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Abstract

Scores of studies highlight the significance of human resource development in Africa. However, this study is one of the first that combines human capital development and innovation and its impact on international competitiveness in sub-Saharan Africa (SSA). Thus, many questions about economic and business competitiveness in SSA have remained unanswered. This chapter, therefore, provides insights into how multinational corporations (MNCs) operating in SSA can acquire and develop their human capital to innovate and enhance their international competitiveness and that of the SSA region. The study reveals that Africa's long-term growth prospect hinges on developing their human capital. The sustainability of SSA's competitiveness in the world requires that education and on-the-job training center on the skills most needed in today's global marketplace. Research and practical implications are discussed.

Introduction

The end of the natural resource boom in the early part of this decade and the consequent decline in regional economic growth from an average of 5 percent to about 3.3 percent has created many challenges for firms in Sub-Saharan Africa (SSA) (International Monetary Fund, 2016). Organisations in this region as a matter of urgency will need to develop the capabilities required to create and sustain the competitive advantage they need to compete in the ever-changing global environment. Thus, they have to improve their processes, capabilities and be in the position to offer quality products and/or services. One crucial source of developing competitive advantage is, therefore, to have employees with knowledge, skills, abilities and other characteristics which is required to be innovative in their work (Czajkowski et al., 2013). Human capital and a firm's ability to come up with innovation are critical for creating and sustaining

competitive advantage (Czajkowski et al., 2013) which, in turn, is vital for a firm's international competitiveness.

According to Porter (1990), Thug (2016) and Thunnissen (2016), outstanding talent is scarce in every nation; hence, it needs to be nurtured. In this regard, organisations need to invest in human capital development activities to enhance their capabilities. This is because developing human capital generally leads to innovation and thus international competitiveness.

Recent global surveys of human resource (HR) managers of MNCs increasingly point to talent shortage as the most important challenge confronting MNCs (Thug, 2016). Interestingly, the problem of skills shortage seems worst in developing and emerging economies where the teeming youthful population is lacking in the skills which employers value (Debrah & Budhwar, 2001; Elegbe, 2010; Horwitz, 2014). Thus, just simply employing and retaining a graduate workforce will not necessarily provide the human capital that firms operating in SSA require to innovate and create competitive advantage in the current global environment (Aryee, Walumbwa, Seidu & Otaye, 2016). In relation to this, Fredriksen & Kagia (2013) indicate that African youths fare much worse in terms of education and training than those of the other regions of the world. The Word Economic Forum's (WEF) Human Capital Index and National Competitiveness scores and rankings further highlights how badly SSA performed in terms of maximising and leveraging their human capital endowment. We argue that this has negatively impacted on SSA's level of global competitiveness. Table 1 presents a comparison of HCI scores of selected African countries in relation to countries from other regions of the world. In view of this trend, we argue that SSA seems to have lost its way towards the harnessing and development of its human capital which will enable them to become internationally competitive and sustain the success of their businesses and economy.

Insert table 1 about here

The main purpose of this chapter, therefore, is to identify some novel ways through which MNCs (both foreign and domestic) operating in the SSA can develop their human capital to innovate and create the relevant advantage they need to compete in the global marketplace. The chapter focuses on MNCs for two main reasons. First, Miyamoto (2013) argues that MNCs are active providers of education and training in developing countries and are more likely to respond to policy recommendations relating to human capital investment than their local counterparts. Besides, given the increasing number of service and high-technology MNCs in SSA seeking employees with high-level skills, MNCs would be interested in the availability of highly skilled workforce in SSA countries where their mode of production is relatively skilled-biased. Rovai (2005) and Osabutey, Nyuur & Debrah (2015) also maintains that investment in training is even more important for MNCs who often have to grapple with the challenge of workforce localisation in the face of severe shortage of skilled workers in SSA countries. For example, MNCs in the Nigerian oil and gas industry are required by legislation to hire around 75 percent of Nigerians into management and other professional positions after 10 years of being granted the licence to operate (Playfoot, Andrews & Augustus, 2015). To this end, MNCs have more access to training resources as well as the capability to reduce labour turnover by providing attractive compensation packages to keep the employees after the training. Second, the World Development Report (2000) confirms that MNCs have a relatively good record of providing training for their employees working in their subsidiaries compared to domestic firms. As a result, it would be useful to explore how MNCs can strengthen their human resource development activities in the SSA context.

The chapter proceeds by examining the concepts and approaches to human capital, the impact of human capital development on innovation and how these factors enhance international competitiveness. The section that follows explores how these factors can enhance the international competitiveness of SSA firms. This is accompanied by the conclusion and implications for future research.

