Entrepreneurship and Start-Ups in Africa

3

The Role in African Business of German Companies

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Contents

Entrepreneurship is an essential driver of societal health and wealth, and a formidable engine of economic growth.
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Abstract

Entrepreneurship plays a role both for the development of African countries and for foreign companies with market entry plans. The infrastructural and institutional conditions for entrepreneurship are still difficult, but the advancing digitization leads to an increasingly active start-up scene in many African countries. There is still a mismatch between the areas where start-ups are created and the areas where foreign

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companies are looking for partners for market entry. Thus, despite positive developments in entrepreneurship, it remains difficult to find suitable partners in the foreseeable future.

3.1 Introduction

The African continent, particularly Sub-Saharan Africa (SSA), is rapidly developing. The sources of growth are increasingly shifting from a resource-based economy towards a service society with increasing innovation potential (Herrington & Coduras, 2019, p. 1). Entrepreneurship plays a crucial role in this process and is thus a significant driver for economic development and the overcoming of poverty. In developing countries, entrepreneurship can significantly contribute to the achievement of the Sustainability Development Goals (SDG) of the UN Agenda 2030, such as poverty reduction (SDG 1) and creating a positive economic growth effect (SDG 8).

In addition to the SDGs, entrepreneurship plays an important role in the international attractiveness of SSA countries. Almost all business models of German/European companies for SSA markets are based on cooperation with local partners. This presents the challenge of finding qualified partners for market entry into SSA (Carlowitz, 2018). Here, the dynamics of entrepreneurship can improve attractiveness from the perspective of foreign companies. In addition to partner search, the growing start-up scene in SSA opens up new opportunities for established companies to better cope with obstacles in operational business (Carlowitz, 2020). Therefore, the importance of entrepreneurship from the perspective of SSA countries and the companies that want to work the market should not be underestimated.

3.2 Entrepreneurship in Scientific Discourse

Small and medium-sized enterprises or family businesses are often equated with entrepreneurship, which can lead to confusion. Size and ownership do not play a role in entrepreneurship according to Carland et al. (1984, p. 355). Rather, the willingness to implement new ideas (innovations) and a growth orientation are defining factors. In principle, entrepreneurship does not necessarily have to result in a new foundation, but can also take place within existing companies, the so-called “Corporate Entrepreneurship” (see, for example, Mitchelmore & Rowley, 2010, p. 92). Entrepreneurship also often takes place in the form of new foundations in the informal sector, usually in the form of micro-entrepreneurs or self-employment (Williams & Nadin, 2010, p. 364). This contribution focuses on entrepreneurship in the formal sector. Entrepreneurship is defined here as the founding of a business venture (start-up) or as a company that has been registered for less than 42 months (Singer et al., 2015, p. 25).

Since the 1980s, the topic of entrepreneurship has increasingly found its way into scientific literature, after it was long treated as a variable and not as an actual subject of investigation in economic theories. Since then, there have been numerous attempts to define entrepreneurship, with the approach and focus varying. Some authors place the founding process at the center of the analysis (Shane & Venkataraman, 2000; for an overview see Ucbasaran et al., 2001, p. 63 ff.) and link the individual phases with the decisions and abilities that an entrepreneur must possess (Mitchelmore & Rowley, 2010). The Global Entrepreneurship Development Index (GEDI) (Acs et al., 2015) identifies important entrepreneurial skills, such as recognizing opportunities, entrepreneurial (business) action for founding, and the ability to expand a business (Wang & Jessup, 2014). A proxy for the existing level of such skills is both the extent of education and professional training as well as the experience with entrepreneurship in a society.

