Tampere University

MOTOLANI AGBEBI

China-Africa Economic Engagement

Implications for Human Capital Development in Africa

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ACADEMIC DISSERTATION
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To my father, Joseph Abayomi Agbebi

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Abstract

China's economic engagement with Africa has garnered considerable attention in academic and policy circles as well as in the global media over the past two decades. The implications of the engagement for Africa's development have been a subject of debate in popular and academic literature, with experts offering differing views on Africa's development trajectory. Among the contentious issues in China–Africa discourse is the impact of Chinese engagement on human capital development (HCD) in Africa. Many valid questions have been raised about the potential of Chinese investments to add value to African industries and contribute to HCD in Africa.

Drawing on dependency theory and human capital theory, this dissertation investigates China's economic engagement with Africa. Specifically, it examines in what ways, if any, Chinese economic engagement contributes to HCD in Africa and the role of the host African governments in leveraging the engagement for HCD. This study employs both a conceptual research and an empirical research approach. The empirical part of the dissertation investigates the contributions and implications of the engagement for HCD by drawing on the case of a Chinese multinational company, Huawei, operating in Nigeria. This dissertation comprises two main parts: Part I is the synthesis, also referred to as the summary, and Part II consists of four original research articles, referred to as sub-studies. Together, they address the aims of this study.

Sub-studies 1 and 2 are conceptual are in nature and are aimed at unpacking the China–Africa economic engagement. Relying on dependency theory, Sub-study 1 analyses China's presence in Africa and creates a basis for understanding the engagement and what it means for Africa's development trajectory. Sub-study 2 draws on dependency theory and human capital theory to propose a framework for investigating the potential outcomes of new forms of economic engagements between countries. It also illustrates how the framework can be utilised to study the potential outcomes of the China–Africa economic engagement.

Sub-studies 3 and 4 are empirical works that investigate the contributions of Chinese enterprises to HCD in Africa and the role of the host government in leveraging the engagement for HCD. Sub-studies 3 and 4 focus on the case of Huawei.

The findings show that China–Africa engagement signifies a growing interdependency between China and African countries, driven by their strategic interests and objectives. The engagement is economically pragmatic, offering African countries an alternative in their choice of development partners. The engagement presents both opportunities and challenges for Africa – opportunities to realise concrete economic gains that foster development in their respective economies and a challenge to steer the engagement in a direction that is beneficial for Africa's development and mitigate the potential negative effects of the engagement.

This study finds that the China–Africa economic engagement also offers opportunities for HCD in Africa. Findings from the Huawei case study indicate that Chinese enterprises operating in Africa are well placed to contribute to HCD by way of local employment generation, training and skill building and technology and knowledge transfer through their operations and investments in their host country. Importantly, these opportunities tend to vary across sectors and countries because of the differences in sectoral and contextual conditions. With the help of local content policies and strategies for active collaboration with Chinese enterprises, host African governments can successfully leverage Chinese economic engagement for HCD in their countries.

This study contributes to one's understanding of the China–Africa economic engagement and provides case-based empirical evidence on the possible implications for HCD in Africa.

Keywords: China–Africa economic engagement, human capital development, dependency theory, human capital theory, multinational corporations, foreign direct investments

Tiivistelmä

Kiinan ja Afrikan maiden välinen taloudellinen yhteistyö on saanut osakseen kasvavaa huomiota viimeisen kahden vuosikymmenen aikana. Yhteistyöstä ovat olleet kiinnostuneet poliittiset päättäjät, media sekä tutkijat. Kiinan taloudellisen toiminnan vaikutuksista on Afrikan kehitykselle keskusteltu tutkijoiden toimesta runsaasti. Yksi Kiina–Afrikka-keskustelun kiistanalaisista kysymyksistä koskee Kiinan taloudellisten toimien vaikuttavuutta Afrikan inhimillisen pääoman kehitykselle. Useita aiheellisia kysymyksiä on esitetty Kiinan investointien mahdollisesta myönteisestä vaikutuksesta lisätä Afrikan liike-elämän arvoa ja yleisemmin tukea inhimillisen pääoman kehittymistä Afrikassa.

Tämä väitöskirja tutkii Kiinan ja Afrikan maiden taloudellista yhteistyötä riippuvuusteorian ja inhimillisen pääoman teorian näkökulmasta. Tutkimus kohdistuu erityisesti siihen, vaikuttaako kiinalainen taloudellinen toiminta inhimilliseen pääomaan Afrikassa ja osana Afrikan maiden hallitusten osaamiseen liittyvää kehittämispolitiikkaa. Tutkimuksessa sovelletaan sekä käsitteellistä että empiiristä lähestymistapaa.

Osatutkimukset yksi ja kaksi ovat käsitteellisiä artikkeleita ja pyrkivät erittelemään Kiinan ja Afrikan maiden välistä taloudellista yhteistyötä ja sen muotoja. Nojaten riippuvuusteoriaan osatutkimus yksi analysoi Kiinan läsnäoloa Afrikassa ja luo perustan taloudellisen yhteistyön merkityksen ymmärtämiselle osana Afrikan taloudellista kehitystä. Osatutkimus kaksi hyödyntää riippuvuusteoriaa ja inhimillisen pääoman teoriaa ja esittää viitekehystä maiden välisten uusien taloudellisten kanssakäymisten mahdollisten seurausten tutkimiselle. Se myös havainnollistaa, miten viitekehystä voidaan hyödyntää tutkittaessa Kiinan ja Afrikan taloudellisen kanssakäymisen mahdollisia seurauksia. Osatutkimukset kolme ja neljä ovat empiirisiä tapaustutkimuksia, jotka selvittävät kiinalaisten suuryritysten myötävaikutusta Afrikan inhimilliselle pääomalle ja hallituksen toiminnalle. Osatutkimukset keskittyvät Huawein toimintaan Nigeriassa.

Tulokset osoittavat, että Kiinan ja Afrikan maiden taloudellinen yhteistyö merkitsee kasvavaa strategista keskinäisriippuvuutta Kiinan ja Afrikan maiden välillä. Kanssakäyminen on taloudellisesti pragmaattista, ja tarjoaa Afrikan maille vaihtoehdon kehitys-

kumppaneiden valinnassa. Taloudellinen yhteistyö tuo sekä mahdollisuuksia että haasteita Afrikalle, mutta se tarjoaa mahdollisuuksia toteuttaa kunkin kansantalouden kehitystä tukevia kehityskulkuja. Kuitenkin se haastaa valtioita pitkäjänteiseen kehityspolitiikkaan, joka hillitsee kanssakäymisen mahdollisia kielteisiä vaikutuksia.

Tutkimus osoittaa, että Kiinan ja Afrikan välinen taloudellinen yhteistyö tarjoaa mahdollisuuksia myös Afrikan inhimillisen pääoman kehitykselle. Huawein tapaustutkimuksen löydökset viittaavat siihen, että Afrikassa toimivat kiinalaiset suuryritykset ovat hyvässä asemassa voidakseen tukea inhimillisen pääoman kehittymistä paikallista työllisyyttä edistämällä, koulutuksella ja taitojen kasvattamaisella sekä teknologian ja osaamisen siirroilla kohdemaissa tapahtuvan toimintansa ja sijoitustensa kautta. On merkittävää, että nämä mahdollisuudet vaihtelevat sektorien ja maiden välillä johtuen sektori- ja kontekstisidonnaisten olosuhteiden eriäväisyyksistä. Afrikan maiden hallitukset voivat onnistuneesti hyödyntää kiinalaista taloudellista toimintaa omien maidensa inhimillisen pääoman kehittämisen tukena. Tämä kuitenkin edellyttää toiminnan integrointia isäntämaan kansallisiin kehitysohjelmiin ja -politiikkalinjauksiin.

Tutkimus antaa panoksensa Kiinan ja Afrikan maiden välisen taloudellisen yhteistyön ymmärtämiselle ja tarjoaa tapauspohjaista empiiristä näyttöä mahdollisista vaikutuksista inhimilliselle pääomalle Afrikassa.

Avainsanat: Kiina-Afrikka taloudellinen kanssakäyminen, inhimillisen pääoman kehitys, riippuvuusteoria, inhimillisen pääoman teoria, monikansalliset yhtiöt, ulkomaiset suorat investoinnit

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I Agbebi, M., & Virtanen, P. (2017). Dependency theory: A conceptual lens to understand China's presence in Africa. *Forum for Development Studies, 44*(3), 429–451. doi: org/10.1080/08039410.2017.1281161

II Agbebi, M., Stenvall, J., & Virtanen, P. (2018). Towards a framework for understanding the outcomes of economic engagements with Africa: A human capital development perspective. *African and Asian Studies Journal, 17*(3), 274–299. (First published online October 2017). doi: 10.1163/15692108-12341392

II Agbebi, M. (2018). China in Africa's telecom sector: Opportunities for human capital development? A case of Huawei in Nigeria. *Human Resource Development International, 21*(5), 532–551. https://doi.org/10.1080/13678868.2018.1512232

IV Agbebi, M. (2019). Exploring the human capital development dimensions of Chinese investments in Africa: Opportunities, implications and directions for further research. *Journal of Asian and African Studies, 54*(2), 189–210. (First published online September 24, 2018). https://doi.org/10.1177/0021909618801381

List of Abbreviations

CADF	China Africa Development fund
CARI	China Africa Research Institute
CEE	Chinese Economic Engagement
CSR	Corporate Social Responsibility
DRC	Democratic Republic of the Congo
ECOWAS	Economic Community of West African States
FDI	Foreign Direct Investment
FOCAC	Forum of China Africa Cooperation
GDP	Gross Domestic Product
HCD	Human Capital Development
HEI	Higher Education Institute
HRD	Human Resource Development
ICT	Information Communications Technology
IFI	International Financial Institutions
ILO	International Labour Organisation
IMF	International Monetary Fund
MNC	Multinational Corporation
MNE	Multinational Enterprise
MOFCOM	Ministry of Commerce, China
NIPC	Nigeria Investment Promotion Commission
OECD	Organisation for Economic Co-operation and Development
OSIC	One Stop Investment Centre

PRC	People's Republic of China
ROC	Republic of China
SEZ	Special Economic Zone
SOE	State Owned Enterprise
UNCTAD	United Nations Conference on Trade and Development
UNDP	United Nations Development Program
UNECLA	United Nations Economic Commission for Latin America
US	United States (of America)

1 Introduction

1.1 China–Africa economic engagement

Over the last two decades, the world has witnessed renewed economic engagements between China and Africa. This engagement is largely visible in the form of trade, investments and exchange of aid between African countries and China. Driven partly by China's need to secure resources to sustain its own economic development (Konings, 2007), the current Chinese presence in Africa is said to be economically motivated, unlike its previous stint, which was ideologically driven and during which China supported independence movements across African nations (Schiere, 2011). Currently, China – officially, the People's Republic of China – has trade, investment and aid links with 53 African countries, with the exception of Swaziland, which is the sole African country to recognise the Republic of China (Taiwan) as the official representative of China.

While the scale of the China–Africa economic engagement remains significant today, it has undoubtedly been affected by shifting global economic trends in the past few years (Atkins, Brautigam, Chen, & Hwang, 2017; Brautigam, Diao, McMillan, & Silver, 2017; Calabrese, 2016). The sharp decline in global commodity prices in 2014 and China's domestic economic slowdown have significantly influenced the economic engagement, most notably in trade (Atkins et al., 2017). China remains Africa's largest trade partner, after surpassing the United States (US) in 2009 (Atkins et al., 2017). In 2016, China–Africa bilateral trade volumes stood at US$128 billion, which was lower than the 2014 value of US$215 billion (China Africa Research Initiative (CARI), 2018a). In 2016, the largest importers of goods from China were South Africa, Egypt and Nigeria, while the largest exporters of goods to China were Angola, South Africa and the Republic of Congo (CARI, 2018a). The main constituents of China's imports from Africa are natural resources such as crude oil, iron ore and copper products (Eom, Hwang, Xia, & Brautigam, 2016). Following the decrease in global commodity prices, the value of African exports has been adversely affected, leading to an increase in the trade imbalance between Africa and China (Atkins et al., 2017).

Although trade has been the backbone of Sino–African economic engagement, China's foreign direct investments (FDIs) in Africa are equally significant and continue to grow at a steady rate (Atkins et al., 2017). He and Zhu (2018, p. 110) note that '*China's FDI into Africa started late, grew fast and stabilized in the 2010's*'. While Chinese FDI flows to Africa witnessed a decline from 2013 (US$3.4 billion) to 2016 (US$2.4 billion), which was attributed to the global slump in commodity prices and China's economic slowdown (Atkins et al., 2017), the overall stock of Chinese FDI in Africa continues to grow. In 2016, Chinese FDI stocks in Africa reached US$40 billion, an increase from the 2015 figure of US$34 billion (CARI, 2018b). In terms of location, Chinese FDIs are distributed among the '*most promising, high growth and economically diverse*' African countries (Brautigam et al., 2017). Although, resource rich countries such as Nigeria and Zambia have hitherto attracted much of the Chinese investments, a growing number of investments are also being made in non-resource rich countries, including Kenya and Tanzania (Atkins et al., 2017; Chen, Dollar, & Tang, 2015). Thus, the driver of Chinese investments is not just the presence of natural resources but a range of factors such as market size, availability of labour and other country factor endowments (Chen et al., 2015).

The sectoral composition of Chinese FDI in Africa is increasingly varied with mining, construction, manufacturing, finance and research and development (R&D), and technology services representing the top five recipients in 2015. These trends in Chinese investments represent opportunities to bridge the infrastructure deficit, foster industrialisation in African countries and facilitate the integration of African economies into the global economy (Chen, Ukaejiofo, Xiaoyang, & Brautigam, 2016; He & Zhu, 2018). The most visible Chinese FDI actor in Africa is the state-owned enterprises (SOEs) of the central government; however, other actors such as SOEs owned by the local government and non-SOEs all play crucial roles in shaping the investment relations. Investments in the extractive sectors and infrastructure projects are mostly controlled by the central government SOEs, while medium- to large-sized Chinese private enterprises and local government SOEs invest mainly in manufacturing and agriculture. Small-sized Chinese private enterprises are mostly found in the retail and light industry sectors (He & Zhu, 2018; Renard, 2011).

Apart from trade and investments, another prominent feature of China's economic engagement with Africa is financial aid. Although China's development assistance to Africa is still not on par with that of traditional Western donors, the country is fast becoming an important development partner for Africa (Brautigam, 2011). China's development assistance to Africa is mainly directed towards infrastructure development, agricultural projects and industry development through grants, concessional loans and zero-interest loans (Brautigam, 2011; Zafar, 2007). In the past, such financial packages have funded heavy infrastructure projects such as the Kribi deep-water port in Cameroon and the

Addis Ababa–Adama Expressway in Ethiopia. At the most recent summit of the Forum on China-Africa Cooperation (FOCAC) held in Beijing in September 2018, China pledged a sum of US$15 billion in foreign aid to Africa (FOCAC, 2018). Included in the pledge was debt relief on interest-free loans due to mature by the end of 2018 for 'least developed countries, heavily indebted and poor countries, landlocked developing countries and small island developing countries that have diplomatic relations with China' (FOCAC, 2018).

As illustrated above, China's economic engagement is robust, and running alongside the deepening engagement are concrete expectations from China and African countries. Through its economic activities on the African continent, China seeks to promote its own economic interests. It expects to gain access to natural resources to fuel its industrialisation, access to new markets for its exports and to new frontiers for its multinational companies to expand into in view of its *Go Out* policy (走出去战略) (Agbebi, Stenvall, & Virtanen, 2018; Alessi & Xu, 2015; Haroz, 2011). Likewise, African governments expect the economic relationship with China to yield concrete gains that will contribute to socio-economic development in their respective countries and in the continent as a whole.

African governments seek economic gains that will spur industrialisation and infrastructure development, catalyse growth in several economic sectors and lead to job creation, skill development and technology transfer (Ayodele & Sotola, 2014; Hanauer & Morris, 2014). On another level, some African leaders view China as a viable development partner and model (Adem, 2016; Sautman & Hairong, 2007). This is largely due to the fact that increased economic activities, as a result of China's engagement, have the potential to trigger economic modernisation in Africa on an ongoing basis (Adem, 2016). Further, China's economic success, which saw it emerge as the second largest economy in the world and lift a large proportion of its population out of poverty, in a relatively short period is a feat that most African leaders aspire to replicate (Adem, 2016). The goal for African countries is to mitigate the potential negative effects of the engagement while maximising the opportunities for socio-economic development in their respective countries

While this engagement no doubt presents opportunities, it also presents challenges for both parties. Valid concerns have been raised about the effects of the engagement on local manufacturing industries and the difficulties it presents for macro-economic management, industrialisation and governance in Africa (Ajakaiye, 2006; Kaplinsky, McCormick, & Morris, 2007; Oyejide, Bankole, & Adewuyi, 2009; Wang, 2007; Zafar, 2007). Consequently, China's increasing influence and economic engagement on the African continent has garnered intense scrutiny, evoking varied reactions across the world (He & Zhu, 2018). While some hold the view that the engagement will positively impact development in Africa, others have adopted a more cautious approach and yet others have challenged it by labelling it as neo-colonialism. The prominence of this topic, whether in popular media or academic discourse, reinforces the notion that China can heavily influence the development of African economies (Brautigam et al., 2017), and this could be either negative or positive.

Though numerous articles have been written on this topic in popular media, primarily questioning the motives behind China's presence on the continent and speculating the effects of its engagement on Africa's development trajectory, Brautigam (2009) argues that their conclusions do not hold up to scrutiny. Despite wide-ranging interest in this phenomenon, academic literature based on rigorous empirical studies are few compared to non-academic articles (Brautigam et al., 2017), Thus, there is a need for systematic studies that aim to examine the economic engagement, its characteristics and its effects on Africa's development (Ado & Su, 2016; Brautigam et al., 2017).

Ado and Su (2016), in their exploration of the current state of knowledge on Sino–African economic engagement, note that many existing studies analyse the engagement from the perspective of China's need for Africa's natural resources and report findings in win-lose terms. Further, these studies lack methodological and theoretical rigour, which in turn necessitates more 'institutional and theoretically demanding perspectives' on the Sino–African engagement (Ado & Su, 2016, p. 56). In response, this study uses the theoretical lens of dependency theory to understand China's engagement in Africa, its characteristics and its implications. Further, this study employs human capital theory and related literature on human capital to understand the human capital development (HCD) dynamics of the engagement and the possible outcomes from an HCD perspective.

The HCD effects of China's engagement in Africa constitute one of the most contentious issues in Sino–African discourse (King, 2013). Many experts have questioned the potential of the investments to add value to African industries and contribute to HCD (Ancharaz, 2013; Tull, 2006). Adding to these doubts are claims of nefarious labour practices used by Chinese enterprises operating in Africa. Chinese companies have been accused of importing workers from China (Chellaney, 2010), being reluctant to hire local workers (Flynn, 2013), offering low wages to local employees, providing little or no training or opportunities for career advancement (Gandolfo, 2015; Kamwanga & Koyi, 2009) and subjecting workers to poor working conditions (Human Rights Watch, 2011) (see Agbebi, 2018, 2019). While some studies have addressed the HCD-related issues of the engagement, their coverage is nested within broader issues (see Agbebi, 2018, 2019) such as Chinese aid in Africa; industrialisation (Brautigam, 2009); social and cultural dimensions of Chinese investments in Africa (Liu, 2009); and trade unionisation and labour conditions in Africa (Baah & Jauch, 2009). In other words, while these studies offer a glimpse into issues, they lack an in-depth discussion of the HCD dynamics of the engagement (Agbebi, 2019).

Although a few research studies have investigated the claims of nefarious labour practices by Chinese companies in Africa, and some have refuted or provided nuanced insights into these claims, there remains a gap in the knowledge of Sino–African economic engagement from a HCD perspective. This gap particularly concerns the issue of how the relationship enhances or constrains HCD on the continent (Kaplinsky et al., 2007). Bridging this gap calls for more in-depth research and reliable evidence on the HCD dynamics, opportunities and contributions of Chinese economic engagement (CEE) in Africa (King, 2013; Oya & McKingley, 2016).

1.2 Research aim, objectives and questions

The overall aim of this research is to enhance the understanding of CEE in Africa and its implications for HCD in Africa. Specifically, this research aims to examine the HCD contributions of CEE in Africa and the host government's role in leveraging the engagement for HCD. The objectives of this research are to examine the nature and characteristics of CEE in Africa and empirically investigate in what ways, if any the engagement contributes to HCD in Africa by exploring the case of a Chinese multinational company (MNC) – Huawei – operating in Nigeria. Thus, this study seeks to answer the following research questions:

RQ1: What are the nature and characteristics of CEE in Africa?

RQ2: In what ways, if any, does CEE contributes to HCD in Africa?

RQ3: Do African governments leverage CEE for HCD? If so how?

This thesis comprises the following four sub-studies that address the research questions and objectives.

Sub-study 1: Dependency theory: A conceptual lens to understand China's presence in Africa?

Sub-study 2: Towards a framework for understanding the outcomes of economic engagement with Africa: A human capital development perspective

Sub-study 3: China in Africa's telecom sector: Opportunities for human capital development? A case of Huawei in Nigeria.

Sub-study 4: Exploring the human capital development dimensions of Chinese investments in Africa: Opportunities, implications and directions for further research

Table 1 below shows the research questions that are addressed in each sub-study.

Table 1. Research questions covered in sub-studies

Research questions	Sub-study 1	Sub-study 2	Sub-study 3	Sub-study 4
What are the nature and characteristics of CEE in Africa?	X	X		
In what ways, if any, does CEE contributes to HCD in Africa?			X	X
Do African governments leverage CEE for human capital development? If so how?			X	

Sub-studies 1 and 2 are both conceptual studies that are aimed at unpacking the phenomenon of CEE in Africa. Using dependency theory, Sub-study 1 analyses China's presence in Africa and examines the nature and characteristics of the relationship by explaining what it is, what it is not, how it works, why it is important and what it means for Africa's development. This sub-study addresses the research gaps explained earlier, contributes to a better understanding of Sino–African engagement and its dynamics, and creates a basis for understanding the possible effects of the engagement. Sub-study 2 utilises both dependency theory and human capital theory to further explore Sino–African economic engagement and what it means for HCD in Africa. The framework presented in Sub-study 2 can guide investigations on the potential outcomes of economic engagements such as the Sino–African one.

Sub-studies 3 and 4 are empirical in nature; they investigate the contributions and implications of CEE for HCD in Africa with the help of a case study involving a Chinese multinational enterprise (MNE). Specifically, these sub-studies analyse the HCD-related effects of Huawei's operations and practices in Nigeria. While Sub-study 3 focuses on the effects of Huawei's investment on training and skills transfer in Nigeria, Sub-study 4 examines three HCD dimensions: employment, training and skill building, and the knowledge and technology transfer effects of Huawei's investment in Nigeria. Further, Sub-study 3 also addresses how the government leverages the engagement for HCD. It generates reliable evidence on the HCD dynamics of the Chinese engagement, its contributions and its implications for HCD in Africa. Taken together, Sub-studies 1 to 4 address all the research questions of this study.

1.3 Structure of the thesis

This doctoral thesis is a compilation thesis comprising two main parts: Part I is the synthesis or the summary, and Part II consists of four original research articles, which are referred to as sub-studies. Part I consists of six chapters. They are organised as follows.

This introductory chapter presents the background of the study, along with the research aims, objectives and questions. Chapter 2 presents the theoretical and conceptual frame of this research, examining the dependency theory and the concept of human capital from a theoretical and practical lens. The chapter, first, explains dependency theory and its relevance to this study. Secondly, it discusses HCD by examining HCD strategies, the role of MNEs in human capital formation and how the government policies of a host country may influence human capital formation. Third, the chapter presents a framework developed on the basis of the two theoretical underpinnings of this study – dependency theory and human capital theory. Chapter 3 discusses the HCD dimensions of China–Africa engagement. It outlines the modalities that underpin China's human resource development partnerships with Africa, starting with the China–Africa education cooperation and moving on to the HCD dimensions of Chinese enterprises' presence in Africa. Chapter 4 presents a detailed account of the research methodology, including the philosophical foundations of this study; the research design; the research process in terms of case selection, data collection and analysis; ethical considerations of the study; and an evaluation of the research quality. Chapter 5 introduces and summarises the four original research articles (i.e. the sub-studies) that make up Part II of this thesis. Chapter 6, the concluding chapter, summarises the main contributions and conclusions of this study as well as directions for future research.

2 Theoretical Background

This chapter introduces the theoretical background of this study. It consists of three parts. The first part reviews dependency theory and uses it to examine and understand the nature and characteristics of CEE in Africa. Dependency theory has been instrumental in analysing cross-national economic relations and systems and how they influence development at the national level. It remains a prominent theory within the development discourse particularly as it pertains to the global south. Thus, it is appropriate for understanding China's presence in Africa and its implications for Africa's development.

The second part focuses on human capital and begins with a theoretical discussion of the concept. The chapter then progresses to explain the link between MNEs and human capital formation and the importance of host country policies to human capital formation. Extant literature is reviewed to highlight the crucial role that human capital plays in development and the role that the government plays in strengthening the stock of human capital. The link between MNEs and human capital formation is useful for explaining the potential role that Chinese MNEs could play in HCD in Africa.

Within this thesis, dependency theory is instrumental in analysing China's engagement with Africa as well as the nature and characteristics of the engagement, and its implications for Africa's development. Human capital theory and related literature on human capital development is utilized in the analysis on the HCD dynamics and implications of China's economic engagement with Africa and the role of the government in leveraging CEE for HCD in Africa. These two theory traditions guide and contribute individually to providing an analytical frame for this study.

The third part of this chapter introduces a framework developed on the basis of the two theoretical underpinnings of this study – dependency theory and human capital theory – and related literature presented in the preceding sections. This framework is designed to enable management researchers to investigate the outcomes of economic engagements between nations. It can also be used to better understand CEE in Africa and investigate its potential HCD outcomes.

2.1 Dependency theory

Dependency theorists attempt to explain underdevelopment in many countries of the world by examining the patterns of interactions among nations; they argue that inequality is an intrinsic part of those interactions (Agbebi et al., 2018; Ferraro, 2008). Dependency theory is a strand of political economic thought that developed out of United Nations Economic Commission for Latin America (UNECLA) in the late 1950s, under the tutelage of Raul Prebisch. The theory emerged as a response to modernisation theory, which that posits that nations move linearly through successive growth stages, and underdevelopment is a result of internal deficiencies in the underdeveloped countries. Notable theorists such as Raul Prebisch and Andre Gunder Frank argued against this assumption that the global economic structure allows all nations to successfully pass through these stages of growth (Frank, 1966; Prebisch, 1968).

Dependency theorists argue that underdevelopment as experienced across the third world is a result of capital intervention rather than a condition of underdevelopment. Grouping global economies into central and peripheral, they stress that the same processes that generate development in the centre maintain the rest of the world in a dependent state by routing extracted wealth from the periphery to the centre. Thus, global economic forces rather than country-level characteristics seem to explain the disparities between and within nation-states. One of the key theoretical insights of dependency theory is that global capital flows condition development and underdevelopment.

Theotino Dos Santos (1970, p. 231), defines dependency as follows:

> *a situation in which the economy of certain countries perhaps the most prevailing is conditioned by the development and expansion of another economy to which the former is subjected. The relation of inter-dependency between two or more economies, and between these and world trade assumes the form of dependency when some countries (the dominant ones) can expand and can be self sustaining, while other countries (the dependent ones) can do this only as a reflection of that expansion, which can have either a positive or a negative effect on their immediate development.*

While there is no single ideology that encapsulates dependency theory (Brown, 1985), Ferraro (2008) notes that the various strands of dependency theory meet on the following three notions. First, the international economic system is made up of an industrial centre and an agrarian periphery, where the centre dominates the periphery. Second, external forces including MNCs and international commodity markets are of significant importance to the economic activities in the periphery. Additionally, the 'underdevelopment in third world countries is closely connected to the expansion of the advanced capitalist countries' (Namkoong, 1999, p. 126). Third, the interactions between the centre and the periphery reinforce and intensify unequal patterns of development (Ferraro, 2008). Dependency theorists hold differing viewpoints on the forms of dependencies, their impact on societies and the solutions to overcome it. In an attempt to capture these varied viewpoints, several scholars including Cardoso (1973), O'Brien (1975), Chilcote (1974) and Lall (1975) classified dependency theorists into three categories. Similarly, in this study, dependency theory is classified into three intellectual strands or schools of thought: ECLA, moderate and radical.

Economists under the ECLA school of thought, such as Raul Prebisch, Osvaldo Sunkel and Celso Furtado, advocated for inward-directed development as a solution to dependency (Agbebi et al., 2018). They argued for targeted policy interventions that could help periphery states achieve economic development. They posited that a series of protectionist economic policies that allowed for the development of domestic markets and industries could lead to economic development in the peripheries (Namkoong, 1999).

In the 1940s, Prebisch formulated his centre–periphery thesis, implying the existence of a hegemonic relationship between two elements in the world economic system, characterised by unequal exchange and the existence of a centre (rich advanced countries) that derived part of its wealth from the periphery (poor underdeveloped countries) (Love, 1980). Prebisch (1968) attributed Latin America's underdevelopment to its position in the world economy and its adoption of capitalist economic policies (see Agbebi et al., 2018). He rejected the idea that international division of labour was beneficial to all parties involved and argued that a structure whereby peripheral countries export primary commodities to the global north and re-import manufactured goods from those countries results in deteriorating terms of trade for the south and causes underdevelopment.

Adopting neither a liberal nor Marxist stance, Prebisch still saw a way for peripheral countries to adjust to international economic conditions (Prebisch, 1980). He pushed for the adoption of import substitution policies to overcome underdevelopment in peripheral countries (Namkoong, 1999). He also argued for the centrality of the state in coordinating public and private enterprise towards overcoming the obstacles between the centre and the periphery.

Osvaldo Sunkel, adopted a structuralist view, arguing that in any given structure, some positions lose value while others acquire value, which leads to development for some and underdevelopment for others (Herath, 2008). Similar to Prebisch, Sunkel (1972) believed that the structure of international trade led to the underdevelopment of some countries. He viewed dependency as a problem of relations as opposed to scarcity (see Agbebi et al., 2018). Sunkel argued that transnational integration increases the disparities between poor and rich countries, intensifying underdevelopment and national disintegration in the peripheral countries (Herath, 2008). To overcome dependency, he advocated agrarian reforms and primary exports that support the reorganisation of the industrial sector and satisfy the basic needs of the masses instead of an elite few (see Agbebi et al., 2018; Namkoong, 1999).

Celso Furtado, also a structuralist, posited that capitalist expansion leads to an international economic structure where some function as part of the capitalist system, and others are saddled with features of a pre-capitalist system (see Agbebi et al., 2018; Furtado, 1973). Furtado challenged the modernisation theory argument of an evolutionary model of economic development. He saw underdevelopment as the result of modern capitalist systems penetrating into archaic structures (see Agbebi, 2018; Furtado, 1973). He believed that development reflected the dynamics at the centre and internal and external factors, but mainly external factors (Herath, 2008). To overcome dependency and underdevelopment, he recommended structural reforms and an increase in inter-regional trade in Latin America.

Fernando Henrique Cardoso and Enzo Faletto belong to the *moderate school of thought*, and they both adopted a similar approach in their analysis of dependency. While they recognised ECLA's critique of the modernist notion that international division of labour brought advantages to all involved (Herath, 2008), they also criticised the ECLA perspective for not being based on an 'analysis of the social process', for not emphasising the 'imperialist relations among countries', and lastly for not taking into account the 'asymmetric relations between classes' (Cardoso & Faletto, 1979, p. viii).

Cardoso and Faletto did not view 'dependency and imperialism as external and internal sides of a single coin' (Cardoso & Faletto, 1979, pp. xv–xvi). Instead, they viewed it part of the development of underdeveloped countries, wherein the industrialisation process was assisted by foreign capital (Herath, 2008; Namkoong, 1999). According to Cardoso and Faletto (1979, p. xx), 'a system is dependent when the accumulation and expansion of capital cannot find its essential dynamic component inside a system'. They identified three dependency situations and suggested that these forms could change (see Agbebi et al., 2018). The first of three is enclave economies. In such economies, external foreign investment capital is incorporated into the local productive process in the form of taxes and wages, and value is realised and increased by exploiting the local labour force for the export of raw materials. The second one is economies dominated by the local bourgeoisie, where capital accumulation and exploitation of local labour force occur internally rather than externally. Contemporary dependent industrialising economies signify a third new form of dependency, whereby MNCs dominate peripheral economies. Here, production is for the consumption of a privileged few and not the masses (Cardoso & Faletto, 1979).

Cardoso and Faletto argued that development in peripheral countries assumes the form of dependent capitalist development (see Agbebi et al., 2018). This dependent development evolves cyclically, producing wealth and poverty, accumulation and shortage of capital, employment and unemployment. They argued that such development does not result in a more egalitarian or just society. Their recommendations for peripheral countries were different from those of the ECLA theorists. They called for a 'profound political-structural change' in the form of a 'radical political move towards socialism' (Cardoso & Faletto, 1979, p. xxxiv).

Scholars of the *radical school of thought* viewed the system as based on the excesses of capitalism controlled by the global north (Ferraro, 2008). Scholars who subscribed to this view include André Gunder Frank, Theotonio Dos Santos, Samir Amin and Immanuel

Wallerstein, though Wallerstein is also classified as a world system theorist. They believed that the core–periphery structure constrains development in the periphery and subjects some countries to an indefinite state of dependency. Unlike the non-Marxist ECLA theorists, they argued that the system could not be restructured to accommodate the global south as the benefits from the prevailing system largely accrued to the north. They concluded that the dependency cycle could only be escaped through a socialist revolution (see Agbebi et al., 2018; Namkoong, 1999).

In line with the non-Marxist scholars of dependency theory, André Gunder Frank argued that underdevelopment is the result of the historical, economic and political relations between the underdeveloped countries in the satellite (periphery) and the developed countries in the metropolis (centre) (see Agbebi et al., 2018; Frank, 1966). According to him, the capitalist economic system imposed a rigid international division of labour, in which the centre expropriated and appropriated surplus capital from the periphery leading to underdevelopment in many parts of the world (satellites) and development in a few (metropolises). Frank rejected the modernist notion that development and underdevelopment were related stages of growth. Instead, he viewed development and underdevelopment as opposite sides of a capitalist system.

Distinguishing between the concepts of 'undeveloped' and 'underdeveloped' (see Agbebi, 2018), he explained, '*underdevelopment is neither original nor traditional and that neither the past nor present of the underdeveloped countries resembles in any important aspect the past of the now developed countries. The now developed countries were never underdeveloped, though they may have been undeveloped*' (Frank, 1969, p. 4). Thus, Frank rejected the idea that underdeveloped states can achieve development by adhering to the same routes as the developed countries. As a solution to achieve development in the peripheries, he called for a socialist revolution and disengagement from the global north (Frank, 1966).

Like Frank, Theotonio dos Santos viewed dependency as a 'conditioning situation' within the capitalist system that causes peripheral countries to remain backward and exploited (see Agbebi et al., 2018). According to Dos Santos, underdevelopment was a consequence of world capitalist expansion that perpetuated unequal relations and ensured development in some parts of the system at the expense of other parts (Namkoong, 1999). He asserted that dependency must be seen '*as a part of a system of world economic relations based on monopolistic control of large scale capital, on control of certain economic and financial centres over others, on a monopoly of a complex technology that leads to unequal and combined development at a national and international level*' (Dos Santos, 1970, p. 235).

Dos Santos rejected the idea that underdevelopment was the result of failure to modernise or that the relations in the international economic system are based on free competition. He considered trade relations as based on monopolistic control of the markets by the centre, which resulted in surplus generated at the peripheries being transferred to the dominant centre. Dos Santos (1970, p. 231) termed measures recommended by the ECLA theorists as 'intermediate solutions' as he believed that dependency 'cannot be overcome without a qualitative change in their internal structures and external relations'. Thus, he too proposed a social revolution as key to overcoming dependency (see Agbebi et al., 2018).

Samir Amin is another prominent dependency theorist, who subscribed to the Marxist approach. In line with other dependency scholars, he believed that growth at the centre negatively impacted the periphery (see Agbebi, 2018). Amin posited that for third world countries to overcome underdevelopment and dependency, they should delink from the world capitalist system. He believed third world countries can achieve self-reliant development via a socialist revolution (Amin, 1990).

Another theorist in the Marxist tradition, though he identified as a 'world systems theorist', is Immanuel Wallerstein (Chilcote, 1984). Wallerstein, like other world system theorists, differed from the ECLA reformists and moderates owing to his insistence on a socialist revolution and from the radicals for his views that stressed the existence of a single world economic system and socialism at the world level (Chilcote, 1984). Wallerstein posited that the 'modern world system', which refers to the capitalist world economy, 'with a single division of labour and multiple cultural systems', characterised by unequal exchange, had created a new international division of labour whereby the states at the core achieved development at the expense of those at the periphery (see Agbebi et al., 2018; Wallerstein, 1974). Unlike other dependency theorists, he subscribed to a model of the world economy that consisted of a 'core, semi-periphery and a periphery', where all the states played their respective roles in the capitalist world system (see Wallerstein, 1976). Wallerstein called for revolutionary socialism brought about 'within the single division of labour that is the world economy and one that will require a single government' (Wallerstein, 1974, p. 23).

Even though dependency theory has been criticised by liberal (see, Smith, 1979; Lall, 1975; Ray, 1973) and non-dependency Marxists (see Weaver & Berger, 1973; Weisskoph, 1979), and its applicability to developing countries has been challenged, particularly in the context of the rapid development of East Asian countries, it remains useful for analysing systems-level relationships and cross-national economic relations and their implications for national level development. By challenging the basic assumptions emanating from modernisation theory that previously structured development policies and strategies, dependency theory remains a relevant construct in the search for new development paradigms for Africa (Lumumba-Kasongo, 2015). It has played an important role in questioning some Western ideas on development in the global south, particularly policies and ideas that have largely ignored the specific developmental needs of the third world (Agbebi & Virtanen, 2017; Mason, 2015). Dependency theory has and continues to influence development discussions today, bringing to the fore the need to examine patterns of economic development specific to countries in the global south and strategies that recognise the specific needs and development priorities of these countries (Mason, 2015; Bohkari, 1989). Ideas from dependency theory have influenced discussions on south-south cooperation and provided a framework for investigating south-south economic relations (Amanor, 2013). Although, dependency theory has traditionally been used to analyse North-South relations, it remains a relevant theory in the development discourse and at the forefront of the discourse and literature on African international relations (Lumumba-Kasongo, 2015; Mason 2015), as such it is an appropriate lens from which to examine Sino–African economic engagement (Friedrichs, 2019). For these reasons, dependency theory has been used in this study to analyse China's presence and economic engagement in Africa.

Within the international political economy theory traditions, dependency theory has been utilised in analysing the increasing engagement between China and Africa, the impact of the engagement on Africa's development trajectory and its international relations (Friedrichs, 2019; Mason, 2015; Lumumba-Kasongo, 2011). Examined through the lens of dependency theory, Friedrichs (2019) argues that increased economic engagement between China and African countries can be said to have a positive effect in that it reduces Africa's dependency on the west in the areas of foreign trade and investments. From a dependency point of view, increasing trade relations between China and Africa challenges US hegemony and western capitalism (Friedrichs, 2019; Lumumba-Kasongo, 2015; Campbell 2007).

However, Mason (2017) argues that while Africa's engagement with non-traditional partners such as China, presents Africa with numerous viable alternative options, which gives some African countries the leeway to challenge, negotiate or avoid negative aspects of their engagement with traditional partners and IFI's in the west, this, doesn't necessarily translate to mean African countries can escape the dependency trap. According to Mason (2017:87) with economic motives being the driving force of the engagement, it could be argued that this engagement '*simply establishes a new form of dependency in place of the old one*'. Mason proposes that two new kinds of dependency can be observed today in Africa, a 'self-imposed dependency' which reflects a situation where a country fails to balance their engagement with China against their engagement with the west such as the case of Zimbabwe and an 'oscillating dependency' such as the case of Angola, which reflects a situation whereby a country experiences advances and set-backs and in its attempt to balance its economic engagement with China against the West. He concludes that the entrance of other non-traditional actors like China could lead to a case of 'managed multi-dependency' that could see African countries achieve relative autonomy in their economic dealings with other countries.

On the question of dependency in China-Africa engagement, Friedrichs (2019), leaning on arguments on interdependency in cross-national economic relations, hold the view of interdependency in China-Africa engagement. On the level of symmetry or asymmetry of interdependence between China and Africa, Friedrichs (2019) concludes that it is impossible to reach a definite conclusion as asymmetries point to opposite directions and cancel each other out. According to him, patterns of interdependence are highly asymmetrical in non-resource rich countries that lack commodities to balance their trade with China, while resource rich countries can rely on commodity exports to counter balance Chinese imports, while resource poor countries run huge trade deficits that further exacerbates their dependence. Similar to Mason (2017), Friedrichs' argument holds that some countries might be more dependent on China than others, however there exists mutual sensitivities and vulnerabilities for both China and African countries within the engagement.

Chapter 6.1, Sub-study 1 (see Agbebi & Virtanen 2017) and to a lesser extent sub-study 2 (Agbebi, Stenvall & Virtanen 2018) encompasses this study's analysis on China-Africa economic engagement using dependency theory. Leaning on arguments from dependency theory, this study holds the view that China-Africa relationship suggests a case of growing interdependency. Furthermore, beyond the promise of economic partnership, solidarity and cooperation, China's engagement with Africa poses a challenge for Africa to question the status quo, re-orient their values and adopt an inward focus on their developmental needs and priorities.

While dependency theory is useful in analysing China's engagement in Africa and implications for development in Africa, and as such addresses one of the aims of this research, its uses are limited to analysing systems level relationships, and holds no usefulness in understanding the HCD dynamics and implications of Chinese engagement with Africa. Thus, this study engages HC theory and literature on human capital formation in order to understand the HCD dynamics and implications of Chinese engagement with Africa. The next section introduces human capital theory as the second theory underpinning this study.

2.2 Human capital theory

2.2.1 Human capital: A conceptual and theoretical discussion

The theory of human capital (Fitzsimons, 1999) has its roots in Adam Smith's *The Wealth of Nations* and the emergence of classical economics in 1776. Human capital theory is one of the foundational theories of socio-economic development. It is a modern extension of Adam Smith's idea that worker's capabilities are a kind of capital (Agbebi et al., 2018) and that the 'skill, dexterity, and judgment of labor' are 'one of the two great determinants of the wealth of nations' (Leslie & Brinkman, 1988, p. 5). This idea was then popularised in the late 1950s and early 1960s by leading economists, such as Mincer (1958), Schultz (1961) and Becker (1964), who claimed that human capital, like physical and financial capital, is a core element of production and economic growth. They argued, for instance, that the component that explained the economic success of the US was its people – their skills, abilities, knowledge and competencies together made up the country's human capital (see Agbebi et al., 2018; Denison, 1962; Krueger, 1968; Schultz, 1961). Schultz (1961) later popularised the idea that the quality of human capital can be linked to economic growth. He explained that human capital refers to the knowledge and skills that people acquire through education and training and that this capital is a product of deliberate investment that yields profitable returns for the individual, organisation and society if effectively utilised (see Agbebi et al., 2018).

It is widely acknowledged that 'the wealth of nations is highly dependent on the extensiveness of the knowledge of its people' (Alexander, Salmon, & Alexander, 2015, p. 113). This is because the knowledge and skills embedded in a nation's population, or an organisation's work force, is ultimately what drives other factors of production (Harbison, 1973). Hall and Jones (1999, p. 84) attributed the significantly higher productivity of some nations to their 'social infrastructure', which refers to 'the institutions and government policies that determine the economic environment within which individuals accumulate skills and firms accumulate capital and produce output'. Implicit in the literature on human capital theory is the understanding that this so-called social infrastructure can only be built by humans with adequate level of skills. In other words, human capital is the intellectual force behind social infrastructure that explains the differences in economic development and productivity among countries of the world.