The meaning of human capital

Whilst much scholarly work has been done on human capital, a consensus is yet to be formed on the definition of human capital (Wright, Coff & Moliterno, 2014). Different authors have defined human capital in different ways to suit the focus of their studies. From an individual-level perspective, Coff and Kryscyncki (2011, p.1430) defined human capital as: *"An individual's stock of knowledge, skills and abilities"* Ployhart, Nyberg, Reilly and Maltarich (2014, p. 376) agree with the above definition, but added "other characteristics" to knowledge, skills and abilities as components of human capital i.e. KSAO. In their words: *"Human capital is an individual's KSAOs that are relevant for achieving economic outcomes."* The authors consider human capital as inherent to the individual, and not the physical persons themselves. Emphasis in this context is on the specific components (Wright et al., 2014), i.e. the knowledge, skills, abilities and other characteristics (KSAOs) (Ployhart & Moliterno, 2011), which individuals bring to their workplace as employees (Davenport, 1999). According to Wright, Coff and Moliterno (2014, p. 363), Becker (1962, 1964), Scarbrough and Elias (2002, p. 3) and Wright et al. (2014) these KSAOs are acquired through employee's investment in education prior to employment and this is further developed in the workplace through professional training. According to this perspective, knowledge represents the factual information relevant for performing a specific job responsibility (Nyberg, Moliterno, Hale Jr., & Lepak., 2014; Ployhart

et al., 2014) and serves as the foundation upon which skills and abilities are developed (Nyberg et al., 2014; Ployhart et al., 2014). Skills refer to the individual capabilities and proficiencies required to carry out specific job (Nyberg et al., 2014, Ployhart et al., 2014). Ability refers to a more enduring capability that is usually cognitive and needed by individuals in order to perform their specific job responsibilities (Nyberg et al., 2014). Finally, "other characteristics" often refer to attributes and personality traits that affect an individual's ability to perform a specific job (Nyberg et al., 2014). Studies in this context have linked KSAOs to individual performance in the organisation (Ployhart et al., 2014).

In contrast to the above view, some studies have also defined human capital as a firm level resource (i.e. Huselid, Jackson & Schuler, 1997; Somaya, Williamson & Lorinkova, 2008). From this perspective, Huselid et al. (1997, p. 171) defined human capital broadly as: *"Employees' collective knowledge, skills and abilities".* Similarly, Somaya et al. (2008, p. 936) confirmed this definition specifying that human capital is: *"The cumulative knowledge, skills, talent, and know-how of the firm's employees".* In this context, human capital refers to a firm level resource, something that is held by the firm i.e. the aggregate of knowledge, skills, abilities, and other characteristics held by the firm that is linked to firm-level performance (Nyberg et al., 2014; Ployhart & Moliterno, 2011). The emphasis here is on the firm and not the individual employees. Therefore, when a talented employee leaves his/her employer to join a new firm, such a move may decrease the human capital stock of the initial organisation (Somaya et al., 2008).

Although, human capital is also conceptualised as a firm level resource, it is created from individual human capital (Ployhart & Moliterno, 2011). In this vein, Ployhart and Moliterno (2011), maintains that human capital is an aggregate of the KSAOs held by the unit, but created

from the KSAOs of individual employees within the unit. In this regard, the focus of the unit-level construct is on 'people' and how they act and interact with each other to produce a unit level result (Ployhart et al., 2014). However, unit-level result originates from the KSAO's of individual employees. Ployhart and Moliterno (2011), therefore, described how unit-level resources are created from individual level KSAOs. They explain that task complexity and emergence enabling states (i.e. affect, behaviour, and cognition) interrelate for unit level human capital to emerge from individual KSAOs. In another study, Ployhart et al. (2014) and Nyberg et al. (2014) introduced another dimension to the unit-level resource analysis postulating that anything beyond human capital at the individual level should be classified as '*human capital resource*'. In this vein, Ployhart et al. (2014, p. 374) extends the argument by defining human capital resource as: *"individual or unit-level capacities based on individual KSAOs that are accessible for unit relevant purpose."* From this standpoint, human capital resources differ from human capital in the sense that human capital resources exist as a specific unit feature and contribute to the attainment of a unit's goal.

The definition of human capital by Ployhart, Nyberg, Reilly and Maltarich (2014, p. 376) is more in line with the focus of this study and has been adopted. Thus, *"human capital is an individual's KSAOs that are relevant for achieving economic outcomes."*

The advantages of this definition are clear. First, it enables us to think of how firms can develop highly skilled and knowledgeable employees who can utilise their knowledge and skills to achieve greater productivity for both their employers and the societies where they live. Besides, human capital is considered not only at the firm level but also at the societal level. Second, individual level perspective is based on expert opinion which suggests that anything beyond human capital at the individual level is human capital resource (Nyberg et al., 2014;

Ployhart et al., 2014). Moreover, the real owner of human capital is not the firm but the employees themselves who tend to take their human capital with them when they leave the firm (Santos-Rodrigues et al., 2012). The next section focuses on the relevant approaches needed to develop human capital resource.