Various other authors focus directly on the person of the entrepreneur in contrast to the non-entrepreneur (see Gartner, 1985, p. 696). In this context, the cognitive abilities of the entrepreneur in dealing with information procurement and processing as well as the necessary decisions are just as much at the center of the analysis (Mitchell et al., 2002), as is a pronounced personal willingness to take risks (Preisendörfer et al., 2012). A related approach verges on the phenomenon of entrepreneurship through the motives of the foundation. Here, a distinction is primarily made between the motive of survival ("necessity driven") and growth orientation ("growth oriented"), with entrepreneurship from the second motive being attributed a higher degree of innovation capability. The motives are usually dependent on the economic conditions, such as the level of poverty (see, for example, Kudua, 2015; Carland et al., 1984, p. 355).

A fundamentally different approach than the approaches related to the founding process and the founder person is based on institutional theory (Atiase et al., 2018, p. 647 f.). Here, the focus is on the framework conditions that are considered necessary prerequisites for business start-ups. Gnyawali and Fogel (1994) identify five areas that are important for entrepreneurship activities:

1. Government policy and measures, such as economic and trade policy measures.
2. Socio-economic factors, such as the social status of entrepreneurs and entrepreneurial role models.
3. Access to financial resources, such as venture capital, a functioning and affordable banking and credit system, and the willingness to invest in start-ups.
4. Non-financial support, such as networks, subsidies, local infrastructure.
5. Entrepreneurial and business management skill level, such as general and specific (technical and business) education as well as access to information.

Beugré (2017, p. 24) adds to these five influencing factors the supportive role of international organizations in promoting entrepreneurship.

Gartner (1985) was one of the first authors to explicitly point out that there are no one-dimensional explanatory approaches for entrepreneurship, but only multidimensional

ones. Thus, entrepreneurship is the result of an interplay of the person of the entrepreneur, the founding environment, the founding process, and the form of founding (new company, expansion of entrepreneurial activities). In the sense of this multidimensionality for entrepreneurship, the following will focus on the two most important analytical approaches: "[…] the core focus of research seems to reside on the entrepreneur and the environment […]" (Ferreira et al., 2015, p. 17).

3.3 Availability and Skills of Founder Personalities

The Global Entrepreneurship Monitor 2019/2020 describes business founders as people who can not only recognize opportunities but also develop a business idea from them. They are usually confident personalities. The motives for starting a business are diverse. They range from the desire to "improve" something in the world, to the motive of becoming wealthy, to continuing a family tradition (Bosma et al., 2020).

Describing and measuring the characteristic profiles of entrepreneurs across Sub-Saharan Africa to derive universally valid statements is not possible. However, one can derive some clues from the literature on cultural dimensions. Hofstede et al. (2010) and the GLOBE cultural dimensions (House et al., 2004) show for all examined African countries a lower risk aversion than Germany and thus good prerequisites for entrepreneurship in this character criterion. Furthermore, surveys on individual self-assessment and attitude towards entrepreneurship show that great opportunities are seen in Africa and the own entrepreneurial abilities are rated very high in international comparison. This is confirmed for young potential entrepreneurs and a low fear of failure is identified (Kew, 2015, p. 28 f.). It is hardly surprising that the willingness to start a business is comparatively high (Singer et al., 2015, p. 32). However, the fact that not even half of the founded companies survive in the medium term indicates a significant divergence between self-assessment of entrepreneurial skills and actual skills. The actual start-up skills in Africa are below the international average according to a study, especially in the qualification of workers and entrepreneurial founding skills the backlog is large (Acs et al., 2015). Against this background, the general level of education as well as the specialist knowledge for business start-up and management of the entrepreneurs play a key role. Kiggundu (2002, p. 244) adds the importance of relevant work experience and specific competencies in the area of the business field and market of the business start-up. An empirical study has shown that 80% of companies that survive in the long term and operate in growth segments are founded and led by entrepreneurs with a higher education (Kew, 2015). This is supported by a case study at a university in Senegal, whose results show that students can significantly increase their entrepreneurial potential by participating in a three-year program to promote entrepreneurship (Garcia-Rodriguez et al., 2017). However, the education system in most SSA countries is underdeveloped and the graduation rates with university degrees are very low. The extent and quality of education and professional training and thus the availability of qualified workers is

the lowest in Sub-Saharan Africa of all regions worldwide (WEF, 2019, p. 13 f.). Of the students in continuing schools, only 1.23% (second lowest value worldwide) are in an applied education (vocational) (UNESCO, n.d.), which provides practical experience relevant for business start-ups.

