> Ibid.

#### 4. Causes of Entrepreneurship

Several economic and social factors at the individual and national level cause a person or a country to pursue entrepreneurship. From an individual perspective, the economic drivers for entrepreneurship included a source of employment, a mitigation to fear of being unemployed, an additional stream of salary, and personal ambitions while the social factors consisted of a path for upward mobility and fighting rural poverty. In SSA, necessity entrepreneurship such as household enterprises provides self-employment, which is exemplified by the 60% of people who owned household enterprises in Mozambique.<sup>51</sup> In some instances, the move to start entrepreneurship was associated with unpredictable career prospects due to weak economy, demonstrated by 22% of new British entrepreneurs and “latent” Japanese entrepreneurs at the end of the 1990s.<sup>52</sup> To complement low wages or to increase household consumption is another reason to start entrepreneurship which was practiced by 33% of farming household in Mozambique in 2009.<sup>53</sup> Personal ambitions, such as perceived technological innovations for prosperity and higher social status, could also cause people to engage in entrepreneurship.<sup>54</sup>

On the social side, necessity entrepreneurship provided an opportunity for upward mobility as more income was accumulated with the individual. In Mozambique, rural household with household enterprises as primary employment advanced 23 percentiles in relative wealth, while urban households recoded 10 percentiles progress.<sup>55</sup> Furthermore, necessity entrepreneurship could be a formidable tool for poverty reduction in rural areas. For rural households in Mozambique, 44% who held household enterprises as their primary employment moved out of poverty in 2008 compared to 18% who never started a household enterprise.<sup>56</sup>

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<sup>51</sup> Fox and Sohnesen, “Household Enterprises in Mozambique,” 8.

<sup>52</sup> Vivarelli, “Is Entrepreneurship Necessarily Good?” 1461.

<sup>53</sup> Fox and Sohnesen, “Household Enterprises in Mozambique,” 8.

<sup>54</sup> Vivarelli, “Is Entrepreneurship Necessarily Good?,” 1462–63.

<sup>55</sup> Fox and Sohnesen, “Household Enterprises in Mozambique,” 16.

<sup>56</sup> *Ibid.*, 18.

At the national level, SSA countries promoted entrepreneurship to achieve economic and social goals. The Mauritian government adopted an entrepreneurial strategy, captured in its Economic and Social Transformation Plan, to mitigate future growth challenges and to move the country into the high-income country bracket by 2024.<sup>57</sup> In Mozambique, entrepreneurship education in the secondary education was used to fight youth unemployment and to reintegrate former civil war warriors and refugees into the main society.<sup>58</sup> By instilling life and entrepreneurial skills in students at young age and integrating entrepreneurial concepts into technical and vocational education and training, the Mozambican government hoped to develop a pool of young entrepreneurs that can generate self-employment or even small firms after the completion of their formal education.

## **B. ENTREPRENEURSHIP, ECONOMIC GROWTH, AND DEVELOPMENT STAGES**

This section examines the history of entrepreneurship as it relates to economic growth in the developing world. Moreover, the relationship between entrepreneurship and economic growth varies depending on the development stages of the developing country.

### **1. Historical Perspective**

Although import substitution industrialization (ISI) and export promotion succeeded in East Asia thanks to the support of governmental and big business capacity, similar capabilities were missing in other parts of the developing world which led to the emphasis on entrepreneurship development for economic strategy. Meanwhile in the developed world, large firms have continued to dominate industries and the economy since the late ninetieth century thanks to the exploitation of “economies of scale and scope” in production. However, in the mid-1970s they started to lose their competitive

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<sup>57</sup> Economic Report on Africa, “Country Case Study: Mauritius,” 2014, 2.

<sup>58</sup> Alicia Robb, Alexandria Valerio, and Brent Parton, “Entrepreneurship Education and Training: Insights from Ghana, Kenya, and Mozambique,” World Bank, Study 88657 (2014): 33, 40, <https://openknowledge.worldbank.org/bitstream/handle/10986/18776/886570PUB0978100Box385230B00PUBLIC0.pdf?sequence=1>.

edges to agile, new, and small entrepreneurial companies.<sup>59</sup> As the self-employment rate steadily rose mostly in high-technology from the 1970s to the 1990s due to entrepreneurial activity, large firms downsized and restructured their operations to focus on their main business specialties.<sup>60</sup> Seven reasons were behind the ascendancy of small businesses in developed economies: creative destruction in new industries such as software and biotechnology; scale economies becoming obsolete by new technologies; worldwide attraction to deregulation and privatization; pivoting of large firms to “core competences;” the rise of new kinds of demand due to increasing riches; shifting of perception favoring self-employment over wage-earning occupation; and the growth of the service sector job percentage.<sup>61</sup> The change of dynamics in industries allowed entrepreneurship to become an important factor in the economy.

Entrepreneurship driven by innovation, competition, and new firms produced new products or services which delivered economic growth.<sup>62</sup> Schumpeterian entrepreneurs had the potential to introduce new efficiency and economic viability with their new inventions, which could help increase productivity in society. New firms created by creative individuals or birthed as a venture of larger firms could also bring their new ideas to the market to measure their usefulness, and if successful they could create healthy competition in their economic sectors which would produce further innovations. As more new companies prospered, more people were pulled out of less-efficient employment or unemployment. The increase of the percentage of productive people in society increased the overall output of society, which generated the economic growth from entrepreneurship.

Nevertheless, entrepreneurial activities by managerial business owners, necessity entrepreneurs, and entrepreneurs turned rent-seekers would not produce sustained economic growth. Managerial business owners would not contribute to the growth of the economy due to their lack of innovations even though they provided new employment

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<sup>59</sup> Carree and Thurik, “Impact of Entrepreneurship on Economic Growth,” 561–62.

<sup>60</sup> Ibid., 562–63.

<sup>61</sup> Ibid., 563–64.

<sup>62</sup> Ibid., 567.

and useful services to the general population.<sup>63</sup> Similarly, since the majority of necessity entrepreneurship was born out of unemployment or fear of becoming unemployed, the absence of new products and new services limited its ability to make significant impact in the overall progress of the economy. Specifically, a large percentage of necessity entrepreneurship have failed to transition to opportunity entrepreneurship in developing countries even though they provided local population a means to feed themselves.<sup>64</sup> After the initial growth, if innovative entrepreneurs became close to the government and turned into rent-seekers instead of creating new inventions, their actions would produce a “vicious circle” blocking political and economic reforms to attain additional economic growth for the future.<sup>65</sup>

## 2. Development Stages

Economic growth and economic development are sometimes used interchangeably to measure the progress, modernization, and industrialization of a given country’s economy, but a survey of literature exposed differences between the two terms. A country’s GDP per capita—total production output divided by total number of citizens per year—is the most common way to quantitatively evaluate economic growth.<sup>66</sup> Two contemporary strategies to achieve economic growth in developing and transitional countries have emerged: orthodox and heterodox. The orthodox model, such as the “Washington Consensus” of the 1980s, recommended a list of precise policies for an economic growth recipe.<sup>67</sup> Alternatively, the heterodox approach, exemplified by the Chinese and Indian reforms, promoted flexible policies, fit to a country’s unique context, that emphasized the end goals instead of the methods to achieve growth.<sup>68</sup>

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<sup>63</sup> Carree and Thurik, “Impact of Entrepreneurship on Economic Growth”, 567.

<sup>64</sup> Schoar, “Divide between Subsistence and Transformational Entrepreneurship,” 59.

<sup>65</sup> Looney, “Entrepreneurship and the Process of Development,” 33.

<sup>66</sup> Dwight H. Perkins et al., *Economics of Development*, 7<sup>th</sup> ed., Chapter 5, “States and Markets,” (New York: W.W. Norton, 2013), 24–25.

<sup>67</sup> Perkins et al., *Economics of Development*, 146.

<sup>68</sup> Dani Rodrik, *One Economics, Many Recipes: Globalization, Institutions, and Economic Growth*, Chapter 1, “Fifty Years of Growth (and Lack Thereof): An interpretation,” (Princeton, NJ: Princeton University Press, 2009), 15.

On the other hand, the notion of economic development is more qualitative; describing the living standards of a given country's population including education, healthcare, technology, infrastructure, and others; but is captured in a number called the human development index (HDI).<sup>69</sup> Michael Porter described the three stages of economic development: factor-driven, efficiency-driven, and innovation-driven economies.<sup>70</sup> Factor-driven economies (generally observed in low-income countries) are focused around assembly, labor-intensive manufacturing, and resource extraction while manufacturing and service exports are the foundations for efficiency-driven economies (usually found in medium-income countries).<sup>71</sup> Innovative products and services powered by the latest technology are the hallmarks of innovation-driven economies (made up of high-income countries).<sup>72</sup>

According to the GEM research program, the entrepreneurship and economic development displayed a “U-shaped relationship” on a global scale.<sup>73</sup> Necessity entrepreneurship was high with countries in factor-driven economies, such as the low-income countries in SSA, to provide self-employment to make up for the lack of attractive industrial jobs. As manufacturing firms grew and supplied people with secure jobs, the level of necessity entrepreneurship dropped with countries in efficiency-driven economies such as South Africa. The opportunity entrepreneurship picked up again with countries in innovation-driven economies, such as the western developed countries, because of the expansion of the service sector relative to manufacturing, the prominence of technology, and a high value of elasticity of factor substitution, which led to increased capital per population and ease of becoming an entrepreneur.

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<sup>69</sup> Perkins et al., *Economics of Development*, 40–41.

<sup>70</sup> Michael E. Porter, “Enhancing the Microeconomic Foundations of Prosperity: The Current Competitiveness Index,” edited by Klaus Schwab in *The Global Competitiveness Report 2001–2002* (2002): 58, <http://www.nectec.or.th/pld/indicators/documents/WEF-%20Global%20Competitiveness%20Report%202001.pdf>.

<sup>71</sup> Porter, “Enhancing the Microeconomic Foundations of Prosperity,” 58.

<sup>72</sup> Ibid.

<sup>73</sup> Acs, “How is Entrepreneurship Good for Economic Growth?,” 100.

### C. MEASUREMENTS OF ENTREPRENEURSHIP

The literature review of the entrepreneurship community shows that different groups used different entrepreneurship measurements to capture the variety of entrepreneurial activities in different countries. Self-employment and new firm creation or registration are the most popular tools, but other indices such as the Young Business (YB) indicator, and the Total early-stage Entrepreneurial Activity (TEA) index are also used to attempt capturing the total volume of entrepreneurship. Since most entrepreneurs are self-employed, the self-employment data (“official self-reported employment”) seems like a natural measurement of entrepreneurship and can be easily compared across different countries.<sup>74</sup> The exclusion of informal (unreported) entrepreneurship and the skewing effect produced by the large intersection of self-employment and necessity entrepreneurship in developing countries represent the weaknesses of self-employment data as a measurement for entrepreneurship, which suggests that self-employment data could be a gauge for “entrepreneurial potential.”<sup>75</sup>

The TEA index, WBGES, and YB index attempt to measure the number of newly created or registered firms through self-employment data in the formal, informal or both sectors without losing the feature of cross-countries comparison. The Global Entrepreneurship Monitor (GEM) project tries to measure new firm creation with “early-state entrepreneurship” data while the WBGES collects the number of new registered limited liability corporations (LLC).<sup>76</sup> GEM’s TEA index is made up of two groups: nascent and baby entrepreneurship.<sup>77</sup> The nascent entrepreneurship calculates the percentage of adults (18–64 years old) actively preparing for a new business, and the baby entrepreneurship counts the adults’ percentage currently running a business that is three and a half years old or younger.<sup>78</sup> The three types of TEA rates are necessity,

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<sup>74</sup> Desai, “Measuring Entrepreneurship in Developing Countries,” 5.

<sup>75</sup> Ibid.

<sup>76</sup> Ibid.

<sup>77</sup> Natasha Turton and Mike Herrington, “Global Entrepreneurship Monitor 2012-South Africa,” 13, last updated April 25, 2013, <http://gemconsortium.org/docs/2801/gem-south-africa-2012-report>.

<sup>78</sup> Desai, “Measuring Entrepreneurship in Developing Countries,” 5.

opportunity, and high-growth.<sup>79</sup> The critique of the TEA index measurement points to an overestimation of the level of entrepreneurial activity due to non-automatic evolution of nascent entrepreneurship into baby entrepreneurship or new firms.<sup>80</sup> The WBGES measurement is also limited because it misses new firms in the informal sector by definition and non-LLC form of entrepreneurial activities.<sup>81</sup> The YB index measures the percentage of adults who won or manage a new business which is three and a half years or younger.<sup>82</sup> In this manner, the YB index avoids including the number of potential entrepreneurship speculator without discarding actual entrepreneurs in the informal sector, but the YB index has been rarely used in the rest of the entrepreneurship literature.<sup>83</sup>

#### **D. DEBATE ON ENTREPRENEURIAL DEVELOPMENT STRATEGY**

The main debate about entrepreneurship policies in developing countries revolves around the promotion of opportunity entrepreneurship versus necessity entrepreneurship. On the one hand, certain groups advocate for opportunity entrepreneurship because a strategy to develop both types of entrepreneurship would not efficiently allocate the scarce resources of the country. Therefore, a “deliberate and selective” policy to help innovative entrepreneurs in high-growth sectors needs to be adopted by the developing government.<sup>84</sup> The discovery of little transition from necessity entrepreneurship to opportunity entrepreneurship supports this argument.<sup>85</sup> Opportunity entrepreneurship also has the potential to produce significant growth to the national economy, which will benefit the whole nation.

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<sup>79</sup> Poh Kam Wong, Yuen Ping Ho, and Erkkö Autio, “Entrepreneurship, Innovation and Economic Growth: Evidence from GEM data,” *Small Business Economics* 24 (2005): 340, DOI 10.1007/s11187-005-2000-1.

<sup>80</sup> Desai, “Measuring Entrepreneurship in Developing Countries,” 5.

<sup>81</sup> Desai, “Measuring Entrepreneurship in Developing Countries,” 5.

<sup>82</sup> Erik Stam and Andre J. van Stel, “Types of Entrepreneurship and Economic Growth,” United Nations University Research Paper no. 2009/27 (2009): 3, <http://hdl.handle.net/10419/45113>.

<sup>83</sup> Stam and van Stel, “Types of Entrepreneurship and Economic Growth,” 3.

<sup>84</sup> Vivarelli, “Is Entrepreneurship Necessarily Good?,” 1477.

<sup>85</sup> Schoar, “Divide between Subsistence and Transformational Entrepreneurship,” 63.

On the other hand, others recommend government include the development of necessity entrepreneurship (or household enterprises), without denying the chances for opportunity entrepreneurs, as a pillar of the national development strategy.<sup>86</sup> Household enterprises have shown in Mozambique to be an effective tool to reduce poverty and to develop a sense of control of destiny on the part of the population despite of weak governance and institutions.<sup>87</sup> Key institutions need time to mature, and workers require a period of time to acquire the necessary education and training for success in high-technology dominated work environment. Promoting necessity entrepreneurship could be attractive to government looking for a heterodox approach because social costs on the population are reduced, via the capability to conduct household enterprises, while political and economic reforms were being developed. Continuous improvement in the finance access, the business environment, the infrastructure, the education, and the political stability are also needed whether necessity or opportunity entrepreneurship is pursued.<sup>88</sup>

## **E. CONCLUSION**

Possessing a concise understanding of the definition, types, categories, and measurement of entrepreneurship and the kinds of entrepreneurs helps to better frame the analysis of the possibility of entrepreneurship to produce economic, political, and social improvement in SSA. The increased productivity of workers, via innovations, competition, and new firms, through entrepreneurship is at the heart of the relationship between entrepreneurship and economic growth even though most of the entrepreneurship in Factor-driven economies, such as SSA, would mostly be necessity entrepreneurship. Source of employment, path for upward mobility, and personal ambitions contribute to the individual economic cause to pursue entrepreneurship. Socially, entrepreneurship can be a useful tool to reduce poverty in rural areas. At the national level, entrepreneurship tends to be used as mitigation to future growth obstacles

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<sup>86</sup> Fox and Sohnesen, "Household Enterprises in Mozambique," 24.

<sup>87</sup> Ibid., 19.

<sup>88</sup> Ibid., 24.

or integrating previously displaced population into the mainstream society. The policy debate about entrepreneurship in developing countries centers on the prioritization of necessity versus opportunity entrepreneurship. One group insists that opportunity entrepreneurship should take precedence over country's limited resources because it has the potential to deliver a high growth for the economy and large number of jobs through innovations. Another group, however, advocates the nation-wide promotion of necessity entrepreneurship, without stopping the possibility of opportunity entrepreneurship, because it is an efficient tool to reduce poverty through self-employment and provides time to mature the development of key economic and political institutions without too much social costs. Based on the literature research, while the economic benefits of entrepreneurship have been articulated in different studies, the political and social effects from the growth of entrepreneurship in African countries were not adequately addressed. The debate about which key factors contribute to the growth of entrepreneurship in SSA continued to be investigated.

### **III. FIVE ENTREPRENEURIAL FACTORS IN THE DEVELOPING WORLD**

While several factors can have significant impacts on the development of entrepreneurship in Innovation-driven economies, a number of studies pointed to five key factors that have the potential to bolster entrepreneurship with African countries in factor- and efficiency-driven stages. The freedom factor includes trade freedom, business freedom, and freedom from corruption. The labor factor consists of the confidence, health, education, and general culture of a country's labor force. Communications, transportation, electricity, security, social capital, and technological readiness make up the third entrepreneurial factor: infrastructure. The fourth factor, governance, is a combination of the rule of law, the research and development investment, and entrepreneurial programs. The last factor, business environment, takes into account the role of regulation, access to capital, and the indicators for doing business to facilitate the growth of entrepreneurship in a given country.

#### **A. FREEDOM**

The ability to freely trade and conduct business with minimum interference from corruption plays a vital role in the growth of entrepreneurship in Africa. The level of trade freedom and business freedom in factor-driven countries (and countries in transition from factor to efficiency) represented more than 50% of changes in entrepreneurship.<sup>89</sup> According to the Heritage Foundation, trade freedom consists of tariff and non-tariff barriers, such as quantity, price, regulation, investments, and customs restrictions and direct government intervention that influence imports and exports of goods and services between countries.<sup>90</sup> Similarly, business freedom indicates the level of governmental efficiency for business regulation, which includes opening and closing a business and

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<sup>89</sup> Looney, "Entrepreneurship and the Process of Development," 32.

<sup>90</sup> "Trade Freedom," 2014 Index of Economic Freedom, *The Heritage Foundation*, accessed September 4, 2014, <http://www.heritage.org/index/trade-freedom>.

obtaining licenses.<sup>91</sup> Fast access to business license combined with an accommodating procedure for establishing a new business and a great potential market with exports paves a considerable opportunity for entrepreneurship to thrive. Freedom from corruption also helps entrepreneurship to grow especially in efficiency-driven economies.<sup>92</sup>

## **B. LABOR**

The worker's confidence, health, education, and culture have also significant impacts on a country's entrepreneurial activities. According to the Legatum Institute, the confidence of citizens was measured by their belief that prosperity could be attained through hard work and their country was a favorable location to start a profitable new business.<sup>93</sup> A population with a high confidence is more likely to be engaged in entrepreneurship, regardless of the rate of success, than a nation with a low level of citizen's confidence. Additionally, the health and education of the labor force are critical to the rise of entrepreneurship because entrepreneurs need healthy workers to undertake the production of goods and the delivery of services and educated employees to generate innovation and to integrate the latest technologies in new firms.<sup>94</sup> Research by the Legatum Institute reinforces the link between health and economic growth as seen in the poor performance of students in schools or workers at workplaces if they are unhealthy.<sup>95</sup> For Efficiency-driven countries, higher education and training are needed to achieve higher productivity in new firms to take advantage of scaled manufacturing.<sup>96</sup>

Moreover, the national culture could also have a positive or negative impact on entrepreneurship depending of the perceptions, values, and norms of the society.<sup>97</sup> If a society values wage earning employment and avoids risk-taking behavior, then a stigma

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<sup>91</sup> "Business Freedom," 2014 Index of Economic Freedom, The Heritage Foundation, accessed September 4, 2014, <http://www.heritage.org/index/business-freedom>.

<sup>92</sup> Looney, "Entrepreneurship and the Process of Development," 32.

<sup>93</sup> Legatum Institute, "Entrepreneurship in Sub-Saharan Africa," 4.

<sup>94</sup> Ibid., 8.

<sup>95</sup> Legatum Institute, "The 2014 Legatum Prosperity Index Report," accessed on February 6, 2015, 24, [http://media.prosperity.com/2014/pdf/publications/PI2014Brochure\\_WEB.pdf](http://media.prosperity.com/2014/pdf/publications/PI2014Brochure_WEB.pdf).

<sup>96</sup> Turton and Herrington, "Global Entrepreneurship Monitor 2012-South Africa," 15.

<sup>97</sup> Acs and Virgill, "Entrepreneurship in Developing Countries," 493.

will be associated with entrepreneurs, which could further discourage potential people from starting their own businesses. On the other hand, if people are looking to control their own destiny, supported by the role of ethnic minority, then culture becomes an enhancing factor to jump into entrepreneurship.<sup>98</sup>

### **C. INFRASTRUCTURE**

Different types of infrastructure such as communications, transportation, electricity, security, social capital, and technological readiness could have great effects on entrepreneurship in developing countries. Good communications networks are necessary to effectively conduct entrepreneurial activities because they allow entrepreneurs to search for the best possible prices of commodities, to reduce business transaction costs, and to link up with regional and global markets for their services and goods.<sup>99</sup> Furthermore, without adequate transportation infrastructure, the chance for entrepreneurship to develop is reduced to the potential high cost of shipping. A study by the World Bank shows that an increase of 25% of trade can be obtained with only a 10% reduction of transportation cost.<sup>100</sup> The absence or the unreliability of electricity could also significantly hamper entrepreneurial businesses, which was experienced by 56% of household enterprises owners in Mozambique.<sup>101</sup>

In addition, the lack of security, especially for necessity entrepreneurs, is a major deterrence to start a new business due to the low risk of business survival and potential loss of livelihood associated with crimes.<sup>102</sup> The level of social capital can also foster a better environment for entrepreneurship to grow. Legatum Institute research discovered that a high level of social capital can lead to higher measure of innovations and entrepreneurship due to the increased amount of helping, trusting, and cooperating among

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<sup>98</sup> Vivarelli, "Is Entrepreneurship Necessarily Good?," 1475.