The concept of human capital is multidimensional and operates at various levels, such as national, organisational and individual. While organisations see it as the economic value of their workforce's core competencies and skills, nations see it as the capacity of their population to generate economic growth. (Kwon, 2009; Mincer, 1981; World Economic Forum, 2013). Kwon (2009) studied different approaches to the concept, including the individual perspective – how human capital is linked to the knowledge, skills, education, abilities, attitudes and behaviours embedded in an individual (Beach, 2009; Garavan, Morley, Gunnigle, & Collins, 2001). He also identified a second viewpoint under which human capital is considered the accumulation of skills and knowledge through educational activities. Importantly, this view does not concede that knowledge and skills can be acquired throughout an individual's lifespan and experiences. The third viewpoint, identified by Kwon (2009), focuses on the productive capability of human capital. Here, human capital is seen as a source of economic productivity (Frank & Bemanke, 2007; Rodriguez & Loomis, 2007; Romer, 1990). The Organisation for Economic Co-operation and Development (OECD) similarly defines the concept as 'the knowledge, skills, competencies and attributes embodied in individuals that facilitate the creation of personal, social and economic well-being' (2001, p. 18).

Human capital can be seen as the target of investments in education and training as well as a means to generate economic benefit through the utilisation of workers' capabilities in the production process along with other factors of production like financial capital, land and machinery. In fact, it is increasingly seen as the most important factor of production (Blair, 2011). As noted earlier, human capital is of importance at all levels – individual, organisation/firm and national – as summarised below:

1. Individual level: At the individual level, human capital has an impact on individual wage growth (Becker, 1993; Denison, 1962; Schultz, 1961). At the core of human capital theory is the notion that workers with different levels of skills and knowledge

differ in productivity, and this in turn accounts for the differences in their earnings (Blair, 2011). Thus, investments in training and education can result in an increase in skills and knowledge and thus promote an increase in earnings.

2. Organisation/firm level: Human capital affects organisational/firm productivity (Denison, 1962; Ferreira & Hamilton, 2010; Schultz, 1961) via core competencies, competitive advantage (Lepak & Snell, 1999) and workers productivity (Lucas, 1988; Rosen, 1999).
3. National/societal level: At a national level, the stock of human capital in a country positively affects national economic growth (Romer, 1990) as well as socio-political development (Alexander, 1996; Sen, 1999).

The following section takes a closer look at human capital at a national level, as this level is the most relevant to this study.

Human Capital at a National Level

Becker (1995, p. 1) highlights the importance of human capital by stating that 'the primary determinant of a country's standard of living is how well it succeeds in developing and utilizing the skills, knowledge, health and habits of its population'. As proposed in classical human capital theory (Becker, 1964; Mincer, 1958; Schultz, 1971), human capital at a national level consists of the education, skills and know-how of a country's population, and it is positively and strongly correlated with national economic growth (Becker, 2002; Jones & Romer, 2010; Romer, 1990). By increasing their stock of human capital, countries can attract both foreign and domestic investments, and through such investments, countries acquire capital that in turns contributes to economic growth and development (Kapstein, 2002).

Although many factors other than human capital like business climate, availability of infrastructure, accessibility of institutions, and regulations, are known to impact national socio-economic growth and development, these factors are ultimately based on human factors; in that, they are created by human beings. Thus, human capital serves as the fundamental intellectual power driving all the other factors. Human capacity is the foundation for organisational and institutional capacity. It can be argued that without human development, social, economic or political development cannot be achieved (Burkey, 1993).

Human capital comprises education, skills acquisition, and work-related values and attitudes. It plays a critical role in economic growth and poverty reduction (Florida, Mellander, & Stolarick, 2008; Schultz, 1961). From a macro-economic perspective, accumulating human capital improves productivity of labour, increases returns on capital, enables technological innovations and thus facilitates sustainable growth (Son, 2010; Wilson & Briscoe, 2004).

Effective development and deployment of human capital is crucial to realising Africa's economic potential. In fact, it is seen as the first step to eradicating poverty and overcoming other socio-economic challenges (Hall & Jones, 1999; Lynham & Cunningham, 2006). Mincer (1993) buttresses the importance of human capital to economic development by suggesting that unlike the success of the Marshall plan in Europe, foreign aid to least developed countries failed mainly because of the absence of human capital. Although lacking in physical capital at the end of the Second World War, Europe possessed the necessary skilled labour force required for a modern economy; therefore, the injection of physical capital was sufficient to spur economic recovery. However, in the case of least developed countries, physical and human capital and other essential elements for economic development were lacking. Hence, the injection of only physical capital in the form of financial aid was simply not enough to spur economic growth.

The development and deployment of human capital is crucial for economic growth on the African continent. Concrete human capital policies and strategies, alongside investments in education and capacity building, are needed to build Africa's stock, which in turn can positively impact economic growth and development (Hall & Jones, 1999; Lynham & Cunningham, 2006). Many countries in Africa have opened up their markets to FDI with the hope of fostering economic growth and development in their economies. FDI inflows help generate increased economic activities in host countries, which in turn generate increased revenue that could be invested in education and training (Slaughter, 2002).

Various studies have shown that FDI not only represents a source of capital for growth in host countries but can also facilitate HCD through interactions between the host countries' policies, education and training systems on the one hand and the MNEs' education and training activities on the other (Blomström & Kokko, 2002; Ritchie, 2002; Slaughter, 2002; te Velde, 2002). This is particularly important for developing countries, especially African countries, that struggle with a weak institutional framework for HCD, resource constraints and negligible investments in education and training (Agbebi, 2018). FDIs are capable of addressing several HCD challenges that African countries face, as MNCs are active providers of employment, education and training, skills enhancement and technology transfer (Majeed & Ahmad, 2008) – crucial elements in achieving economic growth and development. Additionally, the influx of FDI can prevent brain drain, as many African countries lose highly educated and skilled members of their working population to employment opportunities abroad. Higher inflow of FDIs, with more MNEs setting up subsidiaries, can result in employment opportunities in the host countries and potentially stem the flow of highly skilled labour out of Africa.

The growth of human capital is both a condition and consequence of economic growth and development (see Agbebi et al., 2018; Blomström & Kokko, 2002; Mincer, 1981). Studies on the links between FDI and human capital have shown that not only is human capital enhancement one of the long-lasting benefits of FDI but also an increasingly important factor in attracting FDI (Blomström & Kokko, 2002; Kapstein, 2002). This study argues that the influx of Chinese MNEs into Africa brings opportunities for HCD in Africa. These organisations can potentially contribute to HCD in their host countries by employing local workers and training and equipping local workers with industry-specific skills, which will ultimately increase the stock of the host country's human capital.

2.2.2 Multinational enterprises (MNEs) and human capital formation

Various streams of research have identified human capital and FDI as the key drivers of growth in both developed and developing countries. While individually both human capital and FDI affect growth, Miyamoto (2003) notes that they also reinforce each other. Human capital has been identified as one of the determinants of inward FDI (Noorbakhsh, Paloni, & Youssef, 2001). On the one hand, the presence of a highly skilled workforce attracts FDI, and on the other hand, FDI plays an important role in human capital formation as MNEs are increasingly seen as active providers of education and training to host countries. This complementary effect is referred to as the virtuous circle of human capital and FDI as 'host countries experience continuous inflow of FDI overtime by increasingly attracting higher value-added MNEs, while at the same time upgrading the skill contents of pre-existing MNEs and domestic enterprises' (Miyamoto, 2003, p. 9).

Understanding the role of FDI in development still remains the focus of research across many fields (Narula & Pineli, 2019): some studies have focused on the importance of human capital as a determining factor for FDI (Dunning, 1988, 2009; Lucas, 1990; Zhang & Markusen, 1999), some studies have investigated the link between FDI and human capital formation (Blomström & Kokko, 2002; Kapstein, 2002; Miyamoto, 2003; Slaughter, 2002) and others have focused on the impact of government policies on human capital formation (te Velde, 2002).

Most importantly for developing countries, FDI not only induces an influx of capital but also potentially enhances skills and fosters technology transfer in host countries through MNEs' interactions with the host country's labour market and local industry (Majeed & Ahmad, 2008; Slaughter, 2002). Noorbakhsh et al. (2001) note that in developing countries, the role FDI plays is even more crucial given their resource and skill constraints. The key potential benefits of FDI for a host country include access to capital, new technology, new management know-how and skills transfer to improve local competitiveness, development of local industry through forward and backward linkages and increased participation in global and regional supply chains. Drawing on the aforementioned studies, specifically those examining the linkages between FDI and human capital formation, this study identifies the following three dimensions by which FDI, through the activities of MNCs, can facilitate human capital formation in host countries: employment creation, training and skills building, and knowledge and technology transfer. The following sections examine these dimensions in detail, enumerating how the interactions between MNCs and the host country's labour market, policies and industry could enhance human capital formation.

Employment Creation

Among the many potential benefits of inward FDI to host countries is employment creation. FDI is said to have a direct and indirect effect on job creation, as well as qualitative and quantitative effects on employment (Abor & Harvey, 2008), which could be positive or negative. Quantitatively, MNEs could potentially affect the volume of employment in host countries, as jobs are created directly when MNEs set up new subsidiaries or expand existing ones in host countries (Golejewska, 2002). Indirectly, MNEs can contribute to employment through linkages with local distributors and suppliers and spillovers in the host economy (Golejewska, 2002; Peng, 2014).

Some studies have argued that the indirect employment effects of MNEs are more significant than the direct employment effects (Lall, 2000; Miranda, 1994). According to Miranda (1994), the number of direct employment opportunities created by MNEs can be limited; however, their potential to contribute to indirect employment in their value chains is abundant. Lall (1979) speculates that MNE contributions to indirect employment may possibly outweigh its contributions to direct employment. In order to realise indirect employment creation, linkages between MNEs and local firms are essential, where foreign MNCs subcontract to local companies and thus contribute to increased economic activity and the creation of additional jobs in the host country. In addition, MNEs can generate indirect employment through their contribution to higher wages, which in turn can lead to an increase in employment through multiplier effects in the host economy (Golejewska, 2002). While the positive effects on employment abound, MNEs can also negatively impact employment quantitatively by, for example, divestment or closure of subsidiaries in a host country or changes to the parent company's structure and strategies (Golejewska, 2002)

In terms of qualitative effects on employment, FDI can affect job security, wages, skills and labour productivity (Abor & Harvey, 2008; Golejewska, 2002). MNEs generally pay higher wages than domestic firms operating in the same industry, particularly in developing countries (Aitken, Harrison, & Lipsey, 1996) and in high technology and high skilled sectors (Golejewska, 2002). This is often a strategy to inhibit labour turnover. Additionally, MNEs tend to invest more in employee training than their local counterparts in order to enhance the skills and know-how of their employees, which promotes skills upgrade in the host country (Abdullah, 1994; McKendrick, Doner, & Haggard, 2000; Ritchie, 2002; Tan & Batra, 1995). They can also influence local suppliers to invest more in employee training to meet their quality standards. This training effect can also percolate to local competitors, who may emulate MNE practices. Further, MNEs are likely to offer greater job security than local firms because of their size, competitiveness and the need for a stable workforce. However, this is also dependent on the motives of the MNE as those seeking low-wage labour are less likely to offer secure employment – they may choose to move their operations to other locations if wage levels rise (Golejewska, 2002).

In short, the employment effects of MNEs – whether quantitative or qualitative – are highly dependent on the sector and host country characteristics. Golejewska (2002) notes that the 'size, resources endowment and development levels' of the host country as well as the effectiveness of the local institutions in creating conditions favourable for inward FDI influence employment opportunities. More importantly, the quality of the labour force plays a key role in attracting employment-generating FDI. The presence of human capital has been identified as one of the main determinants of FDI (Dunning, 1977, 1988, 2009; Lucas, 1990; Zhang & Markusen, 1999). The size of the local markets, access to other markets and the growth prospects of the host country also affect MNEs' location decisions and subsequently the employment effects (Golejewska, 2002). Vacaflores, Mogab and Kishan (2017) observed that the host country's FDI policies mainly determine the country's ability to attract employment-generating FDI and influence the overall employment effects.

Factors particular to the MNE such as the size of the investment, particularly in labour-intensive sectors, also have an impact on the employment-generation effect of the MNE (Brancu & Bibu, 2014; Golejewska, 2002). Countries with export-oriented regimes and abundant low cost labour can promote employment generation by attracting export-oriented FDI (Golejewska, 2002). The sector and industry of investment also affect employment generation: some sectors are more labour-intensive than others (Brancu & Bibu, 2014). Other influential factors include the MNE strategy, motivation and mode of entry. For example, the direct employment effect of a greenfield investment is remarkably different from that of a brownfield investment (merger and acquisition). With greenfield investments, the setting up of new MNE subsidiaries generates more positive employment (Brancu & Bibu, 2014) opportunities than mergers or acquisitions, which rarely create jobs, especially at the initial stages (Brancu & Bibu, 2014). MNEs seeking low-skilled labour also have an impact on the quality of employment generated in the host country. Such MNEs lead to a concentration of low-skilled jobs in the subsidiary, while high-skilled jobs are localised in the parent company or another subsidiary (Golejewska, 2002).

According to the United Nations Conference on Trade and Development (UNCTAD) (2010), jobs created by MNE subsidiaries have risen steadily over the years in both industrialised and developing countries, but particularly in developing countries. The employment effects of FDI are important for developing countries (Brancu & Bibu, 2014), especially African countries, because of the prevalence of low wages and unemployment (Asiedu, 2004). In order to tackle unemployment and underemployment in Africa, increase in economic growth needs to be accompanied by further creation of decent jobs (International Labour Organization (ILO), 2019). Given that over half the working population in Africa lives in poverty, the ILO (2019) stresses that the creation of quality jobs remains 'the greatest challenge'.

Many developing countries in Africa strive to attract FDI as a means to create new jobs in their economies (Javorcik, 2012). This is because MNEs are known to create jobs and in particular 'good jobs' – ones that offer higher earnings, better security and greater prospects for personal and career development (Javorcik, 2012) than their local counterparts in the host country.

Employment generation is one of the most crucial objectives of economic development planning in many African countries. Many of these countries have a growing working-age population and are likely to face rising levels of unemployment and underemployment as a result. In addition, many African countries hope to leverage their population growth for economic development, and to achieve this, they need to foster the creation of quality jobs. Attracting FDI is a promising route for African governments to generate employment and foster development in their countries, and the intention is no different with Chinese FDI in Africa.

The influx of Chinese FDI presents opportunities for employment creation in many African countries. The sectoral diversity of Chinese FDI in Africa, especially investments in manufacturing and infrastructure development, has created ample potential for job creation in many of the host African countries (Calabrese, 2016; He & Zhu, 2018). Chinese investments in labour-intensive manufacturing industries such as apparel, footwear and retail have been a key contributor to employment creation. Calabrese (2016) notes that changes in the Chinese economy have enhanced employment generation in Africa. As China restructures its production from light manufacturing to higher-value activities, it will relocate its light manufacturing sectors, which employ up to 85 million people, to low-income, developing countries with abundant workforce. With the right policies in place, African countries can capitalise on this opportunity, leveraging it for job creation in their respective economies (Brautigam, 2016; Lin, 2016).

While existing research has discussed the employment-generation potential of Chinese FDI, most studies have focused on certain sectors such as manufacturing or construction. Very little is known about the job creation potential in high-tech sectors such as telecommunications. This research draws on empirical evidence from Huawei, a leading Chinese telecommunications MNE operating in Africa's telecom industry, to provide a complete picture of the employment effects of Chinese FDI in a high-tech sector and deeper insights into the processes and channels involved. This research argues that continued Sino–African economic engagement offers opportunities for employment creation in African countries; however, these opportunities depend on several factors including the sector, workforce composition of the host country in terms of skills and host country policies and linkages with local industry.

Training and Skills Building

Training is one of the modes through which MNEs influence HCD in host countries. Transfer of technology and managerial knowledge to the host country is achieved through the training of local employees. For MNEs, employee training forms the basis of their growth and competitiveness. They often provide some training to their employees, typically more than the local counterparts (McKendrick et al., 2000; Ritchie, 2002; Tan & Batra, 1995; te Velde, 2002). Blomström and Kokko (2002) note that the type and extent of training imparted depends on factors specific to the host country (local workforce education and skills level, policy) and the MNE (size, level of operations, mode of entry, industry). For example, MNEs operating in high-tech sectors, characterised by the use of complex technology, rapid development of new technologies and innovation, have to engage in regular employee training to keep their employees abreast of technological advancements (te Velde, 2002).

MNEs in the service sector often invest more in training in order to strengthen the skills and know-how of their employees (Blomström & Kokko, 2002). Large firms, that employ a skilled workforce, invest in R&D, are export-oriented, have foreign capital participation, and use quality control measures are more likely to train their employees (Blunch & Castro, 2007; Tan & Batra, 1995). The training opportunities provided by the MNEs are also guided by their investment motive. For example, while efficiency-seeking MNEs may offer limited employee training, as the availability of low skill and low wage labour is their motive for investing in the host country, strategic asset-seeking MNEs tend to engage in regular and specific training as they often implement new complex technology that requires highly skilled and trained workers (te Velde, 2002).

The training activities of MNEs in host countries often extend to other beneficiaries such as the employees of MNE's suppliers, subcontractors and customers. The training could be formal or informal and may be delivered on the job, in seminars, in classrooms sessions, via formal schooling, in international training courses, or through overseas education, depending on the skills needed (Blomström & Kokko, 2002). In addition to training, MNEs also play a role in the formal education of the host country, though their impact is mostly visible in tertiary education than in primary or secondary education (Blomström & Kokko, 2002). MNEs contribute to educational development, mostly through scholarships to employees, scholarships and grants to benefit communities in the host country, financial and general support to tertiary institutions, and by setting up educational centres as part of their corporate social responsibility (CSR) (Blomström & Kokko, 2002; te Velde, 2002). Te Velde (2002) shares the example of Shell's subsidiary in Nigeria, which spent up to US$60 million on community development, with US$1.2 million on vocational training and US$2.5 million on secondary and tertiary scholarships. While such voluntary contributions to education and training in the host country are often driven by commercial and image-building motives, their positive effects on the host country, particularly in developing countries, cannot be denied.

Blomström and Kokko (2002) argue that the training effects of MNEs are more significant in developing countries as most struggle with a weak public education system, which results in a relatively weak knowledge base. To the extent that MNCs offer more training than the local firms in the host country, MNEs can have a significant effect on human capital formation in the host country (te Velde, 2002).

Within the context of CEE in Africa, Brautigam (2016) notes that increasing Chinese investment in manufacturing and construction sectors may yield reasonable learning and skills transfer for the local industry and workers. According to Oya and McKinley (2016), Chinese FDI has the potential to catalyse the process of building an industrial workforce in Africa. This is because Chinese firms specialise in those sectors and activities that African countries have limited expertise in, such as large-scale infrastructure construction of dams, roads, bridges and railway systems. This situation creates opportunities for the development of specific technical skills acquired mainly through on-the-job training. Further, the potential for HCD via training and skills building in African countries is immense, particularly for large enterprises operating in high-tech sectors, where the use of complex technologies is common and requires specific training of the local workers. This study examines the training and skills-building effects of the Chinese MNE Huawei in Nigeria.

Knowledge and Technology Transfer

According to Blomström and Kokko (2002, p. 10), FDI remains one of the most important channels for knowledge transfer along with international trade. This is because MNEs 'produce, own and control most of the world's advanced technology' as they fund a large proportion of the world's R&D activities. The interaction of an MNE subsidiary with the local economy via subcontractors, suppliers, distributors and labour market can result in the transfer of technology to the host country. According to Rugraff and Hansen (2011), scholarly discussions on the interactions between MNEs and the local industry often revolve around two main concepts: 'spillovers', which are simply the impacts of the interactions, and 'linkages' which denote the mode of the interactions.

Knowledge spillovers from MNCs to the local industries are often highlighted as one of the benefits of inward FDI and constitute, possibly, the most important reason that countries strive to attract FDI (Slaughter, 2002). Kokko (1994) notes that host countries hope to gain from FDIs in terms of product, process and distribution technology as well as managerial and marketing skills. According to Blomström and Kokko (1998), these spillover effects often occur in host countries where MNEs, through their operations, influence local firms in their own industry or in other industries. MNEs serve as channels for the transfer of technology from developed to developing countries (UNCTAD, 2010). Although, it can be argued that the transfer of knowledge and technology in many cases is incidental and not central to the MNE's mission, diffusion of technologies may also occur in host countries through external effects or spillovers (Blomström & Kokko, 2002). Technology transfer could occur through linkages between MNCs and local suppliers and distributors (Batra & Tan, 2002; Saggi, 2004). Linkages between MNEs and local producers in the host country can also benefit local companies. For instance, Botelho and Pfister (2011, p. 211) note that business linkages between 'MNCs and SMEs can allow small local producers to benefit from an exchange of relevant information and technical knowledge, promote production efficiency, production growth and market diversification, among other benefits'.

Spillovers from FDI can be categorised into two groups: horizontal and vertical (Blyde, Kugler, & Stein, 2004; Rugraff & Hansen, 2011). Horizontal spillovers are intra-industry spillovers that occur between firms at similar stages of the production process (see Agbebi, 2019). Spillovers in this category involve the transfer of sector-specific knowledge that would benefit the foreign firm's competitors (Rugraff & Hansen, 2011).

One of the horizontal spillover mechanisms is via labour turnover/mobility. The mobility of employees from MNCs to local firms contributes to the diffusion of knowledge from the MNC to the local host economy. MNCs train their employees when they join the firm and on an ongoing basis in order to keep them abreast of the latest technology and industry advancements. When these employees leave the firm to join other local firms or start their own firms, the knowledge and skills they have acquired may spillover to the local industry (Kokko, 1994). Despite attempts by MNEs to protect their valuable stocks of knowledge, spillovers are still likely to occur as MNCs cannot completely prevent its advantages from spilling into the local industry (Rugraff & Hansen, 2011). Markusen (1991, p. 19) sums up this situation as follows: '*It is difficult to prevent knowledge from being transferred to the local employees of the firm who work with and observe the technical and managerial techniques of the firm. After some initial learning period, the worker becomes capable of opening a rival firm or transferring their knowledge to new firms in related industries. This becomes a positive externality effect for the local economy arising from, the presence of the multinational*'.

Labour turnover though traditionally viewed as a hindrance to industry growth, because of the loss of human capital, is viewed more favourably in certain sectors than others, including the high-tech industry. Shankar and Ghosh (2013) identify two distinguishing features of high-tech industries with regard to labour mobility: the persistence of substantial labour turnover and the positive perception of labour turnover in relation to other industries. This is so because labour mobility enhances the flow of knowledge and skills across firms and in turn benefits the firms in the high-tech industries. Shankar and Gosh (2013, p. 120) posit that 'high tech industries are likely to experience both very high rates of turnover among productive workers and positive industry outcomes resulting from such turnover'.

Fosfuri, Motta and Ronde (2001) note that the more general the on-the-job training is, the higher the mobility of trained workers, whereas the more specific the on-the-job training is, the lower the expected mobility of trained workers, which affects the technological spillovers in the host country. The level of technological advancement in the host country as well as the presence of a skilled workforce also determines the level of technological or knowledge spillovers that can occur. High labour mobility and more technological spillovers are likely to occur in host countries that have a highly skilled labour force and are technologically advanced (Fosfuri et al., 2001). Studies have shown that low levels of absorptive capability among local firms because of technological backwardness may reduce the potential for FDI to generate spillovers (Fosfuri et al., 2001). Kokko (1994) adds that spillovers can only occur to the level at which the host economy is capable of absorbing them. They increase when the absorptive capability of host country firms is high (Borensztein, de Gregorio, & Lee, 1998; Kokko, 1994).

It is important to note that certain MNEs are more likely to contribute to knowledge and technology transfer in the host countries. O'Donnell and Blumentritt (1999) argue that factors such as the strategic role of the subsidiary within the corporation; the level of technology used in its processes; the type and level of training it provides to its employees, suppliers and customers; and the level of international interdependence of the subsidiary, all determine knowledge and transfer effects of the MNE to its host country.

Another form of spillover is *vertical spillovers*. Batra and Tan (2002) argue that vertical spillovers tend to occur between firms in a customer–supplier relationship. This typically occurs via exposure to MNC products and services, provision of technical support by MNCs to clients, supplier/distributor training and discussions leading to knowledge transfer that enhance the productivity and capabilities of the firms involved (Agbebi, 2019; Slaughter, 2002). MNEs often provide their suppliers with technical and managerial training to improve their capabilities in the value chain (Botelho & Pfister, 2011). Close linkages between foreign MNCs and their local suppliers and customers create an environment where the local suppliers and customers can assimilate some technology and skills from the MNC (Porter, 1980). Access to or the use of a MNE's advanced products, inputs and services can enhance the productivity of domestic firms (see Agbebi, 2019; Driffield, Munday, & Roberts, 2002; Miozzo & Grimshaw, 2008).

While knowledge diffusion may occur via formal training organised by the MNE for its suppliers and distributor, it can also occur informally (Agbebi, 2019). Local firms can also learn informally from MNCs through trade shows, marketing events, supplier/distributor discussions and training, exposure to MNC products, technical support and reverse engineering (Slaughter, 2002). Through interactions with MNCs, local supplier firms can gain basic knowledge of products, quality control measures and technology processes (Wisarn & Bunluasak, 1995). Kokko (1994) concludes that spillovers can only occur to the level at which the host economy is capable of absorbing them. Thus, substantial linkages between MNCs and the local industry may promote knowledge transfer and technology diffusion.

With regard to Chinese FDI in Africa, Mohan (2016) argues that substantial backward and forward linkages between Chinese MNEs and local suppliers and distributors, even in extractive sectors, could lead to gains in local technical expertise, which in turn can foster industrialisation in the host countries. He adds that with the help of local content policies and a well thought-out strategy to support the establishment of linkages, host African countries can maximise the opportunity for knowledge and technology diffusion via CEE. In addition, as Chinese enterprises gain more knowledge and confidence in the local industries, the potential to build substantial linkages increases along with workforce and supply chain localisation in the host African countries. This study examines the knowledge and technology transfer effects of CEE in Africa via the case of Huawei in Nigeria. It explores the presence and the level of linkages between the Chinese MNE Huawei and local firms in Nigeria.

2.2.3 Implications of host country policies on human capital formation

Understanding the role of FDI in development remains the focus of many research efforts (Narula & Pineli, 2019). While studies support the notion that FDI contributes to economic growth, the negative effects of FDI and MNE operations have also received considerable attention. MNEs are important contributors to education; skills, knowledge and technology transfer; and employment opportunities, particularly in developing countries (te Velde, 2002). However, their activities may also crowd out domestic firms (Kokko & Thang, 2014), deepen socio-economic disparities, increase income inequality (Tsai, 1995) and cause economic fragmentation in the host countries (Firebaugh & Beck, 1994). This is why Rugraff and Hansen (2011) call MNEs both a 'boon' and 'bane' for the host economy. Whether actively or unintentionally, the activities of MNEs in host countries have the potential to impact the host country, its people and its economy. Hence, governments must develop strong policies and strategies to maximise the benefits while mitigating the negative effects of FDI (te Velde, 2002).

Narula and Pineli (2019) note that the presence of FDI is not 'a sine qua non' for development. That is, while MNE operations in a host country could contribute to human capital formation, the primary goal of MNEs is to maximise profit for its shareholders, and not to catalyse development. Studies have highlighted various factors that determine the impact of FDI on the host country, including host government policies (Dunning, 1997), MNE investment motives (Enderwick, 2005), MNE entry strategies (Görg & Grenaway, 2004), the absorptive capacity of the local industry (Lall & Narula, 2004) and the linkages between MNEs and local firms (Altenburg, 2000; Giroud & Scott-Kennel, 2006).

Te Velde (2002) posits that to enhance MNC contributions to human capital formation, host country governments should develop effective and strategic education policies, which will improve the chances of attracting MNCs into their country, and incentivise training and skill-upgrading activities. Te Velde (2002) identifies myriad policies targeting FDI attraction, FDI upgrade, and linkage promotion between MNCs and local firms, noting that successful strategies often address these ideas in an integrated manner. Strategies that involve a combination of specific FDI policies (fiscal and financial incentives, FDI promotion, export processing zones, tax subsidy systems, etc.) as well as macro-economic polices (liberal trade regime, competition policy, privatisation, infrastructure and workforce skills, education and skill generation, etc.) have been employed successfully in attracting FDI for development (te Velde, 2002). Domestic education policies designed to increase the skills and knowledge of locals are vital to ensure quality skilled labour in the host country, which is an attractive factor for asset-seeking MNCs (Blomström & Kokko, 2002; Noorbakhsh et al., 2001).

Rugraff and Hansen (2011) find that host governments are increasingly seeking avenues to promote knowledge and technology spillovers directly through the use of local content requirements, tariffs or subsidies and indirectly through infrastructure programmes and education policies. While host governments strive and compete to attract FDI for the many benefits it can foster in their economies, Narula and Pineli (2016) argue that an effective FDI policy should, apart from attracting funds, prioritise the enhancing of 'local embeddedness of the MNEs'. In an effort to develop and deepen linkages between MNEs and the local industry, some host governments actively provide support to local suppliers so as develop their capabilities and absorptive capacity (Rugraff & Hansen, 2011). In some cases, host governments promote the development of clusters to attract MNEs and thus increase the potential for local firms to benefit from MNE presence (de Propis & Driffield, 2005; Thompson, 2002)

Although the activities of MNEs can promote HCD in host countries, it is important to remember that their primary motive is profitmaking. Thus, host country governments need to deploy policies to steer inward FDI towards their nation's developmental objectives and leverage these investments for HCD. This study examines the role of the Nigerian government in leveraging Chinese investments for HCD.

In summary, this section introduced human capital theory and its theoretical foundations. Perspectives of various scholars have been presented to concretise the importance of human capital at the individual, organisational and national level, for development. Subsequently, the section explored the links between human capital and FDI, stressing that while both boost economic growth, they also reinforce one another: the presence of human capital attracts FDI, and FDI plays an important role in human capital formation. The discussion further explored the role that FDI plays in human capital formation in host countries, noting specifically the benefits in terms of employment creation, skills building and training and knowledge and technology transfer. Recognising the crucial role that host country policies and strategies play in leveraging FDI for HCD, the section discussed different policy measures and strategies that host country governments can adopt.

2.3 Towards a framework for understanding the outcomes of economic engagement

Leaning on dependency theory, human capital theory and related literature on the interactions between FDI and HCD detailed in the preceding sections, this study proffers a framework that can enable management researchers investigate the outcomes of economic engagements between nations. It can be used to better understand CEE in Africa and investigate the potential outcomes of the engagement for HCD in Africa. The framework has been discussed in detail in Sub-study 2 of this thesis (see Agbebi et al., 2018).

The proposed framework is based on the premise that economic and political transformations around the world have led to significant adjustments in the way nations interact with each other economically. These new forms of economic engagements, such as the emergence of BRICS (Brazil, Russia, India, China and South Africa), the growing engagement among BRICS nations, increasing economic engagement between developing countries from the global south, and intercontinental/regional economic engagement (ASEAN – Association of Southeast Asian Nations, NAFTA – North American Free Trade Agreement, EU – European Union, ECOWAS – Economic Community of West African States etc.), are all relevant to the development discourse in general and to Africa in particular (Mason 2017). They also open up new avenues for research, particularly on the effects and outcomes of these engagements for countries and business organisations.

Research from disciplines such as economics, political science, international relations and international business (Boateng & Glaister, 2002; Boddewyn & Brewer, 1994; Leung, Bhagat, Buchan, Erez, & Gibson, 2005; Wenping, 2007) have embraced this discourse. However, its influence on mainstream management and international development research remains limited. Specifically, management researchers lack an overarching framework such as this which combines theoretical arguments that cuts across international political economy, economics and management theory traditions. Such a framework can guide them in investigating these new patterns of economic engagements – how these engagements interact with the context of a country, its institutions and organisations, as well as the potential outcomes of such engagements. The framework put forward in this study can also be used to investigate policy transfer, the diffusion of management practices and technological innovation and how countries and organisations can leverage and appropriate benefits from economic engagements with other countries to achieve their domestic and strategic objectives.

This framework presented in Sub-study 2 (see Agbebi, Stenvall & Virtanen, 2018) identifies three variables as crucial to understanding the outcomes of economic engagement: the nature and dynamics of the economic engagement, the national context i.e. the contextual features of the nation state, and the degree of readiness of the nation state and its institutions to appropriate the benefits of the economic engagement. The subsequent paragraphs explain each variable in this framework. Figure 1 presents an illustration of the framework.

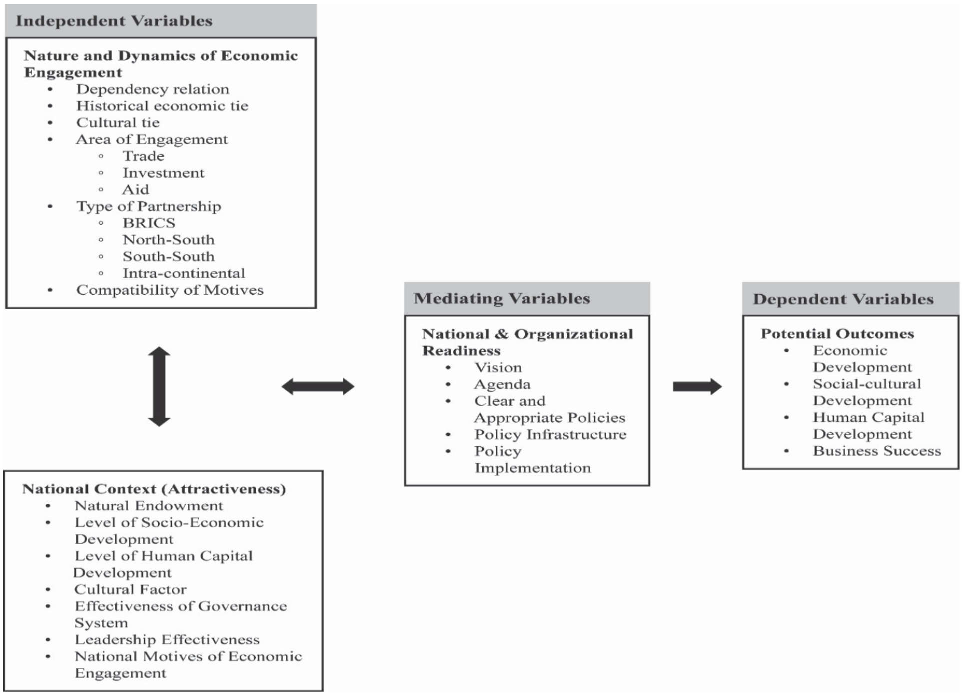

Figure 1. A conceptual framework for studying the outcomes of economic engagement in Africa

Nature and dynamics of the economic engagement: This study argues that in order to understand the outcomes of an economic engagement between countries, it is important to understand the nature of the engagement. This entails an analysis of the overall relationship between the countries involved; their historical, cultural and economic ties; and the dynamics of their relationship.

The importance of historical, cultural and economic ties in bilateral relations among countries cannot be overemphasised. Dependency theorists have long argued that the rampant exploitation and inequality witnessed in north-south relations have its roots in the colonial past and the imperial links that persisted after decolonisation (Frank, 1966; Haq, 1976; Prebisch, 1968). Frank (1966) argues that it is impossible to formulate a robust development theory and policy without an analysis and understanding of the past economic history that led to the current economic state. An analysis of historical economic events remains a large part of the development discourse today. For instance, China's historical ties with Africa, its solidarity and support for African states in their independence movements and its anti-imperialist and anti-colonialist stance are still largely relevant to the present day China–Africa engagement and its implications for development in Africa (Alden & Alves, 2008; Cooke, 2009; Power & Mohan, 2008). History influences policies (Brands & Suri, 2016) and thus the relations among countries.

Understanding the nature and characteristics of an engagement can offer insights into the potential benefits, costs, unintended outcomes and implications of the relations for the countries involved. Researchers could seek to identify the type of relationship (for example south-south, north-south), the economic and political power relations between the countries involved in the engagement, the motives of the engagement and the extent of the economic relations (for example, is it based on reciprocal trade and investments, or primarily dominated by aid and development assistance). Such an exploration can reveal the dependent/interdependent nature of the relations, the costs and potential to appropriate benefits from the engagement, the possible outcomes both negative and positive of the engagement. Further, compatibility in motives can be indicative of how likely the engaged countries are to benefit or lose from the engagement. Incongruent motives could lead to exploitation as posited by the dependency theory (Frank, 1966; Dos Santos, 1970). Thus, examining the nature and dynamics of the economic engagement is useful to understanding the engagement and predict or explain its potential outcomes.

National context: The contextual features and endowments of the host country can also influence the potential outcomes of an economic engagement. Endowments and features such as the presence of natural, human and cultural resources; the level and potential of socio-economic development and HCD; the potential for economic growth; the governance system; and political leadership all constitute aspects by which a nation's attractiveness can be determined (Dunning, 2009; Jelinek, 1992; Krueger, 1968; Porter, 1990). These features also partly determine the potential outcomes of economic engagements with other countries. Although the role of these factors in influencing international business and attracting FDI has been highlighted by management researchers (Davies & Ellis, 2000; Hodgetts & Rugman, 1995), they have not, to the best of the author's knowledge, been used to develop a comprehensive framework to study the outcomes of economic engagements in Africa.

National and organisational readiness: The third variable included in this framework is the degree of readiness of the country's institutions and organisations. The level of national and organisational readiness and capability – the ability of a country's institutions and organisations (public and private) to effectively harness the opportunities within the engagement while limiting the risks – will determine the outcomes of economic engagement with other countries. The level of readiness can be determined by examining the presence or absence of vision, socio-economic agenda, policy and policy-making and implementation infrastructure (Krueger, 1984; Stone, 1999).

The influence of government policies on economic conditions is indisputable (Porter, 1990), Through policy decisions, governments can to some degree manage the impact of economic engagements on their economies (O'Donnell & Blumentritt, 1999). Research has shown that local organisations can benefit from economic engagement depending on their capabilities and absorptive capacity (Lall & Narula, 2004; Narula & Pineli, 2016; Rugraff & Hansen, 2011). The readiness and capacity of the institutions and organisations can also be determined by the country's stock of human capital, as successful design and implementation of policies are dependent on the human resources in the institutions and organisations. As mentioned in several studies, human capital is critical for national and organisational success (Becker, 2002; Lepak & Snell, 1999; Romer, 1990; Schultz, 1961).

It is important to stress that the outcomes of economic engagements vary, can be positive or negative and are not limited to economic benefits (Hirst & Thompson, 1999; Stiglitz, 2006). Studies have shown that economic engagement between countries via trade and investments have contributed to and in some cases negatively impacted economic, social, human and cultural development. Local organisations through their interactions with foreign firms stand to benefit from the diffusion of knowledge, technology and management practices (Boateng & Glaister, 2002; Liu & Song, 1997). Likewise such interactions can also have adverse effects on local firms (Kokko & Thang, 2014; Tsai, 1995; Firebaugh & Beck, 1994). Engagement outcomes may also be at a societal level: interactions between different societies could lead to the adoption or adaptation of behaviour, traditions or norms affecting communication, lifestyle, and cuisine, all of which can in turn impact social and economic behaviour and business activities. While the framework presented in this study has highlighted some relevant variables that can influence the outcomes of economic engagements, it is by no means exhaustive or adequate for every research study examining these new patterns of economic engagements and their outcomes. Thus, this framework can be adapted by researchers to fit their research aims and objectives. Sub-study 2 of this thesis (see Agbebi, Stenvall & Virtanen, 2018) discusses this framework at length and demonstrates how it could be deployed to investigate the potential outcomes of CEE in Africa from an HCD perspective.

3 Human Capital Development Dimensions of China–Africa Economic Engagement

The preceding chapter presented dependency theory and human capital theory as the main theoretical underpinnings of this research. This was used to analyse the nature and characteristics of the engagement and the implications for HCD as well as develop a framework that can guide in investigating the potential outcomes of CEE from a human capital development perspective. This chapter builds on the discussions in the earlier sections by focusing on the HCD dimensions of CEE in Africa. The discussion in this chapter highlights the primacy of HCD within China-Africa economic engagement. It is important to clarify that though the terms HRD and HCD can be said to be conceptually distinct, it has been used synonymously in this chapter to follow the convention within the official framework and documents of FOCAC.

3.1 China's human resource development partnerships in Africa

China's human resource development (HRD) partnership with Africa is enacted through different modalities such as educational cooperation (scholarships, student exchanges, Chinese language training, vocational education, educational projects, Chinese teachers in Africa, higher education cooperation and exchanges between China and Africa, short-term professional training) and enterprise training. The significance of HRD cooperation in China–Africa engagement is illustrated in China's official position, which states that the following:

> The Chinese government will give full play to the role of its "African Human Resources Development Foundation" in training African personnel. It will identify priority areas, expand areas of cooperation and provide more input according to the needs of African countries so as to achieve greater results. Exchange of students between China and Africa will continue. China will increase the number

> of government scholarships as it sees fit, continue to send teachers to help African countries in Chinese language teaching and carry out educational assistance project to help develop Africa's weak disciplines. It intends to strengthen cooperation in such fields as vocational education and distance learning while encouraging exchanges and cooperation between educational and academic institutions of both sides (People's Republic of China, 2006: Part IV).

The official rationale suggests that by engaging in HRD cooperation, China acts as partner to African countries and will assist them on their journey towards 'self-reliance and independent economic development' (FOCAC, 2000). According to King (2013), China's HRD cooperation with Africa can be positioned as a 'collaboration for development' within the discourse of south-south cooperation. However, elements of it can also be traced to the soft power discourse that stresses China's role as 'agency and strategist'. While the official narrative is one of cooperation and partnership, espousing principles of mutual benefit and solidarity, in practice, the Sino–Africa HRD cooperation does not levy equal financial costs on both parties. The majority of the awards, scholarships, volunteers and experts are provided by China to Africa. King (2013, p. 10) surmises that mutual benefit in this case does not refer to an 'exact financial symmetry in China-Africa relations', but to overall reciprocity when the entirety of China–Africa economic engagement and HRD cooperation are considered. While Africa benefits from HRD support in education, health and agriculture, Chinese enterprises also seek to gain from the China–Africa Development (CAD) fund, which supports their establishments in African countries and the internationalisation of Chinese firms. In addition, through culture and education promotion, the internationalisation needs of Chinese universities and Chinese enterprises are fulfilled (King, 2013).

The following sub-sections will briefly outline the modalities of China–Africa HRD cooperation, starting with the China–Africa education cooperation, followed by a literature-based analysis of the HCD dimensions of Chinese enterprises in Africa.

3.2 China–Africa education cooperation

King (2013) identified seven modalities by which China's education cooperation with Africa is actioned. One of them is *cooperative educational programmes* that sees African and Chinese universities partnering on education and research. A flagship programme under this is the 20+20 project that pairs 20 Chinese universities/higher education institutes (HEIs) with 20 African universities/HEIs. Two other modalities are *Chinese teachers in Africa* and *Chinese language teaching in Africa*. Currently, there are 59 Confucius institutes in 46 countries across Africa. Another modality is *short-term professional training courses* for African civil servants to learn about and from China's development experience. Further, under *African studies and training of professionals in China*, 10 universities in China have established African research institutes or centres and two African universities have research centres for Chinese studies. Chinese education cooperation also consisted of (1) *high-level exchanges*, wherein delegations of African professionals visit China and Chinese professionals visit Africa, and (2) *student exchanges between China and Africa*.

