



> The Start-up Environment in Kenya

肯亞的新創環境之研析

doi:10.30392/TJWTOS.202003_(32).0003

Taiwanese Journal of WTO Studies, (32), 2020 WTO研究, (32), 2020 作者/Author: 馮睿恩(Florian Eising)

頁數/Page: 59-89 出版日期/Publication Date:2020/03 引用本篇文獻時,請提供DOI資訊,並透過DOI永久網址取得最正確的書目資訊。 To cite this Article, please include the DOI name in your reference data. 請使用本篇文獻DOI永久網址進行連結: To link to this Article:

http://dx.doi.org/10.30392/TJWTOS.202003_(32).0003





DOI是數位物件識別碼(Digital Object Identifier, DOI)的簡稱, 是這篇文章在網路上的唯一識別碼, 用於永久連結及引用該篇文章。

若想得知更多DOI使用資訊,

請參考 http://doi.airiti.com

For more information,

Please see: http://doi.airiti.com

請往下捲動至下一頁,開始閱讀本篇文獻 PLEASE SCROLL DOWN FOR ARTICLE

肯亞的新創環境之研析

馮睿恩

德國奧格斯堡的公立大學

翻鍵字:肯亞、新創企業、非洲、生態體系、創業家

中文摘要

由於今日我們生活在動態的環境之中,企業最重要的 就是必須擁有可永續且具有彈性的商業模式(flexible business model),足以因應顧客的需求。企業為了要不僅 短期,而且長期能成功,就必須一方面實行有效率的過程 ,另一方面彈性地適應不斷變化的需求。換言之,未來市 場的贏家必須懂得善用現代科技與擁有高質量的人力資本 。若將此概念應用到全球化來定義「國家」的話,成功的 國 家 是 那 些 擁 有 創 新 創 業 潛 力 (innovative entrepreneurship) 特質的經濟體。這就是何以新創企業 (start-ups)今日備受各國重視的主要原因。新創企業似乎已 成為一國經濟成長的關鍵因素。

所謂新創企業是指一家尚處於草創階段的公司,該公司致力於應用具有創意的產品或服務來解決現實生活中的問題。與一般創業家(entrepreneur)不同的是,新創企業的創辦人(founder)不是只專注於如何將理念轉換成利益導向的公司,而是有目標地要從無創造出有,並藉此使世界變得更美好。易言之,新創企業不僅是在解決問題,改善日

常生活,更可提升生活水準,增加經濟活動,進而促進一國的經濟成長。

儘管矽谷、新加坡、特拉維夫或一些歐洲國家皆以擁 有新創企業的友善環境著稱,但地表上仍有其他的地區也 提供極具潛力的新創企業發展的前景。近年來少數慧眼獨 具者聚焦於非洲國家,認為這些發展中國家是新創企業的 天堂。不難理解的是,非洲大陸人口成長速度世界第一, 且預期將於 2050 年成為 25 億人口的家。未來的最大挑戰 之一是如何餵飽如此眾多的人口。農業因而成為最大商機 ,因為非洲幾乎有三分之二的農地尚未開發。若能更有效 地利用這些未開發農地來發展出口為導向的農業勢將帶來 龐大商機與經濟成長。所以,非洲近年來越來越受到創業 家與投資客的青睞。

有鑑於此,本文將首先介紹肯亞(Kenya)的經濟現況, 然後聚焦於該國的新創企業的生態體系(ecosystem),從基 地(hubs)的角色、政府的支持以及移動銀行服務三大支柱來 深入探討肯亞的新創企業的生態體系。

The Start-up Environment in Kenya

Florian Eising University of Augsburg, Germany

Keywords: Kenya, start-ups, Africa, entrepreneur, ecosystem

Introduction

We are living in a dynamic environment where it is more important than ever for companies to have both a sustainable also flexible but business model that addresses customer's needs. In order to be successful both in the short and the long term, companies need to implement efficient processes on the one hand and adapt flexibly to changing requirements on the other. In other words, only market players that use modern technologies and have strong human capital will be able to survive in the future. If this is applied to the context of globalization, the following can be stated: successful countries are those are characterized innovative whose economies bv entrepreneurship.

Hence, it is no surprise that the role of start-ups is becoming more and more important. Let us first define this buzzword that seems to be a crucial factor for the progress of a country's economy. Basically, a start-up is a venture in its early stages that aims at solving a real-life issue by applying an innovative product or service.1 Unlike a pure entrepreneur, a start-up founder is not primarily interested in turning an idea into a profit-oriented and ongoing business. Rather, he or she has the goal to create something out of nothing and change the world in a better place by doing so.2 The claim of start-ups, to solve problems and improve everyday life, may lead to better living standards. Considering the bigger innovativeness and increasing economic activity, a flourishing start-up scene also fosters a nation's economic growth.