<sup>99</sup> Legatum Institute, "Entrepreneurship in Sub-Saharan Africa," 5.

<sup>100</sup> Ibid.

<sup>101</sup> Fox and Sohnesen, "Household Enterprises in Mozambique," 24.

<sup>102</sup> Ibid., 19–20.

various people including entrepreneurs and investors.<sup>103</sup> As entrepreneurs from high social capital countries like to protect their reputations while doing business, the high level of trust can potentially reduce transaction and monitoring costs from investors and will bolster more entrepreneurship support.<sup>104</sup> Lastly, a high level of technological readiness, especially in efficiency-driven countries, could increase entrepreneurship as new firms incorporate the latest technologies—information and communications for example—in their processes for more efficient and higher productivity.<sup>105</sup> Consequently, the investment in technology will make firms more competitive and profitable relative to their competitors.<sup>106</sup>

#### **D. GOVERNANCE**

The role of government, measured in terms of the rule of law, research and development (R&D) investment, and entrepreneurship programs, has significant ramifications for the promotion or demotion of entrepreneurship in a given country. A high level of the rule of law fostered strong entrepreneurship because entrepreneurs enjoy the protection of their intellectual properties, enforcement of contracts, and punishment of illegal gains by others from their inventions.<sup>107</sup> A functional and fair legal process incentivizes entrepreneurs to take calculated risks in their entrepreneurial adventure, for they know that their investments could not be easily squandered. Key institutions such as courts, the patent office or similar arbitrating organizations need to be objective and transparent with their application of the rule of law to increase the confidence of entrepreneurs, which could encourage other undecided inventors to participate in the national entrepreneurial activities. The Legatum Institute takes the rule of law along with an effective and accountable government, fair elections, and political participation to a

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<sup>103</sup> Legatum Institute, “The 2013 Legatum Prosperity Index Report,” accessed September 9, 2014, 41, [http://media.prosperity.com/2013/pdf/publications/PI2013Brochure\\_WEB.pdf](http://media.prosperity.com/2013/pdf/publications/PI2013Brochure_WEB.pdf).

<sup>104</sup> Legatum Institute, “The 2013 Legatum Prosperity Index Report,” 41.

<sup>105</sup> Looney, “Entrepreneurship and the Process of Development,” 32.

<sup>106</sup> Ibid.

<sup>107</sup> Legatum Institute, “Entrepreneurship in Sub-Saharan Africa,” 6.

higher level within its sub-index of governance because citizens of an effective, accountable, and fair government tend to be more economically productive.<sup>108</sup>

Government could also invest in R&D expenditures to spur innovation and knowledge in the country which could increase the probability of entrepreneurial activities.<sup>109</sup> Other sectors of the economy may benefit from the R&D investment through knowledge spillover that could reduce costs of services and enhance access to information and new markets. Finally, the existence of a nation-wide program to promote entrepreneurship could help mobilize a grass-roots effort to develop entrepreneurs nationally.<sup>110</sup> The government's entrepreneurship program also sends a strong signal to prospective investors (domestic and foreign) that the state is serious about developing the private sector and the opportunity for growth is more realistic than ever.

#### **E. BUSINESS ENVIRONMENT**

The business environment factor is composed of regulation, access to capital, and the day-to-day elements of doing business. A good business environment assists entrepreneurship to grow because it provides new firms with a set of vital resources that allows them to further develop from inception. An efficient and flexible labor market, especially in Efficiency-driven countries, helps to increase entrepreneurship because of the fast ability to move workers around different economic sectors (depending on the needs of the economy) without exorbitant financial and social unrest costs.<sup>111</sup> Moreover, the market's labor efficiency needs to reward employees with attractive incentives and to adopt a meritocracy-based promotion for advancement otherwise talented performers could eventually leave the country for better compensation of their hard work somewhere

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<sup>108</sup> Legatum Institute, "2013 Methodology and Technical Appendix," 16.

<sup>109</sup> Legatum Institute, "Entrepreneurship in Sub-Saharan Africa," 6.

<sup>110</sup> Global Entrepreneurship Monitor, "Botswana National Report 2012," accessed February 6, 2015: 41, <http://www.gemconsortium.org/docs/download/3482>.

<sup>111</sup> Looney, "Entrepreneurship and the Process of Development," 32.

else.<sup>112</sup> On the other hand, the regulation of labor and product markets could potentially reduce entrepreneurship, especially opportunity entrepreneurship, for it produces an uneven terrain for new companies to compete.<sup>113</sup> Strict regulation can weaken the talents of entrepreneurs but elevate the role of social networks and risk aversion, which ultimately discourages people from creating new businesses.<sup>114</sup> On the other hand, simplified regulations could reduce the chance for bureaucrats to collect bribes because of the ease of the process, which encourages skilled citizens to engage in entrepreneurial activities.<sup>115</sup> In short, complex regulation deters entrepreneurs and decreases entrepreneurship.

The access to capital, from a bank loan or a venture capital, also has a strong effect on both necessity and opportunity entrepreneurs.<sup>116</sup> Without finance, new firms are deprived of resources to expand their businesses, to modernize their equipment, to increase their profits, or just to survive in a highly competitive market. The lack of access to capital acts as a barrier for potential entrepreneurs to compete fairly with the rest of established market players. In some instances, even if credit is available, the interest rate could be so high that creating a business becomes an unattractive proposition. Financial markets in African countries had a critical role in fostering competition among firms and provided new businesses the avenue to succeed, which encouraged the process of creative destruction to take roots for many years to come.<sup>117</sup>

In addition, the complexity of parameters for doing practical daily business has the most direct impacts on entrepreneurs for starting a new business. These tactical variables include starting costs (construction permits, property registration, and investor

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<sup>112</sup> Xavier Sala-i-Martin et al., “The Global Competitiveness Index 2013–2014: Sustaining Growth, Building Resilience,” edited by Klaus Schwab in World Economic Forum: The Global Competitiveness Index 2013–2014, (2013), 7, [http://www3.weforum.org/docs/WEF\\_GlobalCompetitivenessReport\\_2013-14.pdf](http://www3.weforum.org/docs/WEF_GlobalCompetitivenessReport_2013-14.pdf).

<sup>113</sup> Schoar, “Divide between Subsistence and Transformational Entrepreneurship,” 72.

<sup>114</sup> Schoar, “Divide between Subsistence and Transformational Entrepreneurship,” 72.

<sup>115</sup> Ibid., 73.

<sup>116</sup> Ibid., 74.

<sup>117</sup> Schoar, “Divide between Subsistence and Transformational Entrepreneurship,” 75.

protection), tax payments, border trade, and insolvency resolution.<sup>118</sup> A short-time, cost-effective, and simple procedure for starting a business, obtaining a license, and registering property could encourage entrepreneurship because the process would give entrepreneurs opportunity to focus most of their resources and time in developing their new products and services. An attractive tax rate and a prospect for being able to trade products and services outside the country of origin could also compel innovative people with the appetite for risk and wealth to proceed in creating new firms. Having a bankruptcy process that allows cheap and quick resolution of insolvency also increases entrepreneurship because it permits new firms to find efficiency within their businesses and return to normal operation as soon as possible.<sup>119</sup>

## **F. CONCLUSION**

Five factors play key roles in the development of entrepreneurship in SSA. The freedom to trade and conduct business with a limited level of corruption is probably the most important factor for developing countries. The confidence, health, education, and culture of the working population provide the building blocks for entrepreneurs to jump-start their business ventures within the acceptable boundaries of their society. Infrastructure such as communications, transportation, electricity availability, security, social capital, and technological readiness, acts as the crucial enabler that defines the realm of entrepreneurial possibilities in a particular country. The role of governance—which can be found in the rule of law, R&D investment, and national programs for entrepreneurship—and business environment—which is made up of regulation, access to capital, and the day-to-day processes for doing business—sets the rules of the game where entrepreneurs evaluate their decisions to start a business and assess the associated risks of their endeavors. The interplay of these five dynamic factors has the potential to determine whether entrepreneurship can be bolstered in SSA countries. In the next chapter, the state of these five vital factors will be evaluated in each of the three southern African countries in the case studies.

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<sup>118</sup> Doing Business 2014, “Economy Profile: Mauritius,” *World Bank*, 2013, 5, <http://www.doingbusiness.org/data/exploreeconomies/mauritius/>.

<sup>119</sup> Doing Business 2014, “Economy Profile: Mauritius,” 91.

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#### **IV. ENTREPRENEURSHIP AND ITS OUTCOMES IN BOTSWANA, ZAMBIA, AND MALAWI**

This chapter explores the potential impacts of entrepreneurship to the economy, politics, and society of Botswana, Zambia, and Malawi. Specifically, it looks within each country to determine whether progress can be identified since their estimated origin-of-entrepreneurship year in 2001 and compares the level of progress between the different levels of entrepreneurship represented by each of the three countries. In addition, each of the major five factors (and subfactors) responsible for the growth of entrepreneurship in each of the three countries are presented in this section to provide a base for understanding the development of entrepreneurship in SSA.

##### **A. IMPACTS OF ENTREPRENEURSHIP**

Entrepreneurship can have positive impacts economically, politically, and socially to developing countries in SSA. Higher GDP per capita, economic freedom, and positive net inflow of foreign direct investments (FDI) are among the economic benefits of entrepreneurship. Politically, entrepreneurship can improve political freedom and civil liberty and increase the level of democracy of SSA countries. Societies in SSA can enjoy lower unemployment, better education and health, and progress with the communications infrastructure due to entrepreneurship.

##### **1. Economic**

Economic impacts from entrepreneurship can be seen through the growth of GDP, an increase in the level of economic freedom indicators, and the rise of foreign investment at the local level. A higher level of entrepreneurship has the potential to contribute to economic growth because entrepreneurship energizes the private sector with new technologies that increase the productivity of the nation. Comparing the average growth of GDP per capita (calculated via the purchasing power parity—PPP) over a 10-year window (before and after the common estimated origin-of-entrepreneurship year of 2001), pro-entrepreneurship countries such as Botswana and Zambia registered positive growth (from 4.56% to 4.98% for Botswana and from 0.27% to 5.02% for Zambia) while

lower entrepreneurship country experienced a contracted GDP per capita over the same period (from 3.95% to 2.21% for Malawi).<sup>120</sup> The relationship between the level of entrepreneurship and the growth of GDP per capita is more of a correlation than cause, for natural resource exports—diamonds for Botswana (43% of real GDP), copper for Zambia (40% of GDP), and tobacco for Malawi (60% of national export value)—dominate the substantial share of the GDP in each of the three countries.<sup>121</sup> While the average price of diamonds and copper from the periods of 1991—2000 and 2001—2010 increased over 37% and 92% respectively, the average price of tobacco decreased by -1% during the same periods.<sup>122</sup> Although the trend of natural resource prices follows the pattern of growth of GDP per capita for each country, a higher level of entrepreneurship can still add positive contributions to the economy even if it is not the majority of GDP revenue.

Another economic benefit coming from a higher level of entrepreneurship is the increase of the level of economic freedom—defined as the rights to control labor and property—for citizens.<sup>123</sup> The Heritage Foundation’s Economic Freedom Index score captures a lot of factors that can increase entrepreneurship such as the rule of law (property rights and freedom from corruption), government size (tax and expenditures), regulatory efficiency (business, labor, and monetary freedoms), and open markets (trade,

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<sup>120</sup> Calculation done by the author using GDP per Capita numbers from the World Bank. World Bank, “GDP per Capita,” Data, accessed September 5, 2014, <http://data.worldbank.org/indicator/NY.GDP.PCAP.CD>.

<sup>121</sup> African Development Bank and Organization for Economic Co-operation and Development, “Botswana,” African Economic Outlook, 2007, 138, <http://www.oecd.org/dev/38561744.pdf>; Michael Hobbes, “Why is Zambia So Poor?,” Pacific Standard, last updated September 12, 2013, <http://www.psmag.com/business-economics/zambia-poor-poverty-globalization-mining-corruption-66080>; World Bank, “Malawi Overview,” Context, last updated April 9, 2014, <http://www.worldbank.org/en/country/malawi/overview>;

<sup>122</sup> Calculation done by the author from “Diamond Price Per Carat 2014 Statistic,” Statista, accessed on January 25, 2015, <http://www.statista.com/statistics/279053/worldwide-sales-of-polished-diamonds/>; World Bank, “World Bank Commodity Price Data for Copper and Tobacco Real Annual Prices,” last updated January 6, 2015, <http://econ.worldbank.org/WBSITE/EXTERNAL/EXTDEC/EXTDECPROSPECTS/0,,contentMDK:21574907~menuPK:7859231~pagePK:64165401~piPK:64165026~theSitePK:476883.00.html>.

<sup>123</sup> “2015 Index of Economic Freedom,” *The Heritage Foundation*, accessed March 7, 2015, <http://www.heritage.org/index/about>.

investment, and financial freedom and investment restrictions).<sup>124</sup> Botswana and Zambia, having higher entrepreneurship levels, managed to grow their Economic Freedom Index score +7.8% and +1.5% from 2001 to 2014, but Malawi, which has a minimal entrepreneurship level, reduced its Economic Freedom Index score by -1.4% in the same period.<sup>125</sup> This result shows that growth of entrepreneurship can contribute to the improvement of the rule of law, the reduction of corruption, and the generation of more entrepreneurship because entrepreneurs, directly or indirectly, influence the government to improve institutions to allow fair competition among innovators and risk-takers.

The rise of entrepreneurship can also have second order dual political-economic consequences. As the number of entrepreneurs grows, this new class of society has the potential to use its political clout to nudge politicians toward more open, fair, and transparent governance that could lead to a virtuous cycle. This process represents the type of good capitalism because the economic system allows an environment to start and grow business, rewards successful entrepreneurs for their success, discourages unproductive activity—via theft, bribery, or rent-seeking by asking the government for special favors against competitors—from surfacing, and keeps winners from becoming complacent rent-seekers to their competitors and remain innovative—through the effective use of “antitrust law and enforcement and openness to international trade and investment.”<sup>126</sup>

Entrepreneurship (high or low level) can also deliver a positive net inflow of foreign direct investment (FDI) into a country because it attracts foreign investors looking for profit and diversification of their investment portfolio. Large net inflows of FDI are critical to economic growth because they provide sources of increased capital per worker and a higher total productivity factor (TFP), along with higher percentage of working age folks in the population, who were primarily responsible for Africa’s growth

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<sup>124</sup> “Methodology,” Economic Freedom Index 2014, *The Heritage Foundation*, accessed September 11, 2014, <http://www.heritage.org/index/book/methodology>.

<sup>125</sup> “Explore Data,” Economic Freedom Index 2014, *The Heritage Foundation*, accessed September 11, 2014, <http://www.heritage.org/index/explore?view=by-region-country-year>.

<sup>126</sup> William J. Baumol, Robert E. Litan, and Carl J. Schramm, *Good Capitalism, Bad Capitalism, and the Economics of Growth and Prosperity* (New Haven, CT: Yale University Press, 2007), 206, 226, 243, 244, 247, 248, 251.

since 1995.<sup>127</sup> All three countries in the case study recorded growth in their net inflow of FDI since their estimated origin-of-entrepreneurship year (2001 to 2012) compared to previous decade (1989 to 2000)—20-fold for Botswana, 4-fold for Zambia, and 6-fold for Malawi.<sup>128</sup> The difference in the level of entrepreneurship shows up in the volume of net inflow of FDI where high and middle level of entrepreneurship countries such as Botswana and Zambia received \$446 million and \$751 million respectively while Malawi only got \$95 million.<sup>129</sup>

## **2. Political**

Entrepreneurship has the potential to ameliorate or maintain a good political system that enhances political freedom, civil liberties, and level of democracy in SSA. Entrepreneurship expands political freedom. It produces a new group in society, made up of entrepreneurs, who have vested interests in making the country economically, politically, and socially stable to protect their new wealth.<sup>130</sup> As the number of entrepreneurs grows over time, this new class will use their increasing social clout to pressure the government for greater political reform to achieve more economic development.<sup>131</sup> Liberalization of local banks from the control of the state has enabled businesspeople and entrepreneurs to freely support their preferred politicians, which advances democratic values as seen in Kenyan presidential election in 2002.<sup>132</sup> Furthermore, Leonardo Arriola found a strong correlation between the increase of the

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<sup>127</sup> Yoonyoung Cho and Bienvenue N. Tien, “Sub-Saharan Africa’s Recent Growth Spurt-An analysis of the Sources of Growth,” The World Bank Policy Research Working Paper 6862, 2014: 11, <http://elibrary.worldbank.org/doi/pdf/10.1596/1813-9450-6862>.

<sup>128</sup> World Bank, “Foreign Direct Investments, Net Inflow,” Data, accessed September 11, 2014, <http://data.worldbank.org/indicator/BX.KLT.DINV.CD.WD>.

<sup>129</sup> World Bank, “Foreign Direct Investments, Net Inflow.”

<sup>130</sup> Looney, “Entrepreneurship and the Process of Development,” 41.

<sup>131</sup> Ibid., 144.

<sup>132</sup> Leonardo R. Arriola, “Capital and Opposition in Africa: Coalition Building in Multiethnic Societies,” *World Politics* 65 no. 2 (2013): 233, 252, [http://polisci.berkeley.edu/sites/default/files/people/u3618/Arriola\\_WP\\_2013.pdf](http://polisci.berkeley.edu/sites/default/files/people/u3618/Arriola_WP_2013.pdf).

probability of multiethnic opposition coalition creation—which leads to stronger democracy—and the growth of GDP—which entrepreneurship can contribute.<sup>133</sup>

Additionally, various political indices and entrepreneurship measure support the positive political impacts from entrepreneurship. Using the Freedom House's Freedom index, which measures the political rights and civil liberties (scores of "1 to 2.5" being free, "3 to 5.5" being partly free, and "5.5 to 7" not free), all three countries in the case study either maintain or improve their scores since their estimated origin-of-entrepreneurship year of 2001.<sup>134</sup> Political rights included free and fair elections, competition among political parties, real and active role and presence of the opposition party, autonomy of citizens for self-determination of their rulers, and inclusion of minority groups in the political process.<sup>135</sup> While a "free" country has the above political rights, a "partly free" state can have a strong military influence in politics, a domination of a single party, an on-going civil war, or a continuing royal power.<sup>136</sup> "Not free" countries could either be ruled by "military juntas, one-party dictatorships, religious hierarchies, or autocrats."<sup>137</sup> On the other hand, civil rights consist of freedom of expressions and belief, freedom of assembly and demonstration, an independent judiciary that protects the rule of law and human rights, and personal autonomy and economic rights.<sup>138</sup> Whereas "free" countries can have all of the above rights, "partly free" states may have diminished level in each type of civil rights and "not free" states are more likely not have any of the rights available to their citizens.<sup>139</sup>

For a high-entrepreneurship and "free" country such as Botswana, its average score for civil liberties from 2001 to 2013 (namely 2) slightly improved compared to the

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<sup>133</sup> Arriola, "Capital and Opposition in Africa," 260.

<sup>134</sup> "Freedom in the World," Country Ratings and Status by Year, *Random House*, accessed September 5, 2014 [http://www.freedomhouse.org/report-types/freedom-world#.VApUb\\_lDXto](http://www.freedomhouse.org/report-types/freedom-world#.VApUb_lDXto).

<sup>135</sup> "Methodology and Checklist Questions," Freedom House, accessed March 7, 2015, [https://freedomhouse.org/report/freedom-world-2001/methodology-and-checklist-questions#.VPuLTpNF\\_z8](https://freedomhouse.org/report/freedom-world-2001/methodology-and-checklist-questions#.VPuLTpNF_z8).

<sup>136</sup> Ibid.

<sup>137</sup> Ibid.

<sup>138</sup> Ibid.

<sup>139</sup> Ibid.

average score from 1988–2000 (namely 2.23) while its political rights score degraded a little from 1.69 (during 1988–2000) to 2.38 (during 2001–2013).<sup>140</sup> On the other hand, Medium and low entrepreneurship and “partly free” countries such as Zambia and Malawi both improved their political rights and civil liberties scores as entrepreneurship grew in their respective countries—Zambia’s average political rights score went from 4.3 to 3.46, Zambia’s average civil liberties score from 4.07 to 3.92, Malawi’s average political rights score from 4.2 to 3.56, Malawi’s average civil liberties 4.46 to 3.84.<sup>141</sup> Figure 4 shows the plot of 2010 Polity IV democracy scores against the averaged ratio of new firms per 1,000 workers per year (also called “new density”) during 2004 to 2012 for various SSA countries which showcases the proportional trend of the degree of entrepreneurship and the level of democracy in SSA. Even though the entrepreneurial class can improve democracy in an African country, the danger for the reverse of political freedom and economic gains can easily be achieved if the new entrepreneurial group of people does not push for more political and economic reforms as entrepreneurship grows.

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<sup>140</sup> “Freedom in the World.” Botswana’s status, political rights, and civil liberties’ scores.

<sup>141</sup> “Freedom in the World,” Zambia and Malawi’s status, political rights, and civil liberties’ scores.