However, there is still a dearth of research on Chinese educational cooperation in Africa. For instance, little is known about the selection criteria for awarding Chinese scholarships to African students – it is not clear if the selection is done by the local elite or by merit. Similarly, a number of questions about the outcomes of the cooperation remain unanswered, such as, do the students return to their home countries after their studies? When they do, how are they received by their own public and private sectors? Are they recruited by Chinese or local firms in their home countries? More investigations in this area can contribute to wider discussions on the socialisation of African youth via Chinese higher education, brain drain in African countries, and Chinese soft power elements in Africa. While a few studies, to some extent, have addressed the short-term training programmes offered to African civil servants (King, 2013; Tugendhat, 2014), no systematic assessments have been undertaken to determine the knowledge transfer effects of these trainings and their political implications, if any.

3.3 Human capital development dimensions of Chinese enterprises in Africa

Aid, trade and investments appear to be intricately linked within China–Africa engagement. King (2013) notes that there are multiple links and connections between formal training support by the Chinese government and the presence of Chinese enterprises in Africa. According to King (2013), the inclusion of the private sector was a key part of China's aid reform. The establishment of the foreign aid fund in 1993 enabled Chinese enterprises to build joint ventures or business cooperation with recipient countries.

The CAD fund was also set up to 'enhance China-Africa economic cooperation and promote Africa's development' by encouraging and supporting Chinese enterprises to invest in Africa (CADFund, 2019). The fund covers investment in sectors such as agriculture, manufacturing, energy, electric power, transportation, telecommunication, urban infrastructure, logistics, oil and gas, mineral resources and industrial parks. Perhaps, the differentiating factor between China's economic aid to Africa and the CAD fund is that projects are allocated by countries in the latter, while the former operates through market-based mechanisms.

Whether or not there is a clear and coherent strategy on the part of China for linking its HRD commitments in Africa, it is clear that the presence of Chinese business in Africa has shored up interest in acquiring Chinese language skills, in establishing China as a study destination for African students and in acquiring specialised training in key areas with substantial Chinese investments such as infrastructure construction, agriculture, etc.

The presence of Chinese enterprises in Africa, whether linked to development assistance from China or the result of project-based investments by large, medium and small Chinese enterprises, carries implications for HCD in Africa, particularly in the areas of training, skills development and knowledge and technology transfer. According to Liu (2013), Chinese operations in Africa can be traced back to the late 1980s when the Chinese government granted a batch of companies the right to operate externally, including in Africa. Many of those companies had experience in dealing with aid projects in Africa since the 1960s and were thus experienced in areas of transportation, communication, electricity, water and housing infrastructure. These Chinese SOEs subsequently implemented similar projects funded by the Chinese government and other parties such as the African development bank, World Bank, Arab funds, etc. (Liu 2013). The launch of the *Go Out* strategy in the year 2000 saw more Chinese outward foreign investments abroad, including from Chinese private enterprises into Africa.

With regard to skills and technology transfer, perhaps one of the earliest projects – which was seen as a symbol of China–Africa relations from the 1960s to the 1980s (Sautman & Hairong, 2007) and studied extensively by Sino–African scholars, Jamie Monson and Liu Haifang – is the TAZARA railway. It is a 1860-km long bi-national railway line, linking Tanzania and Zambia (see Liu & Monson, 2013; Monson, 2008, 2009, 2013). The TAZARA railway was designed and constructed between 1968 and 1976 with technical and financial assistance from China in the form of long-term free interest loan of over US$400 million. In her study of the impact of the railway project on the African workers, Monson (2008) concludes that there was significant exposure to and acquisition of new skills among African individuals working on the project. The TAZARA railway project, which is the biggest infrastructure project in the history of Chinese development cooperation in Africa, stresses the importance of technology transfer, technical skills and knowledge acquisition in Chinese-financed projects in Africa.

Outside of projects like the TAZARA railway, there are several avenues for HCD within Chinese enterprises operating in Africa. While the employment-creation, skills-building and training or technology transfer effects will differ across Chinese enterprises, investments from SOEs, private MNEs and small- and medium-sized enterprises all present opportunities for HCD gains and challenges.

In terms of employment creation, several studies show evidence of substantial employment creation and increasing workforce localisation via Chinese enterprises in Africa (Sautman & Hairong, 2015; Tang, 2016). Sautman and Hairong (2015) in a survey of over 400 Chinese enterprises and projects in Africa found workforce localisation rates to be over 85%. The construction sector is a notable example of the scale of the employment effect generated by Chinese companies in Africa. The labour-intensive nature of the construction sector has seen high demand for unskilled and semi-skilled workers. He and Zhu (2018) note that for every US$1 billion of Chinese investments in infrastructure, around 110,000 jobs have been generated in Egypt, Morocco and Tunisia. The construction of the Chinese-funded Imboulou dam in Congo Brazzaville reportedly employed up to 2000 Congolese, 400 Chinese and 20 German workers (Tang, 2016). Of course, the employment effects of Chinese investments may differ according to the skills composition in the host country, the duration or time sensitivity of a project, the size of the enterprise, its strategy and the sector it operates in.

A report published by the Angolan Ministry of Finance listing the employment composition in 30 infrastructure projects by Chinese enterprises declared that out of a total of 3136 employees, 1872 (59.7% of the entire workforce) were Angolans and 1264 were Chinese (Tang, 2016). The relatively high number of Chinese workers was explained by the lack of skilled labour in post-war Angola and the need to meet the completion deadline of the project (Tang, 2016). There are economic benefits to supporting workforce localisation in Chinese enterprises in Africa; in that, it is relatively cheaper to employ local labour than to bring in Chinese workers. For efficiency-seeking Chinese enterprises, drawn by cheap labour costs to African countries, a workforce localisation strategy – to take advantage of the low labour costs – is in line with the investment motive.

Further, as many African governments are keen to leverage Chinese investments for employment creation in their respective countries, some governments have placed strict regulations on employing locals and offer only a restricted number of work permits for expatriate workers. For example, the local content policy in Angola has strict regulations on employing foreign employees and mandates a workforce localisation rate of 70% for companies, though exceptions may be made under certain circumstances and in certain sectors, where the required skills are not locally available (Tang, 2016). Countries such as Nigeria, Ghana, Ethiopia and Tanzania have employed local content initiatives to various degrees in various sectors of their economy to leverage foreign investments for local job creation, knowledge transfer and linkages between MNCs and local industries. Eom's (2018) study on the impact of Chinese investments on skills transfer in Rwanda's manufacturing sector underscores the role of policies and strategies of the host government in leveraging Chinese investments for job creation. The study finds that the Rwandan government has collaborated directly with Chinese enterprises in light manufacturing sectors (e.g. garment, footwear, consumer electronics assembly) to realise the aims of its national employment programme, which is to create 200,000 off-farm jobs yearly (Eom, 2018). The study emphasises how host country policies that require MNCs to implement training and skills transfer programmes can contribute to structural transformation.

The duration of operations of Chinese businesses also determines their level of workforce localisation. Evidence suggests that the longer a business operates in Africa, the higher its workforce localisation rate. Tang (2016), in an analysis of the employment practices of Chinese firms in Africa, surmises that unfamiliarity with the quality of local workforce and urgent completion deadlines of certain public projects often contribute to the initial low localisation rates in Chinese projects and enterprises in Africa. He further notes that these short-term measures tend to change when Chinese companies reach a more stable development phase in the host country. Tang cites an example of the Huajian Shoe factory in Ethiopia. At the start of their operations in January 2012, the Chinese enterprise had over 300 Chinese workers, but by July 2012, local workers had replaced around 100 of the Chinese employees. Sustained Chinese investments in labour-intensive sectors such as manufacturing, mining, construction can lead to employment gains for host African countries.

Corkin (2012) offers another perspective on the issue of skills and local employment in Chinese enterprises. Corkin's study of the construction sector in Angola highlights the importance of context and skills culture in understanding the labour dynamics within Chinese construction companies in Angola. The study identifies the lack of adequately skilled labour in Angola to be one of the biggest barriers to workforce localisation in Chinese companies. Moreover, in cases where skilled Angolan labour is available, it is usually expensive, sometimes equal to or more than expatriates with considerably more experience. Differences in cultural understanding of work ethics and communication barriers, stemming from language issues, also have implications for local labour training and employment.

Training and technology transfer is an important component for most organisations – 'a means to an end, a way of ensuring sustained income generation' (King, 2013, p. 112). While most Chinese enterprises engage in some form of training, whether formal or informal, the level of training differs depending on the nature of their operations and the sector they operate in. According to Tang (2016), the most common form of training, particularly in low-tech enterprises, is delivered on-site. Here experienced Chinese workers train their African counterparts via hands-on tutoring, and the African workers acquire skills while on the job. This form of training is cost-effective and in line with the training and skills requirement for such enterprises. However, this is not the case with enterprises operating in high-tech sectors, which call for regular, systematic, job-specific training because of the level of technology used in such companies.

King (2013) cites the example of ZTE, a Chinese state-owned telecommunications firm that undertook the training of 1000 Ethiopian engineers as part of a contract to install telecommunications infrastructure in the country. Engineers were given on-the-job training, virtual training and advanced training at the ZTE University in Shenzhen, China (King, 2013). The large training requirement of the high-tech sector and the weak knowledge environment in the host countries often necessitate the provision of rigorous training to local employees by Chinese telecommunication firms. Apart from telecommunications, the infrastructure and construction sectors can also contribute to substantial gains in skills and technology transfer (King, 2013; Tang, 2010). However, government policy plays a role in leveraging the investments for skills and technology transfer. For example, the 'training for immigration scheme' adopted by the Ethiopian government in agreement with Shanghai Construction Company, to bring in 50 Chinese workers, ensures that for every skilled Chinese worker employed, 10 Ethiopians are trained (King, 2013).

In a study of employment patterns in Chinese companies in Angola and Democratic Republic of Congo (DRC), Tang (2010) identifies two main patterns – 'bulldozer and locomotive' – adopted by Chinese companies that have implications for HCD, including training and technology transfer in African host countries. According to Tang, under the bulldozer pattern, Chinese companies bring in workers from China to the host African country, do not establish any links with the local environment and focus on speedy and cost-efficient delivery of a project. Tang (2010, p. 262) likens this pattern 'to a powerful bulldozer, it cleans the ground very efficiently but has no essential interaction with others and its impact is limited to the work it has done'. In sharp contrast to this is the locomotive pattern. Here, Chinese companies seek integration into the local community and establish linkages with the local industry. According to Tang, such companies pursue 'long-term profit by creating synergic growth together with Africans. Using the strength of the Chinese side, such as capital, technology, efficiency, this model, like a locomotive, can contribute to a much larger scale of local development, including training, indirect employment and market prosperity'. (Tang, 2010, p. 263).

Tang (2010) argues that the choice of patterns is not dependent on the Chinese company but on the African host government. For example, in the case of public projects awarded by politicians, the quick execution of projects just in time for elections is particularly attractive to politicians; thus, they may encourage the bulldozer model over the locomotive model, which has more long term benefits to the host country and favours the long-term interests of the Chinese companies.

While the motivations of African governments and the presence of clear policies and strategies, such as local content policies, are crucial for leveraging Chinese investments for HCD, African and Chinese business networks also play a role in realising HCD gains from Chinese FDI. Brautigam's (2003) study of the role of Chinese business networks as catalysts for industrial development in sub-Saharan Africa stresses the importance of receptive business communities in Africa, who are willing to absorb and utilise the skills and information necessary to foster industrialisation. The study finds that years of business interactions between Nigerian Igbo traders in Nnewi (a city in south-east Nigeria that hosts one of the largest automotive parts markets in the West African region) and Chinese trading networks has led to substantial skills and technology transfer, which in turn has enabled a transition from importing to local manufacturing of automotive parts. These interactions, driven by a network of traders and businesses, have contributed to industrialisation in a city known as a major industrial hub in Nigeria. Thus, Brautigam (2003) concludes that business networks can catalyse industrial development in Africa as Chinese business networks have shown in Nigeria's automotive spare parts cluster. A supportive policy environment can further facilitate this.

The labour practices of Chinese enterprises in Africa remains a contentious issue, rife with claims and criticisms such as Chinese companies are unwilling to hire local workers, they import large numbers of Chinese workers to Africa and they subject African workers to unfair working conditions. This thesis and the studies such as those discussed above attempt to offer a nuanced understanding of the labour practices and HCD effects of Chinese enterprises in Africa. For example, a high number of Chinese workers on a project in Africa does not necessarily indicate unwillingness to hire local workers. It could be the result of shortage of skilled local labour in some host countries, lax labour regulations or deadline compulsions. Unfair working conditions relating to long working hours may point to differences in work ethics, where the Chinese work ethic is concerned with timely completion of a job, irrespective of the number of hours worked in a day. These explanations do not imply that all observations and criticisms are unfounded, but this study stresses the importance of context in order to fully understand the labour practices and HCD implications of Chinese enterprises in Africa.

This chapter focused on providing insights into the HCD dimensions of CEE in Africa, starting with the Chinese government's HRD partnerships with Africa. Second, the chapter outlined China's education cooperation with Africa, and, third, it examined the HCD dimension of Chinese enterprises in Africa, from different viewpoints discussed in the existing research. It is clear that whatever the modalities and official discourse of Chinese HRD partnership with Africa may be, China's engagement with Africa undoubtedly has implications for HCD in Africa.

4 Methodology

This chapter presents the methodological considerations and research design of this study. The philosophical assumptions guiding this study are presented first, followed by the research design and procedures for case selection, data collection, data analysis, ethical considerations and an evaluation of the research quality using the constructs of validity and reliability.

4.1 Philosophical foundations of the study

> 'Every research tool or procedure is inextricably embedded in commitments to particular versions of the world and ways of knowing that world made by researchers using them'.
>
> – Hughes (1980, p. 13)

Social science research cannot be conducted without a researcher taking particular positions on philosophical issues and answering philosophical questions (Corbetta, 2003; Rosenberg, 2012). Researchers have to conduct their research within a certain paradigm or world view, and two world views have mainly framed social science research: positivism and interpretivism. According to Corbetta (2003), these paradigms are distinguishable based on how they answer three interrelated questions: (1) the ontological question – does reality exist; (2) the epistemological question – can it be understood; and (3) the methodological question – how can knowledge about it be generated. Thus, they have contradictory visions of social reality, how it should be understood and different methods of inquiry.

Corbetta (2003) views the ontological question as the question of 'what', as it is concerned with the 'nature and form of social reality'. On ontology, Blaikie (2000, p. 8) states the following:

> Ontological claims are claims and assumptions that are made about the nature of social reality, claims about what exists, what it looks like, what units make it up and how these units interact with each other. In short, ontological assumptions are concerned with what we believe constitutes social reality.

The epistemological question according to Corbetta (2003) is the 'question of the relationship between the "who" and the "what" and the outcome of this relationship'. It is concerned with how social reality can be understood and the link between the observer and the reality being observed. The methodological question concerns the 'how' – how social reality be can studied. It pertains to the techniques of social inquiry (Corbetta, 2003).

The interrelatedness of these questions has been confirmed by various scholars. They explain that answers to the epistemological question are dependent on those to the ontological question; that is, if social reality exists independently from human action/influence, then the aim to understand it in an objective manner will be legitimate (Corbetta, 2003; della Porta & Keating, 2008). Similarly, the methodological question is dependent on answers to the ontological and epistemological question. As Corbetta (2003, 13) notes that 'a vision of social reality as an external object that is not influenced by the cognitive research procedures of the scientist will accept manipulative techniques (e.g. experimentation, the control of variables, etc.) more readily than a perspective that underlines the existence of interactive processes between the scholar and the object studied'. Corbetta (2003) adds that the interrelatedness between these three questions is also evident in the difficulties in outlining the boundaries between them.

The following paragraph explains the two aforementioned paradigms – positivism and interpretivism – in relation to the fundamental questions.

Ontologically, positivism adopts the view that social reality is real and knowable (Corbetta, 2003). With regard to the epistemological question, positivism believes that knowledge is attainable based on the assumption that the researcher and the object of study are independent entities, and thus objects can be studied without being influenced by the researcher (i.e. objectively). Simply put, social facts are considered 'given' and 'unmodifiable' (Corbetta, 2003). The positivist view of society holds that social life is subject to natural laws, and it is for the researcher to discover such laws. Positivists adopt the epistemological position of empiricism; that is, knowledge of the world can be justified only by sensory evidence such as experience, observation and experiment (Corbetta, 2003; Rosenberg, 2012). The techniques of positivist research are derived from the empiricist approach to natural sciences (Corbetta, 2003). Thus, theories that cannot be verified or falsified by experience are meaningless (Rosenberg, 2012).

Contrary to the positivist paradigm, the interpretive paradigm adopts a constructivist view of social reality, suggesting that 'the knowable world is that of the meanings attributed by individuals' (Corbetta, 2003, p. 21). Under this school of thought, a common universal social reality does not exist; instead, there are multiple realities formed by the different perspectives from which individuals view and attach meanings to social facts.

Ontologically, interpretivists reject the existence of an objective world. They hold the epistemological position that the researcher and the research object are interdependent and cannot be separated. This is because the objective of social science research is to understand individual behaviour/events and search for meanings that human beings attribute to their behaviour and to the world (della Porta & Keating, 2008).

The methodological view under the interpretive paradigm differs from that of the positivist paradigm. Here, reality is interpreted based on the interactions between the researcher and the research subject. Qualitative and subjective research techniques are favoured as they help understand the meanings research subjects attribute to their behaviour. Knowledge is 'discovered in reality by the researcher who approaches it without prejudices or preconceived theories' (Corbetta, 2003, p. 24).

The fundamental differences in each paradigm at the levels of ontology, epistemology and methodology are reflected in the different research techniques and procedures used in the social science research today. Of these two paradigms, Schell (1992, p. 10) posits that very few researchers 'occupy either of these polar positions, but rather, there is a spectrum of beliefs which span the epistemological spectrum'. This is reflected in this study as the subsequent paragraphs present the philosophical positions taken in this research.

As adeptly summarised by Sayer (1992, p. 5) 'particular philosophies are not simple or self-contained but exist through their opposition to a range of alternative positions'. Post-positivist approaches such as realism emerged to counter the criticisms against the ontological and epistemological positions of the positivist paradigm (Corbetta, 2003; Given, 2008). The post-positivist approach of critical realism holds the ontological position that there is some level of objective reality to the world and that reality exists independent of observers (Easton, 2010; Sayer, 1992). Corbetta (2003) notes that post-positivism adopts a position similar to positivism in that social reality is real and objective; however, it departs from the positivist assumption that reality is knowable. Post-positivists hold that it is knowable only in an imperfect manner.

Epistemologically, critical realism assumes that there is a level of detachment between the observer and the observed; however, the observer may influence the observed, causing a reaction (Given, 2008; Sayer, 2000). Critical realism acknowledges the role of the researcher as the interpreter of knowledge but affirms that it exists regardless of the researchers' interpretation (Given, 2008; Sayer, 2000). Sayer 1992 notes that 'our knowledge of the world is fallible and theory-laden'. Critical realists view knowledge production as a 'social activity'. Similar to the interpretive notion, realism acknowledges that social phenomena are 'concept dependent' in that they are affected by the meanings ascribed to them; however, this does not rule out causal explanations (Sayer, 2000). Nonetheless, critical realists aspire to generate knowledge by emphasising rigour in the research process, use of multiple sources of data and employing theory in data analyses, theory building and testing (Given, 2008).

This research is guided by the post-positivist paradigm and adopts a critical realist view of reality. This is in line with the purpose of my research, which is to examine how Sino–

African economic relations might affect HCD in Africa by investigating the nature and characteristics of the engagement and its opportunities and implications for HCD.

For critical realists, a social phenomenon has to be evaluated critically in order for it to be explained and understood. This entails 'identifying the causal mechanisms, how they work and discovering if they have been activated and under what conditions' (Sayer, 2000, p. 14). Accordingly, this study undertakes a critical evaluation of CEE in Africa in order to understand its opportunities and implications for HCD in Africa. The study identifies the different contextual factors and conditions and how they interact to produce certain HCD-related outcomes. In line with the critical realist notion on theory, which considers theory an ordering framework with which observational data are used to predict and explain empirical events, this study acknowledges the role of theory and concepts to structure data and explain social phenomena.

On methodology, critical realism employs a range of research methods. Methodological choices should be based on the nature of the object of study and the objective of the study (Sayer, 2000). Easton (2010, p. 119) argues that critical realism is well suited for case study research. He notes that it 'justifies the study of any situation, regardless of the numbers of research units involved but only if the process involves thoughtful in-depth research with the objective of understanding why things are as they are'.

The critical realist approach to methodology supports the focus of this study, which is studying Sino–African relations to understand and explain the nature and characteristic of the relationship and its implications. Further, this study realises that it is crucial to move beyond a general overview of China–Africa relations and delve into case studies for a more nuanced and deeper understanding of the relations and its outcomes and implications for Africa. The methodological choices of this study are in line with critical realism as this study employs a conceptual research approach which aims to make sense of Sino–African engagement, understand what it is, explaining how it works, why it is important and what it means for Africa's development. This research also adopts a case study method, relies on multiple sources of data and conducts a theory driven analysis to investigate the HCD implications of CEE in Africa.

4.2 Research design

Two main research methodology approaches were chosen for this study: the conceptual research approach and empirical research using a qualitative case study method. *Figure 2* shows the methodological features of the sub-studies that make up this study. The subsequent sub-sections will present the conceptual research approach and the qualitative case study approach.

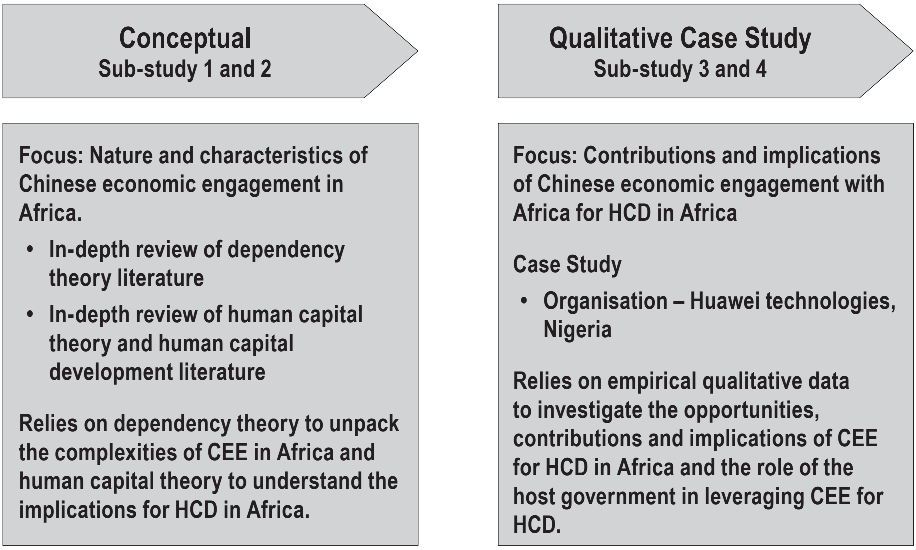

Figure 2. The Research process and methodological features of this study

4.2.1 The conceptual research approach

Conceptual research focuses on using a concept or theory to explain or describe a phenomenon (Corley & Gioia, 2011; Fawcett et al., 2014; MacInnis, 2011). This approach is driven by conceptual thinking, which according to MacInnis (2011, p. 5) is 'the process of understanding a situation or problem abstractly by identifying patterns or connections and key underlying properties'. According to Fawcett et al. (2014) conceptual research 'helps us see the world through new lenses, enabling us to find new trailheads for existing and emerging problem-solving quests'.

This research approach is particularly suited to understanding the nature and characteristics of CEE in Africa as it aims to bridge the knowledge gap and encourages delving deep into the conversations that shape the understanding of a phenomenon. Fawcett et al. (2014) find that conceptual research allows for moving beyond the process of just reporting the phenomenon to a process of 'sensemaking' and 'sensegiving' – in other words making sense of the phenomenon. Sub-studies 1 and 2 of this thesis use the conceptual research approach to make sense of Sino–African economic engagement and what it means for HCD in Africa. This approach has been instrumental in shedding light on the evolving contemporary China–Africa engagement.

Conceptual articles rely on thought-based conceptions as opposed to empirical data (MacInnis, 2011; Yadav, 2010). MacInnis (2011) classifies conceptual articles into four categories according to their general and specific goals. According to MacInnis's classification, Sub-studies 1 and 2 can be classified as academic articles with the specific goal of delineating. Delineating articles describe what an entity under study is, why it should be studied, how it works and its relationship to other entities. The main contribution of delineating articles is in the form of a conceptual framework or structural framework, as is the case in this thesis.

In an attempt to shape and provide an understanding of CEE in Africa, Sub-studies 1 and 2 rely on dependency theory and human capital theory to unpack the complexities of Sino–African relations, China's presence in Africa, and its implications for Africa, specifically in relation to HCD. Sub-studies 1 and 2 approach the phenomenon of CEE in Africa with the goal of delineation. They attempt to clarify the Sino–African engagement, understanding what it is and is not, explaining how it works, why it is important and what it means for Africa's development. This is an important initial approach as it guides this study towards fully addressing its research objectives.

The research materials used in the literature review and analysis in sub-study 1 and 2 consists of existing literature in the form of journal articles, books, monographs, reports, commissioned studies, statistical data, official reports etc. These research materials mainly focused on the review of dependency theory, human capital theory, human capital development and China–Africa relations.

Publications on Dependency theory are in the form of books, monographs and journal articles which include seminal works of scholars such as Amin, Dos Santos, Frank, Furtado, Haq, Lall, Prebisch, Wallerstein, authors who can be credited for the development of Dependency theory. These works are classics and have shaped the discourse on development and in the field of international political economy. Other recent articles on Dependency theory were also reviewed in the conceptual articles. Likewise, publications on Human capital theory and related literature on human capital development are in the form of books, monographs, and journal articles, featuring both early seminal works on Human capital theory and more recent literature on human capital development. Publications on China–Africa relations are in the form of texts, journal articles, reports and official statistical data derived from the UN, China, USA collated by reputable research institutes. Materials utilised on China–Africa were relatively recent to capture the resurgence in China–Africa relations.

Journal articles utilised in the conceptual studies were sourced from reputable international peer reviewed journals mainly in the fields of development studies, international political economy, economics, management, area studies – Africa, Asia, Global south. Reports, commissioned studies, working papers were sourced from international institutions such as the world bank, the united nations, African development bank, and official reports from countries such as China, the United states etc. News reports were also featured particularly to capture popular opinion and commentary on China-Africa relations. Together these research materials formed the body of literature used in the conceptual articles – sub-study 1 and 2 – that make up a part of this thesis.

Following a detailed conceptualisation of Sino–African engagement, this study progresses to provide deeper insights by empirically investigating the contributions of CEE to HCD in Africa. This reflects the use of a second methodological approach in this thesis, which is the qualitative case study, in Sub-studies 3 and 4. The qualitative case study method, as adopted in Sub-studies 3 and 4 of this thesis, is discussed in the next sub-section.

4.2.2 Qualitative case study approach

The case study as a research approach facilitates the investigation of a phenomenon in its real-life context (Yin, 2009). According to Schell (1992), the case study is unparalleled as a research method due to its ability to consider a research question within an environment rich with contextual variables. This feature of the case study method makes it well suited for this study, as there is a need for more research to generate an in-depth and nuanced understanding of Sino–African engagement and its implications for HCD in Africa.

Prominent researchers on Sino–African engagement have called for more investigation via country-specific case studies based on fieldwork (Brautigam, 2017; King, 2013). The use of case studies in the study of China–Africa relations is particularly important due to the contemporary and evolving nature of the economic engagement. Moreover, despite the multilateral nature of the FOCAC platform, China's relations with African countries are realised on a bilateral basis and as a result, the level of engagement varies from country to country. This is particularly apparent in the diverse levels and volumes of its economic engagement with different African countries, necessitating the need for a method that seeks to make sense of the phenomenon, taking into account the various contextual variables at play. Sub-studies 3 and 4 use the qualitative case study method, as it helps move beyond just a general overview of China–Africa relations to a more detailed analysis.

The case study research method is known for its use of multiple sources of data – an approach that increases data credibility (Baxter & Jack, 2008; Patton, 1990; Yin, 2003). The use of different data sources strengthens research findings as the evidence is triangulated; the findings have a robust foundation, and the arguments about contribution to existing knowledge are supported (Farquhar, 2012). Further, the case study method allows researchers to explore a phenomenon through a variety of lenses, allowing multiple dimensions of the phenomenon to be revealed and understood (Baxter & Jack, 2008). It also enables the use of diverse data sources such as documents, archival records, interviews, direct observation, participant observation, and physical artefacts (Gray, 2004; Yin, 1994). This method is particularly useful for this study as it provides a systematic way to collect data, analyse the data, present the findings and thus understand the phenomenon in greater depth. The use of several data sources ensures that critical data is captured to understand the intricacies of CEE in Africa and to answer the research questions in this study.

The case study method is known to not only describe data in real-life environments but also to help explain the complexities of real-life situations. This aspect is instrumental in this study, as the method helps capture the various variables and establish their linkages to the phenomenon being studied. Thus, utilising a qualitative case study seemed appropriate for collecting empirical data that would not only enhance the understanding of the Sino–African engagement but also offer precise insights about its contribution and implications for HCD. Additionally, the case study method is suitable for answering the 'why' and 'how' questions (Eisenhardt, 1989; Yin, 2009), which justifies its choice for this study as the research questions in this study are essentially 'what' and 'how' questions. These questions help achieve the research objectives, which are to understand the nature of CEE in Africa, investigate how the engagement contributes to HCD in Africa and how the African governments leverage this engagement for HCD.

A case study method can employ a single case or multiple cases (Yin, 2009). It is important for researchers to determine if a single case study is sufficient for their study or if a deeper understanding of the phenomenon requires data from multiple cases (Baxter & Jack, 2008). According to Yin (2009), there are four refined case study models, and the main distinction between these models is the number of units of analysis per case (Virtanen, 2002). The models include (1) a single case with a single unit of analysis, (2) a single case with multiple units of analysis, (3) multiple cases with a single unit of analysis, and (4) multiple cases with multiple units of analysis. This study falls in the second category, because it is a single case study (case organisation – Huawei technologies in Nigeria) with various data points (primary and secondary) collected and analysed at multiple levels (institutional, organisational and individual). This allows for a rich analysis of the phenomenon and serves to better illuminate the case (Baxter & Jack, 2008). Figure 3 depicts the case study model utilised in this study. Section 4.3 presents a detailed outline of the process and rationale behind the case selection.

Case study research is deemed especially useful in situations where the context and other complex conditions related to the phenomenon being investigated are critical; the researcher has little control over the events (Farquhar, 2012; Yin, 2009). This method is appropriate for this study, as to fully understand CEE in Africa and the opportunities it might present for HCD, the study needs to be carried out in its context.

The focus of the case study in this thesis was to investigate the contributions of CEE in Africa for HCD in Africa and if and how African governments leverage the engagement for HCD. Huawei Technologies Company, Nigeria Limited was selected as the case organisation, and data were collected to examine the HCD contributions and implications of Huawei's operations and activities in Nigeria. This was examined at multiple levels: institutional, organisational and individual. At the institutional level, the study examined the policy-related efforts of the government towards leveraging CEE for HCD. At the organisational level, the study analysed the HCD-related effects of Huawei's operations and practices in Nigeria by investigating the employment, training and skills building, and knowledge and technology transfer effects of Huawei's operations in Nigeria. Further, the organisation's interactions with national policies on HCD were examined, with the aim of understanding the role they have had on HCD-related practices, if any. At the individual level, the study analysed the impact of Huawei's HCD contributions. The following section describes the data collected in this study and the data collection process.

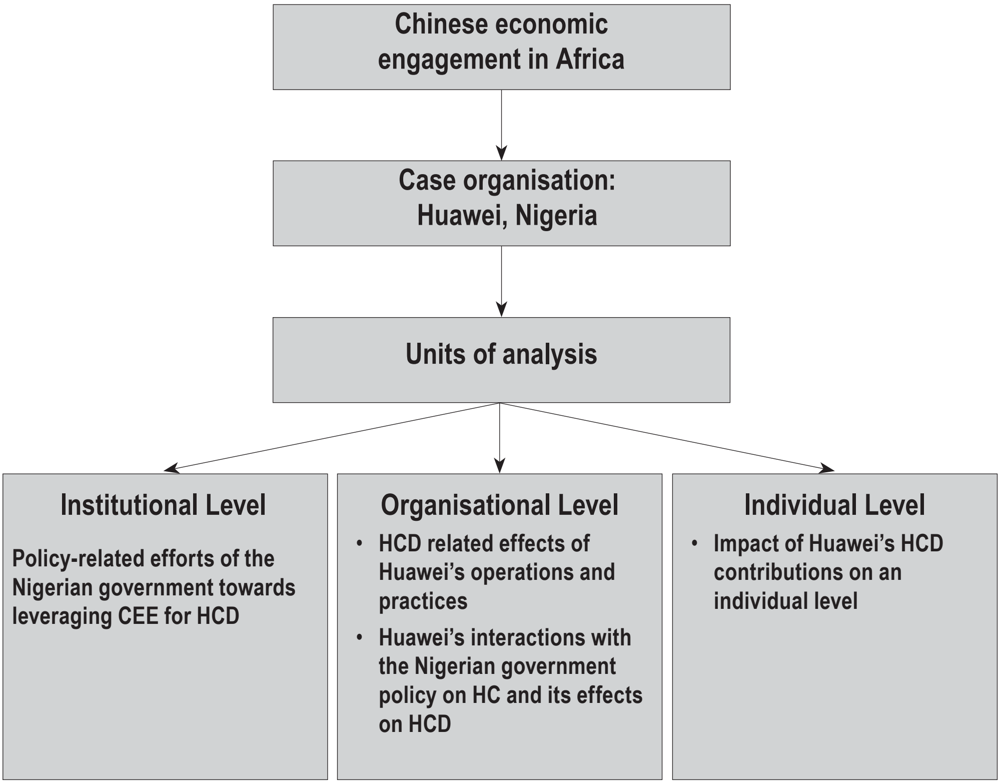

Figure 3. Case study model utilised in sub-studies 3 and 4

4.3 Case selection

Selecting a case is an important step in case study design (Yin, 1994). The following paragraphs explain the process and rationale behind the case selection in this study.

The Sino–African economic engagement remains significant as it covers FDI, trade and aid. The economic relations between China and Africa cut across different levels and involve both state actors such as the central government, local governments, state institutions, state-owned banks and enterprises and non-state actors such as MNCs, small- and medium-sized enterprises, individual traders and migrants (Renard, 2011). While actions from both state and non-state actors carry implications for HCD in Africa, of particular interest to this study is the FDI from non-state actors, specifically Chinese MNEs, investing in different sectors of the African economy.

The rationale for choosing non-state actors, particularly private MNEs, lies in the increasing role and importance of the private sector, particularly MNEs, in bridging the human capital gap in Africa (Harvey, Myers, & Novicevic, 2002). Their operations and activities in various African countries across different economic sectors is significant for HCD across the continent (World Bank, 2015; Brautigam et al., 2017). Further, non-state owned enterprises are seldom the focus of empirical studies on Chinese FDI in Africa even though they play an increasingly important role as a source of Chinese investment in Africa, they constitute the largest group of Chinese investors in Africa and they engage actively in local economic networks (He & Zhu, 2018).

The potential for impact by Chinese private enterprises on HCD is significant as these enterprises can, through their operations, influence both direct and indirect local employment, skill transfers, and knowledge and technology transfer in their host countries (He & Zhu, 2018; King, 2013). Thus, this case focused on analysing the opportunities and implications of CEE in Africa on HCD from the perspective of a non-state owned Chinese multinational enterprise. Huawei Technologies Co. in Nigeria was selected as the case organisation to maximise the potential of a thorough understanding of the phenomenon (Palys, 2008).

The selection of Huawei as a case organisation is significant because of the nature of its business, the extent of its operations and its broad presence across Africa. It is one of the largest private Chinese enterprises operating in Africa and the leading Chinese MNE in Africa's telecom sector. Huawei's operations span the world: it is currently the world's largest telecom equipment manufacturer, after surpassing Ericsson in 2012. Its operations in Africa are spread across at least 40 countries (Fagan, 2018), and it has offices in 18 African countries including South Africa, Kenya, Ethiopia and Nigeria, where it has its West African headquarters (Gagliardone & Gaell, 2014). Its activities on the continent cut across the whole telecom ecosystem, from selling consumer products such as tablets and phones to offering solutions to telecom network operators and businesses, setting up telecom infrastructure and managing and upgrading telecom networks. Importantly, the Chinese MNCs in Africa's telecoms sector, of which Huawei is the largest, are responsible for much of the infrastructure on which African information societies are built.

Nigeria is one of China's most important telecom markets. Chinese operations in Nigeria are extensive as the country is strategically significant for telecom success in African markets. This is because Nigeria is the largest telecom market in Africa and the largest economy, especially in the economic community of West African states. Nigeria is the seat of Huawei's West African (W/A) operations, with its headquarters in Lagos, which also houses one of its eight global innovation centres, and its regional training centre in Abuja. Since establishing its corporate, consumer and business operations in the Nigerian market in 1999, Huawei has played a critical role in upgrading the country's information and communications technology (ICT) infrastructure. Huawei has worked with several telecom operators in numerous projects, which has led to an increase in broadband penetration and connectivity in Nigeria (Amawhe, 2016; Huawei, 2013; Telegeography, 2010).

Not only is Huawei important as a case organisation, the sector in which it operates also represents one of the main sectors and 'newest frontiers' of CEE in Africa, attracting a substantial proportion of Chinese investments (Gagliardone & Gaell, 2014). Further, the telecom sector is seldom studied in relation to the HCD implications of CEE, yet it has tremendous potential to produce significant gains in terms of HCD because it is knowledge intensive and prioritises training and capacity development. The sector is also crucial to most African countries, especially given the importance of telecom in increasing participation in the modern world economy and economic growth (Andrianaivo & Kpodar, 2011; Waverman, Meschi, & Fuss, 2005). In their study on the impact of telecom on economic growth, Waverman et al. (2005) find that mobile telephony has a significant positive effect on economic growth, and the impact is higher in developing countries than developed countries. Further, as many African countries pursue economic diversification, telecom is increasingly viewed as a sector with the potential to make substantial contributions to gross domestic product (GDP). This is particularly true for Nigeria, which is the largest telecom market in Africa and has seen a significant increase in the GDP contribution of the telecom sector from 1.45% in 2005 to 8.39% in the third quarter of 2018 (NCC, 2019).

Given the above scenario, the choice of Huawei in Nigeria as the case organisation for this study is appropriate for investigating the HCD opportunities and implications of CEE in Africa from a Chinese MNE perspective. More details on the case organisation – Huawei – are provided in Sub-studies 3 and 4.

4.4 Data collection

Case study research allows the use of multiple sources of data (Patton, 1990; Yin, 2003), including but not limited to interviews, documents, archival records, participant observation, field observation, physical artefacts and meeting minutes (Baxter & Jack, 2008; Merriam, 1998; Yin, 1994). Researchers can collect data from multiple sources and converge them during analysis. Baxter and Jack (2008) liken each data source to a piece of a 'puzzle', with each piece enhancing the understanding of the phenomenon being studied. Convergence of data from different sources strengthens the findings as the data is triangulated. Farquhar (2012. p. 7) notes that triangulation is an important aspect of the case study method because 'an investigation of the phenomenon from different perspectives provides robust foundations for the findings and supports arguments for its contribution to knowledge'.

Triangulation involves multiple data-collecting procedures, multiple theoretical perspectives and multiple techniques of analysis (Berg, 2001; Denzin, 1978). This study adopted a data triangulation strategy, utilising multiple sources of data to generate an in-depth understanding of the HCD implications of CEE in Africa and how African governments leverage the engagement for HCD (objectives of Sub-studies 3 and 4). The primary and secondary data sources utilised in this study include interviews (face-face, online), documents (company reports, press releases and reports, training reports, policy documents and guidelines) and incidental (casual) observations. See table 2 for a depiction of data triangulation in relation to research questions 2 and 3, which are addressed in sub-study 3 and 4.

The interview is one of the most important and widely used qualitative data collection methods (Qu & Dumay, 2011). Interviews are useful because they provide in-depth information about the informants' experiences and their perceptions of a particular topic. Broadly, interview methods are of three types: structured, semi-structured and unstructured. Semi-structured interviews are the most commonly used and the most diverse of the three categories (Arksey & Knight, 1999).

Semi-structured interviews, though more similar to unstructured interviews, combine the characteristics of the other two types. They usually follow an interview guide, which contains key questions on the topics to be covered in the interview, with room for flexibility and adaptability depending on the context (Arksey & Knight, 1999; Farquhar, 2012). The researcher has some scope to modify the order and wording of the questions, according to the informants. The researcher can also probe for responses, follow up on an idea or return to an answer that needs further clarification or elaboration (Merriam, 1998). Informants also can answer questions in the order that they consider important; that is, they can choose what to say about a topic or question and how much (Arksey & Knight, 1999).

Table 2. Data Sources: Research Question 2 and 3

Research questions (2 and 3)	Semi-structured Interviews	Documentary review	Incidental/Casual observation
In what ways, if any, does CEE contributes to HCD in Africa?	♦	♦	♦
Do African governments leverage CEE for HCD? If so how?	♦	♦	♦

This study utilised semi-structured interviews to generate primary data. The interviews addressed two main objectives: to investigate how Huawei's operations contribute to HCD in Nigeria, and how the Nigerian government leverages CEE for HCD. The interviews targeted a range of informants including relevant government officials from Nigeria, officials from the case organisation Huawei, Nigeria, including current and ex-employees, participants of training programmes, and beneficiaries of Huawei scholarships. In total, 29 semi-structured interviews were conducted between March and October 2016 across various sites in Nigeria as well as online via Skype (See Appendix 2).

Interview participants were selected through purposive sampling and the snowball technique. These techniques helped select informants who had an important perspective and extensive knowledge on the topic being studied (Elo et al., 2014). Purposive sampling is based on the notion that 'research participants are not created equal' (Palys, 2008, p. 697); thus, researchers need to select a sample that ties well with the research objectives and context. While purposive sampling is associated with different sampling strategies such as paradigmatic case sampling, maximum variation sampling, typical case sampling, theory-guided sampling, critical case sampling, etc. (Palys, 2008), the strategy used in this study was criterion sampling. Criterion sampling, as the name suggests, involves identifying cases or individuals who meet certain criteria (Palys, 2008). In this case, several criteria based on the individual's experience and knowledge of the topic were defined to identify useful and crucial informants for this study.

The criteria used for selecting the informants were as follows:

- Individuals from the case organisation (Huawei) who were knowledgeable about the organisation's history and operations in Africa and Nigeria, in particular. Further, individuals knowledgeable or directly involved in the policies and practices of recruitment, training, local supplier relations, CSR. This included managers, human resource managers, trainers, public relation officers, etc.
- Individuals employed by the organisation currently or in the past (ex-employees of Huawei)
- Participants of Huawei's training programmes
- Individuals who were tasked with implementing or were knowledgeable about national policies on FDIs, HCD, telecommunications and other issues relevant to this study. This included Nigerian government officials in relevant ministries, agencies or institutes such as the Ministry of Trade and Investment, Ministry of Information and Communication Technology, Ministry of Labour, Office of National Content, Nigerian Information Technology Development Agency, Nigerian Investment Promotion Commission, etc.
- Individuals or institutions who were beneficiaries of Huawei's CSR activities such as scholarships and training.

Largely, this study adhered to the general principle of purposive sampling, which according to (Palys, 2008, p. 698) is to 'think of the person or place or situation that has the largest potential for advancing your understanding and look there'. In addition to purposive sampling, this study also identified crucial informants using the snowball technique, which is also known as referral sampling. Snowball sampling is seen as an 'informal' means to reach a target population, especially when the aim of a study is explorative, qualitative or descriptive in nature (Berg, 2001). This technique is particularly useful in cases where a researcher needs to identify members of a concealed or difficult-to-reach population. It involves identifying a member of a population and asking them to name other members of the population (Atkinson & Flint, 2001; Berg, 2001; Vogt, 1999). In this study, the snowball technique was used to identify ex-employees of Huawei (n = 3), beneficiaries of the Huawei–Unilag scholarship (n = 3) and some participants of the Huawei '1000 girls in ICT' training programme (n = 2). Most of these informants would have been hard to reach without a referral as their names and, in some cases, contact details could not be obtained officially through a publicly available list. A combination of purposive sampling and snowball sampling was instrumental in identifying relevant informants for this study.