While regions like the Silicon Valley, Singapore, Tel Aviv or several European countries are well-known for their start-up-friendly environment, there might also be other places on earth offering high potentials for the future. Quite a few see especially African developing countries as the new star at start-up heaven. This may be astonishing at first, but it can easily be explained by listing several facts. The African continent has the fastest growing population. It is expected that it will be the home continent for 2.5 billion people in 2050.3 One challenge will be to feed this population. Hence, the obvious opportunity is Almost two-thirds of previously unused agriculture. agricultural land is located in Africa.4 More effective use could also make agriculture an export driver. In these circumstances alone, it is clear that African countries offer great potential for business opportunities and thus for

¹ Grant, M. & Kenton, W. (2019)

² Sethi, J. (2014)

³ Goldstone, J. (2019)

⁴ Obasanjo, O. (2012)

economic growth. It can be assumed that Africa will become more and more attractive for entrepreneurs and investors.

The success stories of various African countries in recent years reflect the speed of an economic development. Of course, it is difficult to judge which particular African region is especially entrepreneurshipfriendly though. Nevertheless, numerous internet forums and academic papers focus on Kenya. There are many opinions suggesting the special role of Kenya. Thus, this paper deals with the economic situation, and the start-up ecosystem in particular, in Kenya.

First, I will introduce Kenya as a country and its economy. With this basis, I will define the country's startup ecosystem on the basis of three pillars that I believe to be essential. With this as a basis, some practical examples will be presented. The conclusion at the end of the paper eventually gives the essential statements of the analysis.

Kenya: More Than Just Wildlife

When thinking of Kenya, most of us think of impressive landscapes and wild animals that can be observed while racing through the desert in safari jeeps. In fact, the country has long been more than that. Rather, it is coming more and more into the limelight from an economic perspective.

In 2018, Kenya's gross domestic product (GDP) per roughly US \$1.780. Measured was bv capita people Kenya, approximately 49.4 million in this corresponds to a GDP of about US \$88 billion.⁵ This number is impressive in that it represents about 580 % growth in the last 20 years.⁶ Also for the next years a relatively constant growth of about 5 to 6 % per vear is expected. ⁷ Besides these hard facts, a dynamic development of the country can also be seen by the brisk construction activity, massive investments in public infrastructure, and a growing middle class. Furthermore, the Kilindini Harbour in Mombasa is the biggest port in East and Central Africa which brings strategic importance of Kenya in terms of international trade. In general, Kenya can be seen as the power center of the East African region.

Although this development is the cause of economic optimism, the country faces socio-economic problems. For example, there is still a relatively large social inequality which can be seen by a Gini coefficient of 41.60 %.8 In addition, last year's unemployment rate was almost 10 %,9 young people particularly hard. which hits 10 The investments mentioned. government such the as construction of a new railway line between Mombasa and

⁵ International Monetary Fund (2018)

⁶ World Bank (2019)

⁷ World Bank (2019b)

⁸ Knoema (n.d.)

⁹ Umersbach (2019)

¹⁰ Institute of Development Studies (2018)

Kenya, are important and give impetus, but they cannot currently be refinanced through government's revenues. This means, even though the national product is growing and progress can be seen, debt is rising to around 50 % of annual economic output at the same time. Moreover, high interest rates and inflation also cast slight shadows on the economic situation.¹¹ To address these problems, policies develop measures that support need to higher employment and an equally efficient tax system. On the other hand, a looser monetary policy seems to be particularly useful in order to enhance higher credit growth in the private sector.

At a time when the issue of climate change is more topical than ever, it is worth having a closer look at the nation's energy mix. Currently, about 70 % of Kenya's installed electricity capacity comes from renewable energy.¹² President Uhuru Kenyatta is considered to be a big supporter of a sustainable development of reducing the country's carbon footprint. Kenya is striving a 100 % green energy, which makes not only the status quo but also the country's efforts appear above average. Due to its topography, Kenya is predestined for the use of wind power. In 2018, for instance, Africa's largest single wind power facility was built in Kenya's Rift Valley. Rift Valley is also one of the main proper regions with geothermal resources.

¹¹ LIPortal (2019)

¹² Wood, J. (2018)

Besides this source, the government also fosters hydroelectric power development which both have both a large share of the national electricity production. The socalled Least Cost Power Development Plan of the government is evidence for both a planned economically and ecologically sustainable power future. Nevertheless, it has to be mentioned that increasing economic activity puts the national power supply under pressure. This, on the one hand, leads to more imports of foreign energy that is often based on fossil fuels. On the other hand, an inadequately-developed electricity grid and bottlenecks in energy supply during periods of drought due to the high percentage of hydro power often lead to a higher use of crude oil. This, in turn, must be seen critically not only from a climate-neutral perspective but also because of unreliable and expensive supply of energy in the private and public sectors.