Approaches to human capital development

The extant theories suggest that there are two major approaches to human capital, namely education and on-the-job training. Scores of studies argue that education and training are a useful investment for developing human capital (Budhwar and Debrah, 2004; Baron & Armstrong, 2007; Becker, 1962, 1964, 1975, 2009; Bouchard, 2006; Schultz, 1961). Moreover, the role of human capital in enhancing company performance and growth by extension, determines the competitiveness of firms. Thus, organisations seeking to create and sustain the competitive advantage required to compete in the present business environment will need to emphasise employee capability development (Santos-Rodrigues, Figueroa & Jardon, 2010). This is particularly true as the important elements of the present competition among organisations are people, their knowledge and creativity in terms of their ability to convert resources into innovation (Czajkowski, Kowalski, Michorowska & Weresa, 2013). Therefore, organisations generally require investment in the training (and education) of their employees' to be able to innovate and create the competitive advantage they need in today's highly competitive global market.

Education

Several studies have shown that formal education is very relevant for the development of specialised knowledge and abilities in people (Becker, 2009). Levels of education in the

literature on human capital include education at primary, secondary, college and higher education (Schultz, 1971, p. 79; Sweetland, 1996). Universities (and colleges) are the quintessential repositories of human capital (Brymer, Molloy & Gilbert, 2014). Accordingly, it is during university (and college) education that people acquire the relevant 'capital' that they can rent out to employers in exchange for good wages (Becker, 1964).

Although education is useful in the development of human capital, some human capital analysts suggest that traditional approaches to education (i.e. university education) no longer fit the demands of the present time (Bouchard, 2006; McCracken et al., 2015). This means that some young graduates may complete their university education without developing the required competencies that employers desire in their employees. The issue focuses on the quality of education which universities provide for their undergraduate students (Becker, 2009; Dore, 1976). Becker (2009, p. 20) and McCracken et al. (2015), for example, observed that some graduates are not well prepared for employment when they complete universities. Many recent graduates are lacking the soft skills that employers need in their employees (McCracken et al., 2015; Schultz, 2008). In the field of business and management, for example, commentators argue that much of the present management curricula in universities only provide limited opportunities for management students to learn about management practice and become competent in the behavioural skills essential for good management (Paglis, 2013). As mentioned earlier, the problem of skills mismatch of graduates is said, however, to be more acute in developing countries of Africa and other emerging countries (Elegbe, 2010; Ibeh & Debrah, 2011). The reason for this is that education in SSA is mainly theory based and there is limited emphasis on teaching critical thinking skills, interpersonal skills and practical experience in terms of team working (Dore, 1976; Elegbe, 2010; Farrell & Grant, 2005; *Economist*, 2008). Part of these soft

competencies, namely team working skills, critical thinking skills, relationship skills, communication skills as well as technical competencies are key determinants of employees' ability to innovate (Mortara, Shawcross, Mills, Napp & Minshall, 2009; Podmetina, Hafkesbrink, Templov, Dabrowska & Petraite, 2015) and create the competitive advantage that firms require to compete.

In addition, the move to a more knowledge-based economy and a network organisation structure as a way of responding to economic shifts have increased organisations' quest for knowledge workers (Beechler & Woodward, 2009; Grove, 2010; Schuler et al., 2011). The implication is that many workers in the workforce no longer have the skills required by manufacturing and service delivery firms to carry out the different task assigned to them in their work environments. Hence, there is the need for employees to acquire new competencies to carry out such jobs effectively (Rich, 2010). Based on the shortcomings of current university education, there is the need to upgrade the skills of employees overall. Several studies suggest that organisations should consider how best they can help their employees to acquire the relevant skills needed for work within particular industry (Cappelli, 2011; Connor & Shaw, 2008; Farndale et al., 2010; Farrell & Grant, 2005). By extension, addressing these issues would enable the SSA region to become competitive.

To address the inadequacy of university education, MNCs are now providing on-the-job training for their workforce to teach the competencies graduates (and longstanding employees) need, to be innovative at work (Kumar & Chadee, 2002; Scullion & Collings, 2006). On-the-job training is often associated with some set of competencies useful for a particular industry or firm. For instance, Becker's (1962) argues that on-the-job training designed to provide employees with

the relevant human capital needed to perform well is a worthwhile investment. The study now turns to consider firms on-the-job training.