The interview guides were developed keeping in mind the research questions and important themes from the conceptual framework. While the interview questions varied slightly depending on the category of the informant, they generally centred on exploring Huawei's operations and practices in Nigeria from the perspective of local employment, training and skills building, and knowledge and technology transfer. Additionally, the questions explored the theme of CEE, policy measures, strategies and actions of the Nigerian government in relation to FDI and HCD, and particularly the issue of leveraging Chinese FDI for HCD in the telecom sector.

The field work related to this research was carried out in March–April 2016. Key informants were contacted via email and in some cases via telephone to request and schedule interview appointments. The emails included introduction letters from the university, signed by the researcher's thesis supervisor, to show that the research was supported by the university. While some interview appointments were secured ahead before the field work began, others were scheduled on ground in Nigeria during the field work, by visiting the various ministries and agencies to request for appointments. The majority of the interviews (17) were conducted face-to-face, and others (11) were conducted remotely via skype. One (1) informant choose to answer questions via email. All the interviews were conducted in English and lasted between 40 minutes to 2 hours, depending on the availability of the informant, the informants' knowledge and experience of the topics and the issues covered in the interview.

The interviews were audiotaped and supported by field notes when some informants declined for the interviews to be recorded. After the interviews, the recordings were heard, transcribed and the notes were read through. This process enabled the researcher to glean some insights from what the informants said or did not say. In some cases, this step led to the inclusion of another informant considered important to the study who was not previously considered. For example, an interview an official from One Stop Investment Centre (OSIC) was deemed necessary on interviewing officers from the Nigerian Investment Promotion Corporation (NIPC) who emphasised the crucial role of OSIC in attracting FDI.

Apart from the interviews, another source of primary data was incidental observation. During the fieldwork, the researcher visited the Huawei West Africa headquarters in Lagos, Nigeria, and the Huawei training centre in Abuja, Nigeria, on separate occasions. During these visits, the research took notes of what was casually observed in both facilities, mainly with regard to employee composition, profile and working arrangements. This study also utilised secondary data sources, mainly in the form of company reports such as *Huawei*

Nigeria CSR Report – Growing with Nigeria (n.d.), Huawei's company magazine *Huawei People* (Issue 255 January 8, 2015; Issue 263 January 31, 2016; Issue 265 March 31, 2016), *Huawei 2013, 2014 Sustainability Report*, and *Huawei Africa Factsheet 2012*. Reports released by the Huawei's press/events centre were also used such as *Telecom Seeds for the Future Training Program* released in September 2015 and a training report (*Huawei Training for Nigerian Government Officials*) published in September 2016. Other documents consisted of Nigerian government policies such as the *Guidelines for Nigerian Content Development in Information and Communications Technology*, issued on December 3, 2013.

The document review focused on uncovering data on Huawei's training programmes, CSR initiatives and government policy initiatives and actions related to the local content in ICT policy. The documentary review served two main purposes apart from generating useful data. Firstly, the information gathered helped the researcher in the first step of generating the interview guides. Secondly, it helped the researcher triangulate the data generated from the interview, serving as a way to verify the data, corroborate data and ensure the research findings were credible.

Additionally, this study relied on secondary data in the form of existing literature on CEE in Africa in general and specifically those that addressed HCD issues in relation to CEE in Africa. This study also referenced existing literature that addressed the connection between FDIs and human capital formation in host countries. These existing studies were particularly useful as they shaped the research instruments used in this study.

4.5 Empirical data analysis

Data analysis is often considered the most demanding aspects of a qualitative research process (Arksey & Knight, 1999). Empirical data generated in this study were analysed using qualitative content analysis. Julien (2008, p. 120) defines qualitative content analysis as a technique of 'categorizing qualitative textual data into clusters of similar entities or conceptual categories to identify consistent patterns and relationships between variables or themes'.

Qualitative content analysis used to analyse a wide range of contextual data, and the process aims to reduce and systematically derive meaning from data (Mayring, 2000; Schreier, 2014). It is different from other methods of qualitative data analysis as it enables the researcher to reduce the amount of data by focusing on 'selected aspects of meaning' connected to the research question (Schreier, 2014). The research questions determine what to analyse and what to create (Elo & Kyngäs, 2008; Schreier, 2014). Qualitative content analysis usually includes the following steps: 'deciding on a research question, selecting material, building a coding frame, segmentation, trial coding, evaluating and modifying the coding frame, main analysis' (Schreier, 2014). It is a flexible approach in that it can be data-driven or concept-driven; this ensures that the coding frame matches the data (Schreier, 2014).

Elo et al. (2014) identified the three main phases of qualitative content analysis: preparation, organisation and reporting. All the three phases are relevant whether the researcher utilises a deductive approach or an inductive approach to the analysis. The preparation stage entails collecting data, making sense of the data and selecting the unit of analysis. The organisation phase differs slightly according to the approach utilised, inductive or deductive. In an inductive approach, this phase involves coding, creating categories and abstraction, while in a deductive approach, this phase entails developing a 'categorisation matrix', where the data is sorted for content and matched according to the categories earlier identified (Elo et al., 2014). The third stage – reporting – involves describing the results by the 'contents of the categories describing the phenomenon', and this can be done inductively or deductively.

This study used a concept-driven qualitative content analysis, similar to the process explained above, for Sub-studies 3 and 4 (Figure 4). In the preparation stage, relevant data were collected, including transcribed interview data, observation data and documentary information. Because all the interviews were conducted in English, the transcription of the data was a straightforward process, albeit time-consuming particularly given the numbers of interviews and the duration of each interview. Incidental observations were recorded via field notes, and relevant information gleaned from the documents were noted in memos. The preparation stage for Sub-studies 3 and 4 was identical as the same methodology and datasets were used in both sub-studies.

After the preparation stage, categories were developed on the basis of key theoretical concepts in the study and in line with the study objectives, and data were manually coded according to the categories. While this process was employed in both Sub-studies 3 and 4, the conceptual categories developed in each sub-study differed because they were tailored to the objectives and research questions the sub-studies addressed. In Sub-study 3, the coding process involved developing categories based on the key theoretical concepts. The analysis focused on examining Huawei's contributions to HCD through its training and skills-building activities. The sub-study also focused on the role of the government in leveraging CEE for HCD. In Sub-study 4, the analysis focused on the case organisation's contributions to HCD via dimensions of local employment, training and skills building, and knowledge and technology transfer. This sub-study revealed the process and channels by which Huawei contributes to HCD, describing the HCD effects of CEE in Africa. Finally, in the reporting stage, the study findings were reported accordingly, in line with the research questions and the conceptual categories of Sub-studies 3 and 4 respectively.

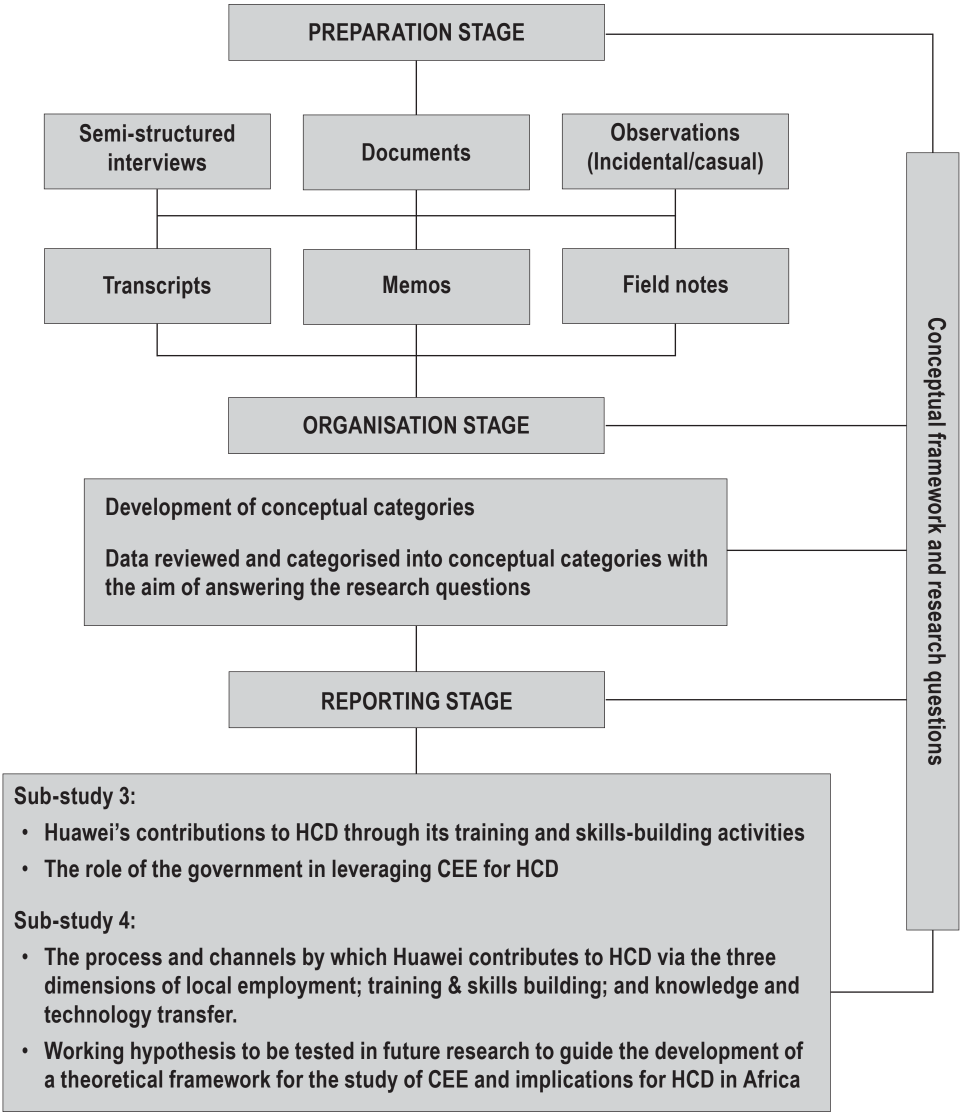

Figure 4. Data analysis process

4.6 Ethical considerations

When conducting research, it is important to consider the ethical issues that might arise as a result of the study and the choice of methods employed during the course of the study. Ethical issues are encountered in every phase of a research project, and researchers have an ethical obligation towards different stakeholders such as their research subjects, their colleagues, employers, their profession and the society at large (Berg, 2001; Qu & Dumay, 2011). Ethical considerations usually concern issues such as harm to participants, consent, deception, privacy and data confidentiality (Punch, 1994), and Berg (2001) states that researchers must safeguard the rights, privacy and welfare of their research subjects.

Suitable measures were used in this study to minimise harm to its research participants. Firstly, potential research participants were presented with a detailed introduction letter from the University of Tampere, which was signed by the thesis supervisor to legitimise the research. While researchers are sometimes requested to apply for research permits to carry out fieldwork in certain countries and contexts, in the case of this research, no research permits were required. However, the detailed introduction letter served as an initial means of introducing the researcher, the research project, its purpose and significance and the participant's role (see Appendix 3). The introduction letter also informed participants briefly about the use of data and data confidentiality. Secondly, informed consent was obtained from the participants in this research project (see Appendix 4). Berg (2001) notes that physical, psychological and social injury are risks commonly associated with participation in scientific research, and it is important that research participants are informed of such potential risks before they decide to participate.

Informed consent serves that purpose as it entails obtaining the 'consent of individuals to participate as an exercise of their choice, free from any element of fraud, deceit, duress or similar unfair inducement or manipulation' (Berg, 2001, p. 56). The informed consent form used in this study introduced the researcher and the research in more detail and highlighted the rights, risks and voluntary nature of the informants' participation in the study. In addition, the consent letter contained a brief description of the data practices pertaining to the research project, contact details of the researcher and a section for the participant to assent to participating in the study. The anonymity of the informants anonymous was ensured by using a code for each interview respondent (see Appendix 2). This was particularly important as the case organisation – Huawei – and the various ministries and agencies were named.

A pseudonym was not used to refer to the case organisation – Huawei – for several reasons. Firstly, using the actual name made the study more realistic. Secondly, citing the secondary data utilised in this study, such as company reports, press releases, press reports etc., in the bibliography section would have revealed the identity of the case organisation, rendering the use of a pseudonym ineffective. Thirdly, because of the distinctive profile and established reputation of the case organisation in the telecommunications sector in Nigeria as well as across Africa, efforts to conceal the organisation's name would have proved futile as the organisation's profile and defining characteristics would have made it easily identifiable. Fourthly, the organisation did not request for anonymity in the course of this study.

The ethical dimensions of this research and issues that may arise as a result of this study were well considered, and necessary actions were taken to minimise any potential harm to the research participants during the course of this study.

4.7 Reflections on the research strategy

This study recognizes that Africa, its countries and people are not monolithic, Africa's 54 countries encompass a rich and varied culture, natural resources, political realities, social values and economic priorities. These differences will no doubt influence their level of engagement with China. As such, it could be considered problematic to generalize any assessment of Sino–Africa engagement and its impact on Africa. However, one must also note that African countries' position and identity in the international political economy as well as reactions to the dynamics within the international political economy is fairly similar (Lumumba-Kasongo, 2011). Their political and economic histories under colonialism and imperialism have been largely similar, and today the main socio-economic issues and political issues they grapple with are much similar than dissimilar. Lumumba-Kasongo (2011, 239) surmises that '*the structures of underdevelopment as reflected in the structures of the states and their economies and general behaviors of African leaders can be generalized*'.

Thus, while this study takes Africa's diversity into account, it also recognises that despite Africa's diversity, its response and engagement with China has been largely similar, driven by similar needs and expectations. This includes the need to engage alternative development partners, and pursue without external limitations and pressure, alternative development models more attuned to their needs and priorities and the expectation that economic engagement with China may catalyse economic growth and development in their respective countries. Furthermore, China's engagement with Africa has been large scale and pervasive, not limited to any specific sub-region or countries. Except for E-Swatini formerly Swaziland, China engages all African countries albeit to different degrees. The engagement has significant implications for the global world order, as well as China and Africa's position in it (Campbell, 2007; Mason, 2015). Considering this, in order to truly make sense of the nature of China's engagement in Africa and its implications, an integrated analysis of the engagement which captures the characteristics and manifestations of China's engagement across the continent is not amiss. It is based on this logic that this thesis adopts an integrated view of China's engagement with Africa in the conceptual part of this study – Sub-study 1 and 2 – and draws implications for HCD in Africa based on empirical insights from the case introduced in sub-study 3 and 4, while noting the specific features of the context of the case in relation to other contexts in Africa.

This study also recognises that as the economic engagement between China and Africa deepens, studies need to move away from offering just a broad overview to delivering more focused insights into the engagement and its implications for Africa's development (Brautigam, 2017; King, 2013). Case studies are particularly useful for gaining in-depth understanding of a phenomenon; they enable the researcher to move beyond the descriptive features of the phenomenon to a position where the how and why of the phenomenon can be explained. Hence, the case study approach was chosen as one of the approaches for this research. To acquire a nuanced understanding of the implications of CEE for HCD in Africa, it is important to build this understanding within a context, which will enable one to examine the different aspects of the engagement and the different conditions that could enable the realisation of HCD gains from this engagement. These intentions confirm the suitability of the case study method for the empirical section of this study.

This study design was not devoid of the typical constraints often encountered during a research endeavour. Thus, it is important to acknowledge the methodological limitations of this study. Firstly, the empirical scope of this study was limited to the case of Huawei in Nigeria, and thus challenges the generalisation of the findings. However, in line with Yin's position on generalisation in case study research (Yin, 2013), the aim of this study was not to achieve generalisation in terms of statistics but analytically. The findings of this study go beyond the empirical domain of this study i.e. the case. Further clarification on how this research should be approached in reference to other contexts in Africa is provided in the general conclusions of this study (see chapter 6.1). Further, the findings confirm the working hypothesis developed in Sub-study 4 that *the HCD impact of CEE in Africa will vary across industry sectors and countries due to the differences in sectoral and contextual conditions*. Thus, this study provides further directions for research (see Sub-study 4 and the concluding chapter of this synthesis).

Secondly, although the data analysed in this study were sufficient to answer the research questions, they were not exhaustive. For example, primary data from organisations in a supplier–customer relationship with Huawei could have shed deeper insights into the knowledge transfer effects of Huawei's operations, specifically in vertical spillovers. However, owing to lack of access to suppliers, insufficient client details and lack of response from the few suppliers contacted, the researcher was unable to gather data from these sources. Nonetheless, insights into the knowledge transfer effects via vertical spillovers were still derived from the interview data and secondary data. Further, future research, which aims to analyse the knowledge and technology transfer effects of Chinese investments in Africa, can focus on examining the linkages between Chinese firms and local firms by investigating suppliers and clients' perspectives.

4.8 Evaluating research quality: Validity and reliability

One of the classical approaches to evaluating the quality of research in positivist and post-positivist paradigms is assessing 'validity' and 'reliability' (Gibbert & Ruigrok, 2010). While alternative approaches, namely 'trustworthiness', have been proposed to assess research quality (Guba, 1981; Lincoln, 1995), validity and reliability were considered appropriate to confirm the quality of this research.

Validity

The validity of a research design is assessed on the basis of three criteria: construct validity, internal validity and external validity (Gibbert & Ruigrok, 2010).

Construct Validity

Construct validity is a test of 'the extent at which the study investigates what it claims to investigate' (Farquhar, 2012). The concept is more relevant to the data-collection phase, and triangulation has been suggested as one of the ways to ensure construct validity (Gibbert & Ruigrok, 2010; Schell, 1992). Construct validity is ensured by the use of multiple data collection strategies and sources (Gibbert & Ruigrok, 2010). This study triangulated different data sources including interview data, incidental observation and documents such as policy documents, company reports, training reports, press reports etc.

Peer review has been suggested as one of the ways to ensure construct validity (Gibbert & Ruigrok, 2010). The four sub-studies that make up this thesis underwent several rounds of rigorous peer review, which required revisions to be made to the manuscripts prior to the approval and publication of the sub-studies in reputable scientific journals. Additionally, the research findings were presented and discussed at various international academic conferences, allowing for feedback from experts and academics in this field of research. The review process, responses and approval from members of the academic community and specifically experts in the field of China–Africa relations, public administration and other relevant disciplines equally contributed to validating this research.

Construct validity can also be ensured by clearly explaining the research process: from the development of research questions to the drawing of final research conclusions (Geertz, 2003; Gibbert & Ruigrok, 2010; Yin, 1994). To ensure construct validity in this work, the data collection and analysis procedures were described in the relevant sections of this chapter and are reiterated in the sub-studies. Further, the interview data utilised in this research was obtained from original interviews conducted by the researcher.

Internal Validity

Internal validity specifically concerns the data analysis process (Gibbert & Ruigrok, 2010; Schell, 1992). Simply, internal validity aims at ensuring that the research findings are derived from data (Farquhar, 2012; Silverman, 2005). Essentially, to ensure internal validity, a researcher should be able to convince themselves and their readers that the findings from their study are derived from a critical analysis of all their data and not just from a few suitable examples (Silverman, 2005).

Several strategies have been proposed to ensure internal validity, such as ensuring that the research framework utilised in a study is derived from literature (Yin, 1994). In this research, internal validity was confirmed by the use of a clear research framework, explicitly derived from literature, which guided the sub-studies. Further, pattern matching was done with previous research; that is, the relationships between data generated in the sub-studies (specifically Sub-studies 3 and 4) were established and discussed vis-à-vis previous research. This step is in line with the argument that researchers can use pattern matching as a technique to ensure internal validity (Denzin & Lincoln, 1994; Eisenhardt, 1989), a process Eisenhardt (1989, p. 544) describes as 'enfolding the literature'.

External Validity

External validity is highly crucial in the research design phase (Schell, 1992). On generalisability, which is also referred to as external validity, some scholars argue that statistical generalisations are not applicable to case study research because of its context-dependent nature (Arksey & Knight, 1999; Baskerville & Lee, 2003; Yin, 1994). However, some experts believe otherwise, arguing that multiple case studies on a topic carry more external validity than a single case study (Johnston, Leach, & Liu, 1999; Leonard-Barton, 1990). Interestingly, this view, too, has been rejected by some case study researchers (Flyvbjerg, 2006; Siggelkow, 2007; Yin, 2009). Yin (2013) posits that case studies are generalisable in an analytical manner rather than a statistical one. According to Yin (2013), statistical generalisations cannot be derived from multiple cases or a single case; however, analytical generalisations can be formed as they depend on using a study's theoretical framework to establish a logic that can be applied to other situations. Simply put, analytical generalisations can be made from observations to theory (Yin, 2013).

This study takes that position as the goal of the study was to achieve analytical generalisation. This study was primarily concerned with investigating the opportunities and implications of CEE for HCD in Africa. The study finds that CEE does present opportunities for HCD in Africa and that Chinese enterprises are significantly well placed to contribute to HCD in their host countries in Africa. However, these contributions will vary across countries and sectors of the African economy because of the different contextual and sectoral conditions in these host countries. Thus, the results of this study transcend the boundaries of the case (Huawei in Nigeria) investigated. Further, the rationale for selecting the case organisation clearly articulated the representativeness of the case organisation the telecom industry and its appropriateness to the phenomena being studied and the research question. Additionally, details of the context of study were shared to justify the sampling choices made in this study (Gibbert & Ruigrok, 2010).

Reliability

According to Hammersley (1992, p. 67) reliability refers to 'the degree of consistency with which instances are assigned to the same category by different observers or by the same observer in different occasions. Broadly, it's seen as an assessment of whether the evidence is consistent and stable (Remenyi, et al. 1998). Some social science researchers are of the view that the need for reliability and validity only arises in quantitative research and not qualitative research (Silverman, 2010). They argue that if social reality is considered as always being in a state of flux, then ensuring research instruments measure accurately isn't necessary. However, Kirk and Miller (1986) note that without paying attention to reliability in qualitative research, the results of field research will be ignored.

Reliability is most crucial in the data collection phase of research (Schell, 1992). To ensure reliability in this study, interviews were tape-recorded except in a few instances where permission to record the interview was denied. In such instances, detailed notes were taken instead. All the tape recordings were carefully transcribed, and some extracts of interview responses have been included in the sub-studies. This is in line with Silverman's suggestions for increasing reliability of interview data (Silverman, 2005). Additionally 'careful documentation and clarification of research procedures' has been identified as a strategy for ensuring reliability (Gibbert & Ruigrok, 2010, p. 715). This strategy was implemented in this study via detailed reporting of the processes and procedures of the case study as well as divulging the name of the case organisation.

5 Overview of the Sub-studies

This chapter summarises the aims and findings of Sub-studies 1–4 of this thesis (also referred to as articles in the following sections). Each section presents the purpose and research question addressed in that sub-study, followed by the data and analysis (in the case of empirical Sub-studies 3 and 4) and finally the conclusions and implications of that sub-study. Together, the sub-studies contribute to answering the main research questions of this thesis.

5.1 Sub-study 1: Dependency theory: A conceptual lens to understand China's presence in Africa?

Purpose and research question: In this sub-study (see Agbebi & Virtanen, 2017), China's presence in Africa is examined through the lens of dependency theory. The increase in China's investments, trade and aid portfolio in Africa has spurred an intense scrutiny of its presence on the continent. The chief concern is the implications of China's presence for Africa's development. This study is based on the premise that China's continued engagements in Africa via trade, aid and investments will undoubtedly affect Africa's development trajectory.

Within this thesis, Sub-study 1 addresses RQ1: What are the nature and characteristics of CEE in Africa? This sub-study also addresses the question of whether China's presence in Africa fosters a new dependency – diversifies dependency within the global south – or furthers Africa's development? To answer the question, dependency theory is reviewed and applied to understand China's presence in Africa. The article examines China's contemporary presence in Africa, with a retrospective overview of Sino–African relations, an analysis of the current state of the engagement and a view of how the relations between China and Africa may evolve. This is done in order to understand the nature and characteristics of CEE in Africa and its implications for Africa's development. In terms of theory, the article deploys dependency theory to unpack the complexities of China's engagement with Africa and to understand the implications of this relationship for Africa's development trajectory. A review of relevant literature on dependency theory is carried out and its arguments applied to understand China's presence in Africa.

Conclusions and implications: Following a review of dependency theory literature as well as a detailed analysis of Sino–African relations, the study concludes that contrary to notions that China's presence in Africa signals a diversification of dependency in the global south, it actually indicates a growing interdependency stemming from economic partnership, cooperation and solidarity among the countries. The engagement serves both an opportunity and a challenge to Africa. The opportunity comes in the form a new alternative among development partners, and this observation has been supported by other studies (He, 2013; Moyo, 2009; Sautman & Hairong, 2007). However, the engagement also challenges governments of host African countries to leverage it for their development objectives. The study finds that within the China–Africa engagement, there is 'room for negotiation' as the engagement is not completely devoid of African agency. African countries can shape their engagement with China in a manner that advances their interests and aligns with their development needs and priorities. This and similar conclusions in existing studies (Corkin, 2013; Mohan & Lampert, 2013; Odoom, 2016; van Staden, Alden, & Wu, 2018) challenge the predominant narrative of China's dominance and the lack of African agency in China–Africa engagement.

Moreover, China's presence in Africa challenges African leaders to *question the status quo, reorient their values* and *adopt an inward focus on their developmental needs and priorities*: they can *question the status quo* by which Africa's engagement with Western industrialised countries has been largely hierarchical and conducted in a donor–recipient mode; they can *reorient their values* towards achieving their developmental goals and towards the development models that are well suited for Africa's economic development; and they can *adopt an inward focus on their developmental needs and priorities* and allow these to guide their economic engagement with other nations (see Agbebi & Virtanen, 2017).

This sub-study contributes to the extant literature in that it furthers the understanding of contemporary Sino–African relations within the context of Africa's development trajectory.

5.2 Sub-study 2: Towards a framework for understanding the outcomes of economic engagement with Africa: A human capital development perspective

Purpose and research question: This sub-study (see Agbebi, Stenvall, & Virtanen, 2018) builds on Sub-study 1 in that it is based on a similar premise that economic engagements among nations in general, and with Africa in particular, will generate certain outcomes that will affect the development trajectory of nations involved. This sub-study posits that these engagements need to be studied in order to understand their potential outcomes. As economic engagements among developing countries in the global south and transitional economies continue to gain momentum, a framework is needed to investigate the impacts of these engagements on the economies and the development of the countries involved. Accordingly, this sub-study presents a framework that can be used to study the outcomes of these new patterns of economic engagement across countries, including the ones forged between China and Africa.

This framework is significant because there are currently no overarching guidelines to investigate the potential outcomes and implications of these new patterns of economic engagement. The study addresses two main aims. Firstly, it presents a conceptual framework that can guide management researchers in understanding how new features of economic engagement can benefit the nations involved and the business organisations in the host and home countries. Secondly, it illustrates how the framework can be deployed, using the example of Chinese engagement with Africa and its potential influence on HCD in Africa.

To achieve the aim of the article, existing relevant literature on dependency and human capital theories were reviewed to provide the foundation for a conceptual framework for understanding and investigating the new forms of economic engagement. In addition, relevant literature on China's engagement in Africa was reviewed to further demonstrate the utility of the conceptual framework.

Conclusions and implications: So far as the world continues to experience significant economic and political shifts, as it has in the last few decades, new patterns of economic engagement will continue to emerge. To understand these new engagements and their potential outcomes, a comprehensive framework can be valuable. The framework proposed in this study aims to do that an constitutes the main contribution of this study.

The framework is useful for investigating policy transfer and the diffusion of management and technological innovation that frequently result from these engagements. It focuses on three variables that should be analysed when conducting research on the potential outcomes of these engagements:

i. The nature and dynamics of economic engagement
ii. The contextual features of the nation-state
iii. The degree of readiness of the nation state and its institutions to appropriate the benefits of the economic engagement

The article argues that the presence and interactions of these variables will determine the potential outcomes of the engagement between nation-states. The application of this framework will enable management researchers study the potential outcomes of economic engagements between nations. As the China–Africa engagement continues to deepen, this framework will guide researchers in understanding the engagement and its outcomes and implications for Africa's development.

5.3 Sub-study 3: China in Africa's telecom sector: Opportunities for human capital development? A case of Huawei in Nigeria

Purpose and research question: This sub-study (see Agbebi, 2018) is an extension of Sub-studies 1 and 2, and it examines the opportunities in Sino–African engagement for HCD in Africa by focusing on Chinese investments in Africa's telecom sector. Chinese investments in Africa have increasingly become diversified (Chen et al., 2015; Tang, 2010), spreading from traditional extractive industries into sectors such as manufacturing, financial services, construction, hospitality and telecommunications.

The African telecommunications sector has seen increasing Chinese investments, as Chinese telecom giants such as Huawei and ZTE have been heavily involved in setting up and upgrading the core telecom infrastructure in many African countries, which have led to increased connectivity and broadband access in these regions. On the one hand, Chinese investments are on the rise; on the other hand, their potential to add value to African industries and contribute to HCD on the continent has been questioned. This study addresses such questions by investigating in what ways, if any, CEE contributes to HCD in Africa. It focuses specifically on training and skills building. Further, acknowledging the role of government policies in leveraging FDI for development, the study examines the role of the Nigerian government in leveraging Chinese investments in the telecom sector for HCD.

Data and analysis: This sub-study adopts a qualitative case study design (Yin, 2009), which is increasingly used in management research to investigate complex scenarios. The use of the case study approach in this study is significant as it enables the researcher to move beyond a general overview of China–Africa relations and delve deeper into individual country-level studies for a nuanced understanding of the relations and their outcomes and implications for Africa.

The sub-study investigates empirically the case of Huawei in Nigeria's telecom sector and examines the effects of its operations on skills and technology transfer. The data analysed consist of semi-structured interview responses from 29 participants – selected by purposive sampling and via the snowball technique – incidental observations and documentary analysis of policy documents, company reports, press releases and training reports. The interviewees were Huawei managers, trainers, current and ex-employees, participants of Huawei training programmes, Huawei scholarship recipients and government officials. The data generated were analysed using qualitative content analysis.

Conclusions and implications: As long as China continues to invest in African economies, the question of its effect on the continent particularly, on Africa's HCD, will remain pertinent. The findings from this study are as follows:

Chinese enterprises are indeed capable of contributing to HCD in Africa as proven in this case. The Chinese telecom firm Huawei has contributed to skills building in Nigeria through its in-house training activities for employees and the employees of its suppliers and clients. Further, Huawei's partnerships with the Nigerian government on two capacity-building programmes, aimed at promoting female participation in the ICT industry and for imparting ICT skills training to the youth to ensure employment, have seen its training activities extend to the Nigerian youth. In addition, the company's training activities also include a 'train the trainer' programme aimed at Nigerian government officials.

The Chinese MNC has also contributed to general education in Nigeria by offering university scholarships and grants in two HEIs in Nigeria. Findings show that these contributions are guided by Huawei's strategic objectives and its desire to generate positive public awareness as well as gain political capital with the Nigerian government and other industry stakeholders. This finding reinforces the notion that although MNCs do not have altruistic motives with regard to their operations in host countries, there are economic arguments for them to contribute to HCD in their host countries.

Additionally, the findings support the argument for government intervention in steering FDI for development (Reiter & Steensma, 2010). The case study shows that the Nigerian government is keen to leverage Huawei's presence for HCD in Nigeria, and they have demonstrated it by actively partnering with Huawei on HCD initiatives. Further, to encourage MNCs to contribute to HCD in the ICT sector, the Nigerian government has enacted a local content policy, which seeks to ensure that MNCs have detailed plans for job creation, recruitment of local engineers, HCD contribution and value creation for the whole ecosystem. This study highlights the important role that the private sector plays in bridging the HCD gap in sub-Saharan Africa, where the stock of human capital is lower than that in other regions of the world, and the institutional framework for HCD is relatively weak.

While there is abundant research on HCD interventions at the firm and individual level, studies that employ a national-level perspective are few in number. This work addresses the gap by examining the context of HCD and the political and institutional realities and interactions within it (see Agbebi, 2018).

5.4 Sub-study 4: Exploring the human capital development dimensions of Chinese investments in Africa: Opportunities, implications and directions for further research

Purpose and research question: This sub-study (see Agbebi 2019) builds on Sub-study 3 as it investigates and discusses the effects of CEE on three dimensions of HCD: local employment, training and skill building, and knowledge and technology transfer. These three dimensions are identified from literature and explored in the context of CEE in Africa. Using the case study of Huawei in Nigeria's telecom sector, the paper examines, firstly, the employment effects of Huawei's operations, its contributions to skills development, and is knowledge and technology transfer effects. The study also advances a working hypothesis that seeks to guide further research towards developing a theoretical framework for the study of CEE in Africa and its effects on HCD.

Data and analysis: The case analysed in this sub-study is identical to that in Sub-study 3. Data generated in this study were analysed using qualitative content analysis. The focus of this sub-study is three HCD dimensions: local employment; training and skills building; and knowledge and technology transfer.

Conclusions and implications: Based on the premise that Chinese investments in Africa can impact HCD on the continent, this study explores the presence of the HCD dimensions. The findings are as follows:

Local employment: The employment effects of Huawei's operation are significant as the company pursues a workforce localisation strategy. The company currently employs over 1000 employees in Nigeria, 70% of whom are locals. It has also engaged over 500 local partners (suppliers, subcontractors etc.). These numbers confirm that Huawei has contributed to indirect employment creation, and this effect is most likely as significant as its direct employment creation. The findings show that several factors influence Huawei's hiring practices such as its strategy, size and scale of operations, the local regulatory environment (expatriate quotas, local content policies), industry type and the presence of skilled labour.

Training and skills building: Huawei contributes to training and skills building in Nigeria via multiple routes such as in-house employee training activities, training for clients and partners, and training programmes in partnership with the Nigerian government. These findings echo other studies that show that regular employee training is a crucial component for MNCs operating in high-tech sectors because of the constant changes in technology, which is a characteristic of the industry. Huawei's external training activities, particularly those carried out in partnership with the Nigerian government, are also linked to its CSR objectives. The MNC actively collaborates with the Nigerian government and other stakeholders in the telecom industry.

Knowledge and technology transfer: To examine the extent of knowledge and technology transfer that occurred as a result of Huawei's operations, this study focused on horizontal and vertical spillovers. Horizontally, the findings showed that knowledge transfer occurred through labour mobility. Vertically, the technology transfer occurred via linkages between Huawei and its local suppliers. Supplier development programmes, technical training, and supplier/distributor training as part of Huawei's interactions with local firms are all indicative of knowledge transfer. The introduction of new technology to its customers (network operators) has also had positive spillover effects on the larger telecom ecosystem in Nigeria.

This study contributes to the literature on the impact of CEE on HCD in Africa. Unlike previous studies that have examined HCD issues within the context of other broader areas, this work offers an in-depth look at the HCD dimensions of CEE. Further, earlier studies lacked a theoretical basis to analyse and interpret the findings related to HCD. This study bridges this gap by examining the intricacies of a Chinese MNC's operations from a HCD perspective and offering theory-driven rationalisations of the findings. It also advances a working hypothesis that the HCD impact of CEE will vary across countries and sectors of the African economy because of sectoral factors and contextual conditions, such as sectoral differences, institutional frameworks in host countries, firm profile and strategy, and labour quality in the host country. The study raises some questions that when addressed in further studies can help advance a theoretical framework that will guide further research on the HCD impact of CEE in Africa (see Agbebi, 2019).

6 Conclusions

This chapter presents the main conclusions of this study. The first section presents the conclusions that are based on the overall findings of the study, in line with the study's main research questions. This chapter then discusses the theoretical contributions and practical implications of the findings. Lastly, suggestions for further research are presented.

6.1 General conclusions

Economic engagement between China and African countries has implications – whether negative or positive – for the development of the continent (Ayodele & Sotola, 2014). The Sino–African engagement is particularly significant due to the growing power and influence of China in the world and the fact that China's growing influence on the African continent has been viewed as a threat to the influence of Western powers and former colonial powers on the continent, albeit relatively (Lyman, 2005). Continued economic engagement between China and Africa has attracted much attention and scrutiny from the media, researchers, policymakers, foreign politicians and concerned individuals who question the real motives behind China's engagement with Africa and its effects on Africa's development trajectory (He & Zhu, 2018). These questions have resulted in growing research interest towards the phenomenon.

Despite a number of studies on Sino–African engagement across disciplines, several misconceptions surrounding the engagement continue to persist, mainly because of lack of knowledge and reliable data (Brautigam et al., 2017). Many scholars have therefore recommended a deeper investigation of the still evolving Sino–African engagement (Ado & Su, 2016; Brautigam et al., 2017). Thus, the motivation for this study was to shed light on the economic engagement and provide an in-depth analysis of one of the most contentious topics under the engagement: its implications for HCD. The overall research aim of this thesis was to examine the HCD opportunities and contributions of CEE in Africa. To achieve this objective, the nature and characteristics of CEE in Africa were investigated, along with its potential outcomes. Further, the HCD opportunities present in the engagement were also examined. Specifically, this study sought to answer the following research questions:

RQ1: What are the nature and characteristics of CEE in Africa?

This thesis relies on empirical data from the Huawei case study in Nigeria to answer RQ2 and RQ3.

RQ2: In what ways, if any, does CEE contributes to HCD in Africa?

RQ3: Do African governments leverage CEE for HCD? If so how?

RQ1 What are the nature and characteristics of CEE in Africa?

Through a systematic analysis of Sino–African relations using dependency theory, this study finds that the present-day Sino–African relations, manifesting in trade, capital investments and aid, are largely *economic in nature*. The engagement is driven largely by commercial and economic motives as Beijing seeks to secure crucial resources to sustain its rapid industrialisation and support its development objectives. Findings show that the current Sino–African engagement is devoid of ideological undertones that previously dominated the relations between the two parties, particularly during the Cold War era. The present engagement is focused on practical economic cooperation with concrete expectations and potential benefits for African countries and China. This finding is in line with existing research that considers China's ongoing presence in Africa to be economically motivated (Konings, 2007; Li, 2007; Schiere, 2011).

Although, China officially promotes an engagement without political conditions and partners with African countries irrespective of political systems and ideologies, a key clause is the recognition of its 'One China' principle. The 'One China' principle is the diplomatic acknowledgement that there is only one sovereign Chinese state, which is the People's Republic of China (PRC), and not the Republic of China, Taiwan (ROC). Consequently, China maintains vast trade, investments and aid links with 53 African countries, except Swaziland, which is the sole African country that maintains diplomatic relations with Taiwan (Madowo, 2019).

This study finds that the defining characteristics of the engagement emphasise a *partnership between China and African countries* geared towards achieving their common and respective development and economic objectives. Additionally, the engagement fosters a cooperation that sees China and individual African countries support one another politically and morally on the world stage. While there is an apparent power asymmetry between China and African countries owing to China's economic position, power and influence in the world, China's interaction with African countries can be considered different particularly in its framing by both China and Africa. This is in line with observations that China draws on its experiences as a developing country and espouses the principle of non-interference in domestic affairs in its relations with Africa (Alden, 2018; Li, 2007; Power & Mohan, 2010). In the face of Western countries' hierarchical approach to Africa and criticisms thereof, China's non-interference has only served to drive African countries to seek closer ties to China. Although there appears to be no shortage of commentary labelling China as Africa's new exploiter (Navarro, 2007), African governments largely view China as a development partner as opposed to a hegemonic power. The engagement is welcomed as most see China's economic success as one to aspire towards, and governments recognise that continued economic engagement has the potential to catalyse economic rejuvenation in their respective countries.

The Sino–African economic engagement can be characterised as *south-south cooperation*. China's official narrative is very much in line with the principles of south-south cooperation centred on collaboration for development. The Asian giant views its engagement with African countries as cooperation and partnership geared towards addressing common development challenges for mutual benefit. China's African policy stresses this position (He, 2007; Li, 2007).

On a practical level, the engagement is an example of south-south cooperation, where China is in a position to offer access to better technologies and solutions, owing to the relative similarities in socio-economic conditions and development issues between China and Africa. In addition to projects and engagements under the FOCAC platform, China has engaged in several projects with African countries in cooperation with the UNDP for knowledge transfer and technical cooperation (UNDP, 2016). The UNDP (2016) observes that through south-south cooperation with China, infrastructure and business environments have been strengthened in some African countries, and the influx of Chinese FDI into Africa has generated jobs in some economies.

China, drawing on its own successful experience with special economic zones (SEZs), has helped develop SEZs and industrial parks in some African countries (notably Ethiopia and Nigeria), thus supporting spatial industrial policy in Africa as well as sharing and demonstrating the effectiveness of some parts of its development model (Brautigam & Tang, 2011; Newman & Page, 2017). China's willingness to finance infrastructural projects is crucial to development on the continent. It also serve to strengthen China's image as a viable source of development finance to Africa and as a development partner. This is particularly important as China stepped in as a viable development partner at a time when development finance and assistance from Western international financial institutions (IFIs) and bilateral donors in the 1980s and 1990s was on the decline (Ayodele & Sotola, 2014). Rosseel, DeCorte, Bloomaert and Verniers (2009) opine that this period also heightened the need for mutual collaboration amongst countries in the global south instead of continuous dependence on industrialised countries of the global north.

Another defining characteristic of the China–Africa engagement is *economic pragmatism*. African leaders increasingly see China as a more viable development partner for Africa because of the economic pragmatism in the relations (Hanauer & Morris, 2014).

China's economic engagement with African countries is primarily based on an evaluation of their perceived economic potential, with more investments going to the most promising high-growth economies (Brautigam et al., 2017). This is why Taylor (1998) rightly forecasted an increase in Sino–African economic engagement.

China's approach to the engagement is economically pragmatic and free of conditionalities related to liberal economic reforms and democratic governance, which are often attached to development assistance from IFIs such as the World Bank, International Monetary Fund (IMF) and bilateral donors (Sautman & Hairong, 2009). China's 'principle of non-interference' in other countries' domestic affairs is viewed favourably by African leaders (Taylor, 1998), who consider the conditionalities imposed by the IFIs as prescriptive, not conducive to their country's development priorities and a barrier to their autonomous development plans.

In fact, China's non-interference principle may increase its popularity among African masses as it eliminates political obstacles in the speedy delivery of infrastructure (Sautman & Hairong, 2009). The principle, though heavily criticised for undermining democratic governance and supporting repressive governments and human rights violations (Chidause, 2007; Naim, 2007; Schoeman, 2007), has offered countries such as Zimbabwe and Sudan an alternative source of development finance. These countries have hitherto been penalised for their non-democratic and repressive practices and as a result have been subjected to economic sanctions by some Western governments. It is important to note that concerns about whether China can protect its economic interests in volatile countries without interfering in domestic affairs have been proven valid in light of the growing complexities surrounding China's involvement in Dafur (see Large 2008) and its support of Zanu PF in Zimbabwe (see Rotberg, 2009), which seem to cast a doubt on its adherence to its non-intervention policy.

On examining contemporary China–Africa engagement, this study finds that the engagement gives African countries *an alternative in their choice of development partners*, providing room to manoeuvre and refine their development objectives. Rosseel et al. (2009) remarked that one of the challenges in north-south engagement is the differences in the understanding of development; thus objectives, priorities and proposed actions also often differ. China's approach to development offers an alternative in that it differs fundamentally from the Western approach, which is often centred on uniform solutions to developmental needs and benchmark models for development that favour a *laissez-faire* economic approach (Besada, Wang, & Whalley, 2011). This departure is crucial for developing countries in Africa, where the Washington consensus model and its set of economic policy reforms have not succeeded in addressing economic growth and development challenges (Ramo, 2004; Rodrik, 2006; Stiglitz, 2002). This finding is in line with research that considers China–Africa engagement as an alternative for African economies (He, 2007; 2013; Moyo, 2009; Sautman & Hairong, 2007). Though some studies warn that despite China presenting Africa an alternative path to development, reliance on China to alleviate Africa's economic plight might reify Africa's dependent position in the world economy (Mason, 2017; Taylor, 2014).