This low level of education has been recognized and there are various initiatives to close this gap. In addition to state measures in the education sector, there are international initiatives, such as the "African Skill Initiative" under the umbrella of the WEF. Also, international company- and institution-specific initiatives are trying to remedy the shortage of skilled workers. Examples are the Rockefeller Foundation (Digital Jobs in Africa), Coca Cola (Empowering female entrepreneurs) or Cisco (Networking Academy, ICT) (WEF, 2015, p. 15).

An important characteristic for an entrepreneur is the ability to build and actively maintain a network:

> […] characteristics of the social network of a person, such as an extended and diverse network, a high level of individual networking activity and a high level of network support, each increase the propensity to start a business on the one hand, and to be successful with this business on the other. (Preisendörfer et al., 2012, p. 14)

Networks are particularly important in inefficient markets, as they often occur in Africa, for business start-ups. Against the background of the difficult Doing Business conditions, including inefficient bureaucracy, corruption, lengthy processes, lack of access to financial resources and an uncertain legal system (World Bank, 2020a), networking plays an efficiency-increasing role (Kristiansen, 2004, p. 1152). For example, a good network into the administration is seen as a way to deal with bureaucratic inefficiencies:

> In weak institutional environments, networks between enterprises and officials are paramount for the survival and growth of businesses. New businesses without such connections are, in most cases, destined to fail. (Acs et al., 2015, p. 34)

The larger and economically stronger the network, the easier and more resources (of any kind) an entrepreneur can muster (Preisendörfer et al., 2012, p. 15). In addition, the connections between partners should be strong and the network should cover a wide range of (business) activities in order to have the highest possible benefit for the business founder (Kristiansen, 2004, p. 1155). Some authors go so far as to see a major success factor for a business start-up in a good integration into a large network (Bosma et al., 2020). Thus, it is a major success factor for business start-ups. For this reason, the tech or start-up hubs potentially play an important role. Networks can be invaluable for the business success of a young company in sales, purchasing and obtaining reliable suppliers, but also in hiring scarce skilled workers (see, for example, Kristiansen, 2004). Biggs and Shah (2003, p. 156) find that many African entrepreneurs have only limited business networks. This often results in the founded companies remaining small and unproductive for a long time or not surviving.

3.4 Ecosystem for Entrepreneurship

The business environment plays a crucial role in entrepreneurial start-up activities. Authors refer to this as the entrepreneurial ecosystem. This encompasses the entirety of all components, individuals, organizations, and institutions that, while not directly attributable to the entrepreneur, significantly influence him and his activities (Beugré, 2017, p. 21). In Africa, there is still a need for catch-up in building an entrepreneurship-inducing ecosystem:

> In African countries, however, many of these institutions are ineffective, weak, incapable of performing their functions or else completely non-existent. (Atiase et al., 2018, p. 648).

3.4.1 Politics and Institutional Framework Conditions

Political and economic stability are considered a fundamental basis for a dynamic entrepreneurship environment, as uncertainty is one of the biggest obstacles to business start-ups (Lerner & Sahlmann, 2012, p. 119). This stability is not given in many countries and where it is given, clusters of start-ups emerge, such as in Kenya and Ghana. In addition, regular emphasis is placed on a specific promotion policy with the focus on entrepreneurship in Africa: "Entrepreneurship policy is important in shaping the entrepreneurial landscape of nations." (Sheriff & Muffatto, 2014, p. 7). However, most existing policy approaches to strengthen entrepreneurship are developed for industrialized countries, so without Africa-specific adaptation, they are unlikely to lead to efficient Africa-specific promotion policy (Lerner & Sahlmann, 2012).