On-the-Job Training

A major way of coping with the challenges in the present competitive business environment is through the effective utilisation of a firm's human resource which plays a critical role in creating the sustained competitive advantage organisations need to compete in a global environment (Samuel, 2015). One effective way of achieving this is through regular provision of training to organisations' workforce. Some analysts argue that, this process is necessary if they are to compete and survive in markets where competitors constantly innovate to meet changing customer needs (Samuel, 2015). Analysing this from the human capital lenses, training complements formal education. Moreover, most practical skills and knowledge are better developed by the firms. For example, Becker (1962) cites that the best training in recent industrial skills and practices are usually provided at workplace. This is because firms tend to be the first to be aware of their value. While new hires (including fresh graduates) take their skills to the workplace, their potential must be further developed through on-the-job training that prepares them to increase productivity (Baron & Armstrong, 2007; Becker, 1962, 1964, 1975, 2009). Similarly, longstanding employees require training to upgrade their existing competency levels to be able to increase productivity and to innovate and create the competitive advantage needed to succeed in a global environment.

Recent studies suggest that most organisations adopt on-the-job training methods that include mentoring, coaching, job rotation, international assignments, self-development activities, job assignment and special projects in the development of their employees' human capital (Connor & Shaw 2008; Hayman & Lorman, 2004; Hegarty & Johnston, 2008; Jenner 2008;

McGettingan & O'Neil, 2009; O'Donnell et al., 2008). In addition to the above, organisations also provide formal off-the-job training including in-house training, MBA and diploma programmes. For example, Hayman and Lorman (2004) and Jenner (2008) suggest that in-company training courses, seminars, workshops, and self-development activities have become common for the development of employees. Moreover, organisations seeking to develop the human capital base of its employees to innovate and create the sustained competitive advantage need to pay attention to the fundamental issues of content, rigour and the expertise required to deliver the training programme.

These studies agree that talent, not capital, is the leading factor linking innovation, competitiveness and sustained economic growth. The implementation of sustainable human capital development approaches is, therefore, vital for SSA. In 2015, the United Nations through the Sustainable Development Goals (SDG) re-emphasised the role of quality education and continuous training in developing highly knowledgeable individuals who are equipped to advance new initiatives aimed at enhancing innovation and sustaining economic growth and development (Mitter, 2016). The SDG 4, in particular, advocates for quality education and life-long learning opportunities for all in both developing and developed economies by 2030 (United Nations, 2015). As a result, governments, private firms and other stakeholders in several countries are tailoring the framework to meet the demands of the contextual realities in their various nations (United Nations, 2015). But, Mitter (2016) avouched for the application of an integrative approach in the implementation of this framework, if the full benefits are to be achieved. The integration of appropriate formal and informal education approaches is crucial in this regard. Thus, achieving the herculean task of developing the skilled and knowledgeable workforce needed for innovation in SSA countries require that lessons from MDG (4) must be

learned and advanced. One of the notable lessons is that highly knowledgeable and skilled workforce underpins every function of the economy and that the development of workforce through quality education and continuous training is central to gaining and maintaining international competitiveness (Freer, 2017). The next section examines how inclusive and equitable quality education could enhance innovation at the micro and macro levels in SSA.

Human capital and innovation

Afuah (1998) refers to innovation as the use of new knowledge to offer a new product or service that customers want. This, therefore, entails the application of ideas that are new to the adopting organisation. The distinctions between technical and administrative innovation have been explored by scores of studies as the former focuses on processes (acquired technical skills through training and availability of advanced technology) that enhance product and service delivery. The latter also encompasses organisational structure, administrative processes, skill acquisition and human capital development (see Ibarra, 1993; Damanpour, 1987; Almeida and Phene, 2004; Jaskyte, 2011 etc.). Both types of innovation do not have the same attributes and do not relate to the same organisational factors equally (Damanpour, 1987; Jaskyte, 2011). Similarly, the implementation of different types of innovation is not necessarily the same within organisations (Damanpour, 1987).

Furthermore, administrative innovation should complement technical innovation efforts in order to optimise a firm's strategic outcomes (Santos-Vijande, Lopez-Sanchez and Gonzelez-Mieres, 2012). The recognised relationship between administrative and technical innovation (Santos-Vijande et al., 2012) supports the positive relationship between human capital development, innovation and international competitiveness (Santos-Vijande et al., 2012).

In this study, our focus is on both types of innovation because the creation of knowledge and skills within organisations is an inventive activity relevant for improving productivity. Whilst, innovation involves developing new products and services rapidly and efficiently, innovativeness involves the novel recreation of existing knowledge and/or the complete creation of new knowledge (Santo-Rodrigues et al., 2010) which is a key constituent for enhancing international competitiveness. The capability to develop new products and/or services and processes rapidly depends on an employee's level of skill and knowledge. Thus, firms with highly skilled and knowledgeable employees are more likely to make the correct decisions and create new knowledge that will result in organisation innovativeness. In a related study, Jin et al. (2010) argue that employees with sufficient knowledge and skills create the foundation for firm flexibility. Firm flexibility is the firm's ability to respond to changes in customer needs by altering different functions effectively and efficiently. Firms can successfully compete in a global business environment when they can respond to changes in customer needs effectively and efficiently.