Economic engagement between China and African countries despite the asymmetry of power is *not devoid of African agency*. Despite China's growing economic influence on the continent, the engagement lacks the overtones of political and economic hegemony, which has typically dominated north-south relations (Moyo, 2016). The engagement gives leeway for Africa to exert agency, allowing African state and non-state actors to steer it for the benefits of development in Africa and in line with their developmental priorities. This could be partly attributed to the FOCAC platform. FOCAC, a triennial forum where Chinese and African leaders meet to review progress and set new targets, can be said to foster shared ownership, decision making and accountability in the China–Africa engagement. The FOCAC platform ensures the presence of African agency within the engagement (van Staden et al., 2018; Were, 2018).

Van Staden et al. (2018) note that China's engagement with Africa is driven and shaped by the local environment and pressures from state and non-state actors in Africa. Actors from African countries, notably Angola, Nigeria and Ghana, have been able to exert considerable influence and autonomy in the engagement with China, leveraging it for their own economic and political gains (Mohan & Lampert, 2013; Odoom, 2016). According to Gagliardone (2018), African agency plays a central role in determining the outcomes of China's projects in Africa. The popular notion of China's dominance in Sino–African engagement has been challenged by studies that have found that both sides have considerable influence in steering the engagement to achieve their objectives (Corkin, 2013; Mohan & Lampert, 2013; Odoom, 2016).

When viewed from the dependency theory lens, the engagement signifies a *growing interdependency* tied to the domestic economic needs and long-term strategic interests of both Africa and China. The economic engagement has the potential to be mutually beneficial as long as the engagement is steered and leveraged to benefit both parties and their respective economic objectives. For China, this implies gaining access to much needed resources and new markets to meet its strategic development objectives, and for African countries, it implies receiving concrete economic gains in terms of access to revenue, infrastructural development and job creation among others.

China–Africa relations are not solely based on development assistance but on reciprocal trade and investments, which has resulted in economic gains and opportunities for both parties, further reinforcing their role as economic partners. Thus, the engagement has enabled Africa play an active role not only as a commodity exporter but also as a contributor to the global economy. It has given rise to a growing interdependency between China and African countries. This finding is in line with studies that have commented on the mutual dependence in China–Africa relations (Danquah Institute, 2019; Power & Mohan, 2008). Li Anshan (2006), the renowned China–Africa scholar describes the interdependence as follows: 'Although Africa might need China, China definitely needs Africa more for her development process' (as cited in Power & Mohan, 2008). Some studies hold a different view, opining that although China's engagement with Africa reduces Africa's dependency on the west, it merely diversifies dependency (Mason 2017, Taylor 2014) which could potentially result in a state of managed 'multi-dependency' for African countries (Mason 2017:93).

Thus, to answer RQ1 of this study, the findings suggest that *Sino–African engagement is largely economic in nature* and driven by commercial and economic motives of both China and Africa. The engagement constitutes a *partnership between China and African countries* and is a *practical example of south-south collaboration*. It is *economically pragmatic* and *offers Africa an alternative in its choice of development partners* (see Agbebi & Virtanen, 2017). Present within the engagement is African agency in various forms and levels, which allows governments of African countries to negotiate, shape and steer the engagement towards their respective objectives. Finally, *the engagement signifies a growing interdependency between China and Africa* driven by strategic interests and objectives of China and African countries. The engagement presents both opportunities and challenges for Africa – opportunities to realise economic gains and a challenge to steer the engagement in a direction that is beneficial to Africa's development while mitigating the negative effects that could arise, particularly in relation to debt sustainability, trade imbalance and environmental degradation.

In addition to addressing RQ1, this study employs dependency theory and human capital theory to develop a framework for understanding the outcomes of economic engagements between nations. The last few decades have witnessed significant economic and political transformation globally that has influenced the state of economic interactions between countries. The formation of BRICS, an increase in south-south trade and investments, the formation and growing influence of regional economic blocs etc., have strong implications for development. However, there is no overarching framework in management research to investigate these engagements, how they interact with the national context of the host country and their impacts. This is important as these new forms of engagement could shape the development discourse in Africa. This framework proposed in this study can be instrumental in understanding the outcomes of economic engagements between nations. The framework is discussed in detail in Section 2.3 and in Sub-study 2 of this thesis (see Agbebi, Stenvall, & Virtanen, 2018). Sub-study 2 also explains how the framework can be applied to analyse CEE with Africa. By developing the framework, the study aims to further the understanding of CEE and how its potential outcomes for Africa can be investigated from an HCD perspective.

The framework identifies three variables as crucial to understanding the outcomes of economic engagement: the nature and dynamics of the economic engagement, the contextual features of the nation state and the degree of readiness of the nation state and its institutions to appropriate the benefits of an economic engagement. This study posits that the presence and interactions of these variables will determine the potential outcomes, both negative and positive, of economic engagements between nation-states. With regard to Sino–African engagement and its possible outcomes for HCD, this study argues that while HCD opportunities are inherent to CEE with Africa, these opportunities can only be accrued if African governments develop and implement appropriate policies to leverage CEE for HCD in their respective countries. The study further highlights that the outcomes will vary in different African countries owing to the presence and interactions of the aforementioned variables.

RQ2 In what ways, if any, does CEE contributes to HCD in Africa?

Building on the premise that economic engagement between China and individual African countries creates opportunities for HCD in Africa, this study addresses RQ2 by analysing data from a case study of Huawei's operations in Nigeria's telecom sector. Findings reflect that Chinese enterprises operating in Africa are well placed to contribute to local employment generation, training and skills building, and technology and knowledge transfer via their operations and investments in the host country.

Huawei contributes to local employment by employing host country nationals in its operations in Nigeria. This study finds that Huawei contributes to both direct and indirect local employment. Huawei pursues a workforce localisation strategy in Nigeria, with locals (i.e. host country nationals) accounting for 70% of its 1000+ employees. The company has also engaged over 500 local partners (suppliers, subcontractors, etc.), thus generating indirect employment in Nigeria. This finding echoes reports that the scale and diversity of Chinese investments in Africa have created ample potential for job creation in the host countries (Calabrese, 2016; He & Zhu, 2018; Lin, 2016). The study finds that the following factors influence Huawei's hiring practices in Nigeria: the firm's strategy, its size, the scale of its operations, the local regulatory environment (expatriate quotas, local content policies), the industry it operates in and the availability of skilled labour.

In terms of training and skills transfer, this study examines Huawei's training activities and its effects on HCD. Huawei regularly trains its employees and extends the training to its partners, employees of suppliers, clients, Nigerian youths and government officials. Training modalities such as employee training in various forms, training for clients and partners, training programmes in partnership with the government have been utilised, all of which contribute to skills buildings on different levels.

Huawei also contributes to general education in Nigeria by lending support via grants, scholarships, and equipment. Further, training and skills-building programmes for Nigerian youths are implemented through a partnership between the Nigerian government and Huawei. This mode of training not only represents an example of how a Chinese firm directly contributes to human capital formation in the host country but also shows how governments can directly leverage FDI for HCD. Effects of Huawei's training on employability and on skills and technology transfer have been largely positive, with trainees gaining internships and employment with Huawei and ex-employees leveraging the acquired knowledge and skills to further their careers in other organisations.

Findings show that the motives underlying the training activities are not altruistic; rather they are shaped by the nature of Huawei's operations, its organisational strategy, the availability of skills in the host country and several contextual factors. This study enables a broader view of how Chinese enterprises, and MNCs in general, can contribute to human capital formation, their motives for doing so and how the host government can leverage these investments for HCD.

In terms of skills and technology transfer, this study find that skills and technology transfer have occurred through labour turnover and vertical linkages. Close links between Huawei and local suppliers, an active supplier development programme and training for local suppliers and clients set the stage for technology and knowledge diffusion to occur, which in turn enhances the capabilities and productivity of local firms.

On the basis of the findings from the case study, one could argue that Chinese enterprises are well placed to contribute to HCD in Africa; however, this contributions are dependent on several sectoral and contextual factors. Thus, the study advances the following working hypothesis to guide future studies: the degree to which CEE contributes to HCD will vary across countries and sectors of the African economy.

It is important to stress that the purpose of the study is not to generalize based on the case of Huawei in Nigeria but to draw on findings from the case to support the conceptual argument that CEE creates opportunities for HCD in Africa. It is necessary to clarify how this research should be approached in reference to other contexts in Africa.

In the case of Huawei in Nigeria, the study concludes that CEE in Africa can and does contribute to HCD in Africa and also stresses that 'the HCD impact of CEE will vary across countries and sectors of the African economy' due to differences in sectoral and contextual conditions, such as sector characteristics, institutional frameworks in host countries, firm profile and strategy, and labour quality in the host country. The particular factors that can be drawn out from this case includes: *Firm profile and strategy* (Huawei's large scale operations in Nigeria and its active localization strategy); *industry sector* (telecom sector is a high tech sector, requires skilled workers and regular employee training to keep up with advances in technology) *labour quality* (availability of skilled local workers in the telecom sector in Nigeria); *policy and regulatory environment* (regulation pertaining to work permits and expatriate quotas, local content requirement guidelines). These factors were found to have influenced Huawei's labour related practices resulting in local employment creation, high workforce localization rate, training and skills development of locals, as well as knowledge transfer and contribution to tertiary education in Nigeria (see sub-study 4 – Agbebi, 2019 and Chapter 5 and 6 of this summary).

This study stresses that these conditions will vary across all African countries and in every Chinese enterprise thus reinforcing the working hypothesis advanced in sub-study 4 to guide for future studies 'the HCD impact of CEE will vary across countries and sectors of the African economy' due to differences in sectoral and contextual conditions. The finding of this case and the working hypothesis advanced, sheds a deeper insight into the erstwhile contradictory reports on the labour related effects of Chinese investments in Africa. To illustrate, the widespread criticism that Chinese companies are unwilling to hire local workers which emanated from news reports (Flynn, 2013; Lorenz & Thielke, 2007) need to be understood within a context. This is because the employment effects of Chinese investments may differ according to the skills composition in the host country, the regulatory environment, the duration or time sensitivity of a project, the size of the enterprise, its strategy and the sector it operates in.

It is important to draw attention to some arguments made in chapter 3.3 of this summary, which presents examples from existing studies of the how HCD effects of CEE is influenced by the different contexts in the host country and organisation. This, alongside the evidence from this case, highlights the importance of the context and the merit of the working hypothesis advanced in this study. This thesis highlighted how host country policies that require MNCs to implement training and skills transfer programmes can influence the employment creation and knowledge transfer effects of Chinese enterprises as seen in the case of Chinese investments in Rwanda's manufacturing sector (see Eom, 2018). This study emphasised how the duration of operations of Chinese projects and enterprises also determine their level of workforce localisation as seen in the case of Ethiopia (see Tang, 2016). This study highlighted that the presence and quality of labour in the host African country also determines the extent of workforce localisation in Chinese companies in Africa. This is so in the case of Angola, where the lack of skilled labour was identified as a major impediment to workforce localisation in Chinese enterprises in the country (see Corkin, 2012). This study highlighted how the motivations of African governments and presence/lack of clear policies also influence the employment creation effects of Chinese investments and their long-term contribution to HCD in their host country as in the case of Angola and DRC (see Tang, 2010).

Findings from this study support the assertion that there is room for human capital gains for Africa within the China–Africa economic engagement (He & Zhu, 2018; Sautmann & Hairong, 2015; Tang, 2016) and that the context in the host country and organisation can play a crucial role in understanding the HCD implications of the engagement (King, 2013). It is in this light that the findings of this study be understood in reference to other contexts in Africa

RQ3: Do African governments leverage CEE for HCD? If so how?

As part of the case study, this study examined how the Nigerian government leverages CEE for HCD. Findings showed that the government recognises that FDI in this sector, and in this case Chinese FDI, could significantly contribute to HCD and has taken measures to encourage MNCs to upgrade their operations. The Nigerian government specifically has done so by way of the local content policy in ICT, which encourages MNCs in the sector to meaningfully engage in local employment, train local workers and create value for the local ecosystem by engaging local firms in their supply chain. While the policy is still in its early stages and therefore its impact cannot be adequately evaluated, it clearly represents a step by the government towards leveraging FDI for HCD in the ICT sector. Findings reveal that the government has been proactive in its approach to leverage Huawei's investments for HCD by collaborating with Huawei on several skills-building and enhancement programmes in Nigeria. These findings align with studies that have observed increasing actions from African governments in leveraging Chinese investments to support the domestic economic goals of job creation, as in the case of Rwanda (Eom, 2018), and industrialisation as in the case of Ethiopia (Lin, 2016; Tang, 2016).

This study concludes that there are indeed opportunities for HCD within CEE, though these opportunities vary according to country and sectors of the African economy. Further, Chinese enterprises are well placed to contribute to HCD through their operations in the host countries in Africa, and the host government has an important role to play in maximising these opportunities. Several policies targeting FDI attraction and upgrade can be effective in leveraging these engagements for HCD. While it is not a given that the activities of Chinese enterprises will contribute to HCD, findings from this research suggest that it is in their economic interest to do so. This is because their contributions to HCD, especially those linked to their CSR initiatives in their host country, help build a positive public image within and outside their host country and with their stakeholders. Vogel (2005) posits that firms will behave responsibly not solely for altruistic purposes but because being a responsible firm is a source of competitive advantage, and this is particularly so for firms that are highly visible and vulnerable to reputational damage. Moreover, HCD contributions are a way to earn political capital with their host government and industry stakeholders, which in turn could prove beneficial to the company's operations in the host country, particularly in African countries (Corkin, 2011).

6.2 Theoretical contributions

This study has several implications for the academia, specifically for those interested in the discourse of China–Africa relations and economic engagement.

China–Africa discourse and studies

The recurring themes in academic and policy research on China–Africa relations have centred on the impact of the engagement on economic development in Africa, mostly in the area of infrastructure and natural resources. In addition, scholars have examined the impact of Chinese economic interest on African security and conflicts in the region, migration patterns of Chinese into Africa and Africans into China, media representations of China–Africa relations and the impact of the engagement on environment and public health (Alden & Large, 2019). Labour practices of Chinese enterprises in Africa and the impact of the engagement on HCD are among the most contentious issues in the relations (King, 2013). However, academic research on the topic, though gaining momentum, has been limited. This study addresses this gap by examining the HCD dimensions of China–Africa economic engagement and investigating its implications for HCD in Africa as a whole.

This study responds to calls for research that provide more than a general overview of China–Africa relations, such as empirical investigations based on country-specific case studies, for a deeper understanding of the engagement (Brautigam, 2017). Among the key contributions of this thesis is that it provides empirical evidence on the implications of the China–Africa economic engagement for HCD in Africa by examining the case of Huawei in Nigeria. The study finds that Chinese enterprises in Africa are well placed and do contribute to HCD in the form of employment creation, training and skills building, and knowledge and technology transfer. Further, host government policies can leverage these investments for HCD. While CEE with Africa ushers opportunities for HCD, these opportunities are likely to vary across sectors and countries because of the differences in sectoral and contextual conditions.

Factors such as the type of industry sector, the regulatory environment pertaining to expatriate quotas, work permits, local content requirements, availability of skilled labour in the host country, the firm's strategy, its size and its scale of operations impact the labour-related practices of Chinese enterprises in Africa and the HCD implications of the engagement. Thus, investigations, analyses and interpretations of the findings on the HCD implications of China–Africa economic engagement should include an analysis of these sectoral and contextual conditions.

By relying on existing research and theoretical viewpoints on the links between FDI and HCD enhancement, this study provides a deeper analysis and nuanced understanding of the HCD implications of China–Africa economic engagement. It addresses enduring narratives surrounding the labour practices and operations of Chinese enterprises in Africa, some of which include the use of convict labour, reluctance to hire local workers and poor working conditions. Some of these claims are a result of reports and studies lacking theoretical, methodological and analytical rigour (Ado & Su, 2016; Brautigam et al., 2017; Oya & McKinley, 2016). This study as such highlights and addresses the drawbacks in extant literature stemming from the lack of theoretical underpinnings and poor analysis of findings that have contributed to fragmented and conflicting accounts of China–Africa engagement (Ado & Su, 2016) and its impact on HCD (King, 2013). This study proffers a working hypothesis that *the HCD impact of CEE in Africa will vary across industry sectors and countries because of the differences in sectoral and contextual conditions* (see Agbebi, 2019). Studies adopting this viewpoint will promote a deeper understanding of the HCD implications of CEE in Africa.

This study responds to calls for an increase in theoretically grounded studies on China's engagement in Africa (Alden & Large, 2019; A'Zami, 2015) and its implications for Africa's development. While the number of studies on the engagement are on the rise, they have been largely 'under-theorised and fragmented' and mostly events-driven (Alden & Large, 2019). By relying on the frameworks of dependency theory and human capital theory to examine China–Africa economic engagement and its HCD implications in Africa, this study addresses a crucial gap. In so doing, it facilitates a deeper understanding of the engagement and its implications from a theoretically sound viewpoint.

Dependency theory, though instrumental in analysing systems-level relationships, has traditionally been deployed to analyse and explain north-south relations and the consequences for development in the global south (Kruger, 2009). This study, however, extends the application of the theory to analyse Sino–African engagement (an example of a south–south engagement) and its implications for development in Africa. Thus, this work draws attention to dependency theory as an important analytical lens to examine not only North-South relations but cross-national economic relations within the global south. It may help answer questions such as 'can exploitative relations also emerge within south-south economic relations, resulting in a diversification of dependency?'.

Study on new forms of economic engagement

This study puts forth a framework that can advance the understanding of the outcomes of new forms of economic engagements such as the China–Africa economic engagement. This overarching framework, presented in Section 2.3 and in Sub-study 2, can guide management researchers in investigating new patterns of economic engagement, how they interact with the national contexts of a country, its institutions and organisations and the potential outcomes of such engagements. The framework when utilised, could further shed insights into these new forms of economic engagement and their wider impact on development.

This framework could also be useful in guiding studies on economic engagement within the context of the global south relations i.e. south-south economic engagements. Such engagements could significantly affect the development trajectory of the countries and thus warrant more research attention (Gray & Gills, 2016). The use of the framework to investigate CEE in Africa can help examine arguments such as whether the relative similarities in the socio-economic conditions between China and Africa offer better prospects for socio-economic development in Africa. Research using this framework might disprove or confirm arguments that international economic engagements within the auspices of globalisation are inherently exploitative (Kruger, 2009) regardless of the nature of the economic partners involved in such engagement. Further, the use of the framework can be useful in investigating the readiness of African nations and institutions for leveraging economic engagements for their development objectives and the approaches that they should employ.

The case for host government interventions and the role of the private sector in HCD

Findings from this study corroborate the arguments for government intervention in steering FDI for development (Reiter & Steensma, 2010; te Velde, 2002). The findings show that through policies, such as the local content policy, and strategies involving active collaboration with MNCs, governments can encourage MNCs to contribute to HCD in their host countries and in this case leverage China–Africa engagement for HCD. Typically, studies on the development of human capital have focused on internal organisational processes and interventions to enhance individual and organisational effectiveness (Garavan, 2007; Hamlin & Stewart, 2011). This study partly shifts the attention to a macro level by focusing on how the private sector could contribute to HCD at a national scale. Thus, this work contributes to the ongoing discussion on how the private sector can complement weak governmental institutional frameworks for HCD (Business Action for Africa, 2010; Harvey et al., 2002; Jackson, 2012; Mamman, Kamoche, Zakaria, & Agbebi, 2018; Nsouli, 2000) by supporting education and capacity-building efforts, particularly in developing countries. Private sector involvement could potentially bridge the HCD gap between African countries and the rest of the developed world.

In conclusion, this study serves to de-sensationalise unpolished narratives about China's role in Africa by providing verifiable empirical analysis of the engagement. It also helps advance scholarly inquiry on HCD dynamics and the implications of China–Africa economic engagement by interpreting the findings and suggesting areas of further research that can enhance one's understanding of the engagement and its implications for HCD in Africa.

6.3 Practical implications

With regard to understanding China–Africa engagement, this study finds that the economic ties are laden with expectations from both parties. China on its part seeks to promote its own economic interests on the continent by securing much needed resources to supports its industrialisation and secure markets to support its 'Go Out strategy' (Alessi & Xu, 2015; Haroz, 2011). On the other hand, the African nations expect to make concrete economic gains in terms of influx of much needed capital into crucial sectors of their economy, infrastructural development, jobs creation and knowledge transfer (Adem, 2016). China's economic success and its principles of engagement with Africa lend it a unique level of credibility, allowing it to be viewed as a development partner for Africa (Adem, 2016).

The findings from the sub-studies indicate that there is room for these expectations to be met on both sides. In other words, this engagement could contribute towards fostering economic growth and development in Africa, if properly leveraged by African governments. It is important to acknowledge the challenges within this engagement, such as striving for a balance in China–Africa trade, promoting responsible investment practices, especially in vulnerable sectors, and addressing the financial burdens that could arise from Chinese loans to Africa.

In order to maximise opportunities and overcome challenges, African leaders need to assert more agency and ownership within the engagement (Corkin, 2013; Chen et al., 2016; Mohan, 2016; Mohan & Lampert, 2013). This would enable them to steer the engagement in ways that catalyse growth and development in crucial sectors of the economy and foster socio-economic development on the continent as a whole. Evidence from this study and existing research on China–Africa relations (Eom, 2018; see Fei, 2018) has shown that in instances where certain African governments have taken a proactive stance towards Chinese investments, they have been able to direct Chinese investments to crucial sectors of their economy to address issues like job creation, skills development and knowledge transfer. Ethiopia is an example of a case where the government has managed to leverage Chinese investments to accelerate high-productivity manufacturing and a shift towards an export-based economy from a primarily agriculture-based economy (World Bank, 2012). This move has led to an influx of Chinese investments to Ethiopia's light manufacturing sectors such as garment manufacturing and footwear industry. These investments have resulted in the creation of jobs for locals, aided skills and technology transfer and fostered an exports-based economy in Ethiopia (Lin, 2016).

In addition to promoting industrialisation on the continent, this engagement has the potential to address the human capital gap in Africa. Human capital is one of the most important drivers of development, particularly on the African continent. This is because the high population growth rate in Africa will play an important role in shaping the size and distribution of the world's population (UN, 2017) and the global workforce over the next few decades, yet the countries on the continent have a relatively weak institutional capacity for HCD. Apart from infrastructural deficit, which is considered a barrier to economic development (Arezki & Sy, 2016), low stock of human capital is a key deterrent to economic growth and development on the continent (Hall & Jones, 1999; Lynham & Cunningham, 2006).

Interventions by international institutions and private sector participation have been instrumental in addressing this deficit (Business action for Africa, 2010; Harvey et al., 2002). Similarly, FDI plays a crucial role in human capital formation – the influx of capital can boost host country revenue, which can then be used to fund training and educational programmes. Further, human capital can be directly enhanced through MNCs operations (Majeed & Ahmad, 2008; Slaughter, 2002). While African governments have been successful to varying degrees in attracting Chinese investments and in some cases leveraging these investments for development (Eom, 2018; Fei, 2018), the scope for improvement cannot be denied. Governments need to focus simultaneously on attracting these investments and employing measures that encourage Chinese MNCs to offer more value-added processes and deepen linkages with local firms to ensure knowledge and technology diffusion.

This can be done by enacting and implementing policies like the local content policy, designed to encourage local value creation in MNC operations in the host country. Local content policies can promote workforce development (in terms of employment and training of local workforce) and supplier development (backward and forward linkages with the local suppliers in the industry) (Ramdoo, 2016; Stone, Messent, & Flaig, 2015; Weiss, 2016). There has been a growing interest in local content policies around the world, particularly in countries with an active extractive industry (Weiss, 2016). Though the debate on the efficacy of such policies continues (Weiss, 2016), countries such as Norway, Chile and Brazil have been relatively successful at implementing the policy in their extractive industries, which benefit from their natural resources (Ramdoo, 2015). The adoption of such policies is, however, not limited to the extractive industry. For example, this study shows how Nigeria has adopted the local content policy in the ICT sector.

The local content policy in Nigeria's ICT sector, similar to the one employed in its oil and gas sector, is focused on the creation of value additions. Specifically, the policy aims to 'achieve the development of local skills, technology transfer, use of local manpower and local manufacturing' (NITDA, 2013, p. 6). The local content guideline requires MNCs to provide a local content development plan for job creation, HCD and value creation in the local ecosystem. The implementation of the policy can help leverage FDI for local job creation and establish and strengthen linkages between MNCs and the local industry. This in turn can promote skills enhancement and knowledge and technology diffusion in the local industry. Thus, African countries can leverage Chinese investments in crucial sectors of their economy for HCD through the use of local content requirements. The host country governments should work in collaboration with the local industries and MNCs to achieve their policy objectives.

Policies such as the local content policy can encourage local participation in the ICT value chain by requiring MNCs to use locally sourced material where available and local suppliers and sub-contractors to carry out services that might otherwise be outsourced to foreign firms. The local content policy in the Nigerian oil and gas sector has proven effective in creating linkages in the value chain and increasing local labour and industry participation in the sector (Adedeji, Sidique, Abd Rahman, & Law, 2016; Adewuyi & Oyejide, 2012). In this study, findings show that Huawei is actively engaged with local suppliers and subcontractors in its operations in Nigeria, although it is unclear how much of an effect the local content policy in ICT has had on Huawei's operations, as the policy is still in its early implementation stages.

In order for local content policies to have a significant effect on the recruitment of local workers into highly skilled positions, it is important that the skills supply matches the skills demand of the MNCs. Thus, this study recommends that African hosts governments should focus on training and education to upgrade the skills available locally and close existing skills gaps. Apart from investments in education systems, governments could encourage partnerships between MNCs and local educational institutes. Previous research has shown that MNCs can and do contribute to educational development in their host countries (Blomström & Kokko, 2002; te Velde, 2002). This study has found that Huawei is involved in a couple of partnerships with educational institutes, providing scholarships and equipment to tertiary institutions in Nigeria. This level of partnership could be deepened to include partnerships on degree programmes, certifications, innovation labs, internships and co-creation labs, where the students can work directly with the MNCs. In the long run, such measures will ensure that the local educational institutes produce graduates whose skill levels match the labour market demands.

This study also highlighted that close partnerships between governments and MNCs on employment and training programmes could be instrumental in creating local employment and upgrading local skills. The case study bears testimony to the fact that MNCs are willing to collaborate with the host country on training programmes as they stand to benefit just as much as the local populace. In other words, such involvement allows the MNC to position itself as a responsible corporation in the host country. This is in line with previous research that shows that MNCs often engage in CSR activities to promote a positive image of their organisation (Vogel, 2005). This is also true in the case of Chinese companies who engage in developmental programmes in host African countries to earn useful political capital (Corkin, 2011). Such collaborations could be deepened for example by encouraging more public-private partnerships on training and skills building that are mutually beneficial. Organisations can benefit from making their contributions sustainable, and the host government can help create a long-term positive impact on HCD.

This study reiterates that the institutional framework for HCD in most African countries is weak and thus interventions from the private sector play a crucial role in bridging skills gaps in important industrial sectors. It is imperative that the African governments employ effective policies and strategies like those discussed above to leverage CEE for HCD in their respective countries.

6.4 Suggestions for further research

China's presence in Africa has no doubt garnered considerable interest over the past decade. The relations between the Asian giant and the African continent have been the focus of researchers across several disciplines, including economics, management, politics, international relations and international development. Despite the growing literature on Sino–African relations, knowledge about CEE and its implications for HCD in Africa was scarce (Ado & Su, 2016; Brautigam et al., 2017; King, 2013). The purpose of this thesis was to address this gap. This summary and the four sub-studies addressed have achieved this objective varying degrees. As the results of this study demonstrate, Sino–Africa relations represent a case of growing interdependency among the nations involved, and this engagement can contribute to HCD in Africa.

Future research on China–Africa relations should be pursued from a viewpoint of interdependency between systems. Such an analysis will enable researchers to uncover the different elements that constitutes the relationship, interaction amongst these elements and their collective impact on Africa's socio-economic development. While this study focused primarily on the implications of the engagement for HCD, future research could focus on other socio-economic aspects that could be influenced by this engagement.

One of the contributions of this study is a conceptual framework to guide research on the new features of economic engagement between countries. A sub-study showed how the framework could be used to investigate the HCD potential inherent to CEE in Africa. In future, studies can use the framework to investigate the extent of knowledge and technology diffusion between China and Africa within the auspices of this engagement. Further, scholars can investigate the engagement from a south-south cooperation perspective, with a focus on policy learning and transfer between developing countries in the global south, in this case, China and African countries. Such research can help verify claims that developing countries under south-south cooperation can access appropriate technologies and solutions for tackling development issues because of the similarities in their socio-economic conditions. Thus, in the case of China–Africa engagement, the question of whether or not China is a more viable development partner for Africa can be explored further using the developed framework.

Another area of investigation that could yield theoretical inputs from a good governance perspective pertains to policy formulation and implementation readiness for appropriating the potential benefits of economic engagement. This investigation can help determine the capacity of African governments to leverage CEE for development in their respective countries. This study posits that China's economic engagement with Africa offers Africa a choice in development partners and enhances development opportunities on the continent. It would be interesting to see how various African governments leverage these opportunities and exploit their current engagements with China for their developmental needs.

From an HCD perspective, research can explore the HCD dimension of Chinese SEZs. SEZs have come to symbolise Sino–African economic cooperation in Africa (Brautigam, 2011). The Chinese Ministry of Commerce (MOFCOM) currently supports the development of SEZs in selected African countries, namely Zambia, Egypt, Nigeria, Mauritius, Algeria and Ethiopia (Brautigam & Tang, 2011). Similarly, Chinese enterprises have also set up industrial zones independent of MOFCOM in countries such as Ethiopia and Nigeria (Brautigam & Tang, 2011). These zones could potentially spur industrialisation and contribute to HCD through local job creation, training and skills transfer, and knowledge and technology diffusion. Future studies could investigate the effects of these SEZs. Such studies would contribute to the growing literature on Sino–African economic engagement and its implications for socio-economic development in Africa and specifically for fostering industrialisation in Africa. Findings from such studies could also add to the literature on the links between FDI and human capital formation in host countries.

While there is ample research on the topic from the perspective of MNCs from developed countries operating in other developed and developing countries, data on developing-country MNCs operating in developing countries remain scant.

Another avenue of research that could generate interesting insights about the HCD contributions of CEE in Africa is China's capacity development programmes with Africa. Action plans from the recently concluded 2018 FOCAC summit saw China commit to providing tailor-made training programmes for 1000 high calibre Africans, 50,000 scholarships and 50,000 training opportunities in form of seminars and workshops (FOCAC, 2018). Future research could examine China's short-term training programmes for African officials. Little or no research has been carried out on the effects of these short-term trainings on capacity-building of African public officials and its political undertones or implications.

Another aspect of China's HCD cooperation that has not been adequately explored is Chinese scholarship programmes for Africa. China has funded university scholarships for African students for decades; however, not much is known about the intricacies of these scholarships. It would be interesting to investigate the exact number of African students on Chinese government scholarships and their selection criteria. Studies could aim to answer questions such as the following: what are the effects of the scholarships? Do recipients return to their home country after their studies or remain in China? What effects do the scholarships have on future employment prospects of the scholarship recipient? Do scholarship recipients work for Chinese companies operating in their home country once they return? Findings from such studies can shed light on wider issues of socialisation of African youth via Chinese higher education, brain drain in African nations, Chinese soft power elements in Africa, etc. Studies investigating the modalities and effects of these training programmes and scholarships on HCD can enrich one's understanding of the different modes through which CEE could contribute to HCD in Africa.

In general, such studies may offer a deeper understanding of Sino–African economic engagement and its implications for HCD, and more importantly, they can contribute to unravelling what economic cooperation with China really means for Africa's development trajectory. They may also help dispel preconceived notions and enduring myths surrounding CEE in Africa, replacing them with an informed understanding of the engagement generated from evidence and robust research.

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Appendices

Appendix 1: Author's role and contribution in the co-authored articles

Appendix 2: List of interview participants and schedule

Appendix 3: Sample of Introduction letter

Appendix 4: Consent form

Appendix 1: Author’s role and contribution in the co-authored articles

Article	Sequence of authorship	Name of co-authors	Responsibilities of authorship								
			Conception	Design	Research material acquisition	Analysis of material	Interpretation of material	Drafting the article	Revising the article	Final approval	Other contributions
Article I	1	Agbebi, M.	☒	☒	☒	☒	☒	☒	☒	☒	
	2	Virtanen, P.		☒					☒	☒	Doctoral co-supervisor
Article II	1	Agbebi, M.	☒	☒	☒	☒	☒	☒	☒	☒	
	2	Stenvall, J.		☒					☒	☒	Doctoral supervisor
	3	Virtanen, P.		☒					☒	☒	Doctoral co-supervisor
Article III	1	Agbebi, M.	☒	☒	☒	☒	☒	☒	☒	☒	
Article IV	1	Agbebi, M.	☒	☒	☒	☒	☒	☒	☒	☒	

Appendix 2: List of interview participants and schedule

Code	Affiliation/ Role of Interviewee	Number of Interviewees	Location	Interview Format	Date of Data Collection
		Government			
R1, R2	Federal Ministry of Communications Technology	2	Abuja	Face to face (Individual)	30 March; 7 April 2016
R3	National Communications Commission	1	Abuja	Face to face	8 April 2016
R4	Federal Ministry of Trade and Investment	1	Abuja	Face to face	6 April 2016
R5, R6	Federal Ministry of Labour and Productivity	2	Abuja	Face to face (Paired)	4 April 2016
R7	One Stop Investment Centre (OSIC)	1	Abuja	Face to face	29 March 2016
R8, R9, R10	Nigerian Investment Promotion Corporation	3	Abuja	Face to face (Individual)	29 March 2016
R11, R12	National Information Technology Development Agency	2	Abuja	Face to face (Individual)	6 April 2016
R13, R14	Office of National content in ICT	2	Abuja	Face to face (Individual)	30–31 March 2016
T1, T2, T3, T4	Trainee – 1000 Girls in ICT Training programme	4	Remote Contact	Skype interview	17 June– 22 July 2016
R15	University of Lagos Student Affairs Official	1	Lagos	Face to face	22 March 2016
S1, S2	Beneficiaries of Huawei–UNILAG Scholarship	2	Remote Contact	Skype	16 June 2016
		Huawei			
R16, R17, R18	Ex-employees	3	Remote contact	Skype	2 August 2016–19 May 2017
		Current employees			
R19, R20	Engineer	2	Lagos	Face to face; Skype	15 March 2016; 4 October 2016
R21	Manager	1	Lagos	Face to face	15 March 2016
R22	Training Centre Manager	1	Abuja	Email communication	10 May 2016
R23	Trainer	1	Abuja	Face to face (Individual)	7 April 2016
Total number of interviewees		29			

Appendix 3: Sample of Introduction letter

Dear Sir/Madam

Introduction and Cooperation for data collection

This is to inform you that Motolani Agbebi is a doctoral candidate at the School of Management, University of Tampere, Finland. Ms. Agbebi is working on her doctoral dissertation entitled Chinese economic engagement in Africa: Potential opportunities for human capital development and implications. The study particularly focuses on examining the contributions of Chinese enterprises to human capital development in Nigeria and the Nigerian government's efforts in leveraging this engagement for human capital development. This research is very important in the discourse of China-Africa relations and in particular in highlighting how this engagement might contribute to development in Africa.

Thus, Ms. Agbebi will collect data from your organisation that are relevant to this study. She aims to conduct interviews with key persons actively involved in the management and operations of your organisation. I can assure you that any data collected will be used solely for research purposes, your responses will be made anonymous. Only Ms. Agbebi will have access to the data and information collected during this study. The successful completion of her research would be an important input to further the understanding of Sino-African relations and its implications for human capital development in Africa.

Therefore, I kindly solicit your cooperation and request that you grant her access to any relevant information useful for her research. If you have any questions, please do not hesitate to contact me via email or telephone.

Yours faithfully

Professor Jari Stenvall
School of Management
University of Tampere, Finland.
Email: jari.stenvall@staff.uta.fi
Telephone: +35840828435

Appendix 4: Consent form

CONSENT FORM

I have read the information presented in the information letter about a study being conducted by Motolani Agbebi of the School of Management at University of Tampere, Finland. I have had the opportunity to ask any questions related to this study, to receive satisfactory answers to my questions and any additional information needed.

I am aware that excerpts from the interview may be included in the dissertation and or publication to come from this research, with the understanding that the quotations will be made anonymous.

I was informed that I may withdraw my consent at any time by advising the researcher.

With the full knowledge of all foregoing, I agree, of my own free will to participate in this study

	Yes	No
I grant the researcher permission to tape-record this interview	Yes	No
I grant the researcher permission to use my responses in the study	Yes	No

Name of participant ______________________________

Signature of Participant ______________________________

Date ______________________________

Name of researcher ______________________________

Signature of Researcher ______________________________

Date ______________________________

Original Publications

PUBLICATION
I

Dependency Theory: A Conceptual Lens to understand China's presence in Africa

Motolani Agbebi and Petri Virtanen

Forum for Development Studies, 44(3), 429-451
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Dependency Theory – A Conceptual Lens to Understand China's Presence in Africa?

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Dependency Theory – A Conceptual Lens to Understand China's Presence in Africa?

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Abstract This conceptual article explores the evolution of dependency theory and deploys the theory to understand China's contemporary presence in Africa as a case study to provide new insights into the usability of this theory and its fundamental concepts. To this end, this article provides commentary to dependency theory and develops further its theoretical foundations from the viewpoint of this case example. In an attempt to understand and explain the phenomenon of contemporary Sino-African engagement, we explore dependency theory in order to unpack the complexity inherent in China's contemporary presence in Africa and ask whether this 'system-level' relationship is likely to end in a similar fashion as espoused by dependency theorists in their analysis of North–South relationship. This article concludes that straightforward deployment of dependency theory does not suffice in the light of contemporary Sino-African engagement. We opine that China–Africa relationship suggests a case of growing interdependency. We conclude that beyond the economic partnership, cooperation and solidarity, China's presence in Africa presents Africa a challenge to question the status quo, re-orient their values and to adopt an inward focus on their developmental needs and priorities.

Keywords: dependency theory; China Africa; development; economic engagement

Introduction

Dependency theory emerged in the late 1950s in response to concerns of the gap between rich and poor countries and that economic growth in the advanced industrialised countries did not lead to growth in the poorer countries (Ferraro, 2008). Studies carried out by Raúl Prebisch, the then Director of the United Nations Economic Commission for Latin America (UNECLA) and his colleagues suggested that economic activity in the advanced countries does not benefit the poorer countries but often resulted in serious economic challenges in poorer countries (Ferraro, 2008). Dependency theory thus became an important tool to analyse development and underdevelopment in the international political economy (Namkoong, 1999).

As succinctly put by Brown (1985, p. 62),

> There is no single coherent body of thought that can accurately be described as 'dependency' theory. Instead various theorists stress the key notion that some countries (or economies) are conditioned in their development by their dependence on other countries (economies).

Assessing Brown's viewpoint 30 years later it is reasonable to still think that, despite the rich intellectual ideas, debates and writings from dependency theorists of different leanings, there is still no single unified theory of dependency.

Despite the intellectual disagreements among dependency theorists there remains some basic agreements among them, namely the view that the world is divided into two parts, the centre-industrialised countries and the periphery/the underdeveloped countries, and that this structure also exists within a state; while they do not all employ the use of the term centre/periphery, their approach to the structure of the international system remains the same (Namkoong, 1999). They argue that trade between the centre and periphery is characterised by unequal exchange, which has resulted in underdevelopment of the periphery. They agree that underdevelopment in third world countries can be linked to the expansion of the world capitalist system. In order to shed more light on the diversity of ideas that constitute dependency theory, a breakdown of dependency theory seems appropriate. This will be done by separating the theory into two strands: the Marxist and non-Marxist frameworks.

This article's contribution is based on the need to rethink dependency theory from a very specific point of view – that being China's presence in Africa. Karl R. Popper (2005, p. 38) wrote in *The logic of scientific discovery* that 'theories are nets cast to catch what we call "the world", to rationalize, to explain and to master it [...]'. In an attempt to understand and explain the phenomenon of contemporary Sino-African engagement, we try to follow Popper's footsteps. In this article, we explore dependency theory in order to unpack the complexity inherent in China's presence in Africa. To this end, we ask: Is this relationship likely to end in a similar fashion as espoused by dependency theorists in their analysis of North–South relationship or is it one of self-reliance, the 'unity of thought and purpose' shared by the third world in charting their development course as referred to by Haq (1976) in the opening chapter of his book *The Poverty Curtain*?

The principal question this article addresses is whether China's presence in Africa fosters a new dependency in other words diversifies dependency within the global south or furthers Africa's socio-economic development. In order to do this, a systematic literature review of dependency theory is carried out and applied to understand China's presence in Africa. This article offers a different perspective to the use of dependency theory in understanding China's presence in Africa. This is important because China's presence in Africa in aspects of trade, aid and investments will continue to rise and thus remains of interest to leaders, policy-makers and scholars as it will undoubtedly have effects on Africa's development trajectory. Some studies have largely analysed

China's presence as reiterating dependency (Taylor, 2014) and as the 'new face of imperialism' (Lee, 2006); however, within the dependency literature, we see a role for China as being not the new 'centre' but a catalyst for a rethink on Africa's development.

Our article is organised as follows. Firstly, we focus on dependency theory *per se* – what are the origins of the theory and how it has developed? Secondly, we explore the main criticisms presented against dependency theory. And thirdly, we analyse the theory in the light of China's current presence in Africa. We conclude this article by summarising our reasoning as well as putting forward an agenda for future research.

Schools of thought on dependency theory

Dependency theory has been under debate since the 1960s. The main aim of the scholars has seemed to be to explain the cause and result of the dependent status of the global south in the international political and economic systems. Scholars such as Mahbub ul Haq and Raúl Prebisch have approached the question of dependency from a *non-Marxist perspective* while the likes of André Gunder Frank, Theotino dos Santos and Immanuel Wallerstein's views on dependency reflect a *Marxist orientation*. For example, Mahbub ul Haq (1976, p. 3) expresses his concerns regarding the dependent status of the south in the opening chapter of his book *The Poverty Curtain*. He writes, 'A poverty curtain has descended right across the face of our world, dividing it materially and philosophically into two different worlds, two separate planets, two unequal humanities, one embarrassingly rich and the other desperately poor.'

In the same vein as other dependency scholars, Haq (1976) identifies the roots of the inequality between developed and developing countries to be their historical past. According to him, the era of colonialism exacerbated the disparities between the rich and the poor countries by placing the rich countries of the North in the centre of the world and the poor countries of the South at the periphery, supplying raw materials to the North. He argues that these exploitative links evident in the economic dependence and intellectual slavery remains despite decolonisation. Within the context of this article, this theory can be used to speculate that rampant exploitation would less likely occur between equal partners than unequal partners. In other words, the exploitation reported in North–South economic engagement has its foundation in historical inequality. Haq (1976) in his writings focused on providing a solution for altering the existing relationship that serves to benefit both the industrial countries and the global south. He argues that if the present unjust order continues, then a rebellion in the third world that can lead to damages to the western world's interests is inevitable. Haq (1976) further identifies that poverty is a global problem in the sense that it is not only related to poor nations but also to poor people within these nations; thus it is a problem that has to be dealt with. To do this he suggests a two-pronged offensive as the only way to eliminate inequality, where the national governments in developed and developing countries share this responsibility, developing countries on their part must ensure an equality of opportunity for developing countries to fully engage in and benefit from the international system. Also, developing countries on their part should carry out internal reforms to provide the same for their poor so as to remove domestic structural biases. In short, Haq sees a shared interest in North–South cooperation as the basis for mutual cooperation, a point where he differs from the other dependency theorist with Marxist views.