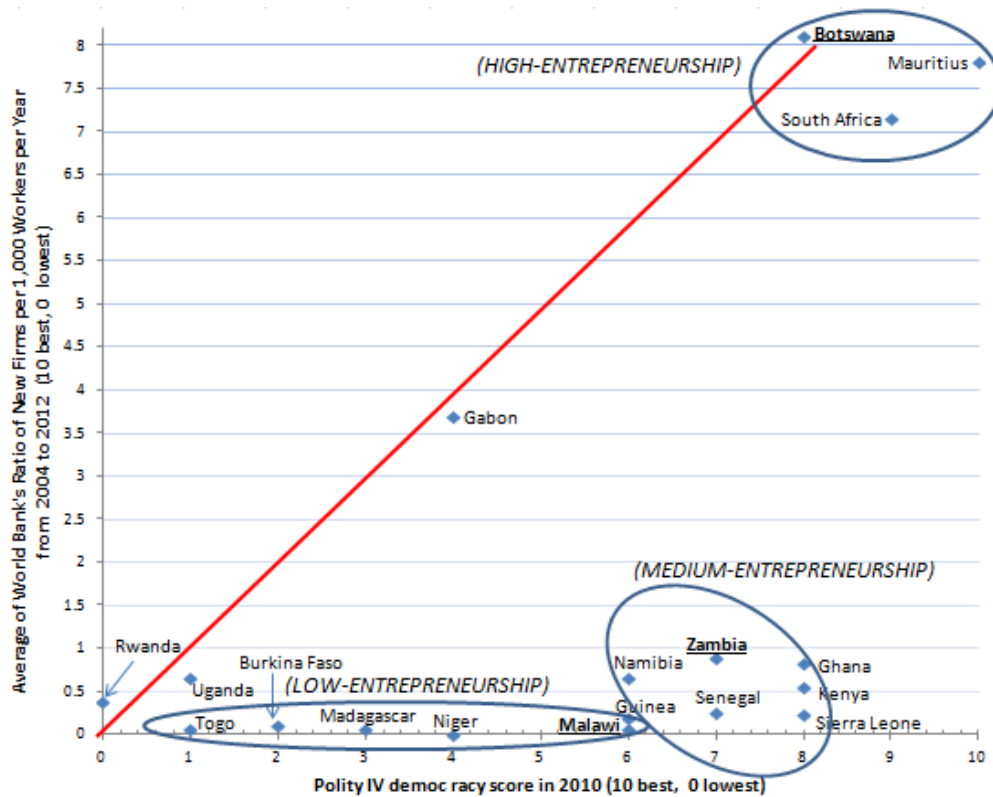


Figure 4. Averaged “new density” and Polity IV democracy scores in SSA.<sup>142</sup>

### 3. Social

A reduction in the level of unemployment, progress in education, increased health expenditures per capita, development of communications infrastructure are among the social impacts that entrepreneurship can potentially deliver. As more new firms are standing up, government has the potential to collect new revenues from the taxes of corporations and private employees which can be used for public goods. Since entrepreneurship creates more jobs from innovations or niche opportunities, the unemployment level will fall more with a higher level of entrepreneurship. This trend is supported by the three country case studies. With Botswana’s high level and Zambia’s medium level of entrepreneurship, their 10-year average unemployment rate after their estimated origin-of-entrepreneurship of 2001 saw a -1.4% and -1% reductions compared

<sup>142</sup> “Polity IV Democracy 2010 Scores,” Center for Systemic Peace, accessed February 12, 2015, <http://www.systemicpeace.org/polity/polity4.htm>; World Bank, “Entrepreneurship: New Density,” Doing Business, The World Bank, accessed September 5, 2014, <http://data.worldbank.org/indicator/NY.GDP.PCAP.CD>.

to before 2001.<sup>143</sup> On the other hand, Malawi's low level of entrepreneurship could not produce the similar effect but increased its 10-year average unemployment rate by nearly 0.3%.<sup>144</sup>

Education can also be improved from a growing entrepreneurship. Most successful entrepreneurs require higher educational levels to be able to innovate and successfully run a business. Consequently, the examples of profitable entrepreneurs can lead to an increased desire by the younger generation to acquire advanced education to be competitive in the job market and potentially become successful entrepreneurs one day. The decade average of tertiary education enrollment before and after 2001 grew 1.9% for high-entrepreneurship Botswana compared to 0.03% for low-entrepreneurship Malawi (no sufficient data for medium-entrepreneurship Zambia).<sup>145</sup>

With the growing state revenue from taxes of new firms (even with minimal level of entrepreneurship), the government is able to increase its health expenditures per capita to improve the health of its society. Botswana, Zambia, and Malawi all display great growth in health spending per capita since their estimated origin-of-entrepreneurship year of 2001 compared to 2012 figures: Botswana with more than 2-fold growth, Zambia with more than 4-fold growth, and Malawi with more than 3-fold growth.<sup>146</sup> In addition, the economic freedom generated by the entrepreneurship era opens the door for the government to attract private investors to participate in building public infrastructure. In the area of telecommunication, each society of the case study countries benefited from the tremendous investment by the private sector after 2001. Particularly, Botswana garnered a total of \$279 million from 2008 to 2012 compared to \$114 million from 1996 to 2000.<sup>147</sup> Similarly, Zambia got \$1,053 million compared to \$91 million, and Malawi

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<sup>143</sup> World Bank, "Unemployment Rate," Data, accessed September 5, 2014, <http://data.worldbank.org/indicator/SL.UEM.TOTL.ZS>.

<sup>144</sup> Ibid.

<sup>145</sup> World Bank, "Tertiary School Enrollment," Data, accessed September 5, 2014, <http://data.worldbank.org/indicator/SE.TER.ENRR>.

<sup>146</sup> World Bank, "Health Expenditure per Capita," Data, accessed September 5, 2014, <http://data.worldbank.org/indicator/SH.XPD.PCAP>.

<sup>147</sup> World Bank, "Investment in Telecoms with Private Participation," Data, accessed February 13, 2015, <http://data.worldbank.org/indicator/IE.PPI.TELE.CD>.

received \$758 million compared to \$28 million for the same periods.<sup>148</sup> One tangible result of this private participation in the development of telecommunication infrastructure is the surge in the number of mobile cellular subscription per 100 people in all three countries. Botswana saw an 8-fold growth of subscriptions from 2001 to 2013 while Zambia and Malawi had more than 60-fold and 66-fold increase during the same period.<sup>149</sup>

## **B. STATE OF THE FIVE ENTREPRENEURIAL FACTORS**

Whenever data is available, the average scores—from the estimated origin-of-entrepreneurship year of 2011 (or close to it) to the most recent available years—of the five key entrepreneurial factors (or subfactors) are used to compare the three countries to assess their potential role in increasing (or stagnating) the three countries' level of entrepreneurship since 2001. When the average score is not attainable (lack of available data), the most recent score of the five key entrepreneurial factors (or subfactors) is used with the assumption that earlier scores are less likely to differ too much from the most recent values due to the institutional nature of most of the variables.

### **1. Botswana**

Prior to the reporting of the status of the five entrepreneurial factors (and subfactors) of Botswana, the snapshot of the country is given for context in interpreting the different numbers and variables. The society of Botswana appears to value political order and cooperation. The sense of order can be gleaned from its Polity IV composite index scores of +6 to +8 out of the maximum 10 points since its independence from Britain in 1966 to 2010, and the country's desire for political cooperation is seen by the inclusion of the House of Chiefs into the legislative body although it only plays an advisory role (no real power).<sup>150</sup> Botswana currently ranks 67th out of 112 in the 2014 democracy ranking; its total area is 581,730 square kilometer, of which 0.45% is arable

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<sup>148</sup> World Bank, "Investment in Telecoms with Private Participation."

<sup>149</sup> World Bank, "Mobile Cellular Subscriptions per 100 People," Data, accessed September 5, 2014, <http://data.worldbank.org/indicator/IT.CEL.SETS.P2>.

<sup>150</sup> "Polity IV Country Report 2010: Botswana," Center for Systemic Peace, accessed February 12, 2015, <http://www.systemicpeace.org/polity/polity4.htm>.

land.<sup>151</sup> Its 2013 total population is 2,155,784—growing at 1.26% a year; with an 85% literacy rate; 62% live in urban areas; divided into four ethnic groups: 79% Tswana, 11% Kalanga, 3% Basarwa, and 7% others; and predominantly practicing Christian faith (71%).<sup>152</sup> Its macroeconomic profile is the following: GDP (PPP) at \$34 billion with 5.8% growth rate in 2013 (and 33.7% of GDP for gross national saving); inflation rate at 6.1% in 2013; unemployment rate at 17.8% in 2009; current account balance of \$1.7 billion in 2013; and a fiscal policy of 32.4% taxes (of GDP) in 2013 and a monetary policy of 9.5% interest rate by the central bank in 2010.<sup>153</sup> Its GDP is composed of 62% services, 36% industry, and 2% agriculture in 2013 with GDP per capita (PPP) of \$16,400 the same year; its top export and import items are diamonds and food.<sup>154</sup> The measure of income inequality in Botswana is obtained by its GINI coefficient of 0.61 in 1994 (no recent data could be found).<sup>155</sup>

Botswana stands as one of the leading African countries in many of the five entrepreneurial factors.

**a. Freedom**

Botswana managed to be on top of nearly all three freedom categories. According to the Index of Economic Freedom from 2001 to 2015, Botswana's average score for economic freedom was 69 out of 100.<sup>156</sup> Its average trade freedom score for the same period was 72 out of 100, just one point below Zambia's average score, and its average

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<sup>151</sup>Global Democracy Ranking 2014, last updated December 29, 2014, [http://democracyranking.org/wordpress/?page\\_id=828](http://democracyranking.org/wordpress/?page_id=828); Central Intelligence Agency, "The World Factbook for Botswana."

<sup>152</sup> Ibid.

<sup>153</sup> Ibid.; World Bank, "GDP Growth Annually," Data, accessed February 13, 2015, <http://data.worldbank.org/indicator/NY.GDP.MKTP.KD.ZG>.

<sup>154</sup> Central Intelligence Agency, "The World Factbook for Botswana."

<sup>155</sup> World Bank, "GINI Index," Data, accessed September 14, 2014, <http://data.worldbank.org/indicator/SI.POV.GINI>.

<sup>156</sup> "2015 Index of Economic Freedom," Country Rankings, The Heritage Foundation, accessed February 14, 2015, <http://www.heritage.org/index/ranking>.

business freedom score was 72 out of 100.<sup>157</sup> Botswana's freedom from corruption average score of 59 out of 100 is also among the best in SSA.<sup>158</sup>

**b. Labor**

Botswana's education stands out among all four labor categories in the three country case study. The 3-year average of confidence of Botswana's laborers toward entrepreneurial opportunities stood at 63% of adults, and its average TEA rate from 2012 to 2014 is at 20.9%.<sup>159</sup> According to the 2014 Legatum Prosperity Index in health subcategory, Botswana ranks eighth in SSA with a worldwide health rank of 111.<sup>160</sup> Nevertheless, Botswana's average health expenditures per capita from 2001 to 2012 stands at \$288, fifth highest in SSA (behind Equatorial Guinea, South Africa, Seychelles, and Mauritius) and well above the SSA average of \$66.<sup>161</sup> Botswana's education ranks only second (behind South Africa) in SSA and 94th out of 142 countries worldwide in the 2014 Legatum Prosperity index.<sup>162</sup> In particular, Botswana's 2008 secondary and 2006 tertiary school enrollments—87% and 7%—really stand out compared to Zambia and Malawi although the average tertiary school enrollment in SSA was higher, 8.1%, in 2012 (and the average secondary school enrollment in SSA was 41% in 2012).<sup>163</sup> Lastly, the social and cultural view toward entrepreneurship in Botswana appears to be at the

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<sup>157</sup> "2015 Index of Economic Freedom," The Heritage Foundation, Trade Freedom and Business Freedom.

<sup>158</sup> "2015 Index of Economic Freedom," The Heritage Foundation, Freedom from Corruption.

<sup>159</sup> Jose Ernesto Amoros and Niels Bosma, "GEM 2013 Global Report," 2014: 26, 30, last updated September 1, 2014, <http://www.gemconsortium.org/docs/3106/gem-2013-global-report>; Siri Roland Xavier, Donna Kelley, Jacqui Kew, Mike Herrington, and Arne Vanderwulbecke, "GEM 2012 Global Report," 2013: 20, 24, <http://www.gemconsortium.org/docs/2645/gem-2012-global-report>; Salvica Singer, Jose Ernesto Amoros, and Daniel Moska, "GEM 2014 Global Report," 2015: 32, 35, <http://www.gemconsortium.org/docs/3616/gem-2014-global-report>.

<sup>160</sup> Legatum Institute, "The 2014 Legatum Prosperity Index Table Ranking," Health 2014 Rankings in SSA Region, accessed February 14, 2015, <http://www.legatum.com/external?http://www.prosperity.com>.

<sup>161</sup> World Bank, "Health Expenditures per Capita," accessed September 8, 2014, <http://data.worldbank.org/indicator/SH.XPD.PCAP>.

<sup>162</sup> Legatum Institute, "The 2014 Legatum Prosperity Index Table Ranking," Education 2014 Rankings in SSA Region, accessed February 14, 2015, <http://www.legatum.com/external?http://www.prosperity.com>.

<sup>163</sup> World Bank, "Secondary School Enrollment," Data, accessed September 8, 2014, <http://data.worldbank.org/indicator/SE.SEC.ENRR>; World Bank, "Tertiary School Enrollment," Data, accessed September 8, 2014, <http://data.worldbank.org/indicator/SE.TER.ENRR>.

average level among SSA. Specifically, Botswana scored 2.9 out of 5—best—in its entrepreneurship cultural indicator in 2013 compared to the average SSA score of 2.9 from 9 countries (way behind Nigeria and Ghana).<sup>164</sup>

*c. Infrastructure*

Botswana's social capital ranking is the only one area out the six infrastructure categories in which it does not outperform Zambia and Malawi. The measure of communication can be gleaned from the number of mobile cellular subscription per 100 people. In 2013, Botswana had 160 mobile cellular subscriptions per 100 people, compared to average SSA subscriptions of 66, and its average mobile cellular subscriptions per 100 people from 2001 to 2013 stands at 75.<sup>165</sup> The transportation measure comes in three different forms: road, rail, and air. Botswana's number of motor vehicles per 1,000 people in 2007 is 111 compared to SSA's average of 29, and its length of rail lines was 888 kilometers in 2008.<sup>166</sup> The air transport is measured from the number of registered carrier departures in the country, and Botswana had 9,204 air departures in 2013, compared to the SSA average of 630,958 for the same year.<sup>167</sup> The electricity indicator is obtained from the percentage of population with access to electricity. In 2010, 43% of Botswana's population had access to electricity compared to the average access in SSA of 32%.<sup>168</sup> According to the 2014 Legatum Prosperity Index Ranking for security and safety, Botswana ranked sixth in SSA (behind Benin, Ghana, Djibouti, Burkina Faso, and Namibia) and 84th out of 142 countries worldwide.<sup>169</sup> Similarly

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<sup>164</sup> Amoros and Bosma, "GEM 2013 Global Report," 2014: 46.

<sup>165</sup> World Bank, "Mobile Cellular Subscriptions per 100 People," Data, accessed September 8, 2014, <http://data.worldbank.org/indicator/IT.CEL.SETS.P2>.

<sup>166</sup> World Bank, "Motor Vehicles per 1,000 People," Data, accessed September 18, 2014, <http://data.worldbank.org/indicator/IS.VEH.NVEH.P3>; World Bank, "Rail Lines," Data, accessed January 20, 2015, <http://data.worldbank.org/indicator/IS.RRS.TOTL.KM>.

<sup>167</sup> World Bank, "Air Transport, Registered Carrier Departure Worldwide," Data, accessed 14 February 2015, <http://data.worldbank.org/indicator/IS.AIR.DPRT>.

<sup>168</sup> World Bank, "Access to Electricity (Percentage of Population)," Data, accessed January 20, 2015, <http://data.worldbank.org/indicator/EG.ELC.ACCS.ZS>.

<sup>169</sup> Legatum Institute, "The 2014 Legatum Prosperity Index Table Ranking," Safety and Security 2014 Rankings in SSA Region, accessed February 14, 2015, <http://www.legatum.com/external?http://www.prosperity.com>.

with the 2014 Legatum Prosperity Index Ranking for social capital, Botswana ranked 15th in SSA (behind Mali, Uganda, and Sudan as the top three) and 93th out of 142 countries worldwide.<sup>170</sup> Finally, with the technological readiness, Botswana received a score of 3.6 out of 7 in 2015, compared to SSA's average score of 2.9, and ranked 76th out of 144 countries worldwide.<sup>171</sup>

#### **d. Governance**

In the area of governance, Botswana leads Malawi and Zambia with two (the rule of law and entrepreneurship programs) out of the three subfactors. According to the World Bank Worldwide Governance Indicators (WGI) for the rule of law, Botswana scored an average of 0.63 points (-2.5 worst and +2.5 best) since its estimated origin-of-entrepreneurship year of 2001 compared to 0.54 points from 1996 to 2000.<sup>172</sup> Furthermore, it ranked first among all SSA countries with the 2014 Legatum Prosperity sub-index for governance and 28th out of 142 countries worldwide.<sup>173</sup> Its average score of property rights from the Economic Freedom Index was 70 points out of 100 from 2001 to 2015.<sup>174</sup> With the enforcements of contracts, Botswana scored 64 points out of 100 in 2015, compared to the SSA's average of 50 points, and ranked 61st out of 189 countries.<sup>175</sup>

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<sup>170</sup> Legatum Institute, "The 2014 Legatum Prosperity Index Table Ranking," Social Capital 2014 Rankings in SSA Region, accessed February 14, 2015, <http://www.legatum.com/external?http://www.prosperity.com>.

<sup>171</sup> Xavier Sala-i-Martin et al., "The Global Competitiveness Index 2014–2015: Accelerating a Robust Recovery to Create Productive Jobs and Support Inclusive Growth," edited by Klaus Schwab in World Economic Forum: The Global Competitiveness Index 2014–2015, (2014), 132, <http://www.weforum.org/reports/global-competitiveness-report-2014-2015>.

<sup>172</sup> World Bank, "Rule of Law," Worldwide Governance Indicators, accessed September 18, 2014, <http://info.worldbank.org/governance/wgi/index.aspx#home>.

<sup>173</sup> Legatum Institute, "The 2014 Legatum Prosperity Index Table Ranking," Governance 2014 Rankings in SSA Region, accessed February 14, 2015, <http://www.legatum.com/external?http://www.prosperity.com>.

<sup>174</sup> "2015 Index of Economic Freedom," Property Rights Sub-index, The Heritage Foundation, accessed February 14, 2015, <http://www.heritage.org/index/download>.

<sup>175</sup> World Bank, "Doing Business 2015: Economy Profile Botswana," 2014: 68, accessed January 21, 2015, <http://www.doingbusiness.org/data/exploreeconomies/botswana/>.

Although there is no direct measure of a country's public and private R&D investments, this subfactor's impact can be measured from the level of government procurement of advanced technical products, company spending on R&D, innovation, availability of scientists and engineers, and the number of patent applications per capita. Botswana's innovation score in 2015 Global Competitiveness Index was 3 points out of 7, which happens to be same as the SSA's average score, and ranked 102nd out of 144 countries worldwide.<sup>176</sup> The company's spending on R&D scored 2.6 points out of 7 and ranked 118th out of 144 countries while the government's procurement of advanced technical products scored 3.7 points out of seven and ranked 45th out of 144 countries.<sup>177</sup> Finally, the availability of scientists and engineers in Botswana scored 3.2 points out of 7 with 120th ranking, and the percentage of patents (applications per one million populations) ranked 96th worldwide and scored 0.2 points out of 7.<sup>178</sup>

Additionally, the promotion of various entrepreneurship programs by the Botswana government started in 1997 with "Enterprise Botswana" under the department of industrial affairs, which produced a few small and medium enterprise (SME) successes.<sup>179</sup> Other entrepreneurship programs such as the National Master Plan on Arable Agricultural and Dairy Developments (NAMPAADD), Arable Land Development Planning (ALDEP), and the Department of Vocational Education and Training's program "Start Your Own Business" were supported by different types of entrepreneurial policies and institutions such as the Citizen Entrepreneurial Development Agency (created in 2001), the Local Enterprise Authority (created in 2006), the Botswana Export Development and Investment Authority, the Botswana Enterprise Development Unit, the Financial Assistance Policy, the small, medium, and micro enterprises (SMME), the Small Business Promotion Agency, the Small Business Council, and the Botswana

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<sup>176</sup> Xavier Sala-i-Martin et al., "The Global Competitiveness Index 2014–2015," 132.

<sup>177</sup> Ibid., 133.

<sup>178</sup> Xavier Sala-i-Martin et al., "The Global Competitiveness Index 2014–2015," 133.

<sup>179</sup> Joel Sentsho et al., "Performance and Competitiveness of Small and Medium Sized Manufacturing Enterprises (SMEs) in Botswana," Botswana Institute for Development Policy Institute and Citizen Entrepreneurial Development Agency, 2007: 90, <http://www.africaportal.org/dspace/articles/performance-and-competitiveness-small-and-medium-sized-manufacturing-enterprises-0>.

Development Corporation just to name a few.<sup>180</sup> Coordination between entrepreneurship programs, policies, and institutions demonstrated the strategic efforts by the Botswana's government to make entrepreneurship a focal point to diversify its economy and to move away from the sole dependence of diamonds' mining.

**e. Business Environment**

The business environment in Botswana remains superior to Malawi and Zambia in all three subfactors of regulation, access to capital, and doing business. From the World Bank's WGI on regulatory quality, Botswana scored an average of +0.59 points out 2.5 from 2002 to 2012, even though this score decreased from an average of +0.70 during 1996 to 2000.<sup>181</sup> The 2013 Global Opportunity Index by the Milken Institute reinforced the first-class ranking of Botswana's regulatory institutions by ranking the quality of its regulations—effectiveness of policymaking and enforcement—ninth out of 97 countries worldwide and its regulatory barriers—ability of the country's laws and regulations to prevent the flow of trade and investment—25th worldwide, making the country first in SSA in these two categories.<sup>182</sup> Moreover, in 2015 Botswana's labor market scored 4.6 out of 7 points compared to SSA's average of 4.2, ranking the country 36th out of 144 countries, and its goods market scored 4.1 out of 7 points compared to SSA's average of 4.0, ranking Botswana 97th worldwide.<sup>183</sup>

In addition, the Milken Institute measured its Capital Access Index from seven components: macroeconomic environment, institutional environment, financial and banking institutions, equity market development, bond market development, alternative

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<sup>180</sup> Sentsho et al., "Performance and Competitiveness of SMEs in Botswana," 91, 93, 99, 101; Global Entrepreneurship Monitor, "Botswana National Report 2012," 22.

<sup>181</sup> World Bank, "Regulatory Quality," Worldwide Governance Indicators, accessed September 18, 2014, <http://info.worldbank.org/governance/wgi/index.aspx#home>.

<sup>182</sup> Milken Institute, "2013 Global Opportunity Index Rankings," Quality of Regulations and Regulatory Barriers, accessed February 15, 2015, <http://www.globalopportunityindex.org/opportunity.taf?page=rankings>.