Another problem is the inadequately developed infrastructure. It is no secret that many people, especially in rural areas, still do not have access to electricity. However, a pleasing trend can be observed here: In just four years, electricity access has nearly doubled from 25 % to 46 % of households.¹³ Considering the high number of hours of sunshine per day and the importance of the agriculture sector in Kenya, two viable ways for clean energy supply become obvious: the use of biogas and solar energy which can both be seen as an option for rural electrification and decentralized applications. The high proportion of renewable energies in the current mix,

¹³ Power Africa (2016)

together with the ambitious climate efforts of the current government, may not be typical for a developing country and should be appreciated. Therefore, it could also be a trigger for foreign investments and subsidies.

To conclude this overview, I will now briefly discuss the most important industrial sectors. By contributing around 63 % of the GDP, ¹⁴ the service industry is of special importance for Kenya's economy. It does not only include transportation and infrastructure but also tourism. Even though there are periods in which tourism truly flourishes, it remains a sensitive and unreliable economic sector due to possible natural disasters, extremist attacks, disease waves, or currency risks.

Another important industry is the manufacturing sector. Thanks to favorable tax conditions to some industries, foreign efforts to boost Kenyan production, and new technologies, however, a positive development can be expected. Besides the role of those industries, agriculture is considered to be the most important sector for Kenya. This is not only because it contributes around 26 % of the GDP and another 27 % indirectly through linkages with other sectors but also it employs more than 40 % of the total population.¹⁵ Accordingly, agriculture is indispensable from an economic point of view. Moreover, it also has a great responsibility to provide the food base for the further growing population.

¹⁴ Sawe, B. (2018)

¹⁵ Food and Agriculture Organization of the United Nations (2019)

From the aspects now mentioned, numerous opportunities for a successful and improving development can derived. In the following, I discuss how a vibrant startup culture in Kenya helps to exploit the potentials and to tackle current and upcoming challenges.

Three Pillars of the Start-up Environment

During my research of some start-ups regarding their origibusiness model, and activity, I noticed some similaritn, ies. Even though each idea has its own history and different potential, there are, in my opinion, three essential pillars that characterize the Kenyan start-up ecosystem. Those include the role of so-called hubs, governmental support, and the mobile banking service M-Pesa. In this section, I analyze the respective roles of these factors.

The Role of Hubs

What characterizes the startup culture in African countries are the so-called hubs. In general, hubs are institutions that accompany young entrepreneurs in the early stages of starting a business and provide them with know-how and financial support. Hubs are a place where founders and business builders can come together and develop their ideas. Often, the hubs are just seen as a coworking space, however, there are quite a few more advantages. As a hub member, you benefit from support, consultancy, research, and knowhow through the community. Hubs often play the role of incubators and accelerators. While incubators focus on the individual idea of the startup, accelerator programs focus on fast growth.

According to a current research, Kenva has the third highest number of hubs in sub-Saharan Africa after Nigeria and South Africa.¹⁶ Due to its strategic importance, infrastructure, and financial resources, Kenya's capital Nairobi has the highest concentration of innovation hubs. However, the number of hubs is also increasing in other regions of the country. The best known and most successful hubs include iHub in Nairobi, SwahiliBox in Mombasa, LakeHub in Kisumu, or Dlab Hub in Eldoret. The increasing decentralization of the hubs is a sign that even young entrepreneurs from rural areas, who cannot afford an expensive life in Nairobi, now have the chance to get support for their business. This is also an opportunity to address the problems of the rural population. In total, there are about 50 innovation hubs in Kenya.¹⁷ If not only the quantity but also the quality of the hubs will further grow, this increases the chances that startups can make a targeted contribution to the population's welfare and therefore, to the overall economic growth in Kenya.

Since the iHub is one of the most famous innovation hubs in Sub-Saharan Africa, it is adequate to use this institution to present a possible development as well as some opportunities and challenges of hubs in Kenya. iHub was founded in 2010 as a place where young founders can come to work, get supported and encouraged. It is now home for internationally-recognized companies such as BRCK, Ushahidi, as well as startups like Eneza Education, Taimba, and Optimetriks. The iHub can also

¹⁶ Shapshak, T. (2019)

¹⁷ Shapshak, T. (2019b)

present named partners. These include Facebook, Safaricom, Google for Startups, Oracle and the World Bank Group.

Although iHub has enjoyed great popularity since its inception, it turned out that the business model itself was not very sustainable. The reason for this is that iHub had always relied on donations and had focused on providing services to its members. By 2016 at the latest, like many others of the 300 tech hubs in Africa, also iHub was in financial difficulties. Restructuring towards a more commercial business model did not ultimately result in profitability, but the organization managed to become more stable and adapt to a dynamic start-up and business environment.