However, the mere possession of knowledgeable and highly skilled employees alone may not bring about innovation in firms (Aryee et al., 2016). Firms will need to create an environment and organisational culture that will stimulate the employees to utilise their knowledge and skills in the creation of new products and/or services and processes in response to changing market needs. Correa, Camacho and Mosqueda (2015), for example, argue that whilst the KSAOs embedded in firm's employees allow their precise comprehension of organisational function and the subsequent efficient execution of such function in a timely manner, organisations must provide them with the processes, technology and systems they need. The employees must also be given the opportunity to be fully involved towards supporting

organisational competitiveness (Correa et al., 2015). The creation and utilisation of human capital for innovation will increase productivity, reduce costs, create better product and/or services and increase customer value (Correa et al., 2015).

Human capital and the innovation which it creates are key determinants of SSA's global competitiveness. This is because it serves as the support system for the creation of core capabilities which would position firms in the region above its competitors in the market (F-Jardon & Gonzalez-Loureiro, 2013). In this regard, the success story of one SSA country (Mauritius) aptly describes the influence of human capital development on innovation. Through government initiatives such as Human Resource Development Council (HRDC), private firms in the hotel sector in Mauritius have been encouraged (through the provision of training grants) to invest in the development of their staff to enhance innovation (African Economic Outlook, 2008; Prayag & Hoseny, 2013). The embrace of staff training and development has subsequently led to an increase in employees' human capital levels and innovation in different organisations and sectors in the Mauritian economy (Prayag & Hoseny, 2013). Following the successes recorded in the hotel industry, the HRDC of Mauritius launched other initiatives such as the National Human Resource Development Plan (NHRDP) to coordinate human capital development across various targeted sectors (www.hrdc.mu). These initiatives have enhanced the economic outlook and competitiveness of the Mauritian economy and positioned them as a human capital development and innovation success story of Africa. The next section expounds the relationship between human capital development and economic outcomes.

Human capital and international competitiveness

Giegiel and Wildowicz (2014) define competitiveness as the collection of factors, policies and institutions which determine the level of productivity and prosperity that can be

attained by a given economy. The IMD's World Competitiveness Yearbook (2015) also defines it as competencies that facilitate long-term value creation. We assert that this is because of individual, firm and government productivity. Key factors used by the World Competitiveness Yearbook (WCY) include economic performance, infrastructure, government and business efficiency. Considering these key dynamics, we can also identify two types of competitiveness. First, result competitiveness which focuses on a country's macroeconomic performance and share of global trade compared with the rest of the world. Second, factor competitiveness which deals with the long-term competitive ability of an economy based on labour efficiency. In fact, Bienkowski (2006) indicates that labour market efficiency is required to keep pace with international competitiveness. Additionally, the essence and economic significance of human capital emerges from the notion that individual's accumulated skills and competencies are the most important components of a nation's wealth (Debrah and Smith, 2002).

Since the introduction of GATT, there has been a trend towards liberalisation in trade policy among most countries because it is deemed as the most significant factor that promotes wealth of nations. In developing countries, however, structural adjustments and economic liberalisation have justified the consistent decline of average trade tariff along with the movement towards greater openness in trade of goods and services (IMF, 2001). Nonetheless, it is necessary to acknowledge the fact that whilst the movement of capital is increasingly free and well encouraged, this has not been the case for labour. International labour mobility has tended to concentrate on the highly skilled, which has not favoured developing economies and particularly the SSA. Umpiring this phenomenon from the macro lenses, Giegiel and Wildowicz (2014, p. 60) argue that human capital is a decisive growth factor, and differentials in its accumulation account for existing gaps in GDP per capita between countries. Similarly, at the

micro level, resource-based view (RBV) protagonists indicate that it is the primary source of a firm's sustained success (see Barney, 1991.)

An interesting study, by Muhlberger (2012) for Deutsche Bank indicates that SSA accounts for 12% of the world's total population, 60% of the world's uncultivated arable land, 60% the world's diamonds, more than 5% of the world's oil, and 30% of the world's cobalt resources. Despite these resource advantages, SSA accounts for only 1% of total world manufacturing, 3% of total world FDI, 2% of total world gross domestic product (GDP) and 2% of total world trade. In 2012, for example, some SSA countries such as Ghana, Congo, Gabon and South Africa had a GDP per capita ratio below $200, 000. These countries also had a low record of domestic export percentage as a share of total global exports when compared to their Eastern European and Central Asian counterparts such as Poland, Hungary, Romania, Hungary and Turkey (IMF, 2015). Nonetheless, Angola and Nigeria with higher rates of domestic exports in the region are not significantly different from the other SSA countries because of their high dependence on oil and gas exports (Economist, 2016).