<sup>183</sup> Xavier Sala-i-Martin et al., "The Global Competitiveness Index 2014–2015," 132.

source of capital, and international funding.<sup>184</sup> According to the 2009 Capital Access Index, Botswana ranked 69th out of 122 countries with a score of 4.2 points out of 10, compared to Africa's average of 3.07 points.<sup>185</sup> In 2015, Botswana's ease of access to loans scored 3 points out of 7 and ranked 54th out of 144 countries, and its venture capital availability scored 2.7 points out of seven and ranked 67th worldwide.<sup>186</sup>

In 2014, the World Bank ranked Botswana 74th out of 186 countries, placed fifth behind Mauritius, South Africa, Rwanda, and Ghana in SSA with the ease of doing business index.<sup>187</sup> Although Botswana's cost for starting business is only \$77.3 (1% of its Gross National Income (GNI) per capita compared to SSA's average of 56.2%) and no down capital payment required (0% of GNI per capita compared to SSA's average of 95.6%), its rank for starting a business is 149th out of 189 countries in 2014 due to the higher number of procedures (10 compared to SSA's average of 7.8) and days (60 compared to SSA's average of only 27.3) to create a new business.<sup>188</sup> The country also ranked 93rd out of 189 countries in 2014 for dealing with construction permits because of its lower number of days (110 compared to SSA's average of 155.7), its lower associated cost (0.3% of warehouse value compared to SSA's average of 6.2%), and its higher number of required procedures (20 compared to SSA's average of 13.5).<sup>189</sup> With the property registration, Botswana ranked 51st out 189 countries in 2014, for it had a lower number of procedures (4 compared to SSA's average of 6.3), number of days (15 versus SSA's average of 57.2), and cost (5.1% of property value compared to SSA's average of 9.1%).<sup>190</sup> On the other hand, Botswana ranked poorly with its 2014 protecting minority

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<sup>184</sup> James Barth, Tong Li, Wenling Lu, and Glen Yago, "2009 Capital Access Index: Best Markets for Access to Business Capital," *The Milken Institute*, last updated April 2010: 3, <http://www.milkeninstitute.org/publications/view/430>.

<sup>185</sup> Barth, Li, Lu, and Yago, "2009 Capital Access Index," 8, 9.

<sup>186</sup> Xavier Sala-i-Martin et al., "The Global Competitiveness Index 2014–2015," 133.

<sup>187</sup> World Bank, "Ease of Doing Business Index," Data, accessed January 22, 2015, <http://data.worldbank.org/indicator/IC.BUS.EASE.XQ>.

<sup>188</sup> Doing Business, "2015 Ease of Doing Business in Botswana," Starting a Business, The World Bank, accessed February 15, 2015, <http://www.doingbusiness.org/data/exploreeconomies/botswana/#starting-a-business>.

<sup>189</sup> Doing Business, "2015 Ease of Doing Business in Botswana," Dealing with Construction Permits.

<sup>190</sup> Doing Business, "2015 Ease of Doing Business in Botswana," Registering Property.

investors, being 106th out of 189 countries, even though its index for the strength of minority investor protection (4.9) exceeded the SSA's average of 4.6 out of 10.<sup>191</sup>

In addition, Botswana's attractive total tax rate of only 25.3% of profit (compared to SSA's average of 46.2%) pushed its 2014 paying taxes ranking to 67th out of 189 countries.<sup>192</sup> Due to the landlocked nature of Botswana's geography, its 2014 ranking for trading across borders stood at 157th out of 189 countries because of its expensive cost to export (\$3,145 per container compared to SSA's average price of \$2,200.7) and to import (\$3,710 per container compared to SSA's average price of \$2,930.9).<sup>193</sup> Finally, its solid 2014 "resolving insolvency" ranking of 49th out of 189 countries was primarily due to its shorter average duration of bankruptcy proceedings (1.7 years compared to SSA's average of 3.1 years), the cheaper average cost of bankruptcy proceedings (18% of estate value compared to SSA's average of 23.3%), and its attractive recovery rate for creditors from an insolvent company (62.7 cents from every secured \$1 compared to SSA's average of 24.1 cents).<sup>194</sup>

## **2. Zambia**

Zambia seems to have an unstable political character since its independence from Britain in 1964. It managed to get entangled with internal and neighboring struggles: Zimbabwe in 1976, attempted coup in 1997, and Angola and Democratic Republic of Congo in 2000.<sup>195</sup> Moreover, the country's political instability is seen from its fluctuating Polity IV scores: +2 in 1965, -9 during the 1970s and 1980s, +6 in early 1990s, +1 in late 1990s, and finally +7 out of 10 points in 2010.<sup>196</sup> Zambia is positioned at the 96th place out of 112 in the 2014 democracy ranking; its total surface area is 752,618 square

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<sup>191</sup> Doing Business, "2015 Ease of Doing Business in Botswana," Protecting Minority Investors.

<sup>192</sup> Doing Business, "2015 Ease of Doing Business in Botswana," Paying Taxes.

<sup>193</sup> Doing Business, "2015 Ease of Doing Business in Botswana," Trading Across Borders.

<sup>194</sup> Doing Business, "2015 Ease of Doing Business in Botswana," Resolving Insolvency.

<sup>195</sup> "Zambia Profile," BBC News Africa, last updated January 19, 2015, <http://www.bbc.com/news/world-africa-14113084>.

<sup>196</sup> "Polity IV Country Report 2010: Zambia," Center for Systemic Peace, accessed February 12, 2015, <http://www.systemicpeace.org/polity/polity4.htm>.

kilometer with 4.52% of arable land.<sup>197</sup> Zambia's population counts 14,638,505—with a growth rate of 2.88% a year; a literacy rate of 61.4%; with 39.2% living in urban areas; split into 18 different ethnic groups (ranging from 21% to 1.2%); and overwhelming practicing the Christian faith (95%).<sup>198</sup> Its macroeconomic picture is as follows: GDP (PPP) at \$25.5 billion with 6.71% growth rate in 2013 (and 14.5% of GDP for gross national saving); inflation rate at 7.1% in 2013; unemployment rate at 15% in 2008; current account balance of -\$1.25 billion in 2013; and a fiscal policy of 21.6% taxes (of GDP) in 2013 and a monetary policy of 8.39% interest rate by the central bank in 2009.<sup>199</sup> The composition of its GDP is 46.5% services, 33.8% industry, and 19.8% agriculture in 2013 with GDP per capita (PPP) of \$1,800 the same year; its top export and import items are copper/cobalt and machinery.<sup>200</sup> Zambia's GINI index was 0.58 in 2010.<sup>201</sup>

For most of the five entrepreneurial factors, Zambia stands in the middle of the pack of African countries.

**a. Freedom**

Zambia leads Botswana and Malawi with the trade freedom category. Its average economic freedom score from 2001 to 2015 was 58 out of 100.<sup>202</sup> Its average trade freedom score was 73 out of 100 for the same period, and its average business freedom score was 62 out of 100.<sup>203</sup> On the downside, Zambia's average score for freedom from corruption was only 29 out of 100.<sup>204</sup>

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<sup>197</sup> Global Democracy Ranking 2014; Central Intelligence Agency, "The World Factbook for Zambia."

<sup>198</sup> Global Democracy Ranking 2014; Central Intelligence Agency, "The World Factbook for Zambia."

<sup>199</sup> Ibid.; World Bank, "GDP Growth Annually."

<sup>200</sup> Central Intelligence Agency, "The World Factbook for Zambia."

<sup>201</sup> World Bank, "GINI Index."

<sup>202</sup> "2015 Index of Economic Freedom." The Heritage Foundation.

<sup>203</sup> "2015 Index of Economic Freedom," The Heritage Foundation, Trade and Business Freedom.

<sup>204</sup> "2015 Index of Economic Freedom," The Heritage Foundation, Freedom from Corruption.

**b. Labor**

Zambia continues to be in the middle range of SSA region for most of the four labor categories. Its average labor confidence in entrepreneurial opportunities from 2010, 2012, and 2013 was 78% of working adults (above the SSA's average of 68.9%), and its average TEA rate from the same years was 38% (again above the SSA's average of 26.6%).<sup>205</sup> The 2014 Legatum Prosperity Index in health subcategory placed Zambia 28th out of 34 SSA countries with a worldwide rank of 135th out of 142 countries.<sup>206</sup> In addition, Zambia's average health expenditures per capita from 2001 to 2012 are only \$55, which is well below to SSA's average of \$66.<sup>207</sup> Zambia's education is classed fifth in SSA—behind South Africa, Botswana, Namibia, and Zimbabwe—and 105th out of 142 countries worldwide according to the 2014 Legatum Prosperity Index.<sup>208</sup> This poor ranking is supported by the country's secondary and tertiary school enrollments, 20.5% in 1994 and 2.4% in 2000, compared to SSA's average of 41% and 8.1%.<sup>209</sup> The Zambian culture's perception of entrepreneurship is rather weak compared to the trend in SSA; it scored 2.6 out of 5 in its entrepreneurship cultural indicator in 2013 compared to SSA's average of 2.9 from 9 countries.<sup>210</sup>

**c. Infrastructure**

Zambia outperformed Botswana and Malawi with its social capital and technology readiness but remained in the middle range for the other four remaining infrastructure categories. In the communication field, Zambia had 71.5 mobile cellular subscriptions per 100 people in 2013, which is above the SSA's average of 66, but its

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<sup>205</sup> Amoros and Bosma, "GEM 2013 Global Report," 26, 30; Xavier, Kelley, Kew, Herrington, and Vanderwulbecke, "GEM 2012 Global Report," 20, 24; Donna Kelley, Niels Bosma, and Jose Ernesto Amoros, "GEM 2010 Global Report," 2011: 17, 22, <http://www.gemconsortium.org/docs/266/gem-2010-global-report>.

<sup>206</sup> Legatum Institute, "The 2014 Legatum Prosperity Index Table Ranking," Health 2014 Rankings in SSA Region.

<sup>207</sup> World Bank, "Health Expenditures per Capita."

<sup>208</sup> Legatum Institute, "The 2014 Legatum Prosperity Index Table Ranking," Education 2014 Rankings in SSA Region.

<sup>209</sup> World Bank, "Secondary School Enrollment"; World Bank, "Tertiary School Enrollment."

<sup>210</sup> Amoros and Bosma, "GEM 2013 Global Report," 46.

average mobile cellular subscriptions per 100 people since its estimated origin-of-entrepreneurship in 2001 to 2013 is only 27.9.<sup>211</sup> In transportation, Zambia's number of motor vehicles per 1,000 people in 2007 is only at 17.51, below to SSA's average of 29, and its length of rail networks in 2004 is 1,273 kilometers.<sup>212</sup> Additionally, Zambia's number of registered air carrier departures in the country in 2013 only stood at 7,673, far below the SSA's average of 630,958.<sup>213</sup> In access to electricity, only 19% of Zambians had access in 2010 which is below the SSA's average of 32%.<sup>214</sup> Zambia's ranking for security and safety was 21st out of 34 SSA countries and 121st out of 142 countries worldwide in 2014, but its social capital ranking did much better by ranking sixth in SSA and 68th worldwide for the same year.<sup>215</sup> At last, Zambia's technological readiness scored 3.0 out of 7 in 2015, compared to SSA's average of 2.9, and ranked 105th out of 144 countries worldwide.<sup>216</sup>

#### **d. Governance**

Zambia shines mostly in the R&D category of governance related to Botswana and Malawi and stays in the middle way for the other two areas. Its World Bank WGI rule of law average score minimally improved from -0.57 from 1996 to 2000 to -0.49 from 2002 to 2012.<sup>217</sup> From the 2014 Legatum Prosperity sub-index for governance, Zambia ranked ninth out of 34 SSA countries and 82nd out of 142 countries worldwide.<sup>218</sup> Moreover, the country's average score for property rights from 2001 to 2015 in the Economic Freedom Index was only 40 points out of 100.<sup>219</sup> In enforcement

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<sup>211</sup> World Bank, "Mobile Cellular Subscriptions per 100 People."

<sup>212</sup> World Bank, "Motor Vehicles per 1,000 People;" World Bank, "Rail Lines."

<sup>213</sup> World Bank, "Air Transport, Registered Carrier Departure Worldwide."

<sup>214</sup> World Bank, "Access to Electricity (Percentage of Population)."

<sup>215</sup> Legatum Institute, "The 2014 Legatum Prosperity Index Table Ranking," Safety and Security and Social Capital Rankings in SSA Region.

<sup>216</sup> Sala-i-Martin et al., "The Global Competitiveness Index 2014–2015," 388.

<sup>217</sup> World Bank, "Rule of Law."

<sup>218</sup> Legatum Institute, "The 2014 Legatum Prosperity Index Table Ranking," Governance 2014 Rankings in SSA Region.

<sup>219</sup> "2015 Index of Economic Freedom," The Heritage Foundation, Property Rights.

of contracts, Zambia ranked 98th out of 189 countries worldwide and scored 57.53 points out of 100 in 2015, which is slightly above the SSA's average of 50 points.<sup>220</sup>

With R&D investments, Zambia's innovation score in 2015 was 3.4 out of 7 points, above the SSA's average of 3 point, which made the country rank 54th out of 144 countries worldwide.<sup>221</sup> The company's 2015 spending for R&D in the country scored 3.4 out of 7 with 49th ranking out of 144 countries, and the score for government's procurement of advanced technical products was 4.0 out of 7 for the same year with an impressive worldwide ranking of 25th.<sup>222</sup> At last, Zambia's 2015 score for the availability of scientists and engineers was 4.3 out of 7 with 51st ranking, but the percentage of patents applications per one million population was zero which pushed its ranking to 124th worldwide.<sup>223</sup>

The promotion of entrepreneurship programs by the Zambian government can be divided into three phases. The first phase started at independence (1964) with programs such as the Southern Province Agricultural Finance Fund, created in 1965, and had its climax with the approval of the Small Industries Development Organization (SIDO) Act in 1981 which aimed to increase technology transfer and foreign direct investments into the country.<sup>224</sup> The second phase was ushered by the arrival of the Movement for Multiparty Democracy (MMD) into power at the end of 1991. The MMD leaders were determined to use the private sector to increase the national productivity through various means such as privatization and the promotion of entrepreneurship with small and medium enterprises (SME).<sup>225</sup> Entrepreneurship programs such as the Public Investment Programme in 1994 and the "Future Search" entrepreneurship programme were

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<sup>220</sup> World Bank, "Doing Business 2015: Economy Profile Zambia," 2014: 66, accessed January 21, 2015, <http://www.doingbusiness.org/data/exploreeconomies/zambia/>.

<sup>221</sup> Sala-i-Martin et al., "The Global Competitiveness Index 2014–2015," 388.

<sup>222</sup> Ibid., 389.

<sup>223</sup> Ibid.

<sup>224</sup> Fidelis Nsofwa Kayula, "Entrepreneurship in Zambia-'Key Success Factors', Master's Thesis, The Copperbelt University, School of Business, updated December 2000: 107, 109, <http://dspace.cbu.ac.zm:8080/jspui/bitstream/123456789/114/1/KAYULA,%20N.%20FIDELIS0001%20-%20Entrepreneurship%20in%20Zambia.PDF>.

<sup>225</sup> Kayula, "Entrepreneurship in Zambia," 110.

supported by policies and institutions such as the Small Enterprise Development Board (SEDB) in 1996, replacing SIDO, the Zambia Congress of Trade Union in 1998, renewed emphasis on entrepreneurship training by the department of Technical Education and Vocation Training (DTEVT), and the establishment of the Micro and Small Enterprise Development Fund.<sup>226</sup> The last phase started around year 2002 with the Transitional National Development Plan for 2002 to 2005, followed by the creation of Zambia Development Agency (ZDA) as the “one-stop-shop” in 2006, the UN-sponsored Economic Empowerment through micro, small, and medium enterprises (MSME) in 2008, the start of the Private Sector Development Reform Programme (PSDRP) in 2009, and the MSME Development Policy in 2011.<sup>227</sup> The multi-phase evolution and programs have helped entrepreneurship to grow over time in Zambia.

*e. Business Environment*

Zambia’s business environment is not better than Botswana’s in most cases but not worse than Malawi’s either. Its average score for World Bank WGI regulatory quality during 2002 to 2012 was -0.52 out of +2.5 although it had a better average score of -0.27 during 1996 to 2000.<sup>228</sup> Even though Zambia was not included in the 2013 Global Opportunity Index by the Milken Institute, its similar World Bank WGI regulatory quality average score to Malawi’s (which is included in the 2013 Global Opportunity Index) during 1996 to 2012 can lead to an estimation of a middle range ranking (in the early 40s) of its quality of regulations and regulatory barriers. Furthermore, Zambia’s 2015 labor market efficiency scored 4.1 out of 7, compared to SSA’s average of 4.2, ranking the country 88th out of 144 countries, and its “goods market efficiency” scored 4.6 out of 7, higher than SSA’s average of 4.0, boosting the country’s ranking to 37th

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<sup>226</sup> Kayula, “Entrepreneurship in Zambia,” 110, 112, 113, 119.

<sup>227</sup> Bongor Tenkir and Christian Chileshe, “The State of Business Practices and the Impact of BDS on MSMEs in Lusaka and Kabwe, Zambia,” Investment Climate and Business Environment Research Fund, Research Report no. 76/13, last updated November 2013: 18, 21, <http://www.africaportal.org/dspace/articles/state-business-practices-and-impact-bds-msmes-lusaka-and-kabwe-zambia>.

<sup>228</sup> World Bank, “Regulatory Quality.”

worldwide.<sup>229</sup> From the 2009 Capital Access Index, Zambia scored 3.36 out of 10 points, compared to Africa's average of 3.07, and ranked 88th out of 122 countries.<sup>230</sup> It also displayed poor ease of access to loans by scoring 2.5 points of seven and ranking 99th out of 144 countries in 2015 and meager venture capital availability with a score of 2.4 out of 7 and a rank of 95th out of 144 countries for the same year.<sup>231</sup>

The 2014 World Bank Ease of Doing Business Index ranked Zambia 111th out of 186 countries, placing the country in the middle range of SSA region.<sup>232</sup> Although no down payment capital is necessary to start a business in Zambia in 2014, the starting cost requires \$472.1 (31.9% of its GNI per capita compared to SSA's average of 56.2%).<sup>233</sup> Zambia's swift number of procedures (5 compared to SSA's average of 7.8) and days (6.5 compared to SSA's average of 27.3) catapulted the country's doing business ranking for starting a business to 68th out of 189 countries.<sup>234</sup> In dealing with construction permits, Zambia ranked 99th out of 189 countries in 2014 due to its near average number of procedures (10 compared to SSA's average of 13.5), lower cost (3.2% of warehouse value compared to SSA's average of 6.2%), and its extra-long number of days (208 compared to SSA's average of 155.7).<sup>235</sup> The country also ranked near bottom 152nd out of 182 countries in 2014 for property registration mainly because of its high associated cost (13.6% of the property value compared to SSA's average of 9.1%) even though it has a smaller number of procedures (5 versus SSA's average of 6.3) and shorter number of days (45 versus SSA's average of 57.2).<sup>236</sup> On the other hand, the country's 2014 rank for protecting minority investors ranked rather higher by being 83rd out 189 countries

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<sup>229</sup> Sala-i-Martin et al., "The Global Competitiveness Index 2014–2015," 388.

<sup>230</sup> Barth, Li, Lu, and Yago, "2009 Capital Access Index," 3, 8, 9.

<sup>231</sup> Sala-i-Martin et al., "The Global Competitiveness Index 2014–2015," 389.

<sup>232</sup> World Bank, "Ease of Doing Business Index."

<sup>233</sup> Doing Business, "2015 Ease of Doing Business in Zambia," Starting a Business, The World Bank, accessed February 16, 2015, <http://www.doingbusiness.org/data/exploreeconomies/zambia/#starting-a-business>.

<sup>234</sup> Doing Business, "2015 Ease of Doing Business in Zambia," Starting a Business.

<sup>235</sup> Doing Business, "2015 Ease of Doing Business in Zambia," Dealing with Construction Permits.

<sup>236</sup> Doing Business, "2015 Ease of Doing Business in Zambia," Registering Property.

due to its robust index for the strength of minority investor protection (5.4 out of 10) compared to SSA's average of 4.6.<sup>237</sup>

In addition, Zambia's lower total tax rate of 14.8% of profit, compared to SSA's average of 46.2%, has helped its 2014 paying taxes ranking to be 78th out of 189 countries.<sup>238</sup> Similar to Botswana's geography, Zambia's landlocked nature makes trading more expensive, which can be seen by the higher cost to import (\$7,060 compared to SSA's average of \$2,930.9) and to export (\$5,165 compared to SSA's average of \$2,200.7) a container, and caused its 2014 ranking for trading across borders to be 177th out of 189 countries.<sup>239</sup> Finally, its average 2014 "resolving insolvency" ranking of 95th out of 189 countries was due to its shorter average duration of bankruptcy proceedings (2.4 years compared to SSA's average of 3.1 years), less-expensive average cost of bankruptcy proceedings (9% of estate value compared to SSA's average of 23.3%), and its recovery rate for creditors from an insolvent firm (39.3 cents from every secured \$1 compared to SSA's average of 24.1 cents).<sup>240</sup>

### **3. Malawi**

Endurance is the most dominant character of Malawi since its independence from Britain in 1964. The country endured three decades of authoritarianism—Polity IV score of -9 out of 10 points—under its ruler Hastings Banda from 1964 to 1993.<sup>241</sup> While the Malawi's political environment greatly improved since 1994—with a Polity IV score of +6 out 10 points, the Malawian society continued to face new obstacles such as drought in 2002 and 2005, Aids epidemics in 2004, on-going internal political strife, and a border dispute with Tanzania in 2012 over Lake Malawi.<sup>242</sup> Malawi ranked 86th out of 112 in the 2014 democracy ranking; its total area is only 118,484 square kilometer, but with an

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<sup>237</sup> Doing Business, "2015 Ease of Doing Business in Zambia," Protecting Minority Investors.

<sup>238</sup> Doing Business, "2015 Ease of Doing Business in Zambia," Paying Taxes.

<sup>239</sup> Doing Business, "2015 Ease of Doing Business in Zambia," Trading Across Borders.

<sup>240</sup> Doing Business, "2015 Ease of Doing Business in Zambia," Resolving Insolvency.

<sup>241</sup> "Polity IV Country Report 2010: Malawi," Center for Systemic Peace, accessed February 12, 2015, <http://www.systemicpeace.org/polity/polity4.htm>.

<sup>242</sup> "Polity IV Country Report 2010: Malawi," Center for System Peace; "Malawi Profile," BBC News Africa, last updated January 2, 2015, <http://www.bbc.com/news/world-africa-13881367>.

abundant percentage of arable land (30.38%).<sup>243</sup> The total number of its population in 2013 is 17,377,468—growing at 3.33% a year; with 74.8% literacy rate; with only 15.7% living in urban areas; divided into nine major ethnic groups (with the top three being Chewa at 32.6%, Lomwe at 17.6%, and Yao at 13.5%); mostly practicing the Christian faith (82.6%).<sup>244</sup> Malawi’s macroeconomic profile is the following: GDP (PPP) at \$15.02 billion with 4.97% growth rate in 2013 (with only 8.2% of GDP for gross national savings); inflation rate at 26.9% in 2013; unemployment rate at 7.6% in 2012; current account balance of -\$280.1 million in 2013; and a fiscal policy of 36.6% taxes (of GDP) in 2013 and a monetary policy of 15% interest rate by the central bank in 2009.<sup>245</sup> Its 2013 GDP composition is made up of 51.7% services, 18.9% industry, and 29.4% agriculture with a GDP per capita (PPP) of \$900 for the same year; its top export and import items are tobacco and food.<sup>246</sup> Malawi’s GINI index was 0.44 in 2010.<sup>247</sup>

Malawi usually finds itself at the bottom percentile in most of the five entrepreneurial factors.