In addition to the general political prerequisites, the specific founding conditions in SSA, as represented, for example, in the "Starting a Business" ranking of the World Bank, play an important role. The ranking shows that SSA ranks last among all regions worldwide, just behind Latin America and the Caribbean. Particularly striking is that with 9.3% of per capita income, high minimum capital requirements are incurred at the time of founding, which are significantly lower in other world regions (East Asia and Pacific: 3.5%; Europe and Central Asia: 0.7%; Latin America & Caribbean: 0.4%) (World Bank, 2019). However, the minimum capital requirements for company formation in SSA have significantly decreased over the last 14 years, with some extreme examples, such as the Central African Republic, where the deposit has fallen from 527% to 35% of per capita annual income in 2019 or was even abolished, as in Angola in 2016 (World Bank, 2020a, p. 43 f.). Nevertheless, the minimum capital still represents a significant hurdle for business formation, especially in low-income countries. The founding process is made more difficult by inefficient bureaucracy in many SSA countries. According to the Ibrahim Index of African Governance (IIAG) of 2019, the average index value of the professionalism of the bureaucracy is 40 (out of 100), with the values ranging from 11.8 (Somalia) to 87.5 (Rwanda) (Mo Ibrahim Foundation, 2020).

Structural challenges have been identified as a central obstacle for the start-up sector in SSA (Ball et al., 2019; Gomes et al., 2018). While significant investments or funding programs do exist, the majority of financial resources are invested in individual start-ups, while investments in the entrepreneurial ecosystem in SSA as a whole are neglected. Funding for universities, technology centers, or research and development institutions is lacking, resulting in significant gaps in the structures for innovative entrepreneurship. However, since a functioning ecosystem is the basis for sustainable entrepreneurship, some authors recommend investing funds in the entrepreneurship ecosystem rather than financially supporting individual start-ups (Herrington & Coduras, 2019, p. 3).

3.4.2 Financing

According to the World Bank's Enterprise Surveys (n.d.b), the biggest challenge for companies and founders is financing. Institutionalized access to (financial) resources is not well developed in Africa. In SSA, on average, only 30.1% of the population aged 15 and over have access to financial institutions (World Bank, 2020b, p. 112). At the same time, Africa occupies a rather unattractive position for investors in the world market. Thus, in the "Venture Capital and Private Equity Country Attractiveness Index" (VC/PE Index) 2018, most SSA countries are at the end of the ranking (exceptions are South Africa with rank 36, Mauritius 51, Kenya 53, Nigeria 72). Africa as a region is in last place. The low attractiveness of SSA from a venture capital perspective lies in the shallow depth of the capital market and often poorly functioning institutional framework conditions (e.g., in education, corruption in innovations, difficult business transactions, and low investor protection) (Groh et al., 2018, p. 18).

Therefore, it is essential for founders to find alternative sources of financing: "[…] and few examine other types of investors, such as 'friends and relatives', angel investors or bankers." (Wang & Jessup, 2014, p. 192). Currently, most business start-ups are financed with their own funds or by family and friends, i.e., from the social, familial network (Kew, 2015). Despite the bottlenecks in raising financial resources, it is possible to successfully start a business with the right attitude:

> Don't scratch your head saying there is no financing. With what you have, what can you do to achieve your goal? Investors like people who have taken that initiative.—Heshan de Silva, founder and CEO of the De Silva Group in Kenya (Douglas, 2014)