In view of these trends, many questions about economic and business competitiveness in SSA remain unanswered despite abundant literature on human capital development. For example, how can frameworks and models that have been utilised to achieve considerable success in Asia, Latin America, Brazil, Russia, India and China (BRIC), and more recently, some of the MINT countries (Mexico, India, Nigeria and Turkey) be adapted to support growth and development initiatives in SSA countries? How can firms operating in SSA support the provision and delivery of training programmes at universities (and colleges) to support their growth agenda? And how do they provide the indispensable training and skills to their employees to function in the environment of constant innovation and competitive pressures? To answer these

critical questions, we discuss the processes and strategies for enhancing the international competitiveness of SSA firms and by extension the SSA region.

Means of enhancing SSA's international competitiveness

There is one main approach for enhancing the international competitiveness of sub-Saharan African firms and the competitiveness of the region. This approach is training (both on-the-job learning and formal off-the-job training/education) that takes place in the context of employment (Acemoglu & Pischke, 1998). However, lessons from SDG target 4.4 which emphasise relevant skills for the world of work through continuous life-long learning must be heeded. Training and development activities can be provided in partnerships with higher education institutions such as the mainstream and technical universities. Moreover, universities (through the support of governments in the various countries where they operate) in the region should embrace SDG (4) education initiative which emphasises quality education and outcomes as argued by Mitter (2016). The stagnation of SSA firms is ascribed to the lack of skills and information to effectively innovate (Fununishi, 2004). The training policies of these SSA firms lag behind that of firms in the other regions, a practice that offers the opportunity to initiate significant training policy change in SSA firms. If firms stop training temporarily and divert money meant for training to other activities as some Nigerian firms reportedly do (Obisi, 2011), then the message is clear: some SSA firms do not attach high value to employee training and development. In fact, a major World Bank survey that investigated training in SSA firms suggests that about half of the sampled firms did not invest in training at all in about three years (Fununishi, 2004).

Along this line, Portugal, after lagging behind most of the European Union, embraced investment in the development of human capital to increase productivity and enhance

competitiveness (Gibson & Naquin, 2011). Individuals were provided with opportunities to go for internships, learn on-the-job and attend workshops/short and undertake courses through the government's HC development scheme (Gibson & Naquin, 2011). Efforts made to develop individuals later led to the development of 'learning organisations'. This embrace of investment in human capital development in Portugal led to the innovation which later enhanced their level of international competitiveness.

Training and human capital development in Sub-Saharan African firms

SSA firms have the potential to create firms that are more intelligent and flexible than competitors through training and development programmes. There is a consensus among experts that in-house company training can help develop employees with the relevant KSAOs who can form the basis for sustained competitive advantage (Poole & Jerkins, 1996), if managed properly. Thus, to be successful and to be able to access new technology, SSA firms need highly skilled and knowledgeable workforce. This is particularly important as higher education institutions in SSA countries are reportedly not producing 'work-ready' graduates (Elegbe, 2010; Ibeh & Debrah, 2011). Moreover, competitive advantage is not based on generic skills acquired during higher education but rather on firm-specific skills that are unique and rare (Barney, 1991). Thus, we admonish that SSA firms should provide in-house training which comprise of both on/off-the-job training for their employees when the development of specific skills, knowledge and work attitude are involved.

SSA firms can adopt on-the-job training such as rotational assignments, structured mentoring and coaching programmes, international assignments to help both their longstanding employees and new hires to acquire the skills, knowledge and attitude required to gain the flexibility for innovation. On-the-job training offers employees the opportunity to learn through

actual job tasks that takes place at work, thus, competencies gained during training can be easily transferred back to work (Noe, 2010, p. 264). In any case, on-the-job training programmes should be well-structured to deliver requisite industry skills and knowledge to employees. This is highly important for SSA firms, as a good number of employees undertake training in some SSA countries. Although most of the training is provided by managers, there may be some who lack the competencies and knowledge to impart them to increase productivity. Providing employees with well-structured on-the-job training programmes as well as training for their managers on how to conduct on-the-job training is a good way of addressing this challenge (Noe, 2010, p. 264; Ugoji & Mordi, 2014).

Further, SSA firms can adopt off-the-job training such as vestibule training, black belt training, distance learning, computer based training and formal classroom courses i.e. seminars, that may involve hands-on learning experience such as case studies, role play, action learning, group exercise, simulation, behavior modelling business games etc. to help their employees acquire relevant novel competencies they need to do their job. Computer-based training is particularly important for employees working with SSA firms in the present knowledge-based economy. In many SSA countries (e.g. Nigeria, Ghana, Sierra Leone, Cote d'Ivoire, etc.) some employees do not get the opportunities to make use of computers during university education (Arenyeka, 2012). Thus, the responsibility falls on employers to sharpen employee use of computer skills in the present technological age.