**a. Freedom**

Malawi trails Botswana and Zambia in all three freedom categories. Its average score of economic freedom was 55 out of 100 during 2001 to 2015.<sup>248</sup> Its average trade freedom for the same period was 67 out of 100, and its corresponding average business freedom score was only 49 out of 100.<sup>249</sup> Malawi’s average score for freedom from corruption during 2001 to 2015 was only 32 out of 100.<sup>250</sup>

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<sup>243</sup> Global Democracy Ranking 2014; Central Intelligence Agency, “The World Factbook for Malawi.”

<sup>244</sup> Global Democracy Ranking 2014; Central Intelligence Agency, “The World Factbook for Malawi.”

<sup>245</sup> Ibid.; World Bank, “GDP Growth Annually,” World Bank, “Unemployment.”

<sup>246</sup> Central Intelligence Agency, “The World Factbook for Malawi.”

<sup>247</sup> World Bank, “GINI Index.”

<sup>248</sup> “2015 Index of Economic Freedom,” The Heritage Foundation.

<sup>249</sup> “2015 Index of Economic Freedom,” The Heritage Foundation, Trade and Business Freedom.

<sup>250</sup> “2015 Index of Economic Freedom,” The Heritage Foundation, Freedom from Corruption.

***b. Labor***

Malawi's confidence in entrepreneurship rates higher than Botswana but behind Zambia. Its two-year average rate for entrepreneurial opportunities was 76% of adults, and its average TEA rate from 2012 to 2013 was 32%.<sup>251</sup> Moreover, the 2014 Legatum Prosperity Index in health ranks Malawi seventh in SSA (ahead of Botswana and Zambia) with a worldwide health rank of 108th out of 142 countries; however, Malawi's average health expenditure per capita from 2001 to 2012 only stood at \$20.22, which is well below the SSA average of \$66.<sup>252</sup> Malawi's education ranks 13th out 34 SSA countries and 118th out of 142 countries worldwide according to the 2014 Legatum Prosperity Index.<sup>253</sup> Even though Malawi's secondary education came in second place, behind Botswana but ahead of Zambia, with a 34% school enrollments in 2006 (below SSA's average of 41.2%), its tertiary education school enrollment is dismal in 2008 with only 0.8% (compared to SSA's average of 8.1%).<sup>254</sup> Lastly, despite of its strong confidence in entrepreneurship, the country only scored 2.4 out of five with its entrepreneurship cultural indicator in 2013, which is below the SSA's average of 2.9.<sup>255</sup>

***c. Infrastructure***

For all six infrastructure categories, Malawi lags behind Botswana and Zambia despite of its smaller geographical size. In the field of communications, Malawi's 2013 mobile cellular subscriptions per 100 people was only 32.33 compared to SSA's average of 66 subscriptions, and its average mobile cellular subscriptions per 100 people from 2001 to 2013 stands at 11.90, which can make running a business difficult.<sup>256</sup> With the transportation domain, Malawi fell behind most SSA countries with road, rail, and air

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<sup>251</sup> Amoros and Bosma, "GEM 2013 Global Report," 26, 30; Xavier, Kelley, Kew, Herrington, and Vanderwulbecke, "GEM 2012 Global Report," 20, 24.

<sup>252</sup> Legatum Institute, "The 2014 Legatum Prosperity Index Table Ranking," Health 2014 Rankings in SSA Region; World Bank, "Health Expenditures per Capita."

<sup>253</sup> Legatum Institute, "The 2014 Legatum Prosperity Index Table Ranking," Education 2014 Rankings in SSA Region.

<sup>254</sup> World Bank, "Secondary School Enrollment;" World Bank, "Tertiary School Enrollment."

<sup>255</sup> Amoros and Bosma, "GEM 2013 Global Report," 46.

<sup>256</sup> World Bank, "Mobile Cellular Subscriptions per 100 People."

transports: its 2007 motor vehicle per 1,000 people was 8.8 compared to SSA's average of 29, its 2008 rail lines was 797 kilometers, and its 2013 registered air carrier departures was 1,648 compared to SSA's average of 630.957.<sup>257</sup> Malawi's population's rate of access to electricity was also minimal with only 9% in 2010 compared to SSA's average of 32%.<sup>258</sup> According to the 2014 Legatum Prosperity Index Ranking, , Malawi's security and safety ranked 13th out of 34 SSA countries and 108th out of 142 countries worldwide, and its social capital ranking was 24th in SSA and 118th worldwide.<sup>259</sup> At last, Malawi's technological readiness scored 2.4 out of 7 in 2015, compared to SSA's average of 2.9 points, and ranked 135th out of 144 countries worldwide.<sup>260</sup>

#### **d. Governance**

In the area of governance, Malawi is doing better with the rule of law than in R&D investments or entrepreneurship programs. According to the World Bank WGI for rule of law, Malawi improved its average score from -0.48 points out of +2.5 during 1996 to 2000 to -0.20 points during 2002 to 2012.<sup>261</sup> Moreover, it ranked sixth out of 34 SSA countries and 68th out of 142 countries worldwide in 2014 from the Legatum Prosperity index for governance.<sup>262</sup> Its average score of property rights in the Economic Freedom Index from 2001 to 2015 was 46 points out of 100.<sup>263</sup> Regarding the enforcements of contracts, Malawi scored 43.73 points out of 100 in 2014 compared to the SSA's average of 50 points in 2015 and ranked 154th out of 189 countries worldwide.<sup>264</sup>

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<sup>257</sup> World Bank, "Motor Vehicles per 1,000 People;" World Bank, "Rail Lines;" World Bank, "Air Transport, Registered Carrier Departure Worldwide."

<sup>258</sup> World Bank, "Access to Electricity (Percentage of Population)."

<sup>259</sup> Legatum Institute, "The 2014 Legatum Prosperity Index Table Ranking," Safety and Security and Social Capital 2014 Rankings in SSA Region.

<sup>260</sup> Sala-i-Martin et al., "The Global Competitiveness Index 2014–2015," 258.

<sup>261</sup> World Bank, "Rule of Law."

<sup>262</sup> Legatum Institute, "The 2014 Legatum Prosperity Index Table Ranking," Governance 2014 Rankings in SSA Region.

<sup>263</sup> "2015 Index of Economic Freedom," The Heritage Foundation, Property Rights.

<sup>264</sup> World Bank, "Doing Business 2015: Economy Profile Malawi," 2014:71, accessed February 17, 2015, <http://www.doingbusiness.org/data/exploreeconomies/malawi/>.

With the area of R&D investments, Malawi is behind its African peers at so many levels. Malawi's innovation score from the 2015 Global Competitiveness Index was 2.8 out of 7, which is below the SSA's average score of 3.0 points, and it ranked 135th out of 144 countries worldwide.<sup>265</sup> Company spending on R&D in Malawi in 2015 only scored 2.8 points out of 7 with a rank of 105th out of 144 countries, but the score of government procurement of advanced technical products was 3.0 points out of 7 which resulted in ranking of 110th out of 144 countries for the same year.<sup>266</sup> Although the 2015 score for the availability of scientists and engineers was decent with 3.5 points out of 7 (and a ranking of 103rd out of 144 countries), the percentage of patents application per million population was zero (with a rank of 122nd out of 144) according to the 2015 Global Competitiveness Index.<sup>267</sup>

Entrepreneurship policies and strategies have existed in Malawi for some time but they have seen poorly coordinated, integrated, and implemented across many levels to make small and medium enterprises a potent economic force for development.<sup>268</sup> Although programs such as the Entrepreneurship and Capital Market Adjustment Program started in 1992, Malawi's policy for promoting medium and small enterprises only came about in 1998 after the existence of the 1994 multiparty democracy.<sup>269</sup> The Enterprise Development Employment Generation Programme (EDEP) in 1997, the Business Environment Strengthening Assistant Project (BESTAP) in 2009; the African Women Entrepreneurship Program Malawi (AWEP), launched in 2010 with the U.S.

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<sup>265</sup> Sala-i-Martin et al., "The Global Competitiveness Index 2014–2015," 258.

<sup>266</sup> Ibid., 259.

<sup>267</sup> Ibid.

<sup>268</sup> Chris Darroll, "Micro, Small, and Medium Enterprises (MSME) Policy Strategy for the Republic of Malawi: Enabling Enterprise Growth in Malawi 2012–2017," Strategic Business Partnership, *United Nations Development Program*, Final Draft, August 2012: 12, accessed January 22, 2015, <http://www.undp.org/content/dam/undp/documents/MWI/MALAWI%20MSME%20POLICY%20AND%20FINAL%20DRAFT%20AUGUST%202012.pdf>.

<sup>269</sup> African Development Fund, "Malawi: Entrepreneurship and Capital Market Adjustment Programme," 1995: 31, accessed January 22, 2015, <http://www.afdb.org/fileadmin/uploads/afdb/Documents/Project-and-Operations/ADF-BD-IF-96-28-EN-SCANNEDIMAGE.173.PDF>; Bill Kedrock and Jason Agar, "Assessment of the SME Sector in Malawi in Preparation for a Development Credit Authority Loan Portfolio Guarantee," *U. S. Agency for International Development*, April 2007: 19, accessed on January 25, 2015, [http://pdf.usaid.gov/pdf\\_docs/PNADR932.pdf](http://pdf.usaid.gov/pdf_docs/PNADR932.pdf).

embassy; and the Private Sector Development Programme (PSDP) in 2011 are examples of efforts, supported by different entrepreneurship policies, private and public institutions and associations, to bolster entrepreneurship in the country.<sup>270</sup> Nevertheless, the lack of coherence between various initiatives produced limited gains for the private sector in Malawi.

**e. *Business Environment***

The business environment in Malawi trails the progress made by the other two countries in the case study. Its average score for World Bank WGI regulatory quality was -0.53 out of +2.5 points during 2002 to 2012, which is a fallback from its average of -0.25 during 1996 to 2000.<sup>271</sup> Moreover, the 2013 Global Opportunity Index by the Milken Institute supported the World Bank's findings by ranking Malawi 47th for its quality of regulations and 44th for regulatory barriers out of 97 countries worldwide.<sup>272</sup> While Malawi's labor market efficiency showed great strength in 2015 by scoring 4.6 out of 7, beating the SSA's average of 4.2 points and matching Botswana's score, and garnering a 28<sup>th</sup> ranking out of 144 countries, its "goods market efficiency" remained uncompetitive by scoring 4.0 out of 7, which is below SSA's average of 4.1 points, and ranking 108th out of 144 countries.<sup>273</sup> Additionally, the access to capital by entrepreneurs remains difficult in Malawi. The 2009 Capital Access Index gave Malawi a score of 3.04 out of 10, slightly below SSA's average of 3.07, and a rank of 97th out of 122 countries.<sup>274</sup> These findings are also emphasized by the 2015 global competitiveness index (GCI) for Malawi: scoring 2.3 out of 7 and ranking 114th out of 144 countries for

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<sup>270</sup> Daroll, "MSME Policy Strategy for the Republic of Malawi," 11; Kedrock and Agar, "Assessment of the SME Sector in Malawi," 21; Embassy of the U.S. Lilongwe, Malawi, "African Women's Entrepreneurship Program (AWEP) Malawi to be Launched," accessed January 25, 2015, <http://lilongwe.usembassy.gov/pressreleases5/awep-program-launched.html>.

<sup>271</sup> World Bank, "Regulatory Quality."

<sup>272</sup> Milken Institute, "2013 Global Opportunity Index Rankings," Quality of Regulations and Regulatory Barriers.

<sup>273</sup> Sala-i-Martin et al., "The Global Competitiveness Index 2014–2015," 258.

<sup>274</sup> Barth, Li, Lu, and Yago, "2009 Capital Access Index."

ease of access to loans and scoring 2.2 out of 7 and ranking 112th out of 144 countries for venture capital availability.<sup>275</sup>

The 2014 World Bank for Ease of Doing Business index ranked Malawi 164<sup>th</sup> out of 189 countries which epitomized the struggle of entrepreneurship in the country.<sup>276</sup> First, Malawi's ranking for starting a business in 2014 was 157th out 189 countries.<sup>277</sup> Despite the zero down capital payment requirement (0% of GNI per capita compared to SSA's average of 95.6%), the cost, procedures, and number of days required all exceed the SSA's averages: \$254 (94.1% of GNI per capita compared to 56.2% for SSA's average), 38 days versus 27.3 days for SSA's average, and 8 numbers of procedures compared to 7.8 procedures for SSA's average.<sup>278</sup> Second, the country ranked 72th out of 189 countries in 2014 for dealing with construction permits due to its below-the-regional-average processing time and cost: 13 procedures versus 13.5 for SSA, 153 days versus 155.7 for SSA, and a cost of 1.2% of the warehouse value compared to SSA's average of 6.2%.<sup>279</sup> Third, it also performed relatively well with property registration by getting a placement of 76th out 189 countries in 2014 because of its lower cost (1.9% of property value versus 9.1% for SSA's average), its lower number of procedures (6 versus 6.3 for SSA), and higher number of days (69 versus 57.2 for SSA).<sup>280</sup> Fourth, Malawi ranked 132th out of 189 countries in 2014 for protecting minority investors because its index for the strength of minority investor protection (4.5) was below the SSA's average of 4.6 out of 10.<sup>281</sup>

In addition, Malawi ranked 103rd out of 189 countries in 2014 with the sixth subfactors of tax payments even though its total tax rate is 35.5% of profit which is below

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<sup>275</sup> Sala-i-Martin et al., "The Global Competitiveness Index 2014–2015," 259.

<sup>276</sup> World Bank, "Ease of Doing Business Index."

<sup>277</sup> Doing Business, "2015 Ease of Doing Business in Malawi," Starting a Business, The World Bank, accessed February 17, 2015, <http://www.doingbusiness.org/data/exploreeconomies/malawi/>.

<sup>278</sup> Doing Business, "2015 Ease of Doing Business in Malawi," Starting a Business.

<sup>279</sup> Doing Business, "2015 Ease of Doing Business in Malawi," Dealing with Construction Permits.

<sup>280</sup> Doing Business, "2015 Ease of Doing Business in Malawi," Registering Property.

<sup>281</sup> Doing Business, "2015 Ease of Doing Business in Malawi," Protecting Minority Investors.

the SSA's average of 46.2%.<sup>282</sup> Surprisingly, Malawi struggled with its seventh subfactor of trading across borders in 2014 by ranking 170th out of 189 countries although its costs to import (\$2,895 versus SSA's average of \$2,930.9) and to export (\$2,200 versus SSA's average of \$2,200.7) are attractive given its land-locked geography.<sup>283</sup> Finally, Malawi's ranking for resolving insolvency in 2014 ranked 166th out of 189 countries, for its recovery rate for creditors from an insolvent company of 12.1 cents on every secured dollar was much lower than the SSA's average of 24.1 cents (despite of shorter average duration of bankruptcy proceedings: 2.6 years versus 3.1 for SSA and more expensive cost for executing the bankruptcy proceedings: 25% of estate value compared to SSA's average of 23.3%).<sup>284</sup>

### C. CONCLUSION

Countries that embrace entrepreneurship have experienced positive outcomes with respect to their economies, political systems, and societies. At the economic level, private sector entrepreneurship has been able to increase productivity that led to the growth of GDP. States' decision to engage entrepreneurship also promoted increasing economic freedom for their citizens because flourishing entrepreneurship requires some improved measure of rule of law, regulatory effectiveness, open market, and reduction of corruption. Moreover, entrepreneurship can increase FDI in a country because foreign investors are looking for more profits and ways to diversify their investment portfolio. At the political level, entrepreneurship can increase political freedom via liberalization of local banking, which gives businesspeople and entrepreneurs the freedom to support political candidates that advocate economic reforms for better productivity for the future (instead of being tied to the state due to their need for credit to finance their businesses). At the social level, reduction in unemployment is the biggest impact for society because entrepreneurship produces jobs. In addition, the government can use new tax revenues from entrepreneurial firms to improve education and health of its population so that

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<sup>282</sup> Doing Business, "2015 Ease of Doing Business in Malawi," Paying Taxes.

<sup>283</sup> Doing Business, "2015 Ease of Doing Business in Malawi," Trading Across Borders.

<sup>284</sup> Doing Business, "2015 Ease of Doing Business in Malawi," Resolving Insolvency.

people can happier and become more productive in the future. Entrepreneurship can also help society to improve their means of communications and transportation because the government can open these areas for private competitions (which would lower access cost and/or expand its reach) or team up with the private sector to develop the necessary infrastructure (see appendix for a table summary of the economic, political, and social impacts of entrepreneurship for all three countries). Lastly, the state of the five key entrepreneurial factors was evaluated for each of the three countries in the case study (see appendix for table summaries comparing country snapshots and results of their five key entrepreneurial factors). For most of the factors, Botswana—which has the highest level of entrepreneurship in the group—ends up on top, is followed by Zambia, and finally by Malawi. In the next chapter, a more detailed analysis of the data is given along with potential recommendations that each country can focus to promote their own entrepreneurship.

## **V. EXPLAINING ENTREPRENEURSHIP IN BOTSWANA, ZAMBIA, AND MALAWI**

This chapter compares the five key entrepreneurial factors between Botswana, Zambia, and Malawi and gives potential explanations on key differences related to the growth (or lack thereof) of entrepreneurship in the country. The propensity of each country to have a virtuous or vicious cycle is examined afterwards given their levels of entrepreneurship. Then, a couple of policy recommendations is offered from a general perspective and for each of the three countries to remove the obstacles or improve the entrepreneurial activities. The last section provides the main take-away from the research of the development of entrepreneurship in SSA.

### **A. ANALYSIS**

In comparing the three countries, each of the five entrepreneurial factors contains one or more key elements that underpin the higher (or lower) levels of entrepreneurship. Start-up costs and regulatory quality from the business environment factor, and the rule of law in the governance factor are the fundamental building blocks of entrepreneurship.<sup>285</sup> Botswana has the lowest cost for starting a new business in 2015 as a percentage of GNI per capita—1%—among the three countries which explains its highest number of new LLC firms in the group.<sup>286</sup> Furthermore, people in Botswana have easier access to capital through bank loans or from venture capital firms in 2009, which further encouraged entrepreneurs to start their own firms.<sup>287</sup> Zambia's moderate cost for starting a new business in 2015—32% of GNI per capita, which is lower than SSA's average of 56%—is the reason why it has a good number of new LLC firms.<sup>288</sup> Its moderate level of access to capital through banks and venture capital firms still gives potential entrepreneurs a vehicle to start their own companies.<sup>289</sup> On the other hand,

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<sup>285</sup> Legatum Institute, "The 2013 Legatum Prosperity Index," 41.

<sup>286</sup> Doing Business, "2015 Ease of Doing Business in Botswana," Starting a Business.

<sup>287</sup> Barth, Li, Lu, and Yago, "2009 Capital Access Index," 8, 9.

<sup>288</sup> Doing Business, "2015 Ease of Doing Business in Zambia," Starting a Business.

<sup>289</sup> Barth, Li, Lu, and Yago, "2009 Capital Access Index," 8, 9.

Malawi's cost of 96% of GNI per capita to start a new business is prohibitive to the majority of the population.<sup>290</sup> Moreover, the difficulty to get finance from the banks or venture capital groups makes it harder for prospective risk-takers to achieve their goals of creating new firms.<sup>291</sup> As a result, very few new firms can be created in Malawi, which explains its very low number of new LLC firms.

Regulatory quality has different effects among the three countries. Botswana managed to devise and implement the most successful and solid policies and regulations allowing the private sector to flourish—garnering an average score of 0.59 from 2002 to 2012—which explains its high level of entrepreneurship.<sup>292</sup> In addition, the deliberate strategy by the government of Botswana to coordinate entrepreneurship programs, policies, and institutions at the national, regional, and local levels has produced more new companies than the other two countries. On the other hand, when the regulatory quality score is low, as in Zambia and Malawi, the impact on entrepreneurship is more ambiguous. The two countries have similar average scores from 2002 to 2012 (-0.52 for Zambia and -0.53 for Malawi), but Zambia succeeded in having a moderate level of entrepreneurship while Malawi only had a minimal amount of entrepreneurship.<sup>293</sup> The differentiator might be due to Zambia's coherent policies to promote entrepreneurship after the creation of its business one-stop-shop in 2006 under ZDA.<sup>294</sup> Experts surveyed by the 2012 GEM study appeared to find governmental entrepreneurship programs as one of vital factor responsible for the growth of entrepreneurship in a country.<sup>295</sup> In addition, Zambia's higher average business freedom score of 62 from 2001 to 2015 (compared to Malawi's average score of only 49) points to the country's superior efficiency of business regulation by its government which explains Zambia's higher level of entrepreneurship compared to Malawi. Although Malawi had different entrepreneurship policies, they were

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<sup>290</sup> Doing Business, "2015 Ease of Doing Business in Malawi," Starting a Business.

<sup>291</sup> Barth, Li, Lu, and Yago, "2009 Capital Access Index," 8, 9.

<sup>292</sup> World Bank, "Regulatory Quality."

<sup>293</sup> Ibid.

<sup>294</sup> Tenkir and Chileshe, "The State of Business Practices and the Impact of BDS on MSMEs in Zambia," 18, 21.

<sup>295</sup> Global Entrepreneurship Monitor, "Botswana National Report 2012," 41.

not coordinated at different levels of government to get the best results. Consequently, it continues to have a low level of entrepreneurship.