The restructuring could have been one reason why the iHub itself became an attractive organization. Only recently, iHub was acquired by CcHub.¹⁸ Both CcHub and iHub have an impressive reputation and are probably the biggest brands in Africa's hub environment. The transaction is worth mentioning because the two most famous hubs in Africa have now merged into anfo African super incubator that brings many chances for the future. CcHub aims to bring tech start-ups from all over the continent together under one roof. Through consolidation, young entrepreneurs will benefit in particular from a network among themselves, but also with global players such as Google. The hope, that Kenya's startups can now learn and benefit from an even larger community, as well

¹⁸ Jackson, T. (2019)

as forge international relations and accelerate growth, is therefore justified.

The merger also increases the resources of the iHub and thus of its members. In addition to international exchange in a bigger network of experts, in-depth research within the Kenyan market is now possible too. This means that the needs of potential customers can be better investigated and the start-ups can be better prepared for their market phase. A bigger organization will also create economies of scale and economies of scope. This implies, for example, that administrative processes in the hub can be carried out more efficiently or synergy effects will emerge.

However, the bigger size of the hub also entails risks. The real advantage of hubs is that they know the local ecosystem and the needs of the region. Since the management of start-ups in the hubs and also the interdisciplinary collaboration takes place on a very individual level, it is important that the personal relation is not lost. Hubs are also there to support ambitious entrepreneurs with few resources. If the "new" iHub now takes on the identity of the CcHub and is geared solely to expansion, the small founders could fall by the wayside. In order to give important impulses to the founders of Kenya and thus the economy in the long term, despite the greater possibilities, the iHub should strive for a healthy and not greedy growth, in which Kenyan culture too and individuality are crucial.

It remains to be noted that hubs are an important part of promoting ideas and their implementation. Kenya has benefited greatly from institutions such as the iHub in the past and can continue to benefit greatly from the founder networks in the future. It will be important for hubs to continually expand their networks while remaining regionally rooted in culture and issues. In order to develop further and create lasting added value, hubs themselves must also be set up sustainably. To achieve this, they must be attractive for investors and generate their own revenues.

How the Kenyan Government supports the start-up scene

The Kenyan government has realized how important a strong start-up culture can be for the country. The ideas of start-ups do not only help to find solutions for inefficiencies in everyday life but also, they foster economic development through creation of new jobs and raising economic activity all over the country. The Kenyan government is therefore trying to provide incentives for start-ups and to increase the attractiveness of the start-up environment in various ways. In general, it has been found aovernment that. among others. the supports entrepreneurship through financial and technical assistance.19

In 2013, the Information and Technology Authority (ICTA) was founded as a governmental enterprise that

¹⁹ Ngoze, M. L. (2015)

performs all of the government's Information and Communication Technology (ICT) functions. Among other things, it is responsible for the promotion of innovation and ICT start-ups. The establishment and specialization of this cooperation shows that the government attaches great importance to the development of ICT. ICTA's actions are largely based on the National ICT Master Plan. This master plan is intended to be a roadmap with the aim of transforming the country into a knowledge-based economy and leading to socio-economic growth. The fundamental areas to which ICTA is committed are the development of ICT human capital and a good education of people, an efficient and modern ICT infrastructure, an integrated information infrastructure that improves the quality of egovernment services.²⁰ The following examples serve to illustrate how these objectives are pursued.

Start-ups and their innovations serve the progress of a country. Research reveals that entrepreneurship students, in fact, have higher entrepreneurial attitudes than others.²¹ Furthermore, it has to be stated that mindset is not everything. Rather it is important to know how to implement an innovative idea and develop the necessary knowledge about advanced technologies. Thus, a good entrepreneurial education is obligatory for young people. This is confirmed by latest findings of a study revealing a strong positive correlation between the provision of entrepreneurship education and development of youth

²⁰ Ministry of Information, Communications and Technology (2019)

²¹ Gathogo Kimani, R. (2017)

entrepreneurship.²² However, the same study suggests that youth entrepreneurship does not depend on the level of education attained by young people. This could be due to the unwillingness of students to take up the business opportunities or a poor communication between government and youth. To overcome these issues, the government should also enhance marketing campaigns and incentives to start a business.

But, what also needs to be considered is the fact that not everybody is born to be a founder. Rather start-ups create jobs need highly-educated employees to grow and exploit their full potential. This makes clear once again, that a country's economic policy needs to promote an appropriate educational infrastructure, both in secondary and higher education as well as in educational programs that improve the cooperation between schools, universities, and industry.

In practice, such cooperation would make sense between the agricultural industry. Knowledge of how to apply modern technology and innovative methods can make traditional farming more efficient. This, in turn, will help to satisfy the higher demand due to urbanization and population growth on the one hand and will also improve the trade balance through higher possible exports on the other. This could, for example, be implemented through dual courses of study that combine theory with practice. Other options would be subsidized apprenticeship

²² Wise, S. (2016)

programs or interdisciplinary cooperation between ministries.