Off-the-job training method has some demerits such as low participant involvement and meaningful connection to the work environment. These factors inhibit learning (Noe, 2010, p. 261). To overcome these problems, off-the-job training techniques such as case studies could enhance active participation. SSA firms can also make use of intermediaries such as consultant

firms as well as universities to provide off-the-job training for their employees. Consultancy firms with qualified, well-trained and experienced staff as well as universities could be useful for the design and implementation of training courses (Holden, 2004, p. 327). Additionally, development of best occupational practices should be integrated with relevant local knowledge and experience (Oppong & Gold, 2013). In Duit's (1991) view, learning can achieve the desired outcome when there is construction of similarities between the new and existing knowledge as learning is an active construction process that can only take place based on previous acquired knowledge (Duit, 1991).

Employee training and development should be carried out regularly if SSA firms seek to remain strategically positioned in the global market or to be efficient in providing quality products and services. SSA firms also need to evaluate training efforts periodically using evidence-based assessment evaluation techniques to ascertain whether training efforts have yielded the expected outcomes.

The acquisition of relevant work competencies alone is not sufficient for employees. SSA firms would, therefore, need to use a bundle of HRM practices including financial and non-financial rewards, flexible working arrangements, and employee involvement scheme to attract and retain employees in the long term (Donate et al., 2016; Kumar & Chadee, 2002). Within the SSA context, employees' involvement is particularly important as it provides them with the opportunity to innovate and create sustained competitive advantage (Correa et al., 2015).

Influence of SSA firms training on innovation

Crocker and Eckardt (2014) and Kumar and Chadee (2002) assert that highly skilled and knowledgeable workforce is associated with job performance and innovation. In the view of

Pulakos, Arad, Donovans and Plamondon (2000, p. 612), job performance emphasises what employees do that can be observed and measured based on each employee's level of contribution or proficiency. Accordingly, well-structured training in SSA firms will help them to develop highly skilled and knowledgeable employees whose capacities have been built up with relevant competencies they need to innovate. Such capacity building techniques have the potential to increase employee absorptive capabilities.

With the relevant KSAOs, some decision-making responsibilities and motivation, employees can quickly apply their knowledge and skills for the development of new product offerings and novel ways of offering services. In the European Innovation Scoreboard (EIS), one of the various indicators for measuring innovation performance in organisations is through their outputs such as sales, new product development and utilising novel ways of delivering quality services to customers (Carayannis & Grigoroudis, 2014). In the context of SSA firms, however, any new product or service developed by firms must meet and satisfy the needs of customers more than those of their superior rivals from more developed contexts. This feat can only be achieved through human capital development efforts. Szivas (1999) argues that only highly skilled, knowledgeable and motivated employees can deliver high-quality products and services.

Influence of training & innovation on international competitiveness within SSA

Authors, such as, Doz and Prahalad (1987), Barlett and Ghoshal (1989), Hamel and Prahalad (1990) and Donate et al. (2016) argue that organisational competitiveness is associated with the human capital of their employees as well as their ability to perform and innovate. This implies that the ability to develop and deploy world-class talent more effectively can lead to world-class competitiveness (Smith, 1995). Thus, a firm is said to be competitive when it can provide products and services more efficiently and effectively (Giegiel & Wildowicz, 2014).

Measures of such kind of competitiveness include profitability, quality of new products and services, foreign sales of the company divided by output, regional or global market share (Giegiel & Wildowicz, 2014). Within the SSA, it is pertinent to note that international competitiveness can be a useful measure for both firms operating across borders as well as those operating in the domestic markets (Fukunishi, 2004).

The new products and services offered by firms within SSA through their highly skilled and knowledgeable employees can help them compete with rival firms both domestically and internationally. Thus, the improved performance of trained employees and the new quality products and services provided by these firms would increase profitability, regional and global market share, productivity, brand recognition and many others. However, this is only possible if their new products and services offered provide more value to customers than that of their foreign competitors.

In sum, the degree of competitiveness of nations and regions ultimately depend on the capabilities these firms have developed to be able to compete in the domestic and international markets. To sustain the competitive advantage and competitiveness level of both SSA firms and SSA region, SSA firms must regularly develop and deploy their employees for optimal level of performance. SSA firms can also collaborate with universities in order to enable universities develop more "work-ready" graduates for industries. Whilst, governments in SSA countries can also support universities to provide education that fits the 21st-century context, they could strive to create an environment that is favourable for business by providing the needed support in terms of infrastructural development, in view of success stories from Mauritius and Portugal.