Similarly, the impact of the rule of law on entrepreneurship shows mixed results among the three countries. As expected, countries with a high score of rule of law, such as Botswana with an average score of 0.63, will have higher level of entrepreneurship because business people have confidence in the state's ability to protect property rights and to enforce contracts.<sup>296</sup> The legacy of Botswana's society to enforce property rights—due to the fact that traditional chiefs owned many cattle—which had survived the colonial period has also contributed to the ability of the people of Botswana to follow rules.<sup>297</sup> Furthermore, Botswana's position as the least corrupted country in SSA (with average score of 59 out of 100 from 2001 to 2015) allows entrepreneurs to focus their resources and time on developing new products instead of fighting the bureaucracy.<sup>298</sup> On the other hand, when the rule of the law score is low, its differential impact on entrepreneurship is less clear which is shown by the case of Zambia and Malawi. Both countries have virtually the same score for the rule of law—Zambia with -0.49 and Malawi with -0.48, yet Zambia has a moderate level of entrepreneurship compared to Malawi's low level of entrepreneurship.<sup>299</sup> In addition, while Zambia has a better record (57.5 versus 43.7) for enforcing contracts in 2015, Malawi has a better reputation (average score of 46 versus 40 from 2001 to 2015) for securing property rights.<sup>300</sup> Meanwhile, both countries have a close average level of freedom from corruption (29 for Zambia and 32 for Malawi) from 2001 to 2015.<sup>301</sup> Good enforcements of the rule of law (culturally or mandated) reduces corruption which produces an environment for entrepreneurship to flourish. However, when the rule of law is not effectively enforced,

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<sup>296</sup> World Bank, "Rule of Law."

<sup>297</sup> Daron Acemoglu and James A. Robinson, *Why Nations Fail: The Origins of Power, Prosperity, and Poverty* (New York: Crown Publishers, 2012), 410–11.

<sup>298</sup> "2015 Index of Economic Freedom," The Heritage Foundation.

<sup>299</sup> World Bank, "Rule of Law."

<sup>300</sup> Doing Business, "2015 Ease of Doing Business in Zambia and Malawi," Contracts Enforcements; "2015 Index of Economic Freedom," The Heritage Foundation, Property Rights.

<sup>301</sup> "2015 Index of Economic Freedom," The Heritage Foundation, Freedom from Corruption.

the growth or lack of entrepreneurship is hard to predict from the level of corruption or the enforcements of contracts.

Better trade freedom and infrastructure support also produce a higher level of entrepreneurship. Stronger average scores of trade freedom by Botswana (72) and Zambia (73) from 2001 to 2015 have helped the growth of entrepreneurship in these two countries compared to Malawi (67).<sup>302</sup> Botswana and Zambia's higher efficiencies with customs, evidenced by their same 2015 score for the "burden of custom procedures" of 4.2 compared to Malawi's score of 3.8, have attracted entrepreneurs who are interested in exporting and importing their goods to the global markets.<sup>303</sup>

Before the announcement of the discovery of diamonds in the 1970s, the government of Botswana was able to change its constitution to use the revenues from all of its natural resources for the nation's benefit instead of a particular tribe.<sup>304</sup> In addition, the government cooperated with the private sector to optimize the exploitation of minerals which helped constrain political elites in Botswana.<sup>305</sup> The government of Botswana used the diamond's revenue—increasing over the years, as seen in Figure 5—to build state capacity and to invest in public services such as infrastructure, education, health expenditures, unemployment benefits, and other social development.<sup>306</sup> Furthermore, the decreasing trend of Botswana's population growth (seen in Figure 6) helped the government to reduce the required spending on social development. Botswana's higher health expenditures per capita and tertiary education school enrollment gave the country a capability to increase the number of capable innovators to start new firms.<sup>307</sup> With strong social safety nets, potential entrepreneurs are more likely to start new companies, which has the potential to increase the level of entrepreneurship

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<sup>302</sup> "2015 Index of Economic Freedom," The Heritage Foundation, Trade Freedom.

<sup>303</sup> Sala-i-Martin et al., "The Global Competitiveness Index 2014–2015," 133, 259, 389.

<sup>304</sup> Acemoglu and Robinson, *Why Nations Fail*, 412.

<sup>305</sup> Stephanie Hanson, "Botswana: An African Success Story Shows Strains," *Council of Foreign Relations*, last updated January 10, 2008, <http://www.cfr.org/botswana-african-success-story-shows-strains/p15108>.

<sup>306</sup> Hanson, "Botswana: An African Success;" Acemoglu and Robinson, *Why Nations Fail*, 412–3.

<sup>307</sup> World Bank, "Tertiary Education School Enrollment;" World Bank, "Health Expenditures per Capita."

in Botswana. Botswana's superior communications, transportation, electricity access, technology readiness, health, and education gave its business people better opportunities to start their own company compared to Zambia and Malawi. Good communications, transportation, technology readiness, and access to electricity also help entrepreneurs reduce transaction costs, facilitate access to different markets, and increase productivity.

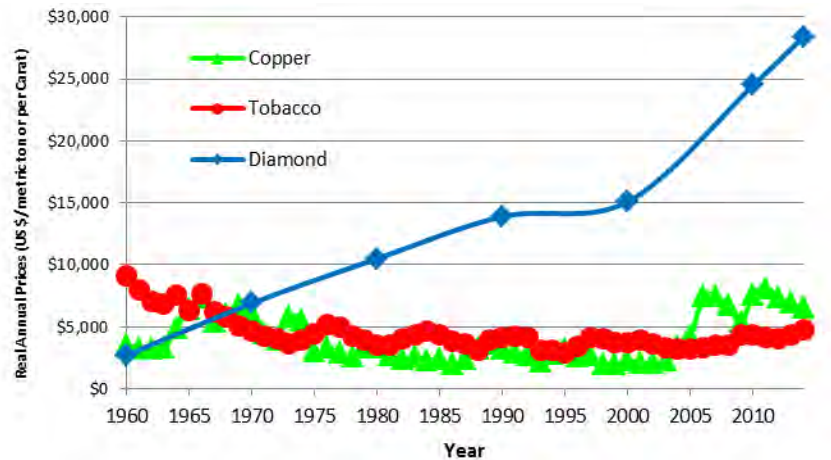


Figure 5. Prices of copper/tobacco per metric ton and diamonds per carat.<sup>308</sup>

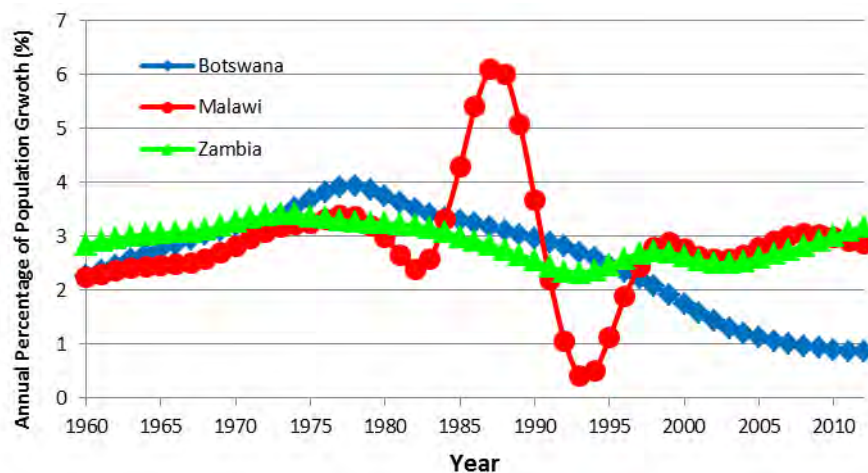


Figure 6. Annual population growth in Botswana, Zambia, and Malawi.<sup>309</sup>

<sup>308</sup> "Diamond Price Per Carat 2014 Statistic," Statista; World Bank, "World Bank Commodity Price Data for Copper and Tobacco Real Annual Prices."

<sup>309</sup> World Bank, "Population Growth," Data, accessed January 25, 2015, <http://data.worldbank.org/indicator/SP.POP.GROW>.

On the other hand, Zambia and Malawi were not as fortunate as Botswana. These two governments could not use the revenues from their primary resources—due to stagnation of the price of copper for Zambia and tobacco for Malawi for the majority of the last four decades, as seen in Figure 5—to improve their national infrastructure, education, and other public services even if their constitutions had mandated the sharing of profits for the benefit of the nation instead of a small group of the population. Moreover, the relatively high percentage of annual population growth in both countries (seen in Figure 6) makes social spending more expensive and challenging for each government. As a result, the poor infrastructure limited potential entrepreneurs to take full advantage of probable profitable business opportunities in Zambia and Malawi. The Zambian government was probably able to use additional revenues from the rising price of copper since 2005 to better their communication, transportation, and technological infrastructure. This copper windfall coupled with Zambia’s strong public and private investment in R&D may explain the medium level of entrepreneurship in Zambia.<sup>310</sup>

Other elements of the five key entrepreneurial factors such as social capital and labor confidence did not have much impact on entrepreneurship among the three countries. Although strong social capital helps build trust in most societies, which increases entrepreneurship level, Botswana—ranked 93rd worldwide in 2015—managed to have a higher level of entrepreneurship than Zambia—ranked 68<sup>th</sup> worldwide.<sup>311</sup> The strong institutions and rule of law in Botswana probably made up for its low score of social capital to provide an environment that is conducive to the growth of entrepreneurship. The high level of worker’s confidence about entrepreneurship in Malawi also did not translate into actual higher number of entrepreneurship in the country compared to Botswana and Zambia.<sup>312</sup> The enthusiasm of potential entrepreneurs in Malawi was easily dampened by the high cost of starting a business and the poor infrastructure of the country, which are major obstacles to successfully create new firms. Most of the remaining Doing Business parameters showed the superiority of Botswana

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<sup>310</sup> Sala-i-Martin et al., “The Global Competitiveness Index 2014–2015,” 388, 389.

<sup>311</sup> Legatum Institute, “The 2014 Legatum Prosperity Index Table Ranking, “ Social Capital.

<sup>312</sup> Amoros and Bosma, “GEM 2013 Global Report,” 26, 30.

and Zambia's business environment which explains their higher levels of entrepreneurship compared to Malawi. The only exception is the "border trades" variable in which Malawi has an attractive cost to import and export containers compared to Botswana and Zambia, even though all of them are land-locked countries, which is due to the closer geographical proximity of the country to the Tanzanian port of Dar-es-Salam.<sup>313</sup>

## **B. PROPENSITY TOWARD A VIRTUOUS OR VICIOUS CYCLE**

Botswana is likely to head toward a virtuous cycle; while Zambia has a chance to be embarking upon a virtuous cycle, Malawi appears to be moving toward the vicious cycle. The growth of entrepreneurship is not a guarantee for economic success in a country because it could lead the nation into either a virtuous or vicious cycle. A vicious cycle is created when a small group of economic elites, who have vested interests in the partially reformed system, blocks further reforms to make the economic landscape more liberal and competitive for higher productivity.<sup>314</sup> Illegal tools such as corruption or legal means such as antitrust laws are used to undercut competition and to collect rents for small interest groups via a close relationship with government leaders.<sup>315</sup> The growing nature of shadow economies is an indication to the path toward vicious cycle.<sup>316</sup> On the other hand, the continuation of early reforms for a more liberal, open, and competitive environment will lead a country to a virtuous cycle. Instruments to reward productive entrepreneurs include stronger application of the rule of the law, strengthening of property rights, attractive taxes, simpler and more effective regulation, commercial leverage of university innovations, and rewarding of imitation.<sup>317</sup> Some of the signs of

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<sup>313</sup> Doing Business 2014, "2015 Ease of Doing Business in Botswana, Zambia, and Malawi," Trading Across Borders.

<sup>314</sup> Havrylyshn and Wolf, "Determinants of Growth in Transition Countries," 14.

<sup>315</sup> Baumol, Litan, and Schramm, *Good Capitalism, Bad Capitalism*, 243–4.

<sup>316</sup> Havrylyshn and Wolf, "Determinants of Growth in Transition Countries," 15.

<sup>317</sup> Baumol, Litan, and Schramm, *Good Capitalism, Bad Capitalism*, 226, 227, 229, 238, 239.

the virtuous cycle include a solid economy, a political will to implement reforms, commitment to the rule of law and property rights, and appropriate social safety nets.<sup>318</sup>

Different measurements point to Botswana's leaning toward a virtuous cycle as its entrepreneurship continues to grow. First, the size of its shadow economy as a percentage of its total GDP has steadily decreased since its estimated origin of entrepreneurship year of 2001 from 33.6 % to 32.7% in 2005 (as seen in Figure 7).<sup>319</sup> Botswana is also among the SSA leaders with the application of the rule of law (0.63 out of 2.5) and securing property rights (70 out of 100).<sup>320</sup> The strength of its economy is seen by the combination of a good 10-year (2004–2013) average annual GDP growth of 4.49% and a solid 9-year (2005–2013) average current account balance of \$4.33 billion.<sup>321</sup> With the positive current account balance, the government of Botswana is able to allocate 3.2% of its GDP to pay for superior social safety nets for the SSA region.<sup>322</sup> In addition, Botswana scored 65.88 out of 100 and ranked second (behind Mauritius) out of 33 SSA countries for the “basic human needs” subcategory of the 2014 Social Progress Index.<sup>323</sup> A direct measurement of the political will to continue reforms for a more liberal and competitive economic environment is difficult to obtain; however, the amount of political power of the ruling party in the legislative branch may give the opposition a vehicle to keep the pressure on the government to execute more economic reforms for more economic

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<sup>318</sup> Havrylyshn and Wolf, “Determinants of Growth in Transition Countries,” 15.

<sup>319</sup> Friedrich Schneider, Andreas Buehn, and Claudio E. Montenegro, “Shadow Economies All Over the World: New Estimates for 162 Countries from 1999 to 2007,” The World Bank, Policy Research Working Paper # 5356, last updated July 2010, 19, <https://openknowledge.worldbank.org/bitstream/handle/10986/3928/WPS5356.pdf?sequence=1>.

<sup>320</sup> World Bank, “Rule of Law;” “2015 Index of Economic Freedom,” Property Rights.

<sup>321</sup> World Bank, “Current Account Balance,” Data, accessed February 13, 2015, <http://data.worldbank.org/indicator/BN.CAB.XOKA.CD>; World Bank, “Annual GDP Growth,” Data, accessed February 13, 2015, <http://data.worldbank.org/indicator/NY.GDP.MKTP.KD.ZG>.

<sup>322</sup> World Bank, “The State of Social Safety Nets-2014,” paper # 87984, page 56, accessed March 12, 2015, <https://openknowledge.worldbank.org/bitstream/handle/10986/18376/879840WP0FINAL00Box385208B00PUBLIC0.pdf?sequence=1>.

<sup>323</sup> “Social Progress Index 2014,” Social Progress Imperative, Basic Human Needs Ranking, accessed March 12, 2015, <http://www.socialprogressimperative.org/data/spi#performance/regions/spi/dim1,dim2,dim3>.

growth. Figure 8 shows the decrease of the percentage of votes for several national elections by the Botswana Congress Party (BCP)—ruling party since independence—and the growth of votes by the main opposition—Umbrella for Democratic Change (UDC)—which will give them leverage to keep the government more accountable.

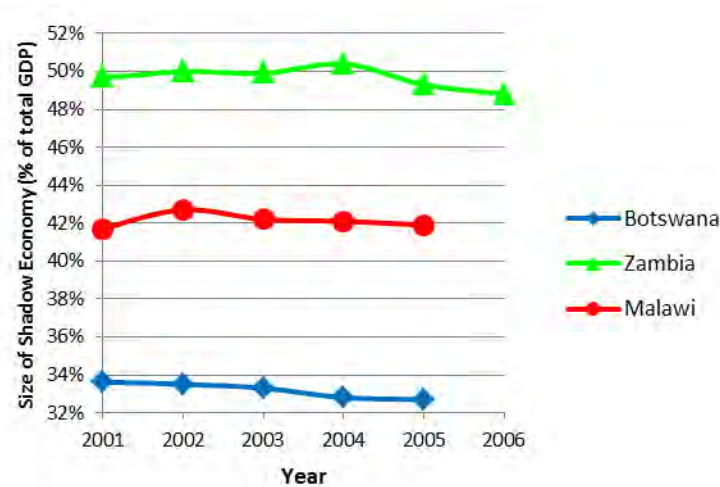


Figure 7. Size of Shadow Economy as a percentage of total GDP.<sup>324</sup>

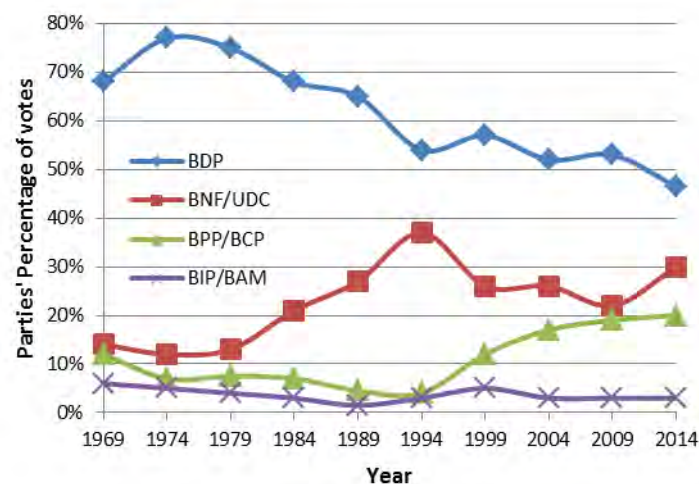


Figure 8. Votes by political party in Botswana national elections.<sup>325</sup>

<sup>324</sup> Schneider, Buehn, and Montenegro, "Shadow Economies All Over the World," 19–20.

Next, Zambia might be leaning toward the virtuous cycle although serious issues with its rule of law, contracts enforcements, and social safety nets could easily tip it to the vicious cycle. On the one hand, Zambia's size of the shadow economy went down from 49.7% of its total GDP in 2001 to 48.8% in 2006.<sup>326</sup> Its 10-year average annual GDP growth from 2004 to 2013 also showed an impressive record of 7.76%, and its 9-year average current account balance from 2005 to 2013 was \$1.26 billion.<sup>327</sup> On the other hand, its average score of rule of law was -0.49 out of 2.5, and poor average property rights score of 40 out of 100 was below the SSA's average of 42.2 points in 2015.<sup>328</sup> In addition, Zambia only spent 0.2% of its GDP in 2011 to pay for social safety nets which is confirmed by its lowly "basic human needs" score of 38.57 out of 100 (ranked 124<sup>th</sup> out of 132 countries worldwide) from the 2014 Social Progress Index.<sup>329</sup> The political will of the government to pursue a more competitive and liberal economy is hard to discern due to the unstable nature of political life in Zambia. The Movement for a Multi-party Democracy (MMD) had a commanding lead in the parliament from 1991 to 2006.<sup>330</sup> Since 2011, the Patriotic Front (PF) took over without a clear majority which gives the potential for the opposition to keep PF accountable of their actions.<sup>331</sup> If Zambia managed to improve its rule of law, contracts enforcements, and social safety nets over the next few years, more entrepreneurs would be attracted to start new firms and the country would be on a firmer ground for a virtuous cycle.

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<sup>325</sup> Botswana Independent Electoral Commission, "2014 Parliamentary Results," last updated November 5, 2014, <http://www.iec.gov.bw/index.php/election-results>; Electoral Institute for Sustainable Democracy in Africa, "Botswana Election Archive," accessed January 27, 2015, <http://www.content.eisa.org.za/old-page/botswana-election-archive>.

<sup>326</sup> Schneider, Buehn, and Montenegro, "Shadow Economies All Over the World," 20.

<sup>327</sup> World Bank, "Current Account Balance;" World Bank, "Annual GDP Growth."

<sup>328</sup> World Bank, "Rule of Law;" "2015 Index of Economic Freedom," Property Rights.

<sup>329</sup> World Bank, "The State of Social Safety Nets-2014," 60; "Social Progress Index 2014," Social Progress Imperative, Basic Human Needs Ranking.

<sup>330</sup> Electoral Institute for Sustainable Democracy in Africa, "Zambia Election Archive," accessed March 12, 2015, <http://www.content.eisa.org.za/old-page/zambia-election-archive>.

<sup>331</sup> Electoral Commission of Zambia, "2011 National Assembly Election Results," last updated September 28, 2011, [http://www.elections.org.zm/media/28092011\\_2011\\_national\\_assembly\\_elections\\_results.pdf](http://www.elections.org.zm/media/28092011_2011_national_assembly_elections_results.pdf).

Finally, many indications point Malawi toward a vicious cycle with its low level of entrepreneurship. The size of its shadow economy as a percentage of total GDP in 2001 (41.7%) remained virtually the same as 2005 with 41.9%.<sup>332</sup> Its rule of law only scored an average of -0.48 out 2.5, and its property rights average score was 46 out of 100, below the SSA's average of 42.2 points in 2015.<sup>333</sup> Although no data is available about the percentage of GDP to pay for social safety nets in Malawi, its "basic human needs" score was 44.92 out of 100 and ranked 113th out of 132 countries from the Social Progress Index 2014.<sup>334</sup> Malawi's 9-year average current account balance from 2005 to 2013 was negative \$280 million, but its average 10-year annual GDP growth from 2004 to 2013 was 5.44%.<sup>335</sup> The only additional positive sign from Malawi is the balanced power of political parties in the parliament from 1994 to 2014 (with the exception of 2009).<sup>336</sup> This distribution of political power in the legislative branch, if applied appropriately, can be turned into a compromise of political will for everyone to get involved in pushing for a liberal and competitive economy where virtually every side can benefit due to the leveled playing field.

### C. POLICY RECOMMENDATIONS TO IMPROVE ENTREPRENEURSHIP

To improve entrepreneurship in SSA, a combination of general and country-specific changes (related to the three countries in the case study) is recommended in this section. Instead of trying to find a magical solution, SSA governments should focus their efforts in creating a space where entrepreneurship and entrepreneurs would thrive through encouraging initiatives, attractive incentives, and a minimization of barriers.<sup>337</sup> Technology borrowing via FDI, local innovation to meet native needs such as phone banking, incremental application of principles of entrepreneurship capitalism, state

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<sup>332</sup> Schneider, Buehn, and Montenegro, "Shadow Economies All Over the World," 20.

<sup>333</sup> World Bank, "Rule of Law;" "2015 Index of Economic Freedom," Property Rights.

<sup>334</sup> "Social Progress Index 2014," Social Progress Imperative, Basic Human Needs Ranking.

<sup>335</sup> World Bank, "Current Account Balance;" World Bank, "Annual GDP Growth."

<sup>336</sup> Electoral Institute for Sustainable Democracy in Africa, "Malawi Election Archive," accessed March 12, 2015, <http://eisa.org.za/WEP/malelectarchive.htm>.