Another focus of the roadmap is ICT infrastructure which is particularly important for start-ups and benefits them. Almost 10 years ago, the commitment in the development of broadband throughout the country led to the arrival of an undersea fibre optic cable in the port of Mombasa which is a main reason for the fact that Kenya has on of the fastest internet accesses in the world.²³ In fact, the Kenvan government is making even more major investments on infrastructure. Those include for example the construction of an overseas port, rail links, roads, airports and educational facilities. This is beneficial for a large percentage of the private sector; however, it also causes some problems on a macroeconomic level. Since China is both the biggest creditor and the main labor force, this increases not only the liabilities against China but also has hardly no impact on the domestic employment through the government's investments.²⁴ The importance of the agricultural sector has already been stressed. In this government has particularly context. the а hiah responsibility to ensure a reliable and sustainable infrastructure. Ladisy Chengula, World Bank Lead Agriculture Economist, calls for increased investment in irrigation and water management infrastructure.²⁵ In this way, the sector's resistance to climatic conditions can be strengthened and a durable, high-quality harvest can be

²³ Okunola, A. (2018)

²⁴ LIPortal (2019)

²⁵ World Bank (2019b)

ensured. However, since the Kenyan government is obviously very keen to promote the country's development in a technologically modern and efficient way, it can be assumed that it will take on these tasks.

Looking at the role of government e-services in startups and technological innovation, there is a lot of potential here. While business registration is already completely possible online, processes such as the tax system or grant applications could also be digitized.

Moreover, the government also promotes the start-up culture through concrete actions. For instance, in 2013 the government partnered with Nailab incubator executed a technology US\$1.6 million program to provide entrepreneurs with access to capital and education. Furthermore, there is a start-up competition in Kenya where the winner receives its prize money to invest in the introduced business idea. Another special characteristic of the Kenyan government is the explicit support for female entrepreneurs. That this commitment is in fact quite successful is proved by a study examining the role of female entrepreneurs. According to that examination, it was found that women in Kenya face far fewer barriers when starting a business than ever before.²⁶

To close this chapter, I would like to briefly mention major government-driven projects that sustainably promote technological start-ups. The World Bank lists Kenyan projects, including those that promote innovative

²⁶ Lock, R. and Lawton Smith, H. (2016)

start-ups and technological entrepreneurship. Examples are Kenya Industry and Entrepreneurship in 2018 and Digital Entrepreneurship Kenya in 2016. One of the biggest upcoming projects is the so-called Konza Technology City. Until 2030, the ICT board of Kenya plans to build a working space for 100,000 people in the ICT sector.²⁷ Although the success of this project cannot be estimated yet, it may be a big step to attract international investors and global players like Google, Microsoft, and Facebook.

M-Pesa: Just A Normal Start-up?

M-Pesa enables a mobile money transfer via cell phones. With its innovative idea of enabling digital personto-person money transfer for everyone, M-Pesa started as start-up of the leading communications company а Safaricom. As a SMS-based money transfer system, M-Pesa is an application that allows to deposit, send, and withdraw funds. The fact, that M-Pesa reached approximately 65 % of Kenyan households in the first three years,²⁸ makes it one of the biggest success stories in East Africa. The main prerequisites for this development were certainly a rapid expansion of the network coverage and a large proportion of the population having mobile phones.

To understand the function of M-Pesa, I will shortly explain how it works. Basically, once a user is registered

²⁷ Johari, A. (2015).

²⁸ Jack, W. and Suri, T. (2011)

for M-Pesa, Safaricom lets users deposit their cash on the SIM card. By using SMS technology, money can be transferred for e-float from one person to another. While the original intention was to enable people having no bank accounts to take part in financial transactions, M-Pesa has quickly expanded its reach into these groups, but also to households with a broad range of economic, demographic, and educational characteristics. According to a survey among users in 2009, M-Pesa is faster, cheaper, and more reliable than other money-transfer predecessors.²⁹ The great acceptance of M-Pesa ensured that not only unrequited remittances, but also everyday payments, such as simple goods purchases in shops or services such as taxi fees are paid with it.

In addition to the obvious advantage of an increased money fluctuation, M-Pesa also impresses with a simple registration for everyone and free account management compared to a bank account. Since M-Pesa is agent-based, it is ensured that there is also an interface between the analogue and digital worlds as well as a personal component. The expansion of such agent locations also created additional jobs all over the country. Furthermore, it has been found that the sliding tariffs on M-Pesa withdrawals had a decreasing effect on transaction costs charged by other providers, e.g. Western Union.³⁰

However, some limitations must also be mentioned. M-Pesa can only partially replace an account at a bank.