There are some successful examples of business start-ups based on alternative sources of financing: Patrick Ngowi, an entrepreneur from Tanzania, who now makes a turnover of 5 million US$ with his company Helvetic Solar Contractors, started with a start-up capital of 1800 US$, which he received from his mother and a close friend. For Fomba Trawally from Liberia, it was his life savings of 200 US$ that made him a successful flip-flop importer and local manufacturer (n.a., n.d.). Cephas Nshimyumuremyi from Rwanda started with 10 US$, his savings as a chemistry teacher. With his scientific

background and his knowledge of Rwanda's local plants, he founded his company for local care products. In 2020, the company already generates over 30,000 US$ in value and employs 12 workers (Founders Africa, 2020). Another alternative financing option is financial support programs from international aid organizations, as in the case of Lorna Rutto, who received 6000 US$ "Seed Funding" and founded her successful plastic recycling company "EcoPost" (n.a., n.d.). Abasiama Idaresit, started his company in Nigeria named Wild Fusion, in the field of digital marketing in 2010 with 250 US$. He received the money from his first customer as an advance payment under the condition of a money-back guarantee if he failed to achieve a return on investment for his customer. Within three months, he doubled his customer's earnings and revenues rose from 1000 US$ to 100,000 US$ per month. Today, Wild Fusion is a certified Google Adwords partner and had a turnover of 6 million US$ in 2011 (Legit, 2018).

New financing opportunities arise from the rapidly growing FinTechs in many SSA countries (IMF, 2020, p. 5). The rapidly growing FinTech industry in SSA is an increasingly important source of financing (also) for founders. It has grown on average by 24% annually over the last 10 years and comprised 262 local and international companies in 2018. The largest clusters are Nigeria, Kenya, and South Africa, although the FinTech scene has developed positively in Rwanda, Ghana, and Uganda in recent years. Currently, the focus of most FinTechs is on payment systems, but there are also increasing opportunities for borrowing, in Nigeria this was 18% of the financial volume, in Kenya 20% (EY, 2019, p. 3 ff.). The particular advantage of FinTechs in the SSA context is that they consider a broader spectrum of data sources for the decision of a loan grant, so that also not "bankable" (small) projects, such as founding projects, have a chance of financing (Claesens et al., 2018, p. 4 f.). Examples of such FinTechs are *OneFi* and *Carbon,* which received a BB rating from the Global Credit Rating Company at the end of 2018. They are active in Nigeria and companies can receive loans of up to 20 million Naira (approx. 50,000 US$) within 48 h. Other examples of digital savings and credit opportunities are M-Shwari in Kenya, M-Pawa in Tanzania, and Mokash in Uganda and Rwanda (Ndung'u, 2018).

3.4.3 Digitalization as a Basis for Founding

The progress of digitalization plays a decisive role in the success of the start-up scene in two respects: On the one hand, many business start-ups in the field of digital technologies can be observed; on the other hand, digital technologies simplify the business start-up and the subsequent growth phase (entrepreneurial ecosystem). For this potential for entrepreneurship to unfold, the ICT infrastructure and digital progress in SSA

play an important role. The "Enhanced Digital Access Index" (EDAI)[1] developed by the International Monetary Fund records the world's largest improvements in the areas of IT infrastructure, internet usage, and education in SSA. However, affordability and the slow mobile download rate in SSA (three times slower than the global average) continue to pose an obstacle despite continuous improvements (IMF, 2020, p. 3). In Africa, the spread of special internet bundles, which only allow access to certain social media tools and block the rest of the internet's functions, is high (Rodrigues et al., 2018, p. 9). However, the fact is that countries like Rwanda, Kenya, Ghana, and Nigeria now have sufficient ICT infrastructure so that more and more digital platform solutions in the areas of financing, logistics, and marketing are being used on these markets.