<sup>337</sup> William J. Baumol, Robert E. Litan, and Carl J. Schramm, *Good Capitalism, Bad Capitalism, and the Economics of Growth and Prosperity*, (New Haven, CT: Yale University Press, 2007), 282.

assistance toward entrepreneurial capitalism, foreign aid as short-term strategy for public goods, and the use of micro-credit financing to reduce poverty are examples of ways to create a conducive atmosphere for entrepreneurship growth in African countries.<sup>338</sup> Moreover, if a country wants to transition from a state-guided economy to an entrepreneurship-led, policy reforms would include barrier reduction of business formation, formalization of the legal institution, and improvement in education and access to capital.<sup>339</sup>

## **1. General**

Although education (through a direct improvement or a foreign aid) is not a silver bullet to grow entrepreneurship, it can play a key strategic role in most of SSA countries for increasing the number of potential entrepreneurs and providing a pool of talented labor to support new entrepreneurial firms.<sup>340</sup> The choice is usually between a “universal” approach—where priority and resources are focused in providing the entire population with a quality education up to a high-school level—and a “deep” approach—where the focus is on teaching the most gifted students with top-notch education with domestic universities.<sup>341</sup> For entrepreneurship promotion (maybe controversial and contrary to some experts’ opinion), the latter might lead to a faster and higher level of entrepreneurship, at least in the cases of Botswana, Zambia, and Malawi. All three countries have over 100% of primary school education enrollment as of 2012, but Zambia and Malawi need to do more work on their secondary school education enrollments.<sup>342</sup> Given their higher rate of urban population (except Malawi), land-locked geographies—equivalent to more expensive transportation costs—and English language from the British colonization, a high-quality tertiary education can open the door for profitable exports of high-quality services such as back-office financial services and call center

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<sup>338</sup> Baumol, Litan, and Schramm, *Good Capitalism, Bad Capitalism*, 283–6.

<sup>339</sup> *Ibid.*, 320, 323, 326, 331.

<sup>340</sup> *Ibid.*, 331–2.

<sup>341</sup> Baumol, Litan, and Schramm, *Good Capitalism, Bad Capitalism*, 323.

<sup>342</sup> World Bank, “School Enrollment, Primary (% Gross),” Data, accessed September 8, 2014, <http://data.worldbank.org/indicator/SE.PR.M.ENRR>; World Bank, “School Enrollment, Secondary.”

support.<sup>343</sup> The critique of potential increase of income disparity and political power of an elite class in society due to a “deep” approach for education is valid. Nevertheless, the rise of a new generation of African policymakers, the thirst for “more democratic and accountable governments” and “political accountability and transparency” via near ubiquitous of wireless communications by a lot of SSA citizens in 21<sup>st</sup> century can alleviate the risk of severe social inequality and the return of authoritarianism.<sup>344</sup>

Despite the controversy about the use of foreign aid to develop SSA, education is one area where they could directly and indirectly provide benefits to locals. If local government invests in building university facilities and pay for the salaries of professors, foreign aid can help pay the short-term training of the university researchers for a specific cutting-edge technology at the most advanced technology universities in the world to bring back home that unique knowledge. In addition, external aid can assist to pay for the salary of world-renowned professors to move to a SSA country, during a sabbatical year for example, to provide lecture and research support in university laboratories. Both of these efforts have the potential to lift the quality of domestic university education to match top-rated international institutions. Lastly, foreign aid can also help fund a competitive, entrepreneurial, merit-based university project such as the Meltwater Entrepreneurial School of Technology (MEST) incubator program in Ghana where training, investment, and mentoring are given to prospective technology entrepreneurs.<sup>345</sup> After a two-year intensive training in software development, finance, sales, leadership, teams of students propose a business idea and compete for seed funding, working space, and advisors/mentors to achieve their high-growth entrepreneurial dream for 18 months.<sup>346</sup> This type of program could deliver a game-changing impact for entrepreneurship sector in SSA land-locked countries. Indirectly, foreign aid helps develop the Internet access infrastructure and provide affordable connection to the

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<sup>343</sup> Charles Robertson, *The Fastest Billion: The Story behind Africa's Economic Revolution* (London: Renaissance Capital, 2012), 81–2; World Bank, “Urban Population Rate.”

<sup>344</sup> Steven Radelet, *Emerging Africa: How 17 Countries are Leading the Way* (Baltimore, MD: Brookings Institution Press, 2010), 16, 20.

<sup>345</sup> Robb, Valerio, and Parton, “Entrepreneurship Education and Training,” 56.

<sup>346</sup> Ibid.

Internet to the mass population via cheap computers or smart phones. Once the cost-effective Internet access is achievable, anyone can take advantage of free Massive Open Online Courses (MOOC) to teach themselves particular skills on their own. If the government can set up a system of testing and accreditation of national standards for specific skills such as programming or accounting, the quality of labor can be speedily increased nationwide and non-elite students have a chance for success in life.<sup>347</sup>

## 2. Country-Specific

To improve the growth of entrepreneurship of the three countries in the case study, the following policy recommendations are given based on their performances from the five key entrepreneurial factors. For Botswana, new policy is needed to improve their R&D investment and some elements of Doing Business. The Government of Botswana needs to promote the acquisition of high technology in the private (through FDI, for example) and public sectors. The most urgent need for country is the lack of available engineers and scientists; the country's 2015 global competitive index was 120th out of 144 countries (way behind Zambia and Malawi).<sup>348</sup> The good news is that the government has dedicated 20% of GDP to improve education, and an international university of science and technology is being considered to increase the 15% of science and technology graduates from the country's single university.<sup>349</sup> In addition, there is plenty of room to improve Botswana's rank for Starting a Business (149th out of 189 countries).<sup>350</sup> The number of procedures and days required to start a new business can be easily reduced by 50% to be close to SSA's average through online application for example. A change in these two areas can have a significant impact on the level of entrepreneurship in Botswana.

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<sup>347</sup> Jim Gates, Craig Mundle, and Ann Jackson, "PCAST Considers Massive Open Online Courses (MOOCs) and Related Technologies in Higher Education," Office of Science and Technology Policy, *The White House*, last updated December 16, 2013, <https://www.whitehouse.gov/blog/2013/12/18/pcast-considers-massive-open-online-courses-moocs-and-related-technologies-higher-ed>.

<sup>348</sup> Xavier Sala-i-Martin et al., "The Global Competitiveness Index 2014–2015," 133.

<sup>349</sup> Hanson, "Botswana: An African Success Story Shows Strains."

<sup>350</sup> Doing Business, "2015 Ease of Doing Business in Botswana," Starting a Business.

For Zambia and Malawi, strengthening the rule of law and regulatory quality is critical to the development of entrepreneurship. Their judicial systems need to be more transparent and independent from the legislative or executive branch of the government to improve their lowly property rights average scores of 40 for Zambia and 46 for Malawi out of 100 (below the SSA's average of 42.2), so that entrepreneurs can gain more confidence about the protection of their private properties.<sup>351</sup> Additionally, efforts need to be made to reduce corruption at all levels. Given the decades of patrimonialism in the two countries, the issue of corruption is not going to disappear suddenly; however, small but steady steps over time will eventually change the national perception. To improve their regulatory policies, they should replicate applicable lessons from their neighbor (Botswana) which has successfully crafted and implemented sound policies to secure private property rights, maintain political stability, confine political elites, and allocate revenues from its natural resources for adequate social development.<sup>352</sup> An alternative choice is to follow the success of Tanzania with its good governance reforms that targeted reforms of public finances (which drew foreign aid to help the national budget) and increase transparent protection of foreign investors (which attracted more FDI).<sup>353</sup> Progress in these two areas coupled with an already attractive Doing Business environment and strong R&D investment, Zambia's entrepreneurship could reach new heights. For Malawi, virtually all parameters of Doing Business (except Border Trades transportation costs) need to be improved to make entrepreneurship attractive. The top priority should be on reducing the cost of starting a new business (94% of GNI per capita) to a manageable level such as the SSA's average of 56% at a minimum.<sup>354</sup> Malawi's infrastructure, especially in communications, electricity access, health, and technology readiness, also needs more work. More leverage of the Public Private Partnership commission to improve the country's infrastructure will help to grow the

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<sup>351</sup> "2015 Index of Economic Freedom," Property Rights Sub-index.

<sup>352</sup> Hanson, "Botswana: An African Success Story Shows Strains."

<sup>353</sup> Hazel Gray and Mushtaq Khan, "Good Governance and Growth in Africa: What Can We Learn from Tanzania?," in *The Political Economy of Africa*, ed. Vishnu Padayachee (New York: Routledge, 2010), 352.

<sup>354</sup> Doing Business, "2015 Ease of Doing Business in Malawi," Starting a Business.

amount of entrepreneurship.<sup>355</sup> The rule of law and the regulatory quality in Malawi and Zambia needs to improve if more entrepreneurship is desired. In addition, the infrastructure and doing business variables ought to be revamped in Malawi to create more new firms.

#### **D. CONCLUSION**

The superiority of Botswana in the area of startup costs, regulatory quality, the rule of law, access to capital, and economic freedom is the main reason for its higher level of entrepreneurship relative to Zambia and Malawi. The business freedom, corruption level, and coordination of entrepreneurial programs appear to be better indicators of the level of entrepreneurship with Zambia and Malawi instead of their measure of their regulatory qualities and the rule of law. The deliberate decision by the Botswana government to invest some of the revenue of its natural resources to build its infrastructure has helped to grow the country's entrepreneurship. Zambia and Malawi's failure to do similar action and their higher population growth rate most likely resulted in the less desirable state of their infrastructure. On the other hand, the social capital and especially labor confidence had less impact on the development of entrepreneurship among the three countries.

Instead of focusing on a single policy to grow or expand entrepreneurship, the three countries should create a multi-dimensional environment for entrepreneurship to prosper. Improvement with their education, even using foreign aid, can produce positive dividend for entrepreneurship to enjoy in the near future. Specific policy recommendations for Botswana included the need to improve R&D investment and the process for starting a new business. For Zambia and Malawi, the need to ameliorate the rule of law and regulatory quality will produce a huge difference with entrepreneurship. In addition, Malawi needs to improve all parameters for doing business and infrastructure to become attractive for domestic and foreign entrepreneurs.

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<sup>355</sup> "PPP Projects," Public Private Partnership Commission Malawi, accessed March 13, 2015, <http://www.pppc.mw/pppprojects.html>.

Botswana has displayed signs toward a march toward a virtuous cycle with its decreasing size of the shadow economy, solid economy, strong commitment to rule of law and property rights, adequate social safety nets, and a political will to continue reforms. Zambia's path toward a virtuous cycle could be easily reversed because of its weak commitment to the rule of law and property rights and the lack of decent social safety nets. On the contrary, Malawi has shown an inclination toward a vicious cycle due to its unchanged size of shadow economy, continuing negative current account balance, poor commitment to the rule of law and property rights, and lack of appropriate social safety nets. The case of Botswana (especially) and Zambia could be argued as examples of how entrepreneurship can deliver economic, political, and social benefits. Although their levels of entrepreneurship are relatively low compared to other countries, they have started setting up their right conditions for entrepreneurship and entrepreneurs to grow in the future.

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## APPENDIX

Table 1. 2013 World Bank's entrepreneurial data sets about new firms and new density in Africa.<sup>356</sup>

| Country          | Year | 2013 World Bank's New Density (newly registered companies with limited liability per 1,000 working-age people (15-64)) | 2013 World Bank's New Firms (newly registered corporations during the calendar year) | World Bank's Average New Firms | World Bank's Average New Density |
|------------------|------|------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------|--------------------------------|----------------------------------|
| Algeria          | 2004 | 0.54                                                                                                                   | 11268                                                                                | 10665                          | 0.44                             |
| Algeria          | 2005 | 0.46                                                                                                                   | 10361                                                                                |                                |                                  |
| Algeria          | 2006 | 0.38                                                                                                                   | 8864                                                                                 |                                |                                  |
| Algeria          | 2007 | 0.33                                                                                                                   | 7955                                                                                 |                                |                                  |
| Algeria          | 2008 | 0.46                                                                                                                   | 11120                                                                                |                                |                                  |
| Algeria          | 2009 | 0.43                                                                                                                   | 10661                                                                                |                                |                                  |
| Algeria          | 2010 | 0.38                                                                                                                   | 9564                                                                                 |                                |                                  |
| Algeria          | 2011 | 0.48                                                                                                                   | 12256                                                                                |                                |                                  |
| Algeria          | 2012 | 0.53                                                                                                                   | 13938                                                                                |                                |                                  |
| Botswana         | 2004 | 8.47                                                                                                                   | 8990                                                                                 | 9699                           | 8.12                             |
| Botswana         | 2005 | 5.75                                                                                                                   | 6581                                                                                 |                                |                                  |
| Botswana         | 2006 | 5.67                                                                                                                   | 6591                                                                                 |                                |                                  |
| Botswana         | 2007 | 5.87                                                                                                                   | 6927                                                                                 |                                |                                  |
| Botswana         | 2008 | 6.73                                                                                                                   | 8050                                                                                 |                                |                                  |
| Botswana         | 2009 | 8.96                                                                                                                   | 10852                                                                                |                                |                                  |
| Botswana         | 2010 | 9.49                                                                                                                   | 11639                                                                                |                                |                                  |
| Botswana         | 2011 | 9.84                                                                                                                   | 12217                                                                                |                                |                                  |
| Botswana         | 2012 | 12.30                                                                                                                  | 15447                                                                                |                                |                                  |
| Burkina Faso     | 2006 | 0.08                                                                                                                   | 567                                                                                  | 877                            | 0.11                             |
| Burkina Faso     | 2007 | 0.08                                                                                                                   | 606                                                                                  |                                |                                  |
| Burkina Faso     | 2008 | 0.10                                                                                                                   | 730                                                                                  |                                |                                  |
| Burkina Faso     | 2009 | 0.10                                                                                                                   | 766                                                                                  |                                |                                  |
| Burkina Faso     | 2010 | 0.13                                                                                                                   | 1076                                                                                 |                                |                                  |
| Burkina Faso     | 2011 | 0.14                                                                                                                   | 1127                                                                                 |                                |                                  |
| Burkina Faso     | 2012 | 0.15                                                                                                                   | 1268                                                                                 |                                |                                  |
| Congo, Dem. Rep. | 2008 | 0.02                                                                                                                   | 534                                                                                  | 645                            | 0.02                             |
| Congo, Dem. Rep. | 2009 | 0.02                                                                                                                   | 705                                                                                  |                                |                                  |
| Congo, Dem. Rep. | 2010 | 0.02                                                                                                                   | 754                                                                                  |                                |                                  |
| Congo, Dem. Rep. | 2011 | 0.01                                                                                                                   | 413                                                                                  |                                |                                  |
| Congo, Dem. Rep. | 2012 | 0.02                                                                                                                   | 819                                                                                  |                                |                                  |

<sup>356</sup> World Bank, "Entrepreneurship: New Density."

|            |      |      |       |       |      |
|------------|------|------|-------|-------|------|
| Ethiopia   | 2004 | 0.02 | 754   | 1050  | 0.03 |
| Ethiopia   | 2005 | 0.02 | 778   |       |      |
| Ethiopia   | 2006 | 0.03 | 1037  |       |      |
| Ethiopia   | 2007 | 0.03 | 1194  |       |      |
| Ethiopia   | 2008 | 0.03 | 1211  |       |      |
| Ethiopia   | 2009 | 0.03 | 1327  |       |      |
| Gabon      | 2004 | 2.63 | 1930  | 2951  | 3.70 |
| Gabon      | 2005 | 3.41 | 2578  |       |      |
| Gabon      | 2006 | 3.17 | 2471  |       |      |
| Gabon      | 2007 | 3.64 | 2918  |       |      |
| Gabon      | 2008 | 5.23 | 4318  |       |      |
| Gabon      | 2009 | 4.11 | 3490  |       |      |
| Ghana      | 2004 | 0.49 | 5989  | 11442 | 0.85 |
| Ghana      | 2005 | 0.61 | 7346  |       |      |
| Ghana      | 2006 | 0.62 | 7651  |       |      |
| Ghana      | 2007 | 0.75 | 9624  |       |      |
| Ghana      | 2008 | 1.10 | 14485 |       |      |
| Ghana      | 2009 | 1.13 | 15324 |       |      |
| Ghana      | 2010 | 0.99 | 13760 |       |      |
| Ghana      | 2011 | 1.09 | 15649 |       |      |
| Ghana      | 2012 | 0.90 | 13154 |       |      |
| Guinea     | 2011 | 0.19 | 1167  | 1288  | 0.21 |
| Guinea     | 2012 | 0.23 | 1409  |       |      |
| Kenya      | 2004 | 0.35 | 6678  | 11315 | 0.56 |
| Kenya      | 2005 | 0.38 | 7334  |       |      |
| Kenya      | 2006 | 0.42 | 8472  |       |      |
| Kenya      | 2007 | 0.78 | 16193 |       |      |
| Kenya      | 2008 | 0.84 | 17896 |       |      |
| Lesotho    | 2004 | 0.59 | 681   | 1277  | 1.11 |
| Lesotho    | 2005 | 0.76 | 814   |       |      |
| Lesotho    | 2006 | 0.81 | 879   |       |      |
| Lesotho    | 2007 | 0.94 | 1045  |       |      |
| Lesotho    | 2008 | 1.25 | 1407  |       |      |
| Lesotho    | 2009 | 1.34 | 1531  |       |      |
| Lesotho    | 2010 | 1.51 | 1761  |       |      |
| Lesotho    | 2011 | 1.32 | 1573  |       |      |
| Lesotho    | 2012 | 1.49 | 1801  |       |      |
| Madagascar | 2011 | 0.08 | 944   | 787   | 0.07 |
| Madagascar | 2012 | 0.05 | 630   |       |      |
| Malawi     | 2004 | 0.05 | 306   | 531   | 0.08 |
| Malawi     | 2005 | 0.06 | 416   |       |      |
| Malawi     | 2006 | 0.06 | 420   |       |      |
| Malawi     | 2007 | 0.09 | 628   |       |      |
| Malawi     | 2008 | 0.11 | 797   |       |      |
| Malawi     | 2009 | 0.08 | 619   |       |      |

|           |      |       |       |       |       |
|-----------|------|-------|-------|-------|-------|
| Mauritius | 2004 | 5.88  | 4976  | 6968  | 7.83  |
| Mauritius | 2005 | 7.28  | 6260  |       |       |
| Mauritius | 2006 | 8.53  | 7435  |       |       |
| Mauritius | 2007 | 10.08 | 8888  |       |       |
| Mauritius | 2008 | 10.09 | 9012  |       |       |
| Mauritius | 2009 | 7.35  | 6631  |       |       |
| Mauritius | 2010 | 5.97  | 5442  |       |       |
| Mauritius | 2011 | 7.89  | 7239  |       |       |
| Mauritius | 2012 | 7.40  | 6825  |       |       |
| Morocco   | 2004 | 0.53  | 9852  | 19298 | 0.96  |
| Morocco   | 2005 | 0.58  | 11292 |       |       |
| Morocco   | 2006 | 0.89  | 17523 |       |       |
| Morocco   | 2007 | 1.23  | 24676 |       |       |
| Morocco   | 2008 | 1.29  | 26280 |       |       |
| Morocco   | 2009 | 1.26  | 26166 |       |       |
| Namibia   | 2004 | 0.53  | 614   | 849   | 0.68  |
| Namibia   | 2005 | 0.62  | 717   |       |       |
| Namibia   | 2006 | 0.59  | 690   |       |       |
| Namibia   | 2007 | 0.63  | 749   |       |       |
| Namibia   | 2008 | 0.86  | 1057  |       |       |
| Namibia   | 2009 | 0.76  | 952   |       |       |
| Namibia   | 2010 | 0.64  | 817   |       |       |
| Namibia   | 2011 | 0.68  | 892   |       |       |
| Namibia   | 2012 | 0.85  | 1157  |       |       |
| Niger     | 2004 | 0.01  | 41    | 32    | 0.005 |
| Niger     | 2005 | 0.01  | 49    |       |       |
| Niger     | 2006 | 0.00  | 14    |       |       |
| Niger     | 2007 | 0.00  | 27    |       |       |
| Niger     | 2008 | 0.01  | 36    |       |       |
| Niger     | 2009 | 0.00  | 24    |       |       |
| Nigeria   | 2004 | 0.32  | 23457 | 53437 | 0.65  |
| Nigeria   | 2005 | 0.39  | 28988 |       |       |
| Nigeria   | 2006 | 0.45  | 34531 |       |       |
| Nigeria   | 2007 | 0.59  | 46240 |       |       |
| Nigeria   | 2008 | 0.79  | 64017 |       |       |
| Nigeria   | 2009 | 0.79  | 65089 |       |       |
| Nigeria   | 2010 | 0.77  | 65074 |       |       |
| Nigeria   | 2011 | 0.83  | 72396 |       |       |
| Nigeria   | 2012 | 0.91  | 81144 |       |       |
| Rwanda    | 2004 | 0.08  | 407   | 2323  | 0.40  |
| Rwanda    | 2005 | 0.08  | 413   |       |       |
| Rwanda    | 2006 | 0.11  | 582   |       |       |
| Rwanda    | 2007 | 0.16  | 836   |       |       |
| Rwanda    | 2008 | 0.21  | 1136  |       |       |
| Rwanda    | 2009 | 0.54  | 3028  |       |       |