²⁹ Jack, W. and Suri, T. (2011)

³⁰ Jack, W. and Suri, T. (2011)

For example, M-Pesa does not pay any interest on cash deposits and does not issue loans. Therefore, the main benefit lies in financial transaction services, rather than in the storage of value. In a capitalist system, this makes M-Pesa considered as a complementary to services offered by a bank. Another point worth mentioning is that Safaricom holds the cash of M-Pesa users in different bank accounts. Even this diversifies risk to a certain degree, in a networked world, this can lead to a loss of confidence and even value in the event of a financial crisis. For some time now, there is a discussion of blockchain solutions. Hence, although M-Pesa seems to be a big benefit for developing countries now, such disruptive innovations without a mediator. like e.g. companies or banks, may be the next step.

The question that now arises is whether and if so, what kind of influence M-Pesa has on start-ups. According to several surveys conducted, it can be stated that M-Pesa as an application has positive impacts on start-ups and small businesses. One study suggests that M-Pesa has a positive effect on local economic expansion and business environment. The biggest impact was observed for money circulation. Also financial capital accumulation and transactions ease were positively influenced. ³¹ This is supported by another examination that found that mobile money transfers, like M-Pesa, boost performance of small businesses in a way of B2B and C2B.³² Moreover, M-Pesa can increase profitability of start-ups due to a cost-efficient

³¹ Plyler, M. et al. (2010)

³² Walela Wanyonyi, P. and Bwisa, H. M. (2013)

automation of administration processes. ³³ This foundational infrastructure fosters sustainability of the business and frees up capacities for start-ups to concentrate on its core business. Further analyses reveal that actual usage of the mobile payment services by small and young businesses enhances their success and growth.³⁴

It is also conceivable that start-ups in rural areas, where only few people have bank accounts, could quickly generate monetary income. Equally intuitive is the fact that start-ups with a quickly opened M-Pesa account can quickly enter the market and thus, have easier access to resources and demand.

As already indicated, M-Pesa can be the origin for further innovative technologies. Mobile money initiatives are the impetus in emerging markets to develop systems like regulatory policies and technologies to identification management and tracking data. This is sustainable basis for further innovation for numerous industries.

Mobile money transfer is only one part of digitized money. M-Pesa may thus encourage future start-ups to develop fintech applications that also cover mobile finance and mobile banking. This is supported by the finding that mobile money itself arises a totally new industry that

³³ Gencer, M. (2011)

³⁴ Mbogo, M. (2010)

attracts investors and promises revenues for innovative business models.³⁵

The Way from Problems to Solutions: Start-ups in Practice

In the M-Pesa case, it can be seen how voids, i.e. many people did not have a bank account, are changed into opportunities for social innovation. ³⁶ M-Pesa is therefore an example of how Kenyan start-ups address everyday problems and try to improve the situation of the population. M-Pesa was not only an important step towards financial inclusion, but also a role model for many other start-ups whose ideas are implemented on a digital-based application. Now, that the environment for Kenyan businesses has been extensively examined, I will give some practical examples of successful start-ups.

Let's first stay close to M-Pesa: PesaPal is an online platform that enables users to make payments across the continent that attaches great importance to safety. At a time when hacker attacks and data theft are on the increase, this makes PesaPal a future-orientated alternative when it comes to online payments and highlevel money transfer. Other start-ups that are based on the idea of M-Pesa and support payments via M-Pesa include JamboPay, Kopo Kopo, and Tala. Although they are all slightly different, they generally offer great possibilities for

³⁵ Gencer, M. (2011)

³⁶ Onsongo, E. (2019)

people to get loans without providing typical collateral securities and transfer money across Africa.

Besides financial inclusion, Kenyan interests also focus on promoting agriculture. Many of the domestic start-ups actually find solutions for this industry. It is challenging for farmers to sell their products at fair market prices and not being exploited by middlemen. Thanks to M-Farm, the farmers can directly offer and sell their products via platform. Consumers also benefit from the platform since they can choose from a big variety and know from whom they actually buy. Moreover, M-Farm provides helpful knowhow on agricultural processes. A similar platform is run by WeFarm which brings agricultural experts and people interested together. Those people can ask questions on how to do farming and will then receive the particular response on their phone.

As mentioned earlier, Kenya still faces high unemployment. Although this is a complex problem and may not easily be solved, however, first approaches are successful. Start-ups called Fuzu and Dumma works try to match companies and job seekers. The platforms not only give information about the hiring firms but also provide some career tips and helpful learning tools. Another approach to reduce unemployment among the population and improve the economic situation in Kenya is applied by Moringa School and Eneza Education. Since Moringa School focuses on technical and proficiency skills, it is a career boost for graduates and job-seeking people. While Moringa School fosters personal professionality, Eneza starts with an early educational basis for children. This start-up wants to combat educational inequalities and provides, among others, learning tutorials and live chats with teachers.