3.4.4 International Partners

Without the support of global actors, the discussed barriers in relation to entrepreneurship in SSA are difficult to overcome. Juma et al. (2017, p. 211) sees great potential in cooperation with international organizations from the start-up scene environment to guarantee sustainable entrepreneurship in SSA. Case studies show the integrative relationship between entrepreneur and partner in generating innovations. Thus, successful innovative approaches require specific expertise that often goes beyond the current capacity of SSA entrepreneurs. This know-how can be provided by international partners or entrepreneur groups with common goals (Juma et al., 2017, p. 230 f.). Many partnerships arise through the promotion of start-up hubs or houses by international organizations (often NGOs) or through business partnerships with companies from the USA or Europe, which provide financing and knowledge. For example, a large part of the FinTech and mobile companies in SSA are financed or owned by Western companies (e.g., M-Pesa belongs to Vodafone, MyBucks is a Luxembourg company that is primarily active in SSA). In addition to the FinTechs, there are other areas for corporate cooperation. For example, Google opened its first AI Lab (Artificial Intelligence), next to the Machine Intelligence Programme in Rwanda, in Accra, Ghana in April 2019. Microsoft founded the Advance Development Center in May 2019 with the first two locations in Nairobi (Kenya) and Lagos (Nigeria) with the focus on developing the latest technologies, such as artificial intelligence and machine learning, and making them usable on the continent (GSMA, 2019, p. 29). This leads to a high degree of spillover effects for the start-up/entrepreneurship scene and forms types of entrepreneurs who gather relevant experiences for a successful foundation.

[1] The EDAI identifies five key indicators, namely IT, affordability, education, quality, and internet usage (IMF 2020, p. 2).

3.5 Entrepreneurship and Start-Ups: Situation in Sub-Saharan Africa

Studies have shown that entrepreneurial activities positively correlate with per capita income. The reasons lie in the better conditions for starting a business and the higher qualifications of entrepreneurs as a result of better education (Acs et al., 2015, p. 50 f.). Also, the number of businesses started by employees (Corporate Entrepreneurship) increases with rising per capita income in countries (Singer et al., 2015, p. 52 f.). Thus, the following applies:

> […] economic conditions determine whether necessity or opportunity entrepreneurs are most prevalent in any given country. […] necessity entrepreneurs are more common in the low-income countries. (Kuada, 2015, p. 152)

Since per capita income is low in Sub-Saharan Africa and the political, economic, and institutional conditions in almost all of these countries are difficult, as repeatedly shown by the World Bank in its Doing Business Reports and the World Economic Forum in the Global Competitiveness Reports, necessity-based start-ups, which are primarily located in the informal sector, dominate in African countries (Adom & Williams, 2012; Kuada, 2015):

> An uncomfortable reality is that the development of productive entrepreneurship has been slow in most African economies. (Kshetri, 2011, p. 12)

Nonetheless, there are also "growth-oriented" start-ups in Africa that try to identify promising opportunities in the market environment and build a profitable, sustainable business (Kuada, 2015, p. 150). Contributing positively to entrepreneurial dynamics is the rapidly growing middle class and thus the rise in per capita income in most SSA countries (Carlowitz, 2019b). The following provides an overview of the status of entrepreneurship and the dynamics in the start-up scene.

Since currently an estimated nine out of ten employees in SSA are working in the informal sector (World Bank, 2020a, p. 61), a detailed measurement of formal entrepreneurial activity is almost impossible. With regard to the formal sector, the World Bank counted a total of 655,300 formally registered business start-ups in 25 SSA countries in 2018. The largest number of newly founded companies can be found in South Africa (2016: 376,727), Nigeria (2018: 86,309), Kenya (2018: 44,259), Ethiopia (2018: 31,198), Botswana (2016: 26,613), Uganda (2018: 18,862) and Ghana (2012: 13,154). Entrepreneurial activity in Botswana is by far the highest: Over 20 business start-ups per 1000 employed persons (New Business Density), followed by South Africa with 10.21, whereas the value in Nigeria is only 0.83 (World Bank, n.d.a).