|                       |      |      |        |        |      |
|-----------------------|------|------|--------|--------|------|
| Rwanda                | 2010 | 0.56 | 3219   |        |      |
| Rwanda                | 2011 | 0.78 | 4627   |        |      |
| Rwanda                | 2012 | 1.07 | 6655   |        |      |
| Sao Tome and Principe | 2010 | 0.58 | 57     | 229    | 2.24 |
| Sao Tome and Principe | 2011 | 2.40 | 241    |        |      |
| Sao Tome and Principe | 2012 | 3.75 | 388    |        |      |
| Senegal               | 2004 | 0.13 | 835    | 1735   | 0.26 |
| Senegal               | 2005 | 0.16 | 978    |        |      |
| Senegal               | 2006 | 0.17 | 1058   |        |      |
| Senegal               | 2007 | 0.49 | 3084   |        |      |
| Senegal               | 2008 | 0.27 | 1757   |        |      |
| Senegal               | 2009 | 0.35 | 2340   |        |      |
| Senegal               | 2010 | 0.26 | 1794   |        |      |
| Senegal               | 2011 | 0.26 | 1816   |        |      |
| Senegal               | 2012 | 0.27 | 1954   |        |      |
| Sierra Leone          | 2004 | 0.15 | 389    | 779    | 0.25 |
| Sierra Leone          | 2005 | 0.17 | 471    |        |      |
| Sierra Leone          | 2006 | 0.19 | 553    |        |      |
| Sierra Leone          | 2007 | 0.21 | 629    |        |      |
| Sierra Leone          | 2008 | 0.28 | 843    |        |      |
| Sierra Leone          | 2009 | 0.34 | 1045   |        |      |
| Sierra Leone          | 2010 | 0.23 | 747    |        |      |
| Sierra Leone          | 2011 | 0.39 | 1271   |        |      |
| Sierra Leone          | 2012 | 0.32 | 1062   |        |      |
| South Africa          | 2004 | 5.43 | 162715 | 226711 | 7.16 |
| South Africa          | 2005 | 7.44 | 227624 |        |      |
| South Africa          | 2006 | 8.54 | 264726 |        |      |
| South Africa          | 2007 | 8.23 | 258091 |        |      |
| South Africa          | 2008 | 9.18 | 291323 |        |      |
| South Africa          | 2009 | 7.89 | 253217 |        |      |
| South Africa          | 2010 | 6.14 | 199754 |        |      |
| South Africa          | 2011 | 5.02 | 165323 |        |      |
| South Africa          | 2012 | 6.54 | 217624 |        |      |
| Togo                  | 2006 | 0.01 | 19     | 250    | 0.07 |
| Togo                  | 2007 | 0.01 | 39     |        |      |
| Togo                  | 2008 | 0.02 | 53     |        |      |
| Togo                  | 2009 | 0.12 | 400    |        |      |
| Togo                  | 2010 | 0.11 | 388    |        |      |
| Togo                  | 2011 | 0.11 | 398    |        |      |
| Togo                  | 2012 | 0.12 | 451    |        |      |
| Tunisia               | 2004 | 0.70 | 4680   | 8210   | 1.15 |
| Tunisia               | 2005 | 0.82 | 5578   |        |      |
| Tunisia               | 2006 | 0.92 | 6368   |        |      |

|         |      |      |       |       |      |
|---------|------|------|-------|-------|------|
| Tunisia | 2007 | 1.28 | 8997  |       |      |
| Tunisia | 2008 | 1.16 | 8297  |       |      |
| Tunisia | 2009 | 1.26 | 9138  |       |      |
| Tunisia | 2010 | 1.54 | 11317 |       |      |
| Tunisia | 2011 | 1.52 | 11307 |       |      |
| Uganda  | 2004 | 0.55 | 7080  | 10481 | 0.68 |
| Uganda  | 2005 | 0.59 | 8165  |       |      |
| Uganda  | 2006 | 0.56 | 8014  |       |      |
| Uganda  | 2007 | 0.58 | 8645  |       |      |
| Uganda  | 2008 | 0.62 | 9509  |       |      |
| Uganda  | 2009 | 0.70 | 11152 |       |      |
| Uganda  | 2012 | 1.17 | 20800 |       |      |
| Zambia  | 2004 | 0.56 | 3112  | 5829  | 0.90 |
| Zambia  | 2005 | 0.59 | 3431  |       |      |
| Zambia  | 2006 | 0.61 | 3648  |       |      |
| Zambia  | 2007 | 0.87 | 5318  |       |      |
| Zambia  | 2008 | 1.00 | 6284  |       |      |
| Zambia  | 2009 | 0.85 | 5505  |       |      |
| Zambia  | 2010 | 1.04 | 6941  |       |      |
| Zambia  | 2011 | 1.24 | 8540  |       |      |
| Zambia  | 2012 | 1.36 | 9682  |       |      |

Table 2. Comparison of economic, political, and social impacts of Entrepreneurship in Botswana, Zambia, and Malawi.<sup>357</sup>

|                                                            | High-entrepreneurship |           | Medium-entrepreneurship |           | Low-entrepreneurship |           |
|------------------------------------------------------------|-----------------------|-----------|-------------------------|-----------|----------------------|-----------|
|                                                            | BOTSWANA              |           | ZAMBIA                  |           | MALAWI               |           |
|                                                            | pre-2001              | post-2001 | pre-2001                | post-2001 | pre-2001             | post-2001 |
| <b>ECONOMIC IMPACTS OF ENTREPRENEURSHIP</b>                |                       |           |                         |           |                      |           |
| Average 10-year Growth of GDP per Capita (PPP)             | 4.56%                 | 4.98%     | 0.27%                   | 5.02%     | 3.95%                | 2.21%     |
| Economic Freedom Index (2001 & 2014)                       | 66.8/100              | 72/100    | 59.5/100                | 60.4/100  | 56.2/100             | 55.4/100  |
| Average Net Inflow of FDI (in Billion dollars)             | \$22B                 | \$446B    | \$142B                  | \$751B    | \$14B                | \$95B     |
| <b>POLITICAL IMPACTS OF ENTREPRENEURSHIP</b>               |                       |           |                         |           |                      |           |
| Average Score of Civil Liberties                           | 2                     | 2.23      | 4.07                    | 3.92      | 4.46                 | 3.84      |
| Average Score of Political Rights                          | 1.69                  | 2.38      | 4.3                     | 3.46      | 4.2                  | 3.56      |
| Average Polity IV Democracy Score                          | 6.4                   | 8         | -3.4                    | 5         | -6.2                 | 5.5       |
| <b>SOCIAL IMPACTS OF ENTREPRENEURSHIP</b>                  |                       |           |                         |           |                      |           |
| Average 10-year of Unemployment Rate                       | 22.20%                | 20.80%    | 16.20%                  | 15.20%    | 7.40%                | 7.69%     |
| Average 10-year of Tertiary Education Enrollment           | 5.11%                 | 7.02%     | 2.34%                   | N/A       | 0.50%                | 0.53%     |
| Health Expenditures per Capita (2001 & 2012)               | \$175                 | \$384     | \$21                    | \$96      | \$8                  | \$25      |
| Total 5-year Private Investments in Telecommunications     | \$114M                | \$279M    | \$91M                   | \$1,053M  | \$28M                | \$758M    |
| Mobile Cellular Subscriptions per 100 People (2001 & 2013) | 18.63                 | 160.64    | 1.17                    | 71.5      | 0.48                 | 32.33     |

Table 3. Macro-level comparison of Botswana, Zambia, and Malawi.<sup>358</sup>

|                                 | Botswana   |             |           | Zambia        |            |           | Malawi     |            |         |
|---------------------------------|------------|-------------|-----------|---------------|------------|-----------|------------|------------|---------|
|                                 | score      | world rank  |           | score         | world rank |           | score      | world rank |         |
| Independence year               | 1966       |             |           | 1964          |            |           | 1964       |            |         |
| Democracy Ranking (2014)        | 53.3/100   | 67th/112    |           | 44.4/100      | 96th/112   |           | 48.6/100   | 86th/112   |         |
| Total surface (sq km)           | 581,730    |             |           | 752,618       |            |           | 118,484    |            |         |
| Population number 2013          | 2,155,784  |             |           | 14,638,505    |            |           | 17,377,468 |            |         |
| Pop. Growth rate/yr 2013        | 1.26%      |             |           | 2.88%         |            |           | 3.33%      |            |         |
| Pop. Literacy rate 2013         | 85%        |             |           | 61.40%        |            |           | 74.80%     |            |         |
| Urban pop. Rate 2013            | 62%        |             |           | 39.20%        |            |           | 15.70%     |            |         |
| Top 3 ethnic groups of pop.     | 79% Tswana | 11% Kalanga | 7% others | 21% Bemba     | 14% Tonga  | 7% Chewa  | 33% Chewa  | 18% Lomwe  | 14% Yao |
| Faith of pop.                   | 72% Chris  | 20% none    | 6% Badimo | 95% Chris     | 3% Mus/Bud | 2% none   | 83% Chris  | 13% Muslim | 3% none |
| GDP (PPP) 2013                  | \$34B      |             |           | \$25.5B       |            |           | \$15.02B   |            |         |
| GDP growth/yr 2013              | 5.80%      |             |           | 6.71%         |            |           | 4.97%      |            |         |
| Nat'l savings (%GDP) 2013       | 33.70%     |             |           | 14.50%        |            |           | 8.20%      |            |         |
| Inflation rate 2013             | 6.10%      |             |           | 7.10%         |            |           | 26.90%     |            |         |
| Unemployment rate               | 17.80%     |             |           | 15%           |            |           | 7.16%      |            |         |
| Current account balance 2013    | \$1.7B     |             |           | (\$1.25B)     |            |           | (\$280.1M) |            |         |
| Fiscal Pcy tax rate (%GDP) 2013 | 32.40%     |             |           | 21.60%        |            |           | 36.60%     |            |         |
| Mon Pcy interest rate 2010      | 9.50%      |             |           | 8.39%         |            |           | 15%        |            |         |
| GDP comp (serv, ind, agro) 2013 | 62%        | 36%         | 2%        | 46.50%        | 33.80%     | 19.80%    | 51.70%     | 18.90%     | 29.40%  |
| GDP per capita 2013             | \$16,400   |             |           | \$1,800       |            |           | \$900      |            |         |
| GNI per capita (atlas) 2013     | \$7,770    |             |           | \$1,810       |            |           | \$270      |            |         |
| GINI Coefficient                | 0.61       |             |           |               | 0.57       |           |            | 0.44       |         |
| Top exports and imports         | diamonds   |             | food      | copper/cobalt |            | machinery | tobacco    |            | food    |

<sup>357</sup> Calculation of averages is done by the author from the data sets of World Bank, Heritage Foundation, Random House, and Center for Systemic Peace that were previously listed in the body of the thesis.

<sup>358</sup> Data sets come from the data sets of Global Democracy Ranking, the World Bank, and the World Factbook of the Central Intelligence Agency that were previously listed in the body of the thesis.

Table 4. Comparison of the five entrepreneurial factors for Botswana, Zambia, and Malawi.<sup>359</sup>

|                                | BOTSWANA         |         |           | ZAMBIA        |         |             | MALAWI              |        |             | SSA Average | Comments/Sources                                           |
|--------------------------------|------------------|---------|-----------|---------------|---------|-------------|---------------------|--------|-------------|-------------|------------------------------------------------------------|
|                                | rank             | score   |           | rank          | score   |             | rank                | score  |             |             |                                                            |
|                                | world            | Region  | F-year    | world         | Region  | F-year      | world               | Region | F-year      |             |                                                            |
| <b>FREEDOM (economic)</b>      |                  |         |           |               |         | 58          |                     |        |             |             |                                                            |
| Trade Freedom                  |                  |         | 63        |               |         | 73/100      |                     |        | 55          | 75.4/100    | average Index of Economic Freedom score from 2001 to 2015  |
| Business Freedom               |                  |         | 72/100    |               |         | 62/100      |                     |        | 67/100      | 75.4/100    | average EF Trade Freedom score from 2001 to 2015           |
| Freedom from Corruption        |                  |         | 59/100    |               |         | 29/100      |                     |        | 49/100      | 64/100      | average EF Business Freedom score from 2001 to 2015        |
|                                |                  |         |           |               |         |             |                     |        | 32/100      | 42.2/100    | average EF Freedom from Corruption score from 2001 to 2015 |
| <b>LABOR</b>                   |                  |         |           |               |         |             |                     |        |             |             |                                                            |
| Confidence                     |                  |         |           |               |         |             |                     |        |             |             |                                                            |
| E-opportunities (%adults)      |                  |         | 63%       |               |         | 76%         |                     |        | 76%         | 68.90%      | GEM 2012-2014; GEM 2010, 2012, 2013; GEM 2012-2013         |
| TEA rate                       |                  |         | 27%       |               |         | 38%         |                     |        | 32%         | 26.60%      | GEM 2012-2014; GEM 2010, 2012, 2013; GEM 2012-2013         |
| Health                         |                  |         |           |               |         |             |                     |        |             |             |                                                            |
| Legatum Health                 | 111h/142         | 8th/34  |           | 135h/142      | 28h/34  |             | 108h/142            | 7th/34 |             |             | Legatum 2014 health                                        |
| Health Expend./capita          |                  | 5h      | \$288     |               |         | \$55        |                     |        | \$20.22     | \$66        | WB health Exp./capita average from 2001 to 2012            |
| Education                      |                  |         |           |               |         |             |                     |        |             |             |                                                            |
| Secondary Ed. School Enroll    | 94h/142          | 2nd/34  |           | 105h/142      | 5th/34  |             | 110h/142            | 13h/34 |             | 34%         | Legatum 2014 Education                                     |
| Tertiary Ed. School Enroll     |                  |         | 87%       |               |         | 20.50%      |                     |        |             | 41%         | WB Secondary School Enrollment 2008                        |
| Culture                        |                  |         | 7%        |               |         | 2.40%       |                     |        |             | 0.80%       | 8.10%                                                      |
|                                |                  |         | 2.9/5     |               |         | 2.6/5       |                     |        |             | 2.4/5       | 2.3/5                                                      |
|                                |                  |         |           |               |         |             |                     |        |             |             | GEM 2013-social                                            |
| <b>INFRASTRUCTURE</b>          |                  |         |           |               |         |             |                     |        |             |             |                                                            |
| Communications                 |                  |         |           |               |         |             |                     |        |             |             |                                                            |
| Mobile cell subs. per 100 ppl  |                  |         | 160       |               |         | 66          |                     |        | 32.3        | 66          | WB 2013 mobile subscriptions                               |
| Transportation                 |                  |         |           |               |         |             |                     |        |             |             |                                                            |
| Motor vehicles per 1,000 ppl   |                  |         | 111       |               |         | 17.51       |                     |        | 8.8         | 29          | WB 2007 Motor vehicles per 1,000 people                    |
| Length of rail lines           |                  |         | 888km     |               |         | 1,273km     |                     |        | 797km       |             | WB 2008 rail line lengths                                  |
| Reg. Air carrier departures    |                  |         | 9,204     |               |         | 7,673       |                     |        | 1,648       | 630,958     | WB 2013 Registered Air carrier departures                  |
| Electricity Access             |                  |         | 43%       |               |         | 15%         |                     |        | 3%          | 32%         | WB 2010 Population % Access to electricity                 |
| Security                       | 84h/182          | 8th/46  |           | 121st/142     | 21st/34 |             | 108h/142            | 13h/34 |             |             | Legatum 2014 Security and Safety                           |
| Social Capital                 | 93rd/142         | 15th/34 |           | 68h/142       | 8th/34  |             | 118h/142            | 24h/34 |             |             | Legatum 2014 Social Capital                                |
| Technology Readiness           | 76h/144          | 3.6/7   | 105h/144  |               | 3/7     | 135h/144    |                     | 2.4/7  | 2.3/7       |             | GCI 2015-Technological Readiness                           |
| <b>GOVERNANCE</b>              |                  |         |           |               |         |             |                     |        |             |             |                                                            |
| Rule of law                    |                  |         |           |               |         |             |                     |        |             |             |                                                            |
| rule of law WB w/GI            |                  |         | 0.63/2.5  |               |         | -0.49/2.5   |                     |        | -0.48/2.5   |             | WB w/GI average governance score from 2002 to 2012         |
| Governance Legatum             | 28th/142         | 1st/34  |           | 82nd/142      | 9th/34  |             | 68h/142             | 6th/34 |             |             | Legatum 2014 Governance                                    |
| Property Rights                |                  |         | 70/100    |               |         | 40/100      |                     |        | 46/100      | 42.2/100    | average EF Property Rights score from 2001 to 2015         |
| Contracts enforcements         | 61st/183         |         | 64/100    | 98h/183       |         | 57.5/100    | 154h/183            |        | 43.7/100    | 50/100      | WB 2015 Doing Business-Enforcements of contracts           |
| R&D Investment                 |                  |         |           |               |         |             |                     |        |             |             |                                                            |
| Innovation                     | 102nd/144        |         | 3/7       | 54h/144       |         | 3.4/7       | 135h/144            |        | 2.8/7       | 3/7         | GCI 2015-Innovation                                        |
| Govt proc of tech              | 45h/144          |         | 3.7/7     | 25h/144       |         | 4/7         | 110h/144            |        | 3/7         |             | GCI 2015-Govt procurement of Tech products                 |
| Company R&D spending           | 118h/144         |         | 2.6/7     | 49h/144       |         | 3.4/7       | 105h/144            |        | 2.8/7       |             | GCI 2015-Company spending on R&D                           |
| Patent %/million pop           | 36h/144          |         | 0.2/7     | 124h/144      |         | 0/7         | 122nd/144           |        | 0/7         |             | GCI 2015-Patent % application per 1M population            |
| Avail. of Eng/Scientists       | 120h/144         |         | 3.2/7     | 51st/144      |         | 4.3/7       | 103rd/144           |        | 3.5/7       |             | GCI 2015-Availability of scientists and engineers          |
| Entrepreneurship programs      | lots of programs |         |           | some programs |         |             | incoherent programs |        |             |             |                                                            |
| <b>BUSINESS ENVIRONMENT</b>    |                  |         |           |               |         |             |                     |        |             |             |                                                            |
| Regulation                     |                  |         |           |               |         |             |                     |        |             |             |                                                            |
| WB w/GI regulatory quality     |                  |         | 0.59/2.5  |               |         | -0.52/2.5   |                     |        | -0.53/2.5   |             | WB w/GI average Regulatory Quality score from 2002 to 2012 |
| GCI-quality of reg             | 9th/37           | 1st     |           | N/A           |         |             | 47h/37              |        |             |             | 2013 Global Opportunity Index-Quality of regulations       |
| GCI-regulatory barriers        | 25th/37          | 1st     |           | N/A           |         |             | 44h/37              |        |             |             | 2013 Global Opportunity Index-Regulatory Barriers          |
| Labor Market Efficiency        | 36h/144          |         | 4.6/7     | 88h/144       |         | 4.1/7       | 28h/144             |        | 4.6/7       | 4.2/7       | GCI 2015-Labor market efficiency                           |
| Goods Market Efficiency        | 37h/144          |         | 4.1/7     | 37h/144       |         | 4.6/7       | 108h/144            |        | 4/7         | 4/7         | GCI 2015-Goods market efficiency                           |
| Access to Capital              | 69h/122          |         | 4.2/7     | 89h/122       |         | 3.38/10     | 97h/122             |        | 3.04/7      | 3.07/7      | 2008 Capital Access Index                                  |
| Ease of access to bank loans   | 54h/144          |         | 3/7       | 39h/144       |         | 2.5/7       | 114h/144            |        | 2.3/7       |             | GCI 2015-Ease of access to loans                           |
| Venture capital avail.         | 67h/144          |         | 2.7/7     | 95h/144       |         | 2.4/7       | 112h/144            |        | 2.2/7       |             | GCI 2015-Venture capital availability                      |
| Doing Business                 | 74h/186          | 5h      |           | 111h/183      |         |             | 164h/183            |        |             |             | WB Doing Business 2015-Ease of doing business index        |
| Starting Costs                 | 149h/189         |         | \$77 (1%) | 68h/189       |         | \$472 (32%) | 157h/189            |        | \$254 (94%) | 56%         | WB Doing Business 2015                                     |
| capital down payments          |                  |         | 0%        |               |         | 0%          |                     |        | 0%          | 96%         | WB Doing Business 2015                                     |
| # of procedures                |                  |         | 10        |               |         | 5           |                     |        | 8           | 7.80        | WB Doing Business 2015                                     |
| # days                         |                  |         | 60        |               |         | 6.5         |                     |        | 38          | 27.30       | WB Doing Business 2015                                     |
| Construction Permits           | 93rd/183         |         |           | 99h/183       |         |             | 72nd/183            |        |             |             | WB Doing Business 2015                                     |
| # days                         |                  |         | 110       |               |         | 208         |                     |        | 153         | 155.70      | WB Doing Business 2015                                     |
| Cost                           |                  |         | 0.30%     |               |         | 3.20%       |                     |        | 1.2%        | 6.20%       | WB Doing Business 2015                                     |
| # of procedures                |                  |         | 20        |               |         | 10          |                     |        | 13          | 13.50       | WB Doing Business 2015                                     |
| Property Registration          | 51st/183         |         |           | 152nd/183     |         |             | 76h/183             |        |             |             | WB Doing Business 2015                                     |
| cost (% property value)        |                  |         | 5%        |               |         | 13.60%      |                     |        | 1.9%        | 9.10%       | WB Doing Business 2015                                     |
| # of procedures                |                  |         | 15        |               |         | 45          |                     |        | 6           | 6.30        | WB Doing Business 2015                                     |
| # days                         |                  |         |           |               |         |             |                     |        | 69          | 57.20       | WB Doing Business 2015                                     |
| Investor Protection            | 106h/183         |         |           | 83rd/183      |         |             | 132nd/183           |        |             |             | WB Doing Business 2015                                     |
| minority investor strength     |                  |         | 4.9/10    |               |         | 5.4/10      |                     |        | 4.5/10      | 4.60        | WB Doing Business 2015                                     |
| Tax Payments                   | 67h/183          |         |           | 78h/183       |         |             | 103rd/183           |        |             |             | WB Doing Business 2015                                     |
| total tax rate (% profit)      |                  |         | 25.30%    |               |         | 14.80%      |                     |        | 35.5%       | 46.20%      | WB Doing Business 2015                                     |
| Border Trades                  | 157h/183         |         |           | 177h/183      |         |             | 170h/183            |        |             |             | WB Doing Business 2015                                     |
| cost to import 1 container     |                  |         | \$3,710   |               |         | \$7,060     |                     |        | \$2,835     | \$2,330.90  | WB Doing Business 2015                                     |
| cost to export 1 container     |                  |         | \$3,145   |               |         | \$5,165     |                     |        | \$2,201     | \$2,201     | WB Doing Business 2015                                     |
| Insolvency Resolution          | 49h/183          |         |           | 95h/183       |         |             | 166h/183            |        |             |             | WB Doing Business 2015                                     |
| bankruptcy duration (yrs)      |                  |         | 1.7       |               |         | 2.4         |                     |        | 2.6         | 3.1         | WB Doing Business 2015                                     |
| bankruptcy cost (% estate)     |                  |         | 18%       |               |         | 9%          |                     |        | 25%         | 23.30%      | WB Doing Business 2015                                     |
| recovery rate from \$1 (cents) |                  |         | 62.7      |               |         | 39.3        |                     |        | 24.1        | 24.1        | WB Doing Business 2015                                     |

<sup>359</sup> Data sets come from the Heritage Foundation, the Global Entrepreneurship Monitor, the Legatum Institute, the World Bank, the Global Competitiveness Index, the Milken Institute, Doing Business of the World Bank and previously and various sources about entrepreneurship in Botswana, Zambia, and Malawi that were formerly presented in the body of the thesis.

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