Haq's view is similar to that of Prebisch, whose views were outlined in various policy papers during his time as the secretary general of UNECLA. Prebisch argued that the South's dependent status is caused by the historical development of centre–periphery relations. His views differ from Haq in that while Haq emphasised on the impact of colonialism, he was more concerned with the impact of western industrialisation on the position of the poor states.

Prebisch (1968) argued that the rapid industrialisation of the North as well as export competitiveness created a divide between the global North and South, resulting in declining terms of trade for the South and eventually dependency of the South on the North. As a solution to the problem of dependency, Prebisch proposes third world countries accelerate industrialisation by adopting import substitution (O'Brien, 1975). Import substitution as prescribed by Prebisch (1968) would only be effective if the South have developed the capacity not only to substitute imports but also to add value to natural resources, which can then be exported in the form of processed goods. Similarly, the rapid industrialisation of the North, which created unfavourable terms of trade for the South, was made possible through the abundance of certain capacities particularly their control of technology (Shrum, 2001). Similar to Haq, Prebisch identifies a shared political and economic interest between the North and the South and argues that it is not just morally imperative for this inequality to be redressed but that it is in the North's self-interest to do so. He maintains that the centre is not immune to the increasingly obvious economic and social tensions in the periphery and thus should make deliberate efforts to stimulate development in the right direction in these countries.

Haq and Prebisch share similar views that set them apart from the Marxist school of dependency theorists. Bokhari (1989) states three major points of view that set them apart from the Marxist school. Firstly, their argument that the existing international economic system can be reformed to accommodate countries of the global South thus creates no need for southern countries to create a new system or leave the present system in order to overcome dependency. Secondly, Haq and Prebisch due to the perceived shared interest between the North and South, argued that the North ought to introduce system reforms to safeguard its own interests. Thirdly, their views and solutions were influenced by their backgrounds and professional experience as top officials at the World Bank and the United Nations agency, respectively. They unlike the Marxist school of thought recognised that the international economic system has benefits to offer to facilitate the global South's development needs and that the developed world should facilitate these needs as it is of interest to them if they do. The Marxist perspective views the system as based on the excesses of capitalism, which is controlled by the North (Ferraro, 2008). Unlike the non-Marxist theorists they argue that the system cannot be restructured to accommodate the South as the benefits from the prevailing system are largely accrued by the North. They consider the notion of the existence of a shared North–South interest as unrealistic given the inability of the South to modify the system (Hoogvelt, 1984).

One of the most prominent writers with this viewpoint is André Gunder Frank, a sociologist whose thesis 'Development of Underdevelopment' gained wide attention in this discourse during the 1960s. In line with the non-Marxist scholars of dependency theory, Frank also argued that underdevelopment is a product of historical, economic and political relationship between the North and the South. He writes: 'Historical research demonstrates that contemporary underdevelopment is in large part the historical product of past and continuing economic and other relations between the satellite underdeveloped and the now developed metropolitan countries' (Frank, 1966, p. 28).

He further claims that this relation is an integral part of the world capitalist system. According to him, the capitalist system has put in place a rigid international division of labour, which is responsible for the underdevelopment of many areas of the world. This division, he claimed, determined the economic, political, social and cultural values in the dependent states in line with the interest of the dominant states. This division he maintains, will remain as it serves the purpose of absorbing surplus capital from the dependent states to the benefit of the dominant states. He argues that a similar division also exists within the underdeveloped states. Frank argues that the most impressive results of development in underdeveloped countries were recorded at periods when their ties to developed countries were the weakest citing countries like Argentina, Brazil, Mexico and Chile during the Napoleonic wars and the two world wars as examples. Frank in his writings also made a distinction between a state of being 'undeveloped' and being 'underdeveloped'. He argued that developed states were in the state of undevelopment in the past and were free of the structuralist constraints faced by the underdeveloped states, thus stating that the route to development as adopted by the developed countries is not viable for underdeveloped states. He proposes that loosening of ties of the South to the North gives the South a greater probability of achieving development. According to Frank, independence and not interdependence is the way to get out of dependence.

A Marxist analysis of dependency theory can also be found in the works of Immanuel Wallerstein. Wallerstein argued that a 'modern world system' called the Capitalist World Economy emerged from the European feudal system in the sixteenth century. He is classified as a 'world system theorist' due to his analysis. He argues that this system had resulted in divisions of the world into three, the 'core, periphery and semi-periphery', regions creating a new international division of labour where the economically and politically strong states at the core achieved their status at the expense of the states at the periphery. He attributes this new division of labour to the rise of capitalism, which he argues still exists in the world today and is the source of exploitation of the periphery states. Wallerstein argues that dependency can be overcome only via revolutionary socialism within a unified world system.

Another prominent Marxist analysis of dependency theory is found in the works of Theotonio dos Santos. His views are quite similar to that of Frank in that he sees dependency as a 'conditioning situation' that causes peripheral countries to be backward and exploited and this status is caused by the international division of labour perpetuated in the capitalist system which allows development to occur in some countries while restricting it in others. Dos Santos (1970) distinguishes between three forms of dependency, which the now underdeveloped nations have gone through, namely, colonial dependency, financial-industry dependency and a new type of dependency. Dos Santos labelled this new form of dependency as technological-industrial dependency; he asserts that this has further deepened the structure of dependency in the third world. In a view similar to Frank, Dos Santos (1970, p. 235) considers the reformist ideas of Prebisch and Haq as ineffective to destroy 'these terrible chains imposed by dependent development' and proposes a social revolution as the solution to dependency.

The Marxist view of dependency has some historical validity. However developments in Asia suggest that North–South economic engagement can lead to positive outcomes in terms of economic and social development, as evidenced in newly industrialised countries of South Korea, Singapore, Thailand and Malaysia.

Critiques of dependency theory

As no theoretical approach to the study of social science is without critiques, dependency theory also attracted some criticisms of its own.

Proponents of free-market economics criticise dependency theory for failing to account for the endogenous factors involved in a country's development and attributing blame entirely on external factors (Namkoong, 1999). Tony Smith (1979), one of such liberalists contends that the main misconception of dependency theory is its insistence that the key causes of underdevelopment of third world countries are not internal factors but external, that is, the structure of the international system. He asserts that 'dependency theory represents a historically concrete attempt of Marxism to absorb southern nationalism into a kind of ideological united front' (Smith, 1979, p. 83). This claim is by no means uncommon, giving the Marxist persuasions within Dependency theory. While any interaction between nations has the inherent risk of exploitation, at least in the beginning, the international economic system was not set up for the purpose of exploitation. To do that is to negate the concept of a 'system'. Actors in a system must have a symbiotic relationship; otherwise the system will collapse and destroy the actors. Having said that, actors must work hard to determine and correct excesses of the system by building the capability to detect and correct the excesses.

Indeed, when confronting situations where rapid development has occurred such as in Thailand, South Korea and Taiwan, the theory encounters some difficulties as it generally accounts for an impoverished South on a global basis, a development that would not have been possible to achieve anywhere if the argument was valid (Moles, 1999).

Sanjaya Lall (1975) also criticises the theory, arguing that the concept of dependency is defined 'in a circular manner', that is, less developed countries are poor because they are dependent. He asserts to the impossibility of defining the concept of dependency and thus cannot be proved to be 'causally related to continuance of underdevelopment' (Lall 1975, p. 808).

Traditional Marxists have also criticised dependency theory for 'seeking to become a Neo-Marxism without Marxism' (Cueva, 1976). The theory is criticised for replacing class conflict with national and regional contradictions (Namkoong, 1999), as succinctly put by Thomas Angotti; 'While the ultra-"left" line fails to consider the contradictions between nations as part of the international class struggle, the rightist line reduces the class struggle to nothing more than a struggle between nations (or "social formations") (Angotti, 1981, p. 129).

Also, Marxists criticised the view held by non-Marxist dependency theorists that international trade (unequal exchange) is the key cause in the rise of dependency and underdevelopment; they argue that while it may help to extend underdevelopment it does not create it, that capitalism creates underdevelopment (Weaver and Berger, 1973).

In spite of criticisms of dependency theory, it is impossible to deny that dependency theory gave a new perspective on the realities of international political economy and put the underdevelopment status of the global South on the radar. Ideas emanating from dependency scholars have been the source of motivation for a focus on development needs of the global South. Their arguments stressed that the underdeveloped South will remain in their underprivileged state unless drastic measures are taken to provide an equality of participation in a system which was designed to benefit the North. It is this idea that fuelled the creation of the Group of 77, United Nations Conference on Trade and Development (UNCTAD) and demands for a New International Economic Order (Bohkari, 1989). Also, the non-Marxist ideas have been instrumental in defining ways that the countries of the global South can develop while remaining within the current international system. They have stressed the existence of common interest between the North and the South in terms of mutually beneficial industrial production, expansion of trade, supply of raw materials and technological transfer. They have identified that there is a need to attend to those common issues, areas where the North cannot maintain absolute independence, an important point that holds true in present-day economy.

Dependency theory has been most influential in discrediting some western ideas about development in the third world particularly policies and ideas that failed to appreciate the specific developmental needs of the third world. This has shaped discussions in development studies today, raising an awareness of the need to examine the patterns of economic development specific to third world countries and strategies that recognise the specific needs of these countries (Bohkari, 1989). This discussion can be linked to the popularity of South–South cooperation (SSC), which criticises those misplaced western ideas regarding development in the global South and the conditionalities placed on countries of the South by the West, conditionalities that do not necessarily meet the development needs of these countries (Amanor, 2013). The idea that developing nations of the South might find more appropriate and sustainable solutions to development by collaborating with other developing countries of the South underlies SSC (Fordelone, 2009; Rosseel et al., 2009).

An increasingly cited example of SSC is Chinese engagement in Africa. Following China's unprecedented growth is its increasing presence in Africa evident in its engagement in the continent on levels on trade, investment and aid. As China–Africa relations continue to evolve, there continues to be a debate on just what China's presence in Africa means for Africa's development. Is China a development partner or Africa's new coloniser?

The next section addresses China's presence in Africa and we shall attempt to understand this phenomenon using dependency theory.

Case – China's contemporary presence in Africa

Background

The growing relations between China and Africa have been accompanied with intense scrutiny. There has been a lot of interest from academia, the media, development agencies and western governments, negative and positives views have been expressed, conjectures and accusations have also been made of China's ongoing presence in Africa being an attempt to 'neo-colonise' Africa. The former British foreign secretary, Jack Straw, stated that 'most of what China has been doing in Africa today, is what we did in Africa 150 years ago' (as cited in Stevenson, 2006). Making similar insinuations about China's presence in Africa, then US Secretary of State, Hillary Clinton, in an interview stated 'We don't want to see a new colonialism in Africa.' Similarly, academics have raised concerns over China's motives and presence in Africa (Taylor, 2006). Given the sentiments surrounding China's presence in Africa, we shall attempt to critically view this phenomenon using dependency theory. Firstly, a background of China–Africa relations both historical and at present will be discussed in the subsequent paragraphs, followed by an analysis of the phenomenon from the dependency theory point of view.

China in Africa: retrospective view

Chinese engagement with Africa is not a new phenomenon. Discourse on contemporary China–Africa relations often invokes history as a common reference point (Large, 2008); thus we shall begin with an overview of the historical links between China and Africa. Chinese contacts with Africa are believed to date as far back as 140–87 BC during the Han dynasty (Gao, 1984). Contacts between China and the African continent predating 1949 were as a result of transnational trade flow with other merchants such as the Arabs and Persians (Alden and Alves, 2008).

The establishment of the People's Republic of China in 1949 saw China as having no negative record of dealings on the African continent but in fact it shared a common past with Africa as it too suffered hardship under western imperialism; a point that Beijing is often apt to point out (Alden and Alves, 2008; Cooke, 2009). China saw the newly independent African states as natural allies and its 'Five Principles of Peaceful Coexistence' appeared appealing to these new states (Alden and Alves, 2008). Thus, China renewed interests and established official contacts with these states following the Bandung Conference of 1955 (Renard, 2011). According to Alden and Alves (2008), the Bandung conference which was aimed at promoting Afro-Asian economic and cultural cooperation and opposing colonialism was a unique platform for China to present itself to African and Asian states as a model of self-reliance, as well as a supporter of Asian–African unity and the independence movements around Asia and Africa. China's relations with Africa during the period of the cold war, which also marked the post-colonial period for Africa, was one that was based on ideology (Zhang, 2013). Mao's 'Three Worlds Theory' positioned China as a third world nation along with other Asian, African and Latin American countries that chose not to align with either the United States or Russia (Alden and Alves, 2008). Africa was seen by Beijing as the ground for ideological competition with the United States, the Soviet Union and other European influences, as well as a place to export its brand of socialist revolution to (Alden and Alves, 2008; Renard, 2011). In this period, China signed an economic and technical cooperation agreement with Guinea in 1960, granted Ghana an interest-free loan of US$20 Million, established diplomatic relations with Mali upon its independence and trade relations the following year (Renard, 2011). China also gave diplomatic and military support in Southern Africa particularly to liberation movements ideologically aligned with Maoist China and not the Soviet Union (Alden and Alves, 2008).

In North Africa, relations were also established with Algeria, Morocco and Tunisia. Sino-African relations were maintained in the early 1960s; however, by 1966 China's relations with some African states had turned sour, as China was increasingly viewed with suspicion that it was seen trying to export revolution into some of the countries, resulting in Chinese diplomats being expelled from some African countries and diplomatic ties severed by other countries (Alden and Alves, 2008). Also the cultural revolution in China contributed to the decline in Sino-African relations in that era. However, relations did improve in the late 1970s with Beijing normalising diplomatic relations with all African countries irrespective of their ideological differences and increasing its overseas development assistance. African countries welcomed financial aid and technical assistance from China; they were seen as offering more advantages than those of traditional western donors (Ayodele and Sotola, 2014). As adeptly put by Alden and Alves (2008, p. 20),

> The West's employment of conditionalities, merely the latest in the decades of humiliating experiences at the hands of former colonial powers and the United States, echoes the humiliations of the 'unequal treaties' foisted on China by the West in the nineteenth century. Indeed, China's ability to recognise this is part of the genius of its foreign policy endeavours toward Africa.

Notably, China's development aid to Africa during this period was concentrated in fewer countries and on highly visible projects such as the Tazara railway – a railway line linking Tanzania to Zambia – a project which several western powers declined to fund (Renard, 2011). China's commitment to providing development assistance and technical support to African countries was seen as quite remarkable as China itself at the time was quite poor compared to some African countries (Renard, 2011). This renewed relationship contributed to China gaining admission into the UN with votes from 26 African countries. The introduction of economic reforms in China by Deng Xiaoping during the post-Mao era led to a shift in Sino-African relations, while the official principles of engagement remained the same; relations were no longer based on ideological interest but on commercial interest (Larkin, 1971; Schiere, 2011).

China in Africa: today

The new era of Sino-African relations ushered in relations devoid of ideological interests of the past but with a focus on practical results, mutual benefits and common development driven by China's developmental objectives and its increasing energy demand (Schiere, 2011).

China's need to secure energy resources to sustain its economic development and its international push for new markets and resources has in part necessitated the commercial focus to its ongoing presence in Africa (Konings, 2007). Chinese economic activity on the continent involves both state and non-state actors; the Chinese Ministries of Foreign Affairs and Commerce have been critical in establishing and maintaining bilateral relationships with African governments; several state-owned banks of China have supported China's presence in Africa. China Export-Import Bank established in 1994 promotes Chinese foreign direct investment (FDI) and exports especially in the infrastructure sector (Wang, 2007). China Development Bank, also founded in 1994, launched the China–Africa Development Fund in 2006 at the Beijing Summit of the Forum on China – Africa Cooperation (FOCAC) to support Chinese FDI in Africa (SCIO, 2013); SINOSURE (China Export and Credit Insurance Corporation) has provided insurance against risks involved in Chinese exports and foreign investment since 2001 (Renard, 2011). The non-state actors representing China's presence in Africa include multinationals, small- and medium-sized enterprises, traders who are generally seeking economic opportunities (Osei and Mabiru, 2010; Renard, 2011) and their activities cut across different sectors of the African economy.

China has become Africa's largest trading partner (Chen et al., 2015); bilateral trade between China and Africa rose steadily between 2000 and 2014. According to Eom et al. (2016), the volumes of China–Africa trade grew at a rate of over 40 per cent between 2004 and 2009, and has since 2009 slowed to an average of 10per cent per year. In 2015, China's trade with Africa reached approximately US$172 billion in 2015 (CARI, 2016a), with its top five African trade partners being South Africa, Angola, Nigeria, Egypt and Algeria. Crude oil dominates China's imports from Africa, the continent being China's second largest source of crude oil after the middle-east in 2013; its top suppliers include Angola, Sudan, the Republic of Congo, Equatorial Guinea and Nigeria (Alessi and Xu, 2015). Other commodities such as iron ore and copper also feature in China's imports from Africa (Eom et al., 2016).

Chinese investment in Africa while trailing behind China–Africa trade volumes remains modest (Eom et al., 2016). Data compiled by the China–Africa Research Initiative at Johns Hopkins University show Chinese FDI stock in Africa came to a total of US$32.35 billion in 2014, showing an increase from the 2013 volume which was US$26 billion (CARI, 2016b). While Chinese investments in Africa is growing, China remains a small player compared to other western countries (Chen et al., 2015). A report from UNCTAD shows that the flow of Chinese FDI into Africa during 2013–2014 amounts to about 4.4 per cent of the total FDI to Africa. China invests in 49 African countries (Chen et al., 2015). Its top five destinations in 2014 were South Africa, Algeria, Nigeria, Zambia and the Democratic Republic of the Congo (CARI, 2016b). These investments also cut across a wide range of sectors. According to China's Ministry of Commerce (MOFCOM), Chinese investments as of 2011 were largely in the sectors of mining (31 per cent), banking and finance (20 per cent), construction (16 per cent) and manufacturing (15 per cent) (SCIO, 2013). Chinese investments in sectors such as manufacturing and construction are notable, according to Brautigam (2016) as at the end of 2014, MOFCOM approved a number of manufacturing projects in countries like Nigeria (128), Ethiopia (80), South Africa (77), Tanzania (48) and Ghana (44). Likewise, China has signed infrastructure-financing agreements with over 35 African countries, the largest recipients being Nigeria, Angola, Sudan and Ethiopia (Renard, 2011). Investments in these sectors (manufacturing and construction) are particularly significant and have important implications for Africa, as apart from helping to combat Africa's deficient infrastructure, investments in these sectors could potentially generate human capital development gains through employment and opportunities for skills and technology transfer for local populace and firms. In terms of actors, Chinese state-owned enterprises (SOEs) dominate strategic extractive sectors of oil, ores and infrastructures and are usually subsidised with grants from Chinese state-owned banks. Chinese medium- to large-sized enterprises are mainly found in the manufacture of goods, business services, wholesale trade and telecommunications sectors while the small-sized enterprises are found in the retail and light industry sectors (Renard, 2011).

China's development assistance to Africa is increasing. China is fast becoming an important aid partner in the continent. Be that as it may, China's aid is still very low in comparison to the traditional western aid donors (Brautigam, 2011). China has had an African aid programme since the mid-1950s, with its official development assistance to Africa provided through grants, concessional (fixed-rate, low-interest) loans and zero interest loans (Brautigam, 2011; Zafar, 2007). At the third summit of FOCAC, China promised to double its size of aid to Africa. China's aid to Africa appears to be focused on industrial and agricultural productivity; funds are mostly directed towards funding infrastructural development, agriculture, industry, public facilities and provided on a non-interference policy basis which means there are no preconditions on the receiving countries to implement certain democratisation policies or advanced human rights policies and so on (SCIO, 2013), while that of other traditional aid partners such as the USA is often conditional and directed towards programmes that support public health, democratisation efforts, counterterrorism cooperation, improvement of regulatory institutions and governance (Zafar, 2007). According to data compiled by CARI (2016c), the Chinese government offered loans worth US$86.3 billion to African governments and SOEs between 2000 and 2014, with Angola being the largest recipient followed by Ethiopia (US$12.3 billion), Sudan (US$5.6 billion), Kenya (US$5.2 billion) and the Democratic Republic of the Congo (US$4.9 billion). A sizable portion of these loans financed much-needed infrastructural projects in Africa such as the Addis Ababa – Adama expressway of Ethiopia and the Kribi deep-water port of Cameroon, and re-building war-torn infrastructure in Angola. From 2010 to 2012, China granted 18,743 government scholarships to students from several African countries including South Africa, Ghana, Nigeria, Kenya, Ethiopia, Cameroon and so on. Other projects include the building of schools, agricultural technology demonstration centres (Liberia, Rwanda, Tanzania, etc.) hospitals and anti-malarial centres across several locations in Africa (Angola, Zimbabwe, etc.) (SCIO, 2013).

The strong demand for oil and other mineral resources outside of Africa, particularly demand from China, positively impacted the growth rate of certain African economies, creating conditions for better terms of trade and a higher volume in exports (Besada et al., 2011; Chen et al., 2015). Similarly, Chinese investments contributed to the continent's growth rate (Ayodele and Sotola, 2014). According to Chen et al., (2015), Chinese engagement in Africa has in part impacted Africa's growth rate positively; the average African economy realised a surge in per capita growth rate from 0.6 per cent per annum in the 1990s to 2 per cent in the 2000s.

As China undergoes a slowdown in economic growth as it rebalances its economy, it is expected that the volume of China–Africa trade and investments will also decline (Calabrese, 2016). In 2015, China–Africa trade witnessed a slowdown in value from US$222 billion in the previous year to US$172 billion. The recent drop in commodity prices has also affected the value of Africa's exports all around with commodity exporters being hardest hit. However, Lin (2016) posits that opportunities still abound for Africa in sectors such as manufacturing particularly as China restructures its economy away from manufacturing. Africa could potentially capture some of the manufacturing jobs that will be relocated as labour and production costs rises in China. According to Calabrese (2016), projects like 'One Belt, One Road initiative' could potentially boost African economies particularly those of Kenya, Djibouti and Egypt as the inclusion of their ports in the silk maritime route will lead to more investments in infrastructure and an increase in regional trade. Commitments made at the sixth FOCAC summit suggest continued economic partnerships between China and African countries.

As the relationship between China and Africa deepens, so does the scholarly interest on the relationship across different fields of study. The subsequent paragraph discusses China's presence in Africa through the lens of dependency theory.

Discussion: the case of China in Africa vis-á-vis dependency theory

Should China's presence in Africa then be viewed as detrimental to Africa's development, an attempt at neocolonialism or a 'diversification of dependency'?

We argue that a critical point, which dependency theorists pointed out as being the root of inequality between the North and the South, was their historical past, specifically colonialism and imperial linkages that persisted after decolonisation. Examining Sino-African relations under this assumption points out very important points of departure between China's relations with Africa and North–South relations. Firstly, China does not have an imperial heritage in Africa as colonialism under the West; rather it shares a common past with Africa as it too underwent hardship under western imperialism, a fact which, as mentioned before, China is apt to point out in its diplomacy with Africa (Alden and Alves, 2008; Cooke, 2009). Secondly, China's relation with Africa saw China stand in solidarity with African countries in its national independence movements, forging a new and thriving relationship with the continent (Renard, 2011). Historical relations between China and Africa echo Beijing's anti-imperialist and anti-colonialist stance. Its support for newly independent states in Africa is often invoked to corroborate and assure Africa and the rest of the world that China is not out to control its economic and political systems (Mohan and Power, 2008). Within the engagement between China and Africa is China's continued stress on South–South cooperation based on perceived 'similarities' between China and African countries. Chinese Premier Zhou Enlai during his tour of Africa in 1964 referred to China's support for Africa's struggles against imperialism as the 'poor helping the poor', while China's interactions in Africa during the cold war era was often linked to its ideological battle with the United States and the USSR. However, China's ongoing engagement in Africa is devoid of this ideological undertone; while largely commercial, it stresses a willingness to partner with Africa towards achieving their common development and to foster a cooperation that results in helping and supporting each other on the world stage.

China–Africa engagement can be seen as a practical example of SSC. China is often seen as a more viable development partner for Africa based on the similarities of socio-economic condition and development issues in China and Africa, offering an access to appropriate technologies and solutions (UNOSSC, 2015). China has carried out several SSC projects in Africa in cooperation with United Nations Industrial Development Organization and United Nations Development Programme, namely the ‘lighting up Rural Africa’ project, a project aimed at providing electricity in rural communities in Africa. Under the project, 14 small hydropower projects have been carried out in Kenya, Nigeria and Tanzania, as well as the Shiwang’andu hydro power plant in Zambia. Other projects include agricultural projects, and technical exchanges and cooperation (UNOSSC, 2015).

Considering the scale and nature of trade, investments and aid, China’s presence in Africa plays an important role in increasing developmental opportunities in Africa (Ayodele and Sotola, 2014). While China has intensified competition in the manufacturing sectors in some African countries and its rising demand for oil and other raw materials raises the risks of further subjecting the continent to a role of supplier of raw materials and making some countries such as Angola, Nigeria, Gabon and so on more vulnerable to volatile commodity price fluctuation (Ademola et al., 2009). African countries still stand to benefit from commodity revenues, and could potentially use their commodities sectors to spur industrialisation (Mohan, 2016). Findings from research carried out by Morris et al., (2012) in their ‘Making the Most of Commodities Program’ suggest that by creating meaningful backward and forward linkages in their resource sectors, countries could actually foster wider industrial development as has been shown in the case of Nigeria (oil sector), Angola (oil sector), Botswana (diamonds) and Gabon (timber) where local content policies have been used to promote job creation, skills and technology transfer and value-added production (Morris et al., 2012). Furthermore, China’s exports into Africa actually cater to low-income populace in these countries and lead to reduction in prices of consumer goods in Africa, something African low-income masses need (Ajakaiye et al., 2009; Renard, 2011).

There have been a lot of criticisms on the volume of trade imbalances in Sino-African trade and this has often been compared to the great imbalances under North–South engagement and echoes the concerns of dependency theorists. China maintains a trade surplus with Africa. However, there have been attempts from the Chinese government to address this, by gradually increasing its imports from Africa, also by granting ‘zero customs duty’ status to imports from some African countries (Danchie, 2010). According to a UNOSSC (United Nations Office for South-South Cooperation) (2015) report on China’s SSC, China removed customs duty to products coming from least developed African countries, products that make up to 93 per cent of the countries’ exports to China. In addition to that, China through its establishments of special economic zones (SEZs) in selected African countries supports export diversification. China could potentially be a catalyst for the promotion of industrial activity in some selected African countries where Chinese-funded SEZs have been established. Not only will this have an impact on the exports of African countries to China, but it also has the potential to further attract investments in much-needed sectors, promote manufacturing and diversify the economy from being majorly extractive (Brautigam and Tang, 2011). According to Sandrey and Edinger (2011), these zones could potentially contribute to the backward and forward linkages in the host economies, and also create massive employment opportunities and generate greater foreign exchange reserves through more diversified sources of income. While not all the zones have begun operations, some have and have been moderately successful. An example is the Ogun-Guangdong Free Trade Zone, one of the Chinese SEZs in Nigeria. The zone has had considerable impact on the economy of the local area in Ogun state, Nigeria, contributing to employment generation (currently employs about 4500 local workers), considerable skills and technology transfer, and increased economic activity in the local area (Caruso et al., 2016).

Dependency theorists highlighted the highly exploitative relations in North–South relations and how the third world has been condemned to the role of supplier of raw materials blocking the chances for industrialisation. Given this, the range of relations within Sino-African relations suggests that Africa is not relegated to being just a supplier of primary commodities. While China possesses the main industrial productive capacity in this engagement, there are opportunities for Africa to also engage in productive activities within the engagement. As mentioned previously, as of the end of 2014, MOFCOM had approved a significant total number of 377 manufacturing projects in these five countries: Nigeria (128), Ethiopia (80), South Africa (77), Tanzania (48) and Ghana (44) (Brautigam, 2016). These projects would contribute to the industrial capacity of these countries. Other examples of Chinese investments contributing to industrialisation in Africa include the case of the Huajian group, who set up a shoe manufacturing factory in Ethiopia in 2011 and has plans of setting up an industrial park. As at the end of 2013, the Huajian shoe factory had created 4000 jobs for locals and had begun manufacturing shoes in Ethiopia for export to the global market (Lin, 2016). Another example is the Yuemei Group in Nigeria, which successfully set up a textile industry park in Nigeria in 2008 (Pigato and Tang, 2015). Furthermore, in Rwanda, Chinese investors set up a garment manufacturing factory, C&H garments in 2015, and have so far employed about 500 workers, trained them and are currently exporting from Rwanda to foreign markets (Lin, 2016). The aforementioned manufacturing investments would further increase Africa's capacity to produce and trade value-added products and could provide opportunities for balancing China–Africa trade. Not only are such Chinese investments creating employment and training opportunities for locals but could also facilitate industrialisation in host countries in Africa. African governments can leverage Chinese investments for socio-economic development in their respective countries by using concrete industrial and localisation policies and strategy followed through with effective implementation. A few African governments have had a measure of success in exerting agency to direct Chinese investments to crucial sectors of their economy, as seen in the case of Ethiopia with the shoe factory and in the case of Rwanda with the garment factory. Officially, within FOCAC, there is a focus on cooperation to foster industrialisation in Africa. The Chinese President Xi in his speech at the FOCAC 2015 summit announced a new 'China-Africa Industrialization Program', a program targeted at enhancing Africa's industrial capacity that signifies China's support for Africa's industrialisation and includes a pledge of US$10 billion to set up a new China–Africa industrial cooperation fund. As part of the commitments laid out in FOCAC 2015, China plans to set up industrial parks, regional vocational education centres and capacity-building schools. These commitments also include plans to train 200,000 technical personnel and provide training opportunities for 40,000 African personnel in China (Eom et al., 2016). While it will take a while for these commitments to be implemented, these plans suggest China's continued commitment to partner with African countries in fostering development.

Chinese investments in Africa open up opportunities for employment and training, contributing to skill building, technology transfer and human capital development. However, there have been criticisms of Chinese investments in Africa, particularly on the potential of these investments to create jobs, to add value to industries in Africa (Ancharaz, 2013) and the labour practices of Chinese companies (Baah and Jauch, 2009; Flynn, 2013). These criticisms have often not been based on concrete data (Oya and McKinley, 2016). Research carried out by Sautman and Yan (2015) on over 400 Chinese enterprises and projects in 40 plus African countries found that over 85 per cent of their workforce are local African workers. While there is some variation in countries, cases of lower than average localisation rate was mainly in Angola and Algeria due to years of civil war which has led to de-skilling of the populace and migration of skilled workers to Europe, respectively. Chen et al., (2016), in their study of Chinese manufacturing firms in Nigeria and their potential for skills and technology transfer, found that firms sampled employ 80 per cent of their workforce locally, and engage in workforce training. Their findings also showed cases of positive technology transfer and linkages to local suppliers in the firms surveyed. Their research concludes that not only can Chinese FDI in manufacturing generate local employment but can contribute to industrialisation by providing opportunities for skills and technology transfer, promoting linkages with domestic firms which could integrate local firms in global manufacturing supply chains and increasing opportunities for developing countries to upgrade their domestic production.

We argue that focusing rather narrowly on the misconceptions surrounding China's economic activities in Africa often leads to a short-sighted analysis of the relations between Beijing and the continent. China has chosen to engage Africa in a distinctive manner evident in the FOCAC. Using the platform of FOCAC, China seeks to differentiate itself from the 'prescriptive, intrusive and hierarchical (donor and recipient)' approach of western actors by emphasising that its engagement with Africa is one of mutual benefit, win–win engagement that promotes common development (Alden and Large, 2011) espousing a spirit of partnership (Zhang, 2013). Dependency theorists challenged both western and soviet models of development and ceased to recognise these models as ideal for development in the third world. They reject the notion that all nations can attain development by following prescribed stages and prerequisites to growth that have been prescribed by the industrialised world. China is seen to promote what is referred to as the 'Beijing Consensus' in Africa (Besada et al., 2011), a 'model' that seeks to replace the widely criticised and largely disappointing Washington Consensus, a *prescriptive, Washington-knows-best approach* to economic growth and development (Ramo, 2004). This western approach espoused by western agencies often accompanied its financial assistance with conditionalities, which have not always suited the developmental needs of the recipient country and have in fact been detrimental to some developing economies (Rodrik, 2006; Stiglitz, 2002). African leaders and masses often see the western approach accompanied by their conditions, which are often centred on economic liberalisation, democratisation, human rights, as condescending and hypocritical (Cooke, 2009), thus making China's 'respect for sovereignty' and policy of non-interference, which has often been questioned, one that appeals to many African leaders and masses (Cooke, 2009).

Thus, China's approach is one that has offered and offers Africa an alternative in its choice of development partners and model (He, 2013). China's rise in the world economy is thus seen as an example for Africa. China is seen as opening up new prospects for Africa's development (Ayodele and Sotola, 2014). Africans often view China's engagement in their countries as being pragmatic with quick implementation and deliverables and in line with their priorities for the continent (Cooke, 2009). More so, within China's engagement in Africa, there is 'room for negotiation' (Mohan and Lampert, 2012) which is further supported under the FOCAC platform, something that was mostly lacking in North–South relations due to great power imbalance between the nations involved (Girvan, 2007), a point echoed in the dependency literature. China's presence in Africa is not one that is totally lacking in African agency. According to Mohan and Lampert (2012, p. 109) 'African actors have been able to shape these relationships in ways that advance their own interests and aspirations and or produce forms of wider social benefit'; this signifies that China's presence in Africa gives the leeway and is being steered (Mohan and Lampert, 2012) to be beneficial to Africa's development.

Conclusions

China's presence in Africa is an opportunity for Africa to practice self-reliance that translates not into the utopian ideal of Autarky but controlled engagement beneficial to the socio-economic developmental needs of Africa. We argue that what China's presence means for Africa beyond economic partnership, cooperation and solidarity is a challenge to question the status quo, re-orient their values and adopt an inward focus on their developmental needs and priorities, letting that dictate their economic engagements with other countries after all China can be said to have towed the same road towards development. While the ideology, official discourse and framework guiding China–Africa relations hold the promise of a win–win relationship and indeed China has a lot to contribute towards Africa's development, we stress that, like any engagement between two or more actors, there are risks and opportunities. As China–Africa relations continue to evolve, it is clear that in order for Africa to maximise the opportunities and minimise the risks in its relationship with China, African leaders need to assert more agency and ownership and approach the relationship with clearly articulated interests, policies and strategies that promote the welfare of their citizens and facilitate development in crucial sectors of their economy. It is also in China's interest to remain a responsible partner particularly in relation to regulating Chinese enterprises in Africa, promoting a more balanced China–Africa trade and addressing financial burdens that could arise due to China's loans to African countries. From the dependency point of view, we opine that the China–Africa relationship suggests a case of growing interdependency. A new direction for future research should be from a viewpoint of increasing interdependency between systems and its implications for development.

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PUBLICATION
II

Towards a Framework for Understanding the Outcomes of Economic Engagements with Africa: A Human Capital Development Perspective

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Towards a framework for understanding the outcomes of economic engagements with Africa: A human capital development perspective

Abstract: In the last few decades, the world has experienced significant economic and political transformation, which has led to adjustments in economic interaction between countries. However, this new pattern of economic engagement has not attracted adequate investigation from management researchers. This paper aims to fill this gap in the literature by advancing a conceptual framework that can guide researchers towards investigating new patterns of economic engagement across countries. Chinese economic engagement in Africa is used to exemplify how the conceptual framework can be used. The paper concludes by providing directions for research.

Key words: Human capital development, economic engagement, economic development.

Introduction

In the last few decades, the world has experienced major economic and political transformation. These changes have led to significant adjustments in the way regional blocks and nations interact with each other (Sohn 2012; Desai and Vreeland 2014). According to Desai and Vreeland (2014), the value of South-South trade has exceeded North-South trade by US$2.2 trillion. Undoubtedly, this has created new dynamics in the discourse of development and economic engagement, which impact on African countries. For example, it is possible to identify at least three features of the new forms of economic engagement that are relevant to Africa's quest for development (Sohn 2012). This has hitherto been neglected, especially by international management researchers. Specifically, three features of the new forms of economic engagement have opened up new avenues for research on Africa: (1) the emergence and growing economic engagement among the BRICS countries (Brazil, Russia, India, China, South Africa), (2) the broader increasing economic engagement within developing countries (South-South), and (3) intra-continental/regional economic engagement, especially between a more developed country within a region or continent and its neighbours (ASEAN – Association of South-East Asian Nations, EU – European Union, NAFTA – North American Free trade Agreement, etcetera) (Desai and Vreeland 2011; Sohn 2012). An example of this is the increasing and significant influence of South Africa within Sub-Saharan Africa. As an anecdote, it has been reported that Brazil has more embassies in Africa than does the United Kingdom (Desai and Vreeland 2014).

New developments signal the need to investigate the implications of these developments for African business organisations and nation-states in general. We argue that there is also the need to approach these developments from the point of view of management science. We would also like to stress that even though there has been recent research interest among management researchers in the economic engagement between the developed and transitional economies of the former Soviet countries (for example, Meyer 2001; Peng et al. 2008), an adequate and over-arching framework aimed at understanding the big picture of these phenomena remains wanting.

We advocate the view that the new features of economic engagement have indeed highlighted significant openings for research in all areas of management. However, research has thus far failed to take up the opportunity partly because of the absence of a framework within which to investigate the phenomenon and partly because of the failure to identify and articulate the rationale for investigating this new international phenomenon. We note that other disciplines, such as economics, international relations and political science, have recognised and embraced this discourse in their research and theories (for example, Wenping 2007). Similarly, though to a limited extent, international business researchers have also delved into this area of investigation (for example, Boateng and Glaister 2002; Boddewyn and Brewer 1994; Leung et al. 2005). To summarise, mainstream management researchers, especially those concerned about international development, have not shown adequate interest in the new discourse and phenomenon pertaining to the new pattern and changing landscape of economic engagement in the contemporary era of globalisation.

Based on the changing landscape of economic engagements and its implication for research pertaining to its potentials for nation-states and organisations in Africa, this conceptual article has two broad aims. The first is to articulate and present a conceptual framework that can guide management researchers in understanding how the new features of economic engagement can benefit nation-states and business organisations. We argue that this framework, based on a human capital perspective, can be used to investigate policy transfer, the diffusion of management and technological innovation as well as other broader questions relating to how organisations can harness or appropriate the benefits of economic engagement to achieve organisational objectives. The framework advanced in this article can enable management researchers to investigate how bilateral arrangements interact with the national context to impact business organisations. Our second aim is to present an example of how the framework can be deployed to demonstrate how Chinese economic engagements (CEE) in Africa might influence human capital development.

To achieve the aim of the article, the existing literature on dependency and human capital theories will be reviewed to provide the foundation for a conceptual framework for understanding and investigating the new forms of economic engagement. In addition, the literature on CEE in Africa will be used to further demonstrate the utility of the conceptual framework for the study of economic engagements generally. Within the context of CEE in Africa, the discipline of management can investigate how CEE in Africa can be leveraged by African nations to build their human capital at the national and organisational levels. The indicative objectives of this research area can be as follows:

1. To analyse the nature and characteristics of CEE in Africa;
2. To examine respective African governments' approach to appropriating the benefits of CEE to build human capital;

3. To investigate the impact of CEE on human capital development in Africa.

Towards a Conceptual Framework and Elements of the Problematic

The conceptual framework advanced here is predicated on the assumption that understanding the *outcomes* or *potential outcomes* of the new patterns of economic engagement between Africa and its new economic 'partners' will require broader analyses of three key variables: the *nature and dynamics of the economic engagement* such as historical ties (Wenping 2002); *the contextual background of the 'nation-state' involved in the relationship*, for example its cultural and economic endowment (Leung et al. 2005) and the *degree of 'readiness' of the nation-state* and *its constituent organisations* and *national institutions* to appropriate the benefits of the economic engagement, such as its vision and policy framework, which will enable the exploitation of the benefits of the relationship (Stone 1999).

It should be noted that the elements in the construct are by no means exhaustive, neither are they relevant for every research on new patterns of economic engagement; instead, the framework illustrates some of the relevant variables that can impact on the outcomes of the engagement. Dependency theory and human capital theory are used to set the theoretical foundation of the framework. The main features of the theory will be elaborated in an exemplification of how the framework can be applied. The conceptual framework is presented in figure 1.

One of the variables put forward in this framework are the *nature and dynamics of the economic engagement*. The authors argue that to understand the benefits and potential outcomes of economic engagement, it is important to understand the dependency relationship between the nations involved, their historical, cultural and economic ties as well as the dynamics of the relationship between the nation-states (in other words, the dependency relationship). Similarly, the area of engagement (for example, trade, investment and aid) needs to be analysed since each area has its unique potential for benefits, costs and the shaping of relations. Researchers will also do well if they analyse the type of engagement (for example, South-South, North-South, within BRICS, intra-continental etcetera). This analysis is vital because it can determine the dependency relations and the potential for the exploitation and appropriation of benefits in the relationship. It is also critical to analyse the motives of the parties involved. The compatibility of motives should make it easier for African nations to appropriate benefits from the engagement. Conversely, incongruence in motives can lead to exploitation, as implied by dependency theory (Frank 1966; dos Santos 1970; Chilcote 1984; Ferraro 2008). The rationale for studying this independent variable is because the economic engagement will be influenced not only by the resources to be exploited but also by the nature and degree of the dependency relationship (Frank 1966; dos Santos 1970; Chilcote 1984; Ferraro 2008). Studying this variable will help predict or at least explain the potential outcomes of the economic engagement.

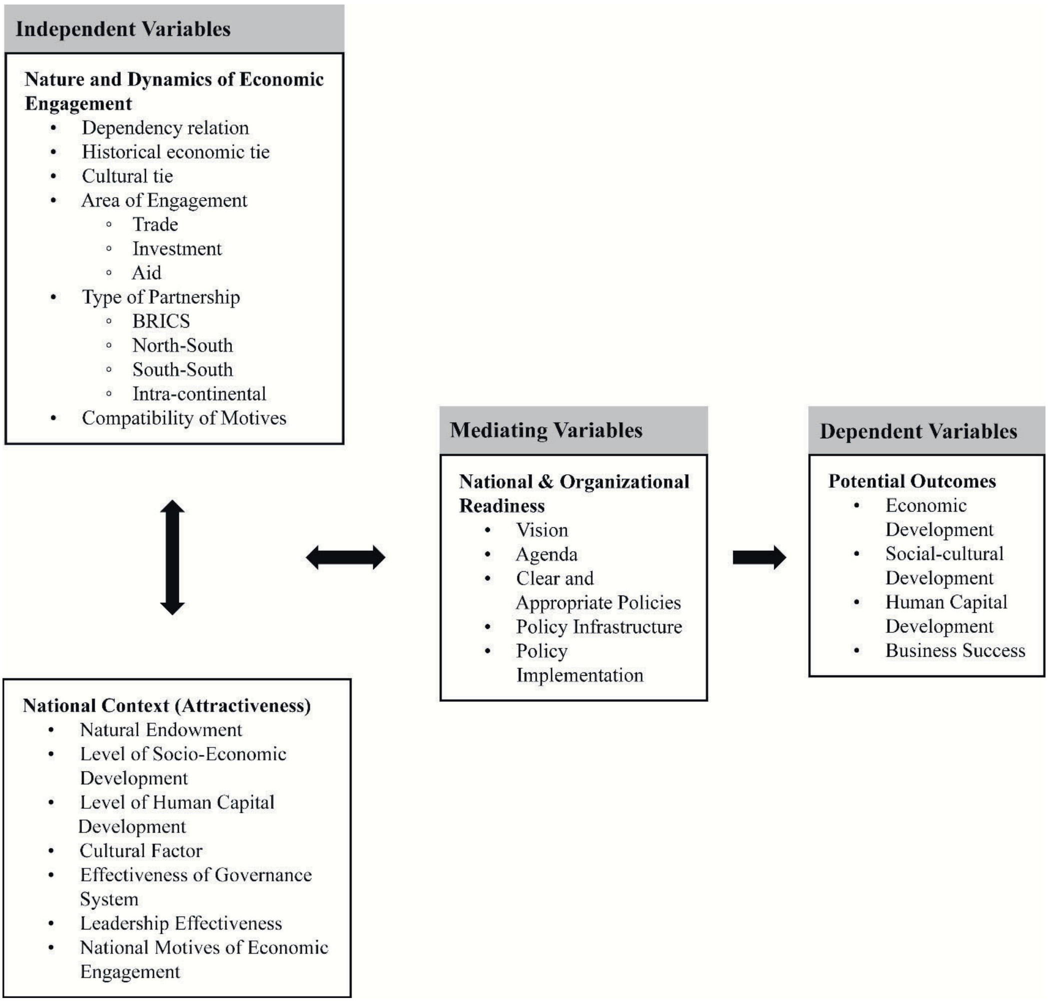

Figure 1. A Conceptual Framework for the study of the Implications of Economic Engagement in Africa. Source: Authors' own illustration.