According to the Global Entrepreneurship Index (GEI), the SSA countries occupy the lower ranks of the ranking worldwide. The most active country in terms of entrepreneurship is Botswana, ranked 52 out of a total of 137 countries (Acs et al., 2017, p. 57). Of

the 30 countries in the SSA region included in the index, 27 fall into the bottom quarter of the global ranking. According to the study, the main reasons are low start-up skills of entrepreneurs and an acute lack of venture capital, which coincides with the aspects discussed above. These reasons, combined with a lack of higher education opportunities and high unemployment or underemployment, lead to a necessity-based self-employment activity being frequently taken up (usually in the informal sector). On the other hand, more demanding, complex start-ups are rarer. As a result, there is often the appearance of a high density of entrepreneurial activities, which, however, is rather below average when viewed qualitatively.

Another often-cited study, the Global Entrepreneurship Monitor (GEM), confirms the results of the GEI. A central measure of the GEM for start-up activities is the "total early-stage entrepreneurship activity" (TEA)[2], i.e., the percentage of newly founded companies of all companies (Kew, 2015, p. 33). SSA does show high dynamics in entrepreneurial activities in the start-up phase, where the average TEA value for the SSA countries is 26.6%. Nigeria and Zambia have rates of up to 40%. This is the highest percentage of all regions examined by the GEM. However, barely half of the founded companies survive the first 48 months (Kew, 2015, p. 33; 44).

In recent years, the dynamics of business start-ups, among other things due to the possibilities of digitization, have increased and in some countries a lively start-up scene has developed, reflecting the current dynamics of entrepreneurship.

3.5.1 Start-Up Scene in Sub-Saharan Africa

The fact that the start-up scene in Africa is gaining momentum can be seen in the exponential growth rates in venture capital inflow. According to a study, a total of $1.27 billion was invested in Africa's start-ups in 2019 (Briter Bridges, 2019, p. 1), which was more than a doubling compared to 2017 and a quadrupling compared to 2015. In 2018, Kenya received the largest share of the total volume with $348 million, ahead of Nigeria with $308 million. Almost all investments were made in four sectors: 1) FinTechs ($379 million), 2) enterprise software including app development ($333 million), 3) off-grid energy technologies ($194 million), and 4) e-commerce ($132 million) (Partech, 2019). Here, a strong trend towards digital topics can be seen. An estimated 90% of venture capital in SSA flows, according to a study by Village Capital (2017, p. 48), into start-ups with at least one North American or European founder, because investors primarily invest within their own network. An example of foreign investments in local start-ups is the e-commerce company Jumia, in which Goldman Sachs, Rocket Internet, and the

[2]The TEA measures the number of entrepreneurs who are actively involved in starting a business or already own a new business that has been in existence for less than 42 months. TEA is expressed as a percentage of established companies (more than 42 months old).

insurer Axa have invested. For African founders, this means an additional challenge, as they are not part of the corresponding networks. As a result, access to venture capital is very limited and the chances of success of local start-ups are reduced (Rodrigues et al., 2018, p. 8).

In addition to direct investment in individual start-ups, more and more hubs are developing in SSA, which corresponds to the demand for more investment in the start-up ecosystem (see above). In general, hubs are defined as organizations that offer a communal workspace where innovative ideas and start-ups are created and supported (Rodrigues et al., 2018, p. 46). In 2019, there were 643 active tech hubs in Africa (AfriLabs & Briter Bridges, 2019, p. 5). Compared to the previous year, this was an increase of 40% and a doubling compared to 2016. In addition, the study identified over 110 hubs in recent years that had to cease operations due to bankruptcy or significant strategic changes. Of the currently active hubs, 90 are in Nigeria, 50 in Kenya, 27 in Ghana, 23 in Tanzania, 22 in Côte d'Ivoire; Uganda and Rwanda each have 10 and in Ethiopia there are 8 hubs. More than 50% of the hubs are run by private institutions and over 40% are run by non-governmental organizations.