Also, in the health sector, there are already young companies that strive for higher standards. The start-up Totohealth is designed to support mothers during and after pregnancy. As soon as a woman has registered with a doctor, she regularly receives helpful information about pregnancy, examinations and health checks for babies and toddlers on her phone. While this app helps to easily access information, a start-up called Flare enables people to access ambulances in situations of emergency. By working like Uber, Flare quickly reacts to a person's request. When it comes to health issues, also the topic of insurances is to be mentioned. On the platform of socalled PesaBazaar Kenyan people find comparisons between different insurances and related information. By the way, it is not only possible to find a health insurance that fits best but also car insurances and life insurances.

It is important to note that there are various other sectors where start-ups have already applied successful ideas in order to turn challenges into chances. However, taking all those examples together, the ideology of Kenyan start-ups is once very clear. Kenya as a country faces problems that are largely unknown in the developed world. Local start-ups are aware of that situation and therefore, develop approaches to find target-oriented and individually fitting solutions in order to improve everyday life of Kenyan population.

Conclusion

This essay dealt with the Kenyan start-up scene. Firstly, I discussed the current situation of the country from an economic point of view. A steadily increasing economic growth is however confronted with great challenges. Kenya mainly faces high unemployment, social problems, and inequalities. However, the fact, that the country is successfully developing approaches to address these issues, is the source of optimism for a better future.

I identified three main pillars that characterize the Kenyan start-up ecosystem: hubs, Kenyan government, and the mobile money transfer system M-Pesa. Innovation hubs support young businesses with knowhow, financial resources, and a big network. Many of the opportunities offered by hubs can be illustrated by the iHub, Kenya's most famous hub. Moreover, the Kenyan government plays a crucial role. It is betting on entrepreneurship to solve domestic problems and thus, fosters a strong ICT infrastructure as well as technological innovations in general. The third pillar is represented by M-Pesa which allows a person-to-person money transfer via cell phone. This increases the financial inclusion of the population all over the country and brings several benefits for young and small businesses. Within this environment, there is an impressive number of successful start-ups that contribute to welfare. By listing some examples, it could be shown that entrepreneurs and start-up founders are active and ambitious in various industries and all areas of life.

What both the government and many sections of the population have understood is that the country's problems offer enormous opportunities at the same time. In order to sustainably improve the everyday life of a large part of the population, entrepreneurs and founders come up with innovative ideas. Local start-ups play a crucial role in tailor-made solutions developing using modern and efficient technologies. However, it is important to emphasize that the young businesses depend on government's support. In the long term, this will not only raise the quality of life but also economic growth to a higher level.

References

- Food and Agriculture Organization of the United Nations (2019): Kenya at a glance, The agriculture sector in Kenya. <u>http://www.fao.org/kenya/fao-in-kenya/kenya-at-a-glance/en/</u> [accessed 11/11/2019].
- Gathogo Kimani, Robert (2017): The Effect of Entrepreneurship Education on the Entrepreneurial Competencies among Graduate Students in Kenya. Research Project Report, United States International University – Africa.
- Gencer, Menekse (2011): The Mobile Money Movement: Catalyst to Jump-start Emerging Markets. Innovations: Technology, Governance, Globalization, Vol. 6, Issue 1, pp. 101-117.
- Goldstone, Jack A. (2019): Africa 2050: Demographic Truth and Consequences, https://www.hoover.org/research/africa-2050demographic-truth-and-consequences [accessed 11/18/2019].
- Grant, Mitchell; Kenton, Will (2019): Startup, https://www.investopedia.com/terms/s/startup.asp____[accessed 11/18/2019].
- Institute of Development Studies IDS (2018): Stimulating Agribusiness Entrepreneurship to Solve Youth Unemployment in Kenya. IDS Policy Briefing, Issue 158, December 2018.
- International Monetary Fund (2018): Kenya. At a Glance. https://www.imf.org/en/Countries/KEN#ataglance [accessed 11/10/2019].
- Jack, William; Suri, Tavneet (2011): Mobile Money: The Economics of M-Pesa, Working Paper 16721, National Bureau of Economic Research, Cambridge.
- Jackson, Tom (2019): Africa's new mega incubator the inside story of CcHub's acquisition of iHub. Published in Disrupt Africa. https://disrupt-africa.com/2019/10/africas-new-mega-incubatorthe-inside-story-of-cchubs-acquisition-of-ihub/ [accessed 11/13/2019].