It is argued in this framework that the potential outcome of economic engagement will be influenced by the *national context (attractiveness)*, by which we mean the endowments of the nation-state (for example, natural, human and cultural), as well as by the level and potential of socio-economic development, human capital development, the governance system and national leadership. Another factor that can influence the appropriation of the potential benefits from economic engagement are the nation's motives in economic engagement. These factors constitute some of the key areas in which to determine a nation's attractiveness (Jelinek 1992; Krueger 1968; Porter 1990), which can also impact on the potential outcomes of economic engagement in Africa. In fact, the role of these factors in influencing international business has long been recognised by strategic management researchers and experts (Davies and Ellis 2000; Rugman and Hodgetts 1995). However, these factors have not been used to develop a comprehensive framework for the study of economic engagement in Africa.

In spite of the nation-state's endowment and attractiveness, the realisation of the benefits of economic engagement will depend on the level of *national and organisational readiness and capacity,* that is the ability of the nation-state, through its institutions and organisations in the public and private sector, to appropriate the benefits. This ability will be determined by the articulated vision, the economic and social agenda and the appropriate policy and its implementation (Krueger 1984; Stone 1999). All these aspects will be determined by the human capital residing in the nations' institutions and organisations. This is because the crafting of appropriate engagement policies, as well as their effective implementation, should be carried out by those who possess the appropriate knowledge, skills, abilities, work ethics and values. These qualities constitute the human capital of nations and organisations (Schultz 1961; Kruger 1968), hence the use of human capital theory as an important perspective in guiding this framework.

Undoubtedly, economic engagement has many *potential outcomes* far beyond the realm of economics (Hirst and Thompson 1999; Stiglitz 2006). Evidence suggests that international trade and investment have contributed to economic, social, human and even cultural development (Boateng and Glaister 2002; Rugman and Hodgetts 1995; Scholte 2005). Moreover, management research has demonstrated how local organisations have benefitted from joint venture partnerships, human resource development, innovation and market access as a result of economic engagement among nations (Boateng and Glaister 2002; Liu and Song 1997). However, all these will depend on the variables discussed earlier.

Conceptual Case Study: Chinese Economic Engagement in Africa

This section discusses how management researchers can use the present conceptual framework to investigate the potential impact of CEE in Africa on human capital development (HCD), both at the national and business organisation levels. As stated earlier, not all the variables presented in Figure 1 are necessarily subject to investigation in every research. The framework provides relevant variables, which researchers can choose to investigate the issues they are interested in. Table 1 presents the variables that can be used to investigate the HCD potential of CEE in Africa.

Independent Variables	Mediating Variables	Outcomes
• Area of Engagement ◦ Trade ◦ Investment ◦ Aid • Compatibility of Motives • Natural Endowment • Level of Socio-Economic Development • Level of Human Capital Development • Level of Human Capital Potential • Cultural Factor • Effectiveness of Governance System • Leadership Effectiveness • National Motives of Economic Engagement	• National and Organizational Vision for HCD • National and Organizational Agenda for HCD • Clear and Appropiate Policies for Appropiating Benefits for HCD • Policy Infrastructure for Implementation HCD • Actual Implementation of HCD Policy	• National Human Capital Development • Organizational Human Capital Development

Table 1: Key variables for investigating Human Capital Development (HCD) potential of CEE in Africa. Source: Authors' own work

Background of CEE in Africa: China's engagement in Africa has gained prominence in the discourse on Africa. This past decade has witnessed China engage with the continent on several levels of trade, aid and investment (Ayodele and Sotola 2014). Sharing its identity in the global economy as a developing country (low per-capita income in comparison with advanced countries) (World Bank 2016), China serves as a development partner for Africa. Its rise in the global economy offers opportunities for Africa to enhance certain capacities to aid its development and rise on the global economic stage (Lumumba-Kasongo 2011, Renard 2011; Lin 2016).

China's emergence from an under-developed nation and closed economy to an emerging global power and the largest recipient of global foreign direct investment (FDI) inflow over the last 30 years is indeed phenomenal. While China's economic landscape has changed dramatically over the years, its economy grew to be the second largest in the world (World Bank 2016); thus, there is a need for resources and raw materials to support its increasing level of industrialisation and growing population. This has in part necessitated its recent economic activities in Africa (Pigato and Tang 2015; Alessi and Xu 2015). China has established trade, investments and aid links with up to 50 African countries (Zafar 2007).

The volume of Chinese trade and investment in Africa has increased exponentially. China is recorded to be Africa's largest trading partner, surpassing the United States (US) in 2009 (Chen et al. 2015), China-Africa trade boomed between 2004 and 2009, with an annual growth rate of over 40 per cent. While growth rates have slowed to an average of 10 per cent per year since 2009, China remains an important trade partner to Africa (Eom et al. 2016). According to trade data compiled by the China Africa Research Institute (CARI) at Johns Hopkins University, China's trade volumes with Africa reached approximately US$172 billion in 2015 (CARI 2016a). China's top African trade partners as of 2015 were South Africa, Angola, Nigeria, Egypt and Algeria. A significant proportion of China's imports from Africa are in natural resources such as crude oil, iron ores and copper products (Eom et al. 2016).

While China-Africa trade volumes exceed its bilateral investment volumes, Chinese investments in Africa is still thriving (Chen et al. 2015). According to CARI's (2016b) China-Africa investment data compilation, Chinese FDI stock in Africa amounted to a total of US$32.35 billion. Geographically, China's FDI in Africa is highly diversified, reaching 50 countries. The top five destinations in 2014 were South Africa, Algeria, Nigeria, Zambia and the Democratic Republic of Congo (CARI 2016b). While investment is largely concentrated in the mining sector, other sectors such as finance and banking, construction and manufacturing have also benefited from Chinese FDI (Renard 2011). Chinese investments in infrastructure in Africa are notable as Africa is experiencing a deficit in this sector. Over 35 African countries have agreements with China on infrastructure financing (Renard 2011), the largest recipients being Nigeria, Angola, Sudan and Ethiopia. Similarly, the manufacturing sector is increasingly becoming a significant sector for Chinese investments. According to Brautigam (2016), data analysis by CARI shows an increasing number of manufacturing projects approved by Chinese authorities in countries like Nigeria (128), Ethiopia (80), South Africa (77), Tanzania (48) and Ghana (44), as at the end of 2014.

Recent changes in the Chinese economy, notably the slowdown in the growth rate, will undoubtedly significantly impact global trade and investments, including CEE in Africa. Nevertheless, according to Calabrese (2016), these changes open up opportunities in Africa, particularly in sectors such as manufacturing. Projects such as China's "One Belt, One Road" initiative will also lead to more infrastructural investments in countries such as Kenya, Djibouti and Egypt as well as an increase in trade within the African continent (Calabrese 2016).

China-Africa economic relations are structured on a bilateral basis. To formalise bilateral agreements, Chinese and African leaders established the Forum on China-African Cooperation (FOCAC) in 2000. The forum has since served as the institutional vehicle for China-Africa engagement (Pigato and Tang 2015). Commitments made at the sixth and most recent FOCAC summit in Johannesburg in 2015 indicate no signs of a slowdown in China-Africa engagement. Chinese President Xi Jinping re-affirmed China's commitment to partner with the continent to tackle the major bottlenecks to its development – namely inadequate infrastructure, lack of funding and lack of skilled and professional personnel – by rolling out 10 plans for China-Africa cooperation.

The plans include fostering industrialisation by setting up a new China-Africa industrial cooperation fund worth US$10 billion, building industrial parks and vocational education centres and providing training for 200,000 training personnel and 40,000 training opportunities for African personnel in China (Eom et al. 2016). The plans also focus on supporting Africa to modernise its agricultural sectors, build, operate and maintain infrastructures, strengthen financial cooperation, foster green development, promote greater cooperation in trade and investment, assist in poverty reduction, cancel the overdue portions of zero-interest loans and cooperate in areas of public health, including building an African centre for disease control (Eom et al. 2016). Plans to promote cultural and people-to-people exchanges, educational training and research cooperation as well as capacity building in the areas of peace and security were also unveiled (Eom et al. 2016).

This economic relationship between China and Africa comes with concrete expectations from both parties. China expects gains that include, though not limited to, access to much needed resources of oil, metals and minerals as well as access to new markets for its export industry (Alessi and Xu 2015). However, while it is reasonable to assume that African nations embracing Chinese investments expect that their relationship with China will contribute to economic and social development, the translation of this expectation into concrete outcomes is an issue that requires urgent investigation (Hanauer and Morris 2014; Ayodele and Sotola 2014; Chen et al. 2016). To exemplify, Chinese economic engagement is expected to lead to trade and investments through its strong demand for Africa's natural resources, thus generating an influx of much needed capital into African economies, boosting infrastructure development on the continent as well as achieving concrete gains in human capital development through job creation and skills development (Hanauer and Morris 2014). In light of these benefits, amongst others, China's economic engagements in Africa are, for the most part, welcome by most African governments (Ayodele and Sotola 2014; Hanauer and Morris 2014).

It should be noted, however, that concerns have been raised regarding the potential negative effects of CEE in Africa. For example, the issue of the effects of CEE on the local manufacturing industry and the challenges it poses to macro-economic management, the industrialisation process and governance in Africa has been raised by experts and commentators alike (Ajakaiye 2006; Kaplinsky et al. 2006; Wang 2007; Zafar 2007; Oyejide et al. 2009).

China undoubtedly presents an opportunity for Africa's rise in the global economy as well as a challenge to maximise the positive impacts and minimise the negative impacts that could result from such economic relationships, especially where human capital development is concerned. It has been noted that as the China-Africa economic relationship has evolved, there has been increasing African agency (Mohan and Lampert 2013). In countries like Ethiopia, for instance, the late Prime Minister Meles Zenawi actively encouraged Chinese investments in light manufacturing firms, resulting in concrete gains in the form of factories being set up by the Chinese, for example, the Huajian shoe factory which created about 4,000 jobs for local workers and currently manufactures shoes for export to European markets (Lin 2016). Another notable example is the Rwandan government's push for Chinese investments to diversify its exports, which resulted in the establishment of a garment factory in Kigali, employing about 500 locals and exporting to other markets (Lin 2016). As other African governments follow suit by actively shaping and leveraging Chinese investments for development, it is pertinent to note that one of the main areas in which this economic engagement will ensure sustainable development is in that of HCD. However, this potential can only be realised if there are appropriate policies in place that will enable the countries involved to reap the potential benefits of the economic engagement.

Within the China-Africa space, studies have stressed the importance of policies and strategic planning and implementation on the part of African governments in order for them to capitalise on and maximise the potentials within this engagement for employment, skills development and industrialisation in their respective countries (Morris et al. 2012; Mohan 2016; Chen et al. 2016). According to Reiter and Steensma (2010), governments have a major role to play in how FDI policy impacts or contributes to human and economic development. This is because FDI policy can either favour the objectives of the investor or those of the recipient. This 'phenomenon' has opened up rich avenues for research in various disciplines.

Theoretical arguments and research underpinnings on CEE in Africa

The central argument for the study of CEE in Africa in this context is that while engagement can provide opportunities for HCD, these opportunities will depend on whether African nation-states have developed and implemented appropriate policies and agendas to exploit the benefits as well as whether the policies are backed by the necessary policy infrastructure (that is, institutions that monitor and regulate the implementation of HCD policy). This argument can be tested using a case study.

Research by Corkin (2013), Mohan and Lampert (2013), Chen et al. (2016) and Mohan (2016) have emphasised the importance of African agency and policy in leveraging Chinese engagement for development. Research carried out by the Open University, UK, and the University of Cape Town in their "Making the Most of Commodities" project have shown how countries like Angola, Nigeria, Botswana and Gabon, with the use of initiatives such as local content policy, have been able to develop meaningful linkages in their resource sectors, leading to job creation, value added production, inclusion of local suppliers in the supply chain, supplier development programmes and training (Morris et al. 2012). The study should assume that to achieve maximum benefit from any economic engagement, a nation must have a clear vision and objectives of how individuals, business associations and organisations can benefit from CEE (that is, *national and organisational readiness*). The study can then use specific cases to examine the potential impact of CEE on human capital development. For example, the study can examine instances of scholarships, educational and health facilities (infrastructure) funded directly through CEE. The study can also examine vocational training and capacity building initiatives and interventions that are directly attributable to CEE. At the industry/community/organisational level, the study can examine employment and training and capacity building opportunities that can be directly attributed to CEE.

At the outset, the empirical research, which will be carried out in line with what we will propose in Figure 1 and Table 1, should be based on a theoretical framework derived from the literature on dependency theory and its view on South-South cooperation as well as the literature on human capital theory, which emphasises human capital as critical for economic growth and development.

Dependency theory is useful to explain the phenomenon of CEE in Africa as well as the nature and characteristics of the engagement, particularly in relation to how this engagement could yield opportunities for Africa. Human capital theory is useful in explaining the importance of human capital for economic development and the critical need for Africa to build its stock of human capital. The existing literature on human capital theory also covers, at least to a certain extent, the role of the government in HCD. This helps in analysing the extent to which African nation-states have developed appropriate HCD policies and agendas to exploit the benefits that are inherent in CEE. The following sections present a summary of the theories that will guide the study, starting with dependency theory and followed by human capital theory.

Dependency theory

In an attempt to understand and explain the phenomenon of contemporary Sino-African economic engagement, a useful starting point would be to adopt a theoretical perspective that can be used to explain the economic relationship between other nations and Africa. Dependency theory is one such theory that can help unpack the complexity inherent in South-South cooperation (SSC) typified by Sino-African cooperation (Agbebi and Virtanen 2017). It is important to point out that, the popularity of dependency theory has waned, and reliance on its applicability to developing countries has been questioned, in part due to the emergence of the developmental state in the 1960s and subsequent development of East Asian countries. Nonetheless, the ideas presented by dependency theorists have been instrumental in the focus on the needs of countries in the Global South, which propelled the creation of the G77 (Group of 77), UNCTAD (*United Nations Conference on Trade and Development)* and stimulated discussions on the emergence of demands for a New International Economic Order (Amanor 2013). These developments, discourses and principles continue to influence the rhetoric of SSC (Jules and Morais de Sá e Silva 2008; Amanor 2013) and remain relevant in the search for new development paradigms for Africa (Lumumba-Kasongo 2015).

The development of SSC was informed by three major events (Morais de Sá e Silva 2009). The Bandung conference of 1955 which saw representatives from 29 African and Asian states gather to push for Afro-Asian cultural and economic cooperation, advocate for independence and self-determination and oppose colonialism and imperialism in the global south and promote peace (Lumumba-Kasongo 2010; 2015, Amanor 2013). The Bandung conference is a historically significant event for Afro-Asian cooperation, according to Lumumba-Kasongo 2010, the conference became the "Cornerstone of African-Asian solidarity". The Bandung conference gave an expression to third world consciousness and paved the way for the formation of Non-Aligned movement in Belgrade in 1961 and subsequently the G77 within the UN in 1964(Lumumba-Kasongo 2010). These groups were largely formed by developing countries (so called third world countries) with the purpose of challenging the existing international system and press for policy changes that will help the global south break away from its economic and political dependency on the west (Amin 1994, Lumumba-Kasongo 2010, Morais de Sá e Silva 2009). These countries called for a reduction of the industrial and economical gaps that existed between the industrialised countries of the west and the developing countries of the south. The G77 within the UN was effectively a coalition of developing countries that sought to promote fairer standards for international trade to foster their economic development. These movements promoted global solidarity among nations of the global south and formed the basis for SSC today. Dependency theorists view SSC as a possible path to collective economic self-reliance for the global south (Jules and Morais de Sá e Silva 2008).

Dependency theory was developed in the late 1950s under the tutelage of Raul Prebisch, the then Director of the United Nations Economic Commission for Latin America (ECLA). Prebisch and his colleagues were concerned by the fact that economic growth in advanced industrialised countries did not lead to growth in poorer countries (Ferraro 2008). Their studies suggested that economic activity in advanced countries often led to serious economic problems in poorer countries. Dependency theory thus became a very important tool for analysis and in explaining the persistent poverty of poorer countries.

In spite of the wealth of the intellectual ideas, vigorous debates and writings from dependency theorists of different persuasions, there is still no single unified theory of dependency. Dependency theorists differ in their analysis of the specific forms of dependency, their impact on societies and their prescriptions for tackling the issue of dependency. These diverse views have undermined the coherence and development of the theory (Chilcote 1984). We classify the theorists into three groups, the ECLA School, the moderates and the radicals.

In the ECLA school of thought, Latin American economists such as Raul Prebisch, Osvaldo Sunkel and Celso Furtado stood out as emphasising an inward looking development path.

Prebisch (1968) argued that Latin America's underdevelopment resulted from its position in the world economy and its adoption of capitalist economic policies. His argument was that the historical development of centre-periphery relations was the root cause of the South's dependent status. According to Prebisch, export competitiveness coupled with the rapid industrialisation of the North created a widening North-South technological divide, resulting in deteriorating terms of trade for the South and eventual dependence of third World countries on Western industrialised countries. Prebisch's position was neither liberal nor Marxist; instead, it stressed autonomous nationalist development for peripheral states (Prebisch 1980). In order to overcome dependency, Prebisch proposed that Third World countries adopt import substitution industrialisation through protective measures, encouraging economic integration amongst these countries to increase their market share and capturing productivity gains for Third World countries as a whole.

Chilean economist Osvaldo Sunkel, similar to Prebisch, argued that the structure of the international trading system where the peripheral countries of the South exported raw materials and imported manufactured goods resulted in the underdevelopment of these countries (Sunkel 1972). He saw dependency as a result of 'dependent state capitalism' and the activities of multinational corporations. He suggested agrarian reforms and the use of primary exports to support the industrialisation and reorganisation of the industrial sector to support the basic needs of the masses and not just those of the elite minority.

Brazilian economist, Celso Furtado, also argued that capitalist expansion created a hybrid international economic structure whereby some functioned as part of the capitalist system, and others perpetuated with features of the pre-capitalist system (Furtado 1973). He saw underdevelopment as a result of the penetration of the modern capitalist system into archaic structures, challenging the modernisation notion that underdevelopment was a necessary stage in the process of achieving a modern capitalist system (Furtado 1973). Furtado, unlike Prebisch, saw the limitations of import substitution industrialisation and stressed nationalistic central planning and state investments as a solution to overcoming dependency and underdevelopment. All three economists, Prebisch, Sunkel and Furtado, often classified as structuralists, commonly advocated nationalistic autonomous development as a way of promoting economic development in peripheral states (Namkoong 1999).

Brazilian scholar and politician, Fernando Henrique Cardoso and Chilean sociologist Enzo Faletto can be seen as moderates in their analysis of dependency. They criticised the ECLA approach for not emphasising the imperialist relations between nations and for not taking into account the unequal relations between classes (Cardoso and Faletto 1979). They identified three dependency situations: (1) enclave economies dominated by foreign investment capital; (2) economies dominated by the local bourgeoisie and (3) a new form of dependency whereby multinational corporations (MNCs) dominate peripheral economies (Cardoso and Faletto 1979). They refuted the idea that underdevelopment was caused by capitalism and argued that capitalist development can occur in peripheral countries as a form of dependent capitalist development. As such, their recommendations for peripheral countries to overcome dependency varied from those of ECLA. They asserted that it was unrealistic for the state to confront the excesses of the capitalist system and thus called for a 'profound political-structural change' in the form of a 'radical political move towards socialism' (Cardoso and Faletto 1979).

The radical perspective views the system as based on the excesses of capitalism, which is controlled by the North (Ferraro 2008). Unlike the non-Marxist ECLA theorists, they argued that the system could not be restructured to accommodate the South as the benefits from the prevailing system largely accrued to the North. They considered the notion of the existence of a shared North-South interest as unrealistic, given the inability of the South to modify the system (Hoogvelt 1984), and insisted on a social revolution as the way out of dependency (Namkoong 1999). Theorists sharing this perspective comprised of André Gunder Frank, Samir Amin, Theotonio dos Santos and Immanuel Wallerstein.

In line with the non-Marxist scholars of dependency theory, sociologist André Gunder Frank also argued that underdevelopment resulted from the historical, economic and political relationship between the North and South (Frank 1966). Frank posited that capitalism resulted in development for a few (the centre) and underdevelopment for many (peripheries) by entrenching a system in which the centre expropriated and appropriated surplus capital from the periphery. Frank asserted that development and underdevelopment were opposite poles of the capitalist system as opposed to being related stages of growth. He distinguished between a state of being 'undeveloped' and being 'underdeveloped', arguing that developed states, though once in a state of 'undevelopment', were not confronted with the structuralist constraints faced by underdeveloped states. Thus, he rejected the notion that the route to development adopted by the developed countries was viable for underdeveloped states. Frank suggested a socialist revolution and the loosening of ties with the North in order for the South to increase its chances of achieving rapid, sustained development (Frank 1966).

Similar to Frank's views, Theotonio dos Santos saw dependency as a 'conditioning situation' within the capitalist system, which causes peripheral countries to be backward and exploited. Dos Santos (1970: 231) saw the reformist strategy of the ECLA theorists as insufficient as dependency 'cannot be overcome without a qualitative change in their internal structures and external relations'. Thus, he proposed a social revolution as the key to overcoming dependency.

Another prominent dependency theorist, who subscribed to a Marxist approach, was Samir Amin. Like most other dependency scholars, he believed that growth at the centre came at the expense of the periphery. He argued that the capitalist world system was characterised by unequal exchange whereby the periphery was condemned to assume the role of exporter of raw materials. Moreover, the ever-continuing tapping of resources from the periphery engendered a situation in which the periphery was dependent on the centre, thus resulting in the underdevelopment of peripheral countries (Amin 1990). Amin posited that the way out of underdevelopment and dependency was for Third World countries to delink from the world capitalist system. The suggestion here was for a socialist revolution that would enable Third World countries to achieve tangible self-reliant development (Amin 1990).

Another notable theorist, often identified as a 'world systems theorist', is Immanuel Wallerstein (Chilcote 1984). Wallerstein posited that a 'modern world system' called the capitalist world economy, characterised by unequal exchange, had created a new international division of labour whereby the states at the core achieved development at the expense of those at the periphery (Wallerstein 1974). His solutions for dependency differed from those of the ECLA moderates, in that he insisted on revolutionary socialism, and from those of the radicals in his emphasis on a unified world system. Wallerstein called for revolutionary socialism brought about 'within the single division of labour that is the world economy and one that will require a single government' (Wallerstein 1974: 23).

Despite the intellectual disagreements among these dependency theorists, they shared a common view regarding the existence of two categories of countries in the international system: the dependent/periphery and the dominant/centre states. They argued that these countries were locked in a relationship whereby the actions of the dominant states (the advanced industrialised nations of the OECD – the Organization for Economic Co-operation and Development) over the dependent states (Latin America, Asia and Africa) determined the course of events in the dependent states (Ferraro 2008).

As a whole, dependency theorists attempted to explain the underdeveloped status of many nations of the world by looking at the patterns of interactions among nations, arguing that inequality among nations was an intrinsic part of those interactions (Ferrero 2008). This concept of inequality advanced by dependency theory provides this study with an avenue to explore the central proposition that given the relative economic and social similarities between China and Africa, some degree of equality will manifest itself in any economic transaction. This should lead to a more viable and sustainable benefit, especially through human capital development.

Dependency theory has contributed to the popularisation of South-South cooperation, which criticises often misplaced Western ideas regarding development in the Global South (Amanor 2013). South-South cooperation is based on the idea that partnership and collaboration between developing nations of the South might result in more appropriate and sustainable solutions for the development issues faced by these nations (Fordelone 2009; Rosseel et al. 2009). Dependency theory provides an appropriate framework for investigating South-South economic cooperation. Within the context of this study, it provides the lens through which to examine Sino-African economic engagement. Using this theory, the study can examine the extent to which such engagement provides opportunities for HCD and the conditions under which this might happen. Based on this theory, we advance the following propositions that could be tested by researchers in future research:

> ***Proposition 1:*** *Given the relative similarity in socio-economic conditions, CEE in Africa will offer more appropriate and suitable opportunities for HCD.*
>
> ***Proposition 2:*** *Given the relative similarity in socio-economic conditions, CEE in Africa will facilitate the transfer of relevant technology and knowledge that will enable HCD.*

Human Capital Theory

The popularity of the concept of human capital has grown amongst researchers, organisations and policymakers. This can be attributed to the increasing rate of globalisation, advances in technological innovation and the move towards a knowledge-based economy (Nordhaug 1993; Kwon 2009). Countries and organisations around the world are increasingly investing in human capital development. This is based on the realisation that human capital is critical to national and organisational success. Human capital theory is a modern extension of Adam Smith's idea that workers' capabilities were a kind of capital. This idea was then popularised in the 1960s when economists argued that the missing gap in explaining the growth of the United States economy were the people – their skills, abilities, knowledge and competencies (Schultz 1961). Schultz later popularised the idea that the quality of human capital can be linked to economic growth. One of the main propositions of human capital theory is that people are a form of capital for development (Becker 1993; Aliaga 2001; Englebrecht 2003).

In the context of the proposed research, human capital is seen as a critical driver of development in African nations and that the growth of human capital is both a condition and consequence of economic growth and development (Mincer 1981; Blomström and Kokko 2002). In fact, the debates and research on Africa's development have identified that one of the keys to realising the goal of sustainable economic growth is the development of its human capital (Hall and Jones 1999; Asiedu 2002; Lynham and Cunningham 2006).

Human capital theory seeks to explain education and training as a deliberate investment in people, which increases the productivity of individuals and organisations and encourages the growth and development of national economies (Schultz 1961; Psacharopoulos and Woodhall 1985). Human capital theory asserts that human capital production is a result of private, individual and state investment. The utilisation of human capital theory will help shed light on the role of African governments in building the stock of human capital through the opportunities provided by CEE. Opportunities embedded in CEE can contribute to HCD in Africa, for example, revenues accrued from natural resource extraction can be channelled to fund HCD programmes that will ensure skills upgrade. Important linkages can be developed between local firms and Chinese MNCs operating in various industrial sectors in Africa, maximising the potential for technology transfer and skills development.

Governments can also introduce and implement investment policies as well as industrial and localisation policies that drive development in needed areas while also maximising their potential to contribute to HCD. According to Ritchie (2002) FDI activities in developing countries can and do generate a substantial amount of human capital spillovers and that appropriate policies by host countries have the ability to maximise these. Furthermore, research in the field of FDI and HCD support the premise that appropriate policies can foster HCD in host countries (Willem te Velde 2002). Similarly, an increasing body of empirical research on China-Africa engagement (Morris et al. 2012; Mohan 2016; Chen et al. 2016) shows the potential of CEE in fostering skills building, technology transfer and HCD in Africa when accompanied by efficient policies and strategies. This can be achieved by looking at specific policies and initiatives that leverage CEE to develop human capital. Therefore, the following proposition could be tested in future studies:

Proposition 3: The benefits of CEE for HCD in Africa will depend on the existence and implementation of appropriate HCD policies targeted at exploiting the HCD benefits of CEE.

Conclusion and Direction for Further Research

We have discussed a useful conceptual framework aimed at guiding research on the new features of economic engagement between countries. It is our view that this approach would have interesting implications in research regarding the African continent and Sino-African engagement in particular. To this end, we have used the framework to demonstrate how the HCD potentials inherent in CEE in Africa can be investigated.

Our aim was to explore whether CEE offered an opportunity for Africa to develop its human resource capacity, which could lead to social and economic development. Our analysis advocated the use of dependency theory and human capital theory as theoretical underpinnings to test three propositions directly relating to CEE in Africa.

It would be interesting to examine whether the relative similarities in socio-economic conditions between China and Africa offer better prospects for social and economic development in the latter through the appropriation of the potentials brought on by economic engagement. Such an investigation can indirectly confirm or disprove the argument by some commentators that international economic engagement within the context of globalisation is inherently exploitative regardless of the nature of the partners involved in the economic engagement (Bello 2002; Held et al. 1999; Nierop 1994). Finally, this kind of investigation can determine the extent to which African nations are conscious of the HCD potentials of their economic engagement with China and the extent to which they determine the approach used to exploit the potentials.

Our conclusion is that the research possibilities regarding the subject in question are multiple. This is because the new forms of economic engagement in the South-South context have not received the traction they deserve. The old paradigm of North-South economic engagement is inadequate to unravel the complexities of the potentials of the new forms of economic engagement taking place in the world today.

Using the framework advanced in this paper, there are research opportunities for scholars interested in African economic development. For example, there is an opportunity to explore the relationship between China's increasing economic engagement in Africa and its impact on various facets of the social and economic dimensions of Africa. First, researchers can replicate the research advocated in this paper to investigate the extent to which CEE is used to build stocks of human capital in other countries in the region. Such research can help obtain a clearer picture of the human capital development potential of CEE in the region. Second, another area of research that this conceptual framework can help generate is the diffusion of knowledge and technology between China and Africa. CEE in Africa offers such an opportunity. This is because the available literature indicates that economic engagement between countries often triggers flows of knowledge and skills between parties (Ritchie 2002; Willem te Velde 2002).

Given that CEE in Africa on such a large scale is at its infancy, a fertile ground exists to investigate the potential of diffusion of innovation and knowledge between Africa and China. Third, researchers are encouraged to use the framework to investigate the veracity of the argument that South-South economic cooperation will offer developing countries a more suitable and sustainable way out of their dire economic conditions. Researchers interested in an economic evaluation of the outcomes of South-South economic cooperation on HCD in Africa could integrate cost benefit analysis into the framework. Fourth, another area of investigation generated by the conceptual framework is that of policy formulation and implementation pertaining to appropriating economic engagements benefits between Africa and other regions. Such investigation will yield theoretical benefits from a *good governance* point of view and shed light on the capacity of African governments to leverage CEE for the actualisation of their national development policies.

Finally, it is widely acknowledged that when societies interact with each other, symbiotic relationships develop, which lead to changes and the adoption or adaptation of behavioural norms and traditions such as language, lifestyle and artefacts that can directly impact social and economic behaviour as well as business activities. Therefore, management and social scientists interested in studying the impact of culture on organisations and nations have an opportunity to investigate whether and the extent to which CEE impacts socio-cultural and economic conditions in Africa.

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III

China in Africa's Telecom Sector: Opportunities for Human Capital Development? A Case of Huawei in Nigeria

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ARTICLE

China in Africa's telecom sector: opportunities for human capital development? A case of Huawei in Nigeria

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ABSTRACT
The inflow of Chinese investments into Africa's telecom sector presents opportunities for skill building and technology transfer, and African governments through their policy measures and actions can maximize these opportunities. This article examines how Chinese investments in Africa have contributed to human capital development (HCD) and what role the government has played in leveraging these investments. Analysing data from a case study of Huawei in Nigeria, the study finds that Chinese enterprises operating in Africa are well placed to contribute significantly to skill building and technology transfer. However, their efforts need to be supported by government policies, which are important for HCD. This article contributes to the emergent literature on Chinese economic engagement in Africa and its implications for HCD in Africa. Moreover, it provides an insight into the role of government policy in HCD in Africa.

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Human capital development; training; skill building; foreign direct investments; Sino-Africa economic engagement

Introduction

China has made significant in-roads into the African economy. Chinese investments in Africa are no longer confined to the traditional extractive industries; they have expanded to industries such as construction and manufacturing and service sectors such as telecommunications, banking, wholesale-retail business, and hospitality (Tang 2010; Chen, Dollar, and Tang 2015). Chinese multinational companies – Huawei and ZTE – are among the major players in Africa's telecommunications industry, and they have been heavily involved in setting up and improving the core infrastructure on which Africa's communication industry relies (Cisse 2012; Gagliardone and Gaell 2014; Oreglia 2012).

In the recent years, Nigeria has emerged as a strategically important base for Chinese telecom firms partly because it is the largest telecom market in Africa. Huawei registered Huawei Technologies Co, Nigeria Limited and established its West African headquarters (HQ) in Lagos in 1999. Over the past 16 years, the Chinese company has established a solid presence in Nigeria and is currently the leading network equipment provider, in terms of market share, in the Nigerian telecom industry. Its operational facilities in Nigeria include a regional training centre in Abuja; a software R&D centre, a network hosting centre, and a regional network operating centre in the Lagos HQ; and a business process outsourcing centre in Kano, Northern Nigeria (Huawei 2014a).

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Huawei's ability to develop appropriate and affordable technologies for this part of the world has contributed to its success in Africa's telecommunication industry (Cisse 2012). Since entering the Nigerian market, Huawei has played a critical role in upgrading the country's ICT infrastructure, contributing to an increase in broadband penetration and connectivity in Nigeria. However, beyond financing the telecom infrastructure in African countries, its contributions to human capital development (HCD), through skill and technology transfer, remain crucial in order to leverage Chinese telecom companies' engagement in African countries.

While, on the one hand, Chinese economic engagement (CEE) in Africa is on the rise, on the other hand, the potential of Chinese investments to add value to African industries and contribute to the development of human capital has been questioned (Tull 2006; Ancharaz 2013). Table 1 presents the claims and criticisms of Chinese enterprises' labour practices in Africa and research-based rebuttals to the claims. For example, Chinese labour practices have been heavily criticized (Baah and Jauch 2009; Flynn 2013). Claims have been made that Chinese companies employ convict labourers on projects in Africa (Chellaney 2010), are unwilling to hire local workers (Flynn 2013; Lorenz and Thielke 2007), offer low wages to African workers with limited opportunity for training and career development (Kamwanga and Koyi 2009; Gandolfo 2015), and subject African workers to poor working conditions (Human Rights Watch 2011). See Table 1.

Although such comments continue to permeate the narratives of CEE in Africa, Oya and McKinley (2016) note that they are often not based on concrete data. The researchers call for more research on employment-related opportunities and challenges of Chinese firms operating in Africa. While information is limited on the effects of CEE in Africa, it seems reasonable to argue that, despite the challenges, CEE in Africa provides valuable opportunities for HCD, especially in a vital service sector such as telecommunications.

The main aim of this study is to ascertain whether CEE in Africa provides opportunities to develop African human capital. Using a case study approach, the article investigates whether the investments and operations of Huawei, a Chinese telecom company, in Nigeria have contributed to HCD, specifically, skill and technology transfer. The article explores the training activities of Huawei in Nigeria and their effects on HCD. By doing so, it seeks to contribute to the emerging body of literature on CEE in Africa and its implications for HCD. On a broader level, it also explores how multinational corporations (MNCs) contribute to HCD, by focusing on a particular industry and MNC. This viewpoint is important because though Chinese MNCs share a home country, they cannot be considered as a homogenous group, and their practices in host countries are influenced by several factors specific to the MNC, the sector in which they operate in and the host country itself.

Furthermore, most studies on human resource development (HRD) focus on the internal organization processes and consider a range of HRD interventions to enhance individual and organizational effectiveness. Thus, while there is ample research on firm level/organizational level HCD, there is need for more research to be carried out on the national level. This study fills the gap as it examines the context of HCD and the political and institutional realities and interactions within it.

The article is organized into three sections. The first section reviews literature on the role of MNCs in human capital formation with a focus on training and the role of government policy in leveraging foreign direct investment (FDI) for HCD. The second

Table 1. Claims and criticisms of Chinese enterprises' labour practices in Africa and research-based rebuttals of claims.

Claims and criticisms of Chinese enterprises' labour practices in Africa	Research-based rebuttals of claims
• Chinese companies employ convict labourers to work on projects in the developing world including Africa (Chellaney 2010)	• This claim has been condemned by prominent Sino-Africa researchers as nothing more than anti-Chinese propaganda and more importantly not evidence based. (See Centre for Chinese Studies 2006, Blog post by Sautman and Yan titled 'Stirring up trouble: Claims that China sends convicts to labour in Africa are unfounded' on China Africa Research Initiative blog – China in Africa: The Real Story, 21 August 2010.)
• Chinese companies are unwilling to hire local workers (Flynn 2013, Lorenz and Thielke 2007)	• Tang (2010), study on the impact of Chinese enterprises on local employment in Angola and Congo, shows high and increasing levels of workforce localization in Chinese enterprises and projects across a range of industry sectors in both countries. • Sautmann and Yan (2015), based on data from over 400 Chinese enterprises and projects in Africa, find workforce localization rate to be over 85% in surveyed enterprise and projects. They condemn this claim as not based on systematic data.
• Offer low wages to African workers with limited opportunity for training and career development (Kamwanga and Koyi 2009, Gandolfo 2015).	• The scale and diversity of Chinese enterprises operating in Africa makes this claim problematic. Chinese firms operating in Africa cannot be treated as a homogenous group. Given sectoral, contextual, and institutional differences, employment conditions are bound to vary in Chinese firms across different industry sectors in different African countries (King 2013).
• Subject African workers to poor working conditions (Human Rights Watch 2011).	• Zambian copper mines are generally rife with labour-related problems and this is by no means exclusive to Chinese mines in Zambia as poor working conditions have been noted in non-Chinese mines in Zambia. The problem of poor working conditions appears to be rooted in the absence of a strong and effective regulatory body in Zambia's copper mining industry. (See blog post by Brautigam, D. titled 'The Huma Rights Watch report on Chinese-owned mines in Zambia' on China Africa Research Initiative blog – China in Africa: The Real Story, 11 November 2011). • There exists huge cultural differences in terms of work/ business ethics, expectations towards labour between Chinese society and individual African Societies. These differences in work culture and labour expectations often leads to labour-related disputes and issues. (See blog post by Brautigam, D. titled 'Nigerian workers protest conditions at Chinese construction projects' on China Africa Research Initiative blog – China in Africa: The Real Story, 1 February 2013).

section explains the methodology and data collection process. The third section presents the findings of this study, which is followed by a discussion of its implications for HCD in Nigeria, particularly the telecom sector.

The role of mncs in human capital formation

Developing a country's human resources is a vital part to development (Sydhagen and Cunningham 2007; Pillay 2006), without it most development interventions will be ineffective (Kessels and Poell 2004) Thus, countries around the world are increasingly investing in the development of human capital in order to stimulate economic development. The rapid economic growth of resource-poor East Asian countries of Korea, Taiwan, Singapore, and Hong Kong, which is largely attributed to the sustained levels of investment in human capital, compared to the unstable economic growth and underdevelopment experienced by the resource rich countries in Sub-Saharan Africa clearly proves this point. UNDP's latest human development reports point out that Sub-Saharan Africa experiences the slowest progress on the human development index (UNDP 2016). Concrete human capital policies and strategies coupled with ample investments in education and capacity building is necessary for Africa's development (Hall and Jones 1999, Lynham and Cunningham 2006). According to the Global human capital report (World Economic Forum 2017, 15), Nigeria currently ranked 114 in the global human capital index '. . .has a relatively large pool of tertiary educated workers, especially among its older generations, and comparatively strong staff training. However, it simultaneously records low primary and secondary education attainment across all age groups and one of the lowest current primary school enrolment rates globally, pointing to excessively uneven human capital outcomes and the untapped opportunities of pursuing a more inclusive human capital development approach'. This is largely due to a weak institutional framework for HCD and negligible investments in education and training. Several bodies have sought to fill the void created by institutional inadequacies (Nsouli 2000; Jackson 2012; Mamman et al. 2018). For example, education and training interventions from international institutions such as the African development bank, World Bank, the United Nations have increasingly complemented the weak efforts of governments in building their human capital. Similarly, the private sector is considered to play a crucial part in the education and capacity building efforts in several countries in Sub-Saharan Africa through their business and partnership with governments (Business Action for Africa 2010). MNCs are seen as a focal catalyst for HCD in Africa, Harvey, Myers, and Novicevic (2002) posit that MNCs could potentially balance the HCD gap between African and developed countries.

FDI influences human capital formation and development, particularly through the interaction of host countries' policies, education, and training system with the MNCs and their education and training activities (Slaughter 2002; Te Velde 2002; Ritchie 2002; Blomström and Kokko 2002). Macedo as cited in Slaughter (2002, 7) asserts that MNCs 'can and do generate substantial human capital spillovers in developing countries and appropriate policies can maximize these'. FDI is not only a source of capital for growth in developing countries but through MNCs, it is also an active provider of employment, education and training, skill enhancement, and technology transfer (Majeed and Ahmad 2008). Slaughter (2002) notes that MNCs can facilitate HCD through firm-level activities that allow for interaction with the host country labour market such as local employment, on-the-job training, supporting the host country's educational and training institutions, etc. In addition, a rise in economic activity from MNCs leads to a rise in the host country's tax revenue, and increased revenue can in turn foster macro-economic stability, promoting higher educational and training investment by the government (Slaughter 2002). Furthermore, higher FDI inflows can prevent brain drain (Slaughter 2002). As the loss of highly educated locals to employment opportunities abroad remains an enduring concern in developing countries, the inflow of FDI resulting in MNCs setting up subsidiaries brings those employment opportunities back to the host countries.

Enhancing human capital through training and skill building

Training is also a prominent route through which MNCs facilitate HCD. O'Donnell and Blumentritt (1999) consider training as a mechanism for the transfer of technology and managerial knowledge to the local workforce. Although most recipients of MNC's training are their employees, sometimes they also include employees of their customers, subcontractors, and suppliers (Blomstrom and Kokko 2002). Trainings can be imparted via formal interactions, on-the-job classroom sessions, seminars, formal schooling, international training courses and education, etc. The spillover effects of training are particularly significant for developing countries than developed countries as the public education system, and consequently the knowledge base, tends to be relatively weaker in the former than in the latter (Blomstrom and Kokko 2002). Evidence confirms that MNCs carry out more training activities than local private firms (Te Velde 2002). While most MNCs provide some level of training to their local employees, the type and amount varies depending on the mode of entry, the industry, the size and timeline of investment, type of operations, motivation for the investment and local conditions (Blomstrom and Kokko 2002). For example, training in service sectors is more focused on strengthening the skills and expertise of the employees (Blunch and Castro 2005). MNCs that use complex technologies tend to offer more employee training as their operations need skilled and trained workers (Te Velde 2002).

In the context of Chinese MNCs in Africa, those engaged in low technology sectors do not offer elaborate training or capacity development opportunities. However, MNCs operating in telecommunications and high technology sectors train their employees on the nature of the company's products and technology. For example, King (2013) noted that Chinese telecom firm ZTE upon gaining its first telecom infrastructure contract in Ethiopia embarked on re-training 1000 Ethiopian engineers from the Ethiopian telecom corporation. This was done to ensure complete understanding and knowledge of ZTE technology. Moreover, Chinese firms in Africa have also engaged in voluntary contributions to promote general education in their host countries. For instance, China Petroleum Engineering and Construction Corporation funded a laboratory equipped with modern welding equipment to Egerton University (King 2013). Holley Cotec, a large Chinese pharmaceutical company provided scholarships to support the study of medicine, geography, and the Confucius institute at the University of Nairobi. While the benefits of FDI to HCD abound, appropriate government policies in the host country are crucial to maximizing the benefits and mitigating the negative effects. Thus, while Chinese investments in Africa provide opportunities for HCD, African governments through policy measures and actions should play an active role in steering these investments towards the intended outcomes.