Implications

This chapter has policy implications from which employers seeking to enhance their capabilities by developing human capital can benefit and compete in a global business arena. First, MNCs seeking to acquire and retain the required human capital needed to compete in the global market should design well-structured formal training and development as well as mentoring programmes to meet individual graduate employee needs and career progression aspirations. For instance, the embrace of human capital development has helped the hospitality industry in Mauritius to enhance productivity and the competitiveness of the industry and that of the country amongst other nearby Island destinations such as Seychelles and Maldives (Prayag & Hoseny, 2013). Second, MNCs should develop their middle and senior level managers by providing them with relevant training programmes required to develop the human capital needs within their respective industries. Additionally, managers need to enhance their own skills to be able to transmit knowledge to trainees during training sessions. These will help the MNCs develop the human capital relevant for creating the sustainable competitive advantage required to compete in a global business environment. To get the best of training, SSA firms must intertwine and entrench their training and development programmes into the SDG target (4.4.) framework which emphasises continuous life-long learning. Life-long training and development will provide employees of the most recent techniques and methods relevant for enhancing productivity in a fast-changing global business environment.

The chapter also has some policy implication for governments in SSA countries seeking to become competitive in today's global market. We suggest that governments in SSA countries should support universities to provide education that is 'fit for purpose' in the present age. Again, lessons from the SGD (4) framework on education to employment must be implemented.

Specifically, efforts should be made to promote collaborative partnerships between firms and higher education institutions for the purpose of designing and implementing education programmes that can cater for the needs of the various national contexts and industries. We expect involvement with training to vary across the various countries in SSA region, due to financial constraint (Giegiel & Wildowicz, 2014). We further recommend that SSA countries should allocate 26 percent of annual budget to the education sector based on the UNESCO recommendations for developing countries. In addition, they should create an environment that is favourable for business by providing relevant infrastructure, institutions and the right policies that support business.

Conclusion

This chapter has enhanced our understanding of the challenges that countries in SSA face in developing their human capital. We have also established that human capital development and innovation are key determinants of international competitiveness. Most developing countries and SSA, in particular, do not have the capability to compete successfully in this more demanding global system partly because of inadequate relevant talent and skills to drive innovation. Besides, training interventions provided by organisations operating in SSA can help develop the competencies of employees and for the wider development of management and talent. It is also a well-noted fact that until recently, most organisations operating in SSA did not have HR departments endowed with appropriate training systems and practices to support employee's career progression.

It is expected that this practice would expose employees to best practices used elsewhere. But as to whether they will heed to these best practices of human capital development and

innovation that has the potential to lead to growth, development and international competitiveness, it is only time that will tell.

Directions for future research

We have demonstrated in this chapter the importance of conceptualising the key approaches to human capital development and innovation and how these could support the improvement of international competitiveness of countries in the SSA region. The findings of this study have provided fresh insights on a very important but marginalised subject in the extant literature. In this regard, this study has enhanced our understanding of how human capital development initiatives could lead to innovation, innovativeness and international competitiveness of firms that operate within SSA. This study is, however, limited for few reasons. First, prior studies have identified evidence of underinvestment in training amongst SSA firms (Miyamoto, 2013). This chapter could not examine the reasons why most local firms in SSA underinvest in training and development. Hence, it would be useful for future research to explore the reasons for underinvestment in training and development in SSA. This would enable researchers to identify relevant policies for addressing the reasons for the underinvestment in training. Second, Osabutey, et al (2015) suggested that human capital with the skill set ready to *incorporate global perspectives* with *local adaptation*, in a business environment of continuous learning and innovation, is an urgent requirement in SSA countries. We support this call by confirming that it would be useful for future research to empirically investigate how SSA firms can tap into global knowledge and human capital stock from subsidiary networks to develop local workforce. Finally, it would be interesting to undertake an empirical comparative analysis of how successful countries in other emerging markets have succeeded in their attempt to

improve their level of international competitiveness through human capital development and innovation.

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Table 1 Global HCI and Global Competitiveness scores and ranking

Country	HCI Score	HCI Ranking	Competitiveness Score	Competitiveness Ranking
Finland	86.81	1	5.44	10
Norway	84.64	2	5.44	11
Switzerland	84.64	3	5.81	1
Japan	83.64	4	5.48	8
Sweden	83.29	5	5.53	6
Germany	81.55	11	5.57	5
United Kingdom	80.04	19	5.49	7
United States	78.86	24	5.70	3
Russia	77.86	28	4.51	43
China	67.81	71	4.95	28
Brazil	64.51	83	4.06	81
Ghana	64.76	84	3.68	114
South Africa	62.97	88	4.47	47
Zambia	62.66	90	3.60	118
Kenya	57.90	102	3.90	96
Mali	49.33	126	3.46	125
Nigeria	48.86	127	3.39	127

Source: World Economic Forum HCI and National Competitiveness Report (2017)