- Johari, Amina (2015): Kenya's Konza Techno City: Utopian Vision Meets Social Reality. Independent Study Project (ISP) Collection, 2015.
- Knoema (n.d.): Kenya GINI index, https://knoema.com/atlas/Kenya/GINI-index [accessed 11/08/2019].
- LIPortal (2019): Kenia. Wirtschaft & Entwicklung, https://www.liportal.de/kenia/wirtschaft-entwicklung/ [accessed 11/11/2019].
- Lock, Rachel; Lawton Smith, Helen (2016): The impact of female entrepreneurship on economic growth in Kenya. International Journal of Gender and Entrepreneurship, Vol. 8, No. 1, pp. 90-96.
- Mbogo, Marion (2010): The Impact of Mobile Payments on the Success and Growth of Micro-Businesses: The Case of M-Pesa in Kenya. Journal of Language, Technology & Entrepreneurship in Africa, Vol. 2, No. 1, pp. 182-203.
- Ministry of Information, Communications and Technology (2019): Draft National ICT Infrastructure Master Plan 2019-2029, ICT Authority, Kenya, August 2019.
- Ngoze, M. L. (2015): Fostering Entrepreneurship in Kenya: The Role of Association. International Journal of Academic Research in Business and Social Sciences, Vol. 5, No. 3, pp. 444-459.
- Obasanjo, Olusegun (2012): How Africa could feed the world, http://globalpublicsquare.blogs.cnn.com/2012/11/06/how-africacould-feed-the-world/ [accessed 11/18/2019].
- Okunola, Akindare (2018): What African cities are the best to launch a startup? Published on techcabal, July 2018, https://techcabal.com/2018/07/18/what-african-cities-are-the-best-to-launch-a-startup/ [accessed 11/13/2019].
- Onsongo, Elsie (2019): Institutional entrepreneurship and social innovation at the base of the pyramid: the case of M-Pesa in Kenya. Industry and Innovation, Vol. 26, No. 4, pp. 369-390.

Plyler, Megan; Haas, Sherri; Nagarajan, Geetha (2010): Community Level Economic Effects of M-PESA in Kenya: Initial Findings. Financial Services Assessment project, March 2010, Maryland.

Power Africa (2016): Development of Kenya's Power Sector 2015-2020, USAID Kenya & East Africa, May 2016, pp. 1-33.

Sawe, Benjamin Elisha (2018): The Biggest Industries in Kenya. WorldAtlas, May 16, 2018, https://www.worldatlas.com/articles/the-biggest-industries-inkenya.html [accessed 11/08/2019].

Sethi, Japjot (2014): The Differences between Entrepreneurs and Startup Founders, https://www.linkedin.com/pulse/20140813173935-8497556-areentrepreneurs-and-start-up-founders-the-same/ [accessed 11/18/2019].

Shapshak, Toby (2019): Africa Now Has 643 Tech Hubs Which Play "Pivotal" Role For Business, published in Forbes. https://www.forbes.com/sites/tobyshapshak/2019/10/30/africanow-has-643-tech-hubs-which-play-pivotal-role-forbusiness/#42b535874e15 [accessed 11/11/2019].

Shapshak, Toby (2019b): Africa's Booming Tech Hubs ARE "Backbone of Tech Ecosystem" Having Grown 40% This Year, published in Forbes. https://www.forbes.com/sites/tobyshapshak/2019/07/11/africasbooming-tech-hubs-are-backbone-of-tech-ecosystem-havinggrown-40-this-year/#753ec75024c2_[accessed11/11/2019].

- Umersbach, Bruno (2019): Arbeitslosenquote in Kenia bis 2018, <u>https://de.statista.com/statistik/daten/studie/349531/umfrage/arbeitslosenquote-in-kenia/[accessed 11/10/2019].</u>
- Walela Wanyonyi, Paul; Bwisa, Henry M. (2013): Influence of Mobile Money Transfer Services on the Performance of Micro Enterprises in Kitale Municipality. International Journal of Academic Research in Business and Social Sciences, Vol. 3, No. 5, pp. 500-517.

Wise, Sambo (2016): Factors affecting youth entrepreneurship development within Kibery, Kenya: the perspective of entrepreneurship education. Problems and Perspectives in Management, Vol. 14 (2-2), pp. 331-338.

Wood, Johnny (2018): Kenya is aiming to be powered entirely by green energy by 2020. World Economic Forum, https://www.weforum.org/agenda/2018/12/kenya-wants-to-run-entirely-on-green-energy-by-2020/ [accessed 11/12/2019].

World Bank (2019): Kenya, <u>https://data.worldbank.org/country/kenya</u> [accessed 11/10/2019].

World Bank (2019b): Kenya's Economic Outlook Remains Stable Amid Threats of Droughts in 2019. Press Release, <u>https://www.worldbank.org/en/news/press-</u> <u>release/2019/04/08/kenyas-economic-outlook-remains-stable-</u> <u>amid-threats-of-drought-in-2019 [accessed 11/09/2019].</u>