The local conditions of the hubs in SSA range from internet access and a desk in the open air to specific training and lectures or active advice from investors. Just under a quarter of the tech hubs, i.e., 155 hubs, are focused on innovation. The majority are co-working (39%) and accelerators (41%); a smaller part are incubators (14%) (AfriLabs & Briter Bridges, 2019). These significant differences in the orientation and quality of the hubs are due in part to the fact that the operators only respond to local demand or financing by donors, but themselves lack adequate education, which ultimately leads to poor implementation (Rodrigues et al., 2018, p. 46). A hub operator describes the situation as follows: "It's like we're the bank, school, parent, brother and psychologist." (Rodrigues et al., 2018, p. 47). This is likely due primarily to the limited resources of most hubs. The majority of hubs report that they have received less than $100,000 in funding from many different sources. 60% of the hubs each report that they receive external donations and that funds are raised for specific programs. Just over half of the hubs charge a membership fee from the start-ups. To reduce costs, many of the hubs enter into strategic partnerships with companies (e.g., Microsoft, Amazon, Deloitte, Standard Bank, VodaCom) or non-governmental organizations (e.g., USAID, giz, World Bank, Bill & Melinda Gates Foundation). They also cooperate with each other and share infrastructure such as cloud and server. Only because of the cooperation is it possible for at least 40% of the hubs to provide financing for start-ups (Group Speciale Mobile Association, 2019). Thus, in 2018 a total of 191 start-ups were financed by the surveyed tech hubs, with the support per start-up being less than $20,000 (AfriLabs & Briter Bridges, 2019, p. 11).

So the conclusion of Friederici (2019, p. 19 f.) in his qualitative study that hubs only make a minor direct contribution to the founding and success of start-ups in SSA is not surprising (this does not question the potential of hubs). In addition, most of the entrepreneurs surveyed report that they would have continued the founding of their company even without the support of the respective hub. While tech hubs can contribute to

promoting an innovation climate in Africa and significantly advancing idea generation, their effectiveness is limited due to scarce resources and capabilities. The expectation that hubs will compensate for the shortcomings of the existing ecosystem overburdens the operators.

3.6 Importance of Entrepreneurship for Market Entry into Sub-Saharan Africa

Currently, entering the market in Africa without a local partner is almost impossible due to the completely different and difficult conditions:

> Unless you understand how these [local] communities work and select the right partners, it will be practically impossible to start a business or get anything done. (Mudida & Lago, 2015, p. 21)

A local partner usually facilitates market entry and the establishment of a successful business. The stronger the formal entrepreneurship activities in a country, the more likely it is to find an adequate partner. Although a large part of entrepreneurship in Sub-Saharan Africa is driven by "necessity-based", there exists and is emerging in many countries an active start-up scene, many of which are active in the field of digital business models. This opens up new options for German companies on how to deal with operational challenges. For example, in the area of financing, FinTechs can increasingly be used; for platform solutions, local app programmers can be found as in the case of VW in Rwanda; for the distribution problem, there are local start-ups like Sendy in Kenya, which provide a platform for booking transport capacity. Further examples of digital business models and start-ups that can support international companies in their business operations in Africa are provided by the study by Carlowitz (2020).

However, studies show that it is currently and in the foreseeable future not easy to find reliable and qualified local partners, usually in distribution and logistics (see, for example, Carlowitz, 2019a). Thus, there is a dilemma for market entry: A key success factor is a good local partner, but these are precisely rare. As a consequence, sufficient time and resources should be invested in the search and acquisition of local partners when planning a market entry in order to find a suitable partner, among others in the start-up sector. Since African entrepreneurship is currently only partially able to defuse the situation, international companies should be prepared to look for out-of-the-box solutions for their operational challenges together with start-ups. Despite all the difficulties for entrepreneurship in SSA, the development in the start-up scene is positive to evaluate, especially since more and more venture capital is now flowing into Sub-Saharan Africa, the conditions are slowly improving, so that an acceptable ecosystem is developing, and that there are increasingly start-up and tech hubs, which admittedly still need to become more professional. Overall, entrepreneurship plays an important direct and indirect role not only for the development of the SSA countries but also for companies entering the market.

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