Host country policies and human capital formation

While FDI plays a key role in human capital formation in host countries, HCD is not an automatic consequence of the presence of foreign MNCs (Blomstrom and Kokko 2002; Te Velde 2002; Slaughter 2002). According to Te Velde (2002), theory supports intervention from policymakers to direct FDI towards development. Governments need to not only attract FDI but also ensure that they maximize the benefits of FDI to achieve their developmental objectives, and they often rely on a combination of FDI and macroeconomic policies to achieve this (Te Velde 2002).

FDI promotion policies in the form of investment promotion agencies, particularly those offering a one-stop service to investors, have been particularly successful in attracting FDI (Wells and Wint 2000). The use of fiscal and financial incentives linked to technology status (i.e. pioneer status) (Hanson 2001; Te Velde 2002); implementing trade policies that are meant to facilitate trade by lowering tariff and non-tariff barriers (Morisset 2000); developing and upgrading infrastructures (Wheeler and Mody 1992); establishing export processing zones are measures through which governments have successfully attracted certain types of MNCs (Madani 1999). Further, in order to encourage MNCs to upgrade their operations, host governments can adopt policies that 'target certain types of TNCs (Transnational corporations); build effective institutions, impose tax levies linked to training; engage the private sector in education and training planning; and design effective technology policy where R&D centres interact with TNCs, etc'. (Te Velde 2002).

While FDI, through the activities of MNCs, can promote HCD in host countries, this is not a certainty. This is because the primary interest of MNCs is to generate profit and not to engage in the development of the host country. To promote HCD and development in general, host country governments should deploy policies and measures that align inward FDI with developmental objectives. Te Velde (2002) argues that to maximize the contributions of MNCs to human capital formation, the government should formulate strategic education policies that will improve the chances of attracting more MNCs into the country. Further, the government should also offer MNCs incentives for carrying out training and skill-upgrading activities. Domestic education policies meant to raise the educational attainment and technical knowledge of locals are crucial because the presence of quality skilled labour in the host country usually serves a good basis for attracting asset-seeking MNCs (Blomstrom and Kokko 2002; Noorbakhsh, Palioni., and Youssef 2001).

In the context of CEE in Africa, the role of host country policies cannot be overemphasized. While some African countries such as Angola and Nigeria have been successful at attracting FDI largely due to their abundant natural resources and the size of their markets, other countries that lack such geographic advantages have to rely on a mix of effective policies and strategies to attract FDI. Further, there is need for concrete policies in order to mitigate the negative effects associated with FDI such as the crowding out effect, negative wage spillovers, etc. and maximize the benefits to the local economy. African governments need to direct FDI to crucial sectors of their economies and leverage these investments to strengthen their stock of human capital. Chen et al. (2016) assert that Chinese FDI in Africa can generate local employment and opportunities for skill and technology transfer; however, policy measures are crucial to ensuring that these benefits are realized. A few African countries have engaged in active investment-promotion activities and have been successful in attracting Chinese MNCs into their manufacturing sectors; thus, creating opportunities for job creation, training, and skill transfer. For example, the Ethiopian government led by its then prime minister Meles Zenawi actively promoted investments into its manufacturing sector, inviting several investors from China. One of which is the Chinese shoe manufacturer, Huajian, which set-up operations in Ethiopia in 2011. The company has since then employed over 4,000 locals, training, and equipping them with necessary skills (Lin 2016).

Similarly, in Rwanda, investment-promotion efforts resulted in Chinese investors setting up a garment-manufacturing factory in 2015. Today, C and H garments has about 500 local employees (Lin 2016). Local content policies such as those employed in Nigeria and Angola's oil sectors (Mohan 2016); the import substitution policy in Nigeria's automobile sector (Chen et al. 2016); and export processing zones and special economic zones in Nigeria (Brautigam and Tang 2011) can generate concrete gains for HCD and spur growth in these economies. Further, research shows that Chinese firms operating in Africa are more heavily influenced by host country policies, regulations, and institutions than by the guidelines of the Chinese government (Weng and Buckley 2016). This highlights the crucial role African governments and institutions can play in leveraging Chinese investments for HCD.

The following section introduces the methodology employed in this study. The article describes how Huawei contributed to HCD through its training programmes in Nigeria and further explores the role of government policies in leveraging Chinese investments.

Methodology

Interviews and on-site observations were carried out by the researcher from March to April 2016 at Huawei's offices in Lagos and Abuja, Nigeria. Data were collected through 29 semi-structured interviews. Some participants were selected using purposive sampling and some through the snowball technique. Purposive sampling was employed because it ensures that individuals selected have an important perspective on the phenomenon being studied (Mason 2002; Robinson 2014). Table 2 presents the details of the interviewed participants. The interviews explored Huawei's contributions to HCD in Nigeria, particularly to skill and technology transfer via training. Questions also covered the policy measures and actions of the Nigerian government in leveraging FDI for HCD in the telecom sector.

Broad topic categories were formed based on the concepts and literature on MNCs and human capital formation as well as the objectives of this research. The findings were organized on topic categories/themes emerging from the interviews and derived from the literature reviewed earlier. Subsequently, transcripts from the interviews were manually coded according to the above categories and thoroughly examined to gain useful insights into the issues investigated. Excerpts from the interviews have been selected to elucidate key themes emerging from the findings. Various other documents such as company reports, press releases, training reports, and policy documents collected in Nigeria were examined and used in this study. The document review focused on Huawei's training programmes, corporate social responsibility (CSR) initiatives, and government policy information (e.g. local content in ICT policy document).

Findings and analysis

Huawei's training activities in nigeria

As mentioned earlier, Chinese firms have been widely criticized for their unfavourable approach towards local labour. In fact, Kamwanga and Koyi (2009) noted that 'even in cases where local source of labour has been utilized it has been observed that this tends to be on a limited scale with little capacity development and hardly any opportunities for technology

Table 2. Breakdown of interview respondents.

Code	Affiliation/Role of interviewee	Number of interviewees	Location	Data collection method	Date of data collection
	Government				
R1, 2	Federal Ministry of Communications technology (FMCT)	2	Abuja	Face-to-face individual interview	March 30 2016; 7 April 2016
R3	National Communications Commission	1	Abuja	Face-to-face interview	8 April 2016
R4	Federal Ministry of Trade and Investment (FMTI)	1	Abuja	Face-to-face interview	6 April 2016
R5, 6	Federal Ministry of Labour and Productivity (FMLP)	2	Abuja	Face-to-face pair interview	4 April 2016
R7	One Stop Investment centre (OSIC)	1	Abuja	Face-to-face interview	March 29,2016
R8, 9, 10	Nigerian Investment Promotion Corporation (NIPC)	3	Abuja	Face-to-face individual interview	March 29,2016
R11, 12	National Information Technology Development Agency (NITDA)	2	Abuja	Face-to-face individual interview	6 April 2016
R13, 14	Office of National content in ICT (ONC)	2	Abuja	Face-to-face individual interview	March 30 – 31, 2016
T1, T2, T3, T4	Trainee – 1000 Girls in ICT Training programme	4	Remote Contact	Skype interview	17 June–22 July 2016
R15	University of Lagos Student Affairs Official	1	Lagos	Face-to-face interview	22 March 2016
S1, S2	Beneficiaries Huawei-UNILAG Scholarship	2	Remote Contact	Skype interview	16 June 2016
	Huawei				
R16, R17, R18	Ex-Employees	3	Remote contact	Skype interview	2 August 2016 – 19 May 2017
	Current employees				
R19, R20	Engineer	2	Lagos	Face-to-face interview; Skype interview	15 March 2016; 4 October 2016
R21	Manager	1	Lagos	Face-to-face interview	15 March 2016
R22	Training Centre Manager	1	Abuja	Email communication	10 May 2016
R23	Trainer	1	Abuja	Face-to-face individual interview	7 April 2016
Total number of interviewees		**29**			

transfer'. However, responses from this study present a starkly different picture: Huawei has actively contributed to skill building in Nigeria via employee training activities, training for clients and partners, and training programmes implemented in partnership with the Nigerian government. Interview data suggest that Huawei's training centre in Abuja has seen roughly over 50,000 trainees since its inception. Built at a cost of US$ 20 million, the training centre serves Huawei employees in Nigeria and in the West African region (Huawei 2014a). Past and current employees of Huawei (R16, 17, 18, 19, 20) confirm that trainings are regularly conducted in various forms, including formal classroom sessions, on-the-job coaching, learning by observation and virtual sessions conducted by experts at Huawei's HQ in Shenzhen, China.

As Huawei operates in a high technology sector that requires highly skilled technical staff, training is a high priority for the company to ensure that employees are informed about new products, innovations, and processes. Interviewees reveal that new graduate intakes at Huawei, Nigeria, undergo intensive training and induction within the first weeks of their employment as their knowledge base may be considerably different from that of engineering graduates in China. Experienced hires are also provided firm-specific training to acquaint them with Huawei's equipment, machinery, and processes, which differ from those of other telecom equipment manufacturers such as Ericsson and Nokia. These findings are in line with existing literature, which suggests that MNCs operating in complex technology sectors tend to offer more employee training as their operations are dependent on highly skilled workers (Te Velde 2002)

Blomström and Kokko (2002) explained that MNC training beneficiaries often include more than just their employees. This is evident in the case of Huawei. Both the training centre manager (R22) and the trainer (R23) assert that Huawei's training facility in Abuja is a crucial training ground for employees of partner firms, telecoms operators, clients, suppliers, Nigerian youths, and government employees. The trainings range from ICT deployment, telecom equipment operation, management skills to general ICT solutions. Documentary data show that in addition to establishing guidelines, procurement requirements and audits to ensure its suppliers are up to industry standards and adhere to the electronic industry code of conduct, Huawei also holds training conferences on quality for its partners and suppliers. For instance, the Nigeria Supplier Quality Conference held at their headquarters in Lagos in 2014 was attended by the core management teams of 106 supplier firms (Huawei 2014b). Part of Huawei's supplier development programmes, this conference saw ideas being shared on value integrations, quality and service delivery enhancement to ensure a 'win-win' partnership for the suppliers and Huawei (Huawei 2014b). Huawei's move to train suppliers' employees and customers is in line with research that shows that MNCs engage in active supplier development programmes to improve their overall capabilities in the value chain (Botelho and Pfister 2011).

Huawei has also implemented two major training programmes in partnership with the Nigerian government: the *1000 Girls in ICT Training Programme* and the *ICTFORCHANGE-Nigeria 2000 Youth ICT Training* (see Table 3). Both programmes focus on equipping Nigerian youths with crucial ICT and management skills that could increase their chances of employment. The *1000 Girls in ICT Training Programme* commenced in 2013, with Huawei contributing US$ 1.3 million and the Nigerian government contributing US$ 1 million. The programme was concluded in 2016. Some of the participants undertook a two-month internship at Huawei, and some were offered employment at the company office in Nigeria. Recently, Huawei has launched another training programme in collaboration with the Nigerian government: *ICTFORCHANGE-Nigeria 2000 Youth ICT Training*. This programme is the outcome of a memorandum of understanding signed between Huawei and the Nigerian government in December 2015, to train 2,000 youths in Nigeria on ICT. The training participants are to be selected by the Nigerian Federal Ministry of Communications Technology (FMCT) and the Ministry of Labour via an online application process. Huawei's training initiatives have also extended to include Nigerian government officials. A training course was organized in China for Nigerian government officials in September 2016 (see Table 3). Huawei actively promotes skill building and enhancement via its training activities in Nigeria and is open to collaborating with the government in order to contribute to social development.

Like most MNCs that contribute to educational development in their host countries, Huawei too supports general education in Nigeria by awarding scholarships to outstanding students in engineering and science-related streams at the University of Lagos. Huawei also provides grants and equipment to the African University of Science and Technology, Abuja (an affiliate of the Nelson Mandela Institute) (Huawei 2014c). Table 4 presents an overview of Huawei's contribution to general education in Nigeria. Apart from the financial relief that a scholarship affords its beneficiaries, it also motivates better performance among the students. A recipient of the Huawei-UNILAG scholarship (S1) explains this in the following words: '*Apart from the financial reward, psychologically it motivated me*'.

Table 3. Overview of Huawei training programmes in Nigeria.

Training Programme	Short description	# Participants	Financed by	Location	Duration
1000 girls in ICT	Training was on imparting participants with technical ICT skills and soft skills in order to improve their employability in the ICT sector. The programme was carried out in stages. Initial stage: ICT training – 2 days, 1000 trainees; Stage 2: HCDA (Huawei certified Datacom associate) training – 5 days, 200 trainees; Stage 3: Internship – 2 months, 50 trainees; Final Stage: Further training in China – 1 week, 20 trainees.	1000 girls	Huawei, Nigerian government	Lagos, Abuja, Shenzhen, China	2013–2016
ICT for Change	Training is targeted at developing the skills of 2000 graduates from engineering and ICT related subjects in order to enhance their employability. Huawei will provide free training on specialist ICT and telecoms areas targeted for use in different sectors such as banking, power, oil and gas, manufacturing, information technology, telecoms, and e-government.	2000 youths	Huawei, Nigerian government	Lagos, Abuja	2016 – ongoing
Government officials' training	A 'train the trainer' programme to equip the participants with skills necessary to carry out training activities in their home country and different ministries. The training focused on the use of IT in the world and in governance, socio-economic value of the mobile industry, digital economy, telecommunication strategy, ICT trends and policies, and cyber security approach and strategy.	8 government officials	Huawei	China	15 days (September 2016)

Table 4. Overview of Huawei's contribution to general education in Nigeria.

Form	Institution	Short description	Duration
Scholarships	University of Lagos (UNILAG)	Huawei initiated the Huawei-UNILAG scholarship in 2011. So far, 20 students have benefitted.	2011 and 2012 academic sessions
Memorandum of Understanding on joint innovation		Huawei continues to collaborate with UNILAG on a number of projects including a 'Joint Open Innovation Laboratory' and an 'Innovation and Experience Centre' set-up at the university in 2016.	2016
Scholarships and Laboratory equipment donation	African University of Science and technology, Abuja (Affiliate of Nelson Mandela Institute)	Huawei signed a MOU in 2014 with the Nelson Mandela Institute (NMI) to provide ICT scholarships to the tune of $30,000 to the African University of Science and Technology, Abuja. ICT products and equipment worth $50,000 were donated to the university to aid in building the university's telecoms research laboratory (Huawei 2014b).	2014

Motives underlying huawei's training initiatives

The degree of training that MNCs provide to their employees varies based on factors such as the mode of entry, type of operations, local conditions, etc. (Blomstrom and Kokko 2002). Huawei's training activities in Nigeria have been shaped by the nature of its operations, organizational strategy, the industrial sector it operates in, local labour conditions, and national institutional structures. For example, Nigerian government regulations such as the local content in ICT policy requires foreign MNCs such as Huawei to provide training to their local employees. Huawei's localization strategy also prioritizes the employment and training of local workforce. Although Huawei's training activities (e.g. *1000 Girls in ICT Training Programme, ICTFORCHANGE – Nigeria 2000 Youth ICT Training*) have been seen CSR initiatives and a move by the company to link its products and services to the developmental needs of the host country, one must add that these trainings also strengthen Huawei's political capital and its brand value as a socially responsible organization. This perception is useful for Huawei when dealing with the local authorities. Corkin (2011) empirically confirmed that large Chinese companies engage in developmental programmes in host African countries to earn useful political capital. This notion gains more credence in light of Huawei's preference for collaborating with the Nigerian government for implementing its CSR initiatives. Doing so ensures that such contributions are not only visible to the local populace but also to the administration. There is an economic argument for companies to carry out CSR activities, especially if they are highly visible and more vulnerable to reputational damage (Vogel 2005), as is the case with Chinese enterprises operating in Africa. Additionally, Huawei's actions in Nigeria align with the directives of the Chinese government for its large multinationals operating in Africa: to contribute to development of the host countries and promote the narrative of win-win partnerships and development – a phrase that Beijing uses to characterize its engagement with Africa, and Huawei uses frequently in its CSR reports. An important question that has been raised is the skill transfer effect of these training activities and their impact on the employability of the beneficiaries (Tsui 2016). These questions are addressed in the subsequent paragraphs.

Effects of training activities on skill and knowledge transfer

Huawei has made significant investments in its training and skill-building activities in Nigeria. Both current and ex-employees (R16, 17, 18, 19, 20) cite the training opportunities offered by the company as one of the reasons for joining the Chinese MNC. They add that the training and experience received at Huawei have enabled them move to higher positions with higher pay and benefits in other telecom companies. A former employee of Huawei (R16), who worked for six years as a wireless 2G, 3G engineer at their head office in Lagos and left to join another mobile telecom infrastructure company explains, '*My experience with Huawei has been so beneficial knowledge wise, working with Huawei gave me a holistic knowledge of telecom…an edge at my current job*'. R17 and R18 also made similar observations. R17 currently works as a consultant engineer and a subject matter expert on Huawei/ZTE radio equipment at a competing MNC within the telecom sector. R18 currently works at a foreign MNC in Nigeria. Both consider the experience and skills gained at Huawei as vital for securing their current jobs and performing their current duties. These responses support previous findings (Mohan and Lampert 2013; Lampert and Mohan 2016) that the presence of Chinese telecommunication companies has enabled Nigerian employees to further their careers in other organizations.

The trainings offered by Huawei in partnership with the Nigerian government helped unemployed or otherwise un-engaged youths occupy their time gainfully. Findings from the *1000 Girls in ICT Training Programme* revealed that the programme overlapped with a five-month-long strike called by Academic Staff Union of Universities in July 2013. Thus, the programme offered the participants, especially those studying in State universities in Nigeria, an opportunity to be engaged when the national universities were closed. One trainee (T1) says, '*The university was on strike […] I just saw free 2-day training programme, after applying I didn't really know what it was going to be about, but I knew it was a free training and a chance for me to just leave the house and learn something*'. According to the trainees (T1, 2, 3, 4), the training afforded them an opportunity to acquire new skills as they had no prior computer engineering/ICT training experience. T3 says, '*The training was impactful, the soft skills training is something one will use everywhere and the technical skills helped me to learn about the telecoms sector*'. Commenting on the 2-month internship experience at Huawei, T3 who was assigned to work on a power project involving Huawei and other companies says, '*The experience was worth it. I got to work with other big companies (multinational companies) on this project […] I learnt a lot working with them*'. Huawei's second youth training programme *ICTFORCHANGE* is designed to ensure that participants have the relevant industry-specific skills and certifications to gain employment in various sectors of the economy. While the goal is promising, its execution and long-term effects on the skills and employability of the participants remain to be seen.

Effects of training activities on employability of trainees

Outside of its training activities for employees, partners, suppliers, and customers, Huawei's training initiatives have had limited impact on the employability of its trainees. For example, from the *1000 Girls in ICT Training Programme*, only five currently work at Huawei on a contract basis. One of the participants (T1) who interned at Huawei says the following of her overall experience: '*I commend what the federal government and Huawei is doing, and they are doing it well, however I have my reservations. The aim of the training was to get 1000 girls into ICT [...] I don't think they achieved it in any way*'. She adds, '*Even the 50 people that did the internship, after the internship, we were just asked to leave, no follow up, nothing at all, they didn't achieve their aim. Huawei retained very few, less than 10 out of 1000 trainees*'. T2, 3, and 4 echoed her sentiments about the disappointing overall outcome of the programme. A trainee (T2) currently working on an outsourced/contract basis with Huawei reflects on her experience:

> '*In terms of learning, the experience in China was great [...] the only thing that was a disappointment is about the employment. We were thinking since we went through training, the internship, travelled to China to undergo further training maybe we had the chance of being retained as direct permanent staff of Huawei*'.

T2 still worked in the department that she joined as an intern; however, the decision to let her continue in the same department was made her supervisor to save time and money on recruiting a new staff member as opposed to a pre-planned outcome of the training programme. Reflecting on the effects of the training on her present and future employability T3 says, '*Well, I'm not sure as I am still unemployed but I think it will be, as I included everything (acquired skills, experience and certification), on my CV*'. The programme lacks a concrete post-training outcome, which should have been planned by Huawei and the Nigerian FMCT. Further, the training programme was not evaluated in terms of its ability to equip the participants with crucial skills and provide them employment opportunities in the sector. This is a major drawback because the participants of the programme were from different academic disciplines; therefore, many possibly required intensive training to compensate for their lack of specialization in telecom and related ICT fields. The impact of such training programmes can be maximized with better coordination between Huawei and the Nigerian government. Nevertheless, the training did provide participants with skills and insights into the telecom industry that they might otherwise not have gained.

Addressing questions on the intended impact of their training programmes, a Huawei manager (R21) says the following about the *ICTFORCHANGE-Nigeria 2000 Youth ICT Training*: '*We do not want to just make some noise. We really want to give them training and skills to enable them to find a good job in the ICT industry. Of course, Huawei also would provide some employment opportunities for them and also give recommendations for those people*'. Though the real motives behind the various projects of the Chinese government and Chinese companies in Africa have been questioned, interview data suggests that Huawei intends for their training programmes and activities in Nigeria to have real benefits for the local populace.

While Huawei has contributed to the skill development and knowledge transfer via its training activities in Nigeria, findings suggest that the Nigerian government has also taken proactive steps to leverage the foreign investments in the telecom sector for HCD. The subsequent paragraphs specifically focus on the local content policy of the Nigerian government owing to its significance for the telecom sector.

The role of government policy

The role of host government policies in human capital formation has been emphasized in various studies. In a bid to channel FDI towards HCD and strengthen the local capacity in the ICT sector, the Nigerian government introduced the local content policy. The National Information Technology Development Agency, an agency under the FMCT, set-up the Office for National Content (ONC) to ensure implementation of the ICT guidelines. One of the guidelines in the policy addresses HCD in the ICT sector. It specifically calls on foreign multinationals to provide a local content plan to the ONC, detailing their vision for 'job creation, recruitment of local engineers, human capital development and value creation for the local ecosystem' (ONC, 2013:19). The policy is similar to the local content policy introduced and implemented in Nigeria's oil sector, which has been effective not only in enhancing local participation but also in creating and deepening linkages between multinational companies and local companies in the sector (Mohan 2016). The reasons for introducing such a policy in the ICT sector mirror those in the oil sector – to drive local participation and enhance human capital. A manager at the ONC (R14) responsible for overseeing the implementation of the policy says the following:

> '*It was clear that there was a capacity challenge in local content participation in ICT [...] This is not simply because Nigeria wishes to capture value but because ICT cuts across and permeates every other aspect of development so there is no alternative but to grow indigenous capacity. So it's not so much as for import substitution or to reduce the stake of foreigners in the Nigerian market but necessarily to create the skills that are needed for Nigeria's development locally. So that's the background of why local content*'.

Although concerns as to whether the policy may act as a barrier to foreign investors have been raised, they are currently manageable. R14 explains how while the policy is being viewed as hostile to the operations of MNCs, they are aimed at creating solutions to work together:

> '*[...] we are aware that foreign multinationals come with critical skills, global templates, and a rich repertoire of knowledge and executed projects to drive skills development locally. What the programme does is create nodes and avenues for collaboration so that certain aspects as it concerns public procurement will have to be done or sourced in partnership with Nigerian companies strategically to transfer knowledge or to train or equip[...]*'.

While the ONC is still in the initial stages of implementing and ensuring compliance to the local content guidelines, they have started receiving development plans from various multinational companies operating in the sector. A manager at Huawei explicitly stated during the interview that they do not view the policy as disruptive or a threat to their operations in Nigeria as they have pursued a workforce localization strategy and are working with operators to develop software with more local content in their R&D centre in Lagos.

It may be premature to evaluate the effectiveness of the policy as it is still in the early implementation phase; however, the policy appears to be a step in the right direction as it has the potential to enhance local capacity and drive innovation and local participation in the sector. The FMCT and ONC's ability to work together with foreign MNCs and other stakeholders in the sector would in part determine the success of the policy.

Conclusions

Against the backdrop of enduring negative perceptions about the labour practices of Chinese enterprises in Africa, this study analysed the skill-building contributions of Chinese investments in Africa's telecom sector, using the case study of Huawei in Nigeria. Despite the growing literature on Sino-Africa relations, few studies explore how the engagement has enhanced or constrained HCD in Africa, particularly in Nigeria. This article bridges this gap. It builds on previous research that justifies government involvement in ensuring that FDI is steered towards development in the host country.

Several key findings emerge from this study. Firstly, the Chinese telecom firm Huawei has contributed to skill building through its numerous training programmes and activities in Nigeria. These mainly comprise training activities targeted towards its local employees and the employees of its suppliers, clients, and customers. Secondly, Huawei, in partnership with the Nigerian government, has contributed to the skill development of the Nigerian youth through two public training programmes intended to equip participants with ICT skills, engage them in the telecom sector, and provide them job opportunities in the sector. Thirdly, Huawei has contributed to general education in Nigeria by offering scholarships and grants and donating equipment to tertiary institutions. The results from this study support the notion that MNCs via training and skill-building activities play a significant role in HCD in their host countries. Additionally, these findings support the argument while Chinese engagement in Africa offers opportunities for HCD, government policy, and strategy play a key role in reaching these opportunities to the respective African countries (e.g. Odoom 2015; Sautmann and Yan 2015; Chen et al. 2016; Agbebi et al. 2017).

Findings indicate that Huawei's contributions to HCD are guided by strategic objectives as well as the desire to generate positive awareness among the public and other stakeholders, gain political capital with the Nigerian government and industry stakeholders, and further promote the narrative of win-win development. Its contributions are also shaped by government regulations and policy within the telecom industry albeit not to a significant extent. These findings supports the notion that though MNCs do not have an altruistic motive, there are strong economic arguments for MNCs contributing to the development of their host countries.

Though Huawei has collaborated with the Nigerian government on a number of training programmes, deepening these partnerships may help the organization ensure that its contributions are sustainable and have a tangible long-term impact on HCD in Nigeria's telecom sector. This case highlights how some MNCs are willing to collaborate closely with the host government to implement training and other CSR activities. This partnership is worth investigating further as it could potentially shed more light on the interactions between MNCs and the host governments and their effects on HCD.

Additionally, these findings reveal that the Nigerian government is keen to leverage the engagement of multinational companies to develop the economy, particularly to enhance local capacity and technology transfer. The government recognizes that the ICT sector is a viable alternative to natural resources such as crude oil in terms of revenue and employment generation. As a result, it has introduced policy actions and initiatives, such as the local content policy, to leverage foreign engagement in the sector. While it is still too early to estimate the effectiveness of the local content policy in ICT, it is a step in the right direction. It is imperative that the Nigerian government continues to collaborate with foreign MNCs in the ICT sector to direct the benefits of their investments towards the development of the sector. Future studies on the effects of the local content policy can contribute to the literature on how host country policies affect human capital formation. In addition, future research could utilize the K4D (Knowledge for Development) framework to study how African governments leverage knowledge for economic growth and development.

Furthermore, as ICT infrastructure improves and foreign firm participation increases, so will the demand for highly skilled labour. While attracting foreign investments is not a challenge, for Nigeria to truly become a knowledge economy and be at the forefront of technology production in Africa, the government should intensify skill-development efforts in the sector. By encouraging partnerships between foreign firms such as Huawei and ICT-focused tertiary institutions and universities, the government can help increase the number of qualified graduates that are absorbed into the sector's workforce. Further, the government can leverage the expertise of foreign MNCs for HCD in Nigeria by encouraging more public-private partnerships in training initiatives.

Furthermore, on one hand, host country policies are said to influence the activities of MNCs, on the other hand, MNC operations could also have an effect on local labour policies (Wood et al. 2014). By collaborating with governments, MNCs can help address systemic constraints to human development impact in the workplace. While this study stopped short on researching this issue, future research could do so, by investigating the broader effects of Chinese MNCs on labour policies in Africa, for instance the ILO decent work indicators (See ILO 2013) can be used to assess if Chinese MNCs play a role in upgrading labour policies in Africa or otherwise.

As highlighted earlier in the paper, the institutional framework for HCD in Nigeria is weak, characterised by inefficient institutions, subpar investments in education and training, and a lack of a coherent and effective education policy and a comprehensive HCD strategy. Thus, making interventions by international institutions such as the World Bank, the UN, and the participation of the private sector in education and training crucial. The evidence in this article highlights the role of MNCs in supporting HCD and capacity building in Nigeria. As this case shows that the support has targeted a range of projects focused on general education, ICT skills training, workplace training, and capacity building.

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IV

Exploring the Human Capital Development Dimensions of Chinese Investments in Africa: Opportunities, Implications and Directions for Further Research

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Exploring the Human Capital Development Dimensions of Chinese Investments in Africa: Opportunities, Implications and Directions for Further Research

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Abstract

This article uses a case-study approach to discuss the effects of Chinese economic engagement on three dimensions of human capital development: local employment, training and skill building, and knowledge and technology transfer. The study findings suggests that Chinese economic engagement can and does contribute to human capital development in Africa; however, this is dependent on certain sectoral factors and contextual conditions. This study advances a working hypothesis that the human capital development impact of Chinese economic engagement will vary across countries and sectors of the African economy. This working hypothesis seeks to guide further research towards developing a theoretical framework for the study of Chinese economic engagement in Africa and its effects on human capital development. The article also identifies research areas that should be further explored in order to gain a deeper understanding of the impact of Chinese economic engagement in Africa.

Keywords

China, Africa, human capital development, foreign direct investments, Sino-Africa Cooperation, Multinational corporations

Introduction

China's engagement in Africa is most visibly concentrated in the areas of trade, investment, and aid. Africa in the past decade has witnessed an influx of Chinese investments in various sectors of its economy. On the one hand, Chinese foreign direct investment (FDI) stock in Africa continues to grow at a steady rate, as at the end of 2016, total Chinese FDI stock in Africa stood at US$40 Billion, showing an increase of US$6 Billion from the previous year's volume of US$34 Billion (Atkins et al., 2017; China Africa Research Initiative (CARI), 2018). On the other hand, there has been a slight decline in FDI flows from China to Africa. Annual FDI flows for 2016 was US$2.4 Billion, a decrease from 2013 volumes of US$3.4 Billion (CARI, 2018). The decline has been

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attributed to the slump in the value of commodities globally as well as China's domestic economic slowdown (Atkins et al., 2017).

Chinese investments in Africa are increasingly diverse in terms of investment locations and sector. While resource-rich African countries tend to attract more Chinese investments, this in itself is not peculiar, as this is generally the case with Western investments in Africa (Chen et al., 2015). Having said that, the presence of natural resources is not the single determinant factor attracting Chinese investments. As Chen et al. (2015) finds in their study on Chinese FDI in Africa, the size of the domestic market and the abundance of labour, amongst other country factor endowments, also influences the location decisions of Chinese investments. This is evident in Chinese investments in non-resource–rich countries like Ethiopia, Kenya, Tanzania, and Uganda. Similarly, sector-wise, Chinese investments are not limited to the natural resources sector; in fact, the services sector, and, increasingly, the manufacturing sectors, attract more Chinese investments (Chen et al., 2015).

One of the sectors with increasingly visible Chinese presence is the telecommunications sector. Chinese telecommunications companies have made significant inroads into the telecom sector in Africa. The presence of Chinese telecom giants such as Huawei and Zhongxing Telecommunications Equipment (ZTE) in Africa is closely tied to China's 'going out' strategy, launched in 1999, the objective of which is to encourage Chinese enterprises to invest abroad, raising their profile and competitiveness in the global market (Gagliardone and Geall, 2014). The launch of the going-out strategy coincided with the wave of liberalisation of the telecom industry in most African countries. This created the perfect opportunity for Chinese telecom firms to invest in Africa's telecom sector and for African countries to raise much needed private capital to build and upgrade their telecom infrastructures and transform their telecom industries.

The Chinese government contributes to financing (via loans, export credits) and supplying telecom and information communication technology (ICT) infrastructure and equipment in Africa through its telecom companies, most notably Huawei and ZTE (Gagliardone and Geall, 2014). For example, in 2006 through a Chinese export-import bank loan of US$1.9 Billion and a subsequent US$1.6 Billion, the Ethiopian government contracted ZTE and Huawei to overhaul their telecommunications systems and expand mobile phone services, and internet connectivity, respectively. Similar examples are visible in countries like Nigeria, Ghana, Guinea, Tanzania, etc. (see Gagliardone and Geall, 2014). Although the foray of Chinese telecom companies into African markets has not been devoid of competition from Western counterparts such as Ericsson, Nokia, Siemens, etc., a combination of competitive pricing coupled with end-to-end service provision has seen Chinese telecom giants, particularly Huawei, dominate the African telecom market and get ahead of their Western counterparts. Chinese investments in this sector contributed to a significant upgrade to infrastructures and increased access to mobile and internet connectivity, thus bridging the digital divide.

Despite the positive effects such investments could have on the African economy, the influx of Chinese enterprises has been welcomed on the one hand and criticised heavily on the other. African governments are keen on attracting Chinese investments into their respective countries with a view to creating jobs, providing training to locals, contributing to infrastructural development, and fostering knowledge and technology transfer. Thus, these investments can contribute to socio-economic development in their respective host countries. However, Chinese economic engagement in Africa has also triggered debates about its consequences on Africa's development. In fact, its effects on human capital development (HCD) have been among the most contentious topics in relation to Chinese investments in Africa (King, 2013). Claims that Chinese companies import workers from China, rarely employ locals and offer little or no training to the ones employed, and subject workers to poor working conditions continue to dominate the China–Africa discourse.

Research that investigates these claims is essential for a better understanding of Chinese economic engagement in Africa and its implications on HCD.

Although Chinese economic engagement in Africa is not without its challenges, it is logical to argue that the engagement could potentially contribute positively to HCD, particularly in sectors such as telecommunications and labour-intensive manufacturing. In other words, we argue that Chinese economic engagement presents opportunities for HCD in Africa; however, these opportunities may vary from sector to sector as well as from country to country. In investigating HCD opportunities presented by Chinese engagement, this paper specifically analyses how Chinese enterprises contribute to HCD dimensions such as local employment, training and skill building, and knowledge and technology transfer.

While a large number of existing studies on Sino-Africa engagement have focused on the nature of the relationship and the larger economic and political implications of the engagement, few studies have addressed HCD-related issues of Chinese economic engagement in Africa (see Table 1 for a summary of extant literature that addresses HCD-related issues of Chinese economic engagement in Africa). These existing studies discuss HCD dimensions within other wider issues such as trade unionisation and labour conditions (Baach and Jauch, 2009), Chinese aid in Africa, industrialisation (Brautigam, 2009), social and cultural dimensions of Chinese investments in Africa (Liu, 2009), etc. – thus, offering only a glimpse of the HCD issues within the context of wider topic areas but not an in-depth look into the HCD dimensions of Chinese economic engagement in itself. Also lacking in these studies is a theoretical basis to analyse and understand the findings as related to HCD. This lack of theoretical understanding leaves much room for interpretation of the findings related to HCD. These theoretical considerations are important, as they help us to understand, explain and reconcile the existing inconclusive evidence on the effects of Chinese economic engagement on HCD in Africa. This paper fills this gap by offering an in-depth view into the workings of a Chinese enterprise, examining its intricacies from an HCD perspective and giving theory-driven rationalisations of the findings. Additionally, this paper offers not just a general narrative of China in Africa, but a concrete view of HCD in the context of Chinese multinational enterprises in Africa. Furthermore, some other studies have focused solely on individual HCD issues, such as employment effects of Chinese economic engagement (Tang, 2010; Sautmann and Hairong, 2015), knowledge transfer (Calabrese, 2017), and education and training (King, 2010, 2013), but there has been no research, to my knowledge, examining the totality of these HCD dimensions in one study. Therefore, this study aims to investigate the HCD dimensions of employment, training and skills building, and knowledge and technology transfer, thus presenting a full picture of the human-resource–development dimensions of Chinese enterprises in Africa as represented in this case. The study concludes by discussing the research and practical implications of Chinese economic engagement for HCD in Africa, particularly the role of multinational corporations (MNCs) in human capital formation.

The paper is organised as follows: the first section summarises existing literature on the effects of MNCs on human capital formation in host countries. The second section explains the methodology and data collection process. The third section presents the findings, which are followed by a discussion of the practical and research implications of the engagement for HCD in Africa.

Analytical framework: effect of MNCs on human capital formation in host countries

Apart from serving as a source of capital for growth in developing countries, FDI, in the form of MNC operations, can facilitate HCD through interactions with the host country's labour market (Majeed and Ahmad, 2008; Slaughter, 2002). This section summarises existing literature on the

Table 1. Current literature on Chinese engagement in Africa that addresses HCD issues.

Author	Focus area	Summary
King (2010) King (2013)	China's soft power in Africa; China's HRD cooperation with Africa	Discusses China's HRD cooperation with Africa and the human resources dimensions of Chinese business in Africa, giving a snapshot of how skills development and technology transfer are situated within different business settings of China in Africa.
Baah and Jauch (2009)	Chinese engagement with Africa – labour prospective	Examines Chinese firms' labour practices against ILO's decent work standards, unionisation, working conditions, and wages in Chinese enterprises in Africa
Monson (2008, 2009)	Chinese development assistance to Africa (TAZARA Railway Project): impact on skills and technology transfer	Presents an account of labour relations between Chinese and Africans on the TAZARA Railway Project, noting an exposure of African workers to Chinese work ethics and new skills and technology.
Brautigam (2009)	China's engagement with Africa, Chinese aid in Africa – implications for development.	Dispels myths of labour practices of Chinese enterprises in Africa. Presents accounts of vocational training within China's aid-financed construction in African countries, and short-term training of Africans under the FOCAC agreements. Notes the involvement of private firms in setting up training institutes in African countries and capacity building in manufacturing sectors in Eastern Nigeria.
Liu (2009)	Socio-cultural dimensions of Chinese investments in Africa	Analyses interactions between Chinese companies and African labour through a cultural lens.
Tang (2010)	Employment, workforce localisation and labour relations in Chinese enterprises in Africa	Examines the impact of Chinese enterprises on local employment in Angola and DRC Congo, and the factors affecting workforce localisation of Chinese enterprises in those countries.
Corkin (2012)	Chinese companies linkages in Angola	Examines Chinese construction companies in Angola from a local-linkages perspective. The study further examines skills and labour relations within the context of Chinese construction companies in Angola.
Shen (2013)	Chinese private investments in Africa	Examines private Chinese investments in Africa, and considers the policy implications for labour and migration issues.
Sautmann and Hairong (2015)	Employment, workforce localisation in Chinese enterprises in Africa	Based on a study of over 400 Chinese enterprises and projects in Africa, the authors examine workforce localisation of Chinese enterprises in Africa, concluding that workforce localisation is already well developed in Chinese enterprises in Africa. Discusses the implications for employment and labour standards in Africa.

DRC Congo: Democratic Republic of the Congo; FOCAC: Forum on China–Africa Cooperation; HCD: human capital development; HRD: human resource development; ILO: International Labour Organisation; TAZARA Railway Project: Tanzania–Zambia Railway Authority.

relationships among FDI, human capital formation, and education in developing countries, particularly at a time when developing countries have adopted an increasingly favourable view towards FDI and MNCs. Studies from an international business perspective on human capital and MNCs are also reviewed. Drawing on these studies, this paper focuses on three dimensions through which foreign MNCs can facilitate HCD: local employment, training and skill building, and knowledge and technology transfer.

Local employment

In countries characterised by relatively scarce capital and abundant labour, the employment creation effects of foreign MNCs are particularly important (Brancu and Bibu, 2014). Foreign MNCs contribute to job creation through *direct employment* of locals, and *indirectly* through the creation of a local supply chain, which ultimately contributes to the job creation process (Peng, 2014). In fact, studies suggest that MNC contribution to indirect employment is typically more significant – it may even outweigh that of direct employment (Lall, 2000; Miranda, 1994). Crucial to realising indirect employment creation is the presence of substantial linkages between MNCs and local firms. By promoting both forward and backward linkages with local companies and industries, where foreign MNCs subcontract to local companies, host countries can boost economic activity and thus job creation.

The job creation effects of foreign MNCs is one of the reasons that countries seek to attract inward FDI. FDI impact on local employment creation may be more positive when it is a greenfield investment, as the MNC creates new jobs (Brancu and Bibu, 2014). Not only do they create jobs, they also often pay higher wages than domestic firms, particularly in developing countries (Aitken et al., 1996). Fosfuri et al. (2001) posit that MNCs use higher wages to attract and retain talent and prevent high labour turnover, which could potentially lead to knowledge spillovers that benefit local competitors. Further, MNCs tend to offer more training than their domestic counterparts (Abdullah, 1994; McKendrick et al., 2000; Ritchie, 2002; Tan and Batra, 1995), particularly in industries that require higher levels of skills and technology, thus giving employees more opportunities for skill and knowledge acquisition and upgrade. Thus, a large Chinese MNC operating in a high-tech sector in Africa, particularly as a greenfield investment, can not only generate jobs but also deliver better training opportunities and higher wages than domestic firms. Accordingly, to investigate the employment effects of Chinese economic engagement in Africa, this study examines both direct job creation and possible indirect employment.

Training and skill building

According to Tan and Batra (1995), enterprises are an integral means of skill development, as they provide the largest share of training in most countries, and the training supplied matches the labour market demands. O'Donnell and Blumentritt (1999: 196) note that training is a mechanism for 'transferring product and process technology and for building the technical and managerial skills of the subsidiary's local workforce'. Apart from their employees, MNCs also train the employees of their customers, subcontractors and suppliers (Blomstrom and Kokko, 2002). Trainings can be formal or informal and can be delivered on the job, in classrooms or via seminars, formal schooling, international training courses, education, etc. The training effects of MNCs are particularly crucial for developing countries, characterised by relatively weak public education systems that result in an equally weak knowledge base (Blomstrom and Kokko, 2002).

Evidence suggests that MNCs carry out more training than local private firms do (Te Velde, 2002), although the type and duration vary depending on the mode of entry, the industry, size and time horizon of the investment, type of operations, motivation for the investment, and local conditions (Blomstrom and Kokko, 2002). For example, MNCs in service sectors focus on strengthening the skills and expertise of their employees (Blunch and Castro, 2005). MNCs in high-technology industries or those requiring an educated workforce tend to provide more employee training (Tan and Batra, 1995; Te Velde, 2002). Some MNCs also contribute to general education and training in their host countries through grants, scholarships, voluntary assistance at different levels of education, and setting up of public education centres (Te Velde, 2002). This is often done as part of the MNCs' corporate social responsibility (CSR) initiative in the host country or projects to develop skills and knowledge. For example, Te Velde (2002) notes that as a part of its CSR in Nigeria, Shell increased its investments in community development by providing secondary and tertiary scholarships as well as vocational training to locals from the communities it operates in.

Given the training effects of large MNCs, particularly those operating in high-tech sectors, the potential for Chinese enterprises operating in this sector to contribute to skill development via training in Nigeria is quite high. In relation to training and skill building, this paper investigates the contributions of Chinese enterprises particularly to Africa's formal and informal training as well as to general education.

Knowledge and technology transfer

Spillovers of knowledge, technological expertise, and management are not only benefits of inward FDI (Slaughter, 2002); they are also the primary expectations of host countries from MNCs. MNCs are regarded as catalysts of technology transfer from developed to developing countries (United Nations Conference on Trade and Development (UNCTAD), 2010). However, such diffusion of technologies is rarely a planned objective of the MNCs; instead it occurs through external effects or spillovers (Blomstrom and Kokko, 2002). Technology transfer to host countries can occur through employee training and knowledge transmission that helps local suppliers improve the efficiency and quality of their supplies (Saggi, 2004). According to Botelho and Pfister (2011: 211), business linkages between 'MNCs and SMEs [small and medium enterprises] can allow small local producers to benefit from an exchange of relevant information and technical knowledge, promote production efficiency, production growth and market diversification, among other benefits'. Knowledge and technology transfer can occur through vertical or horizontal spillovers (Blyde et al., 2005).

Knowledge and technology transfer via horizontal spillovers. 'Horizontal spillovers' are intra-industry spillovers between firms in similar stages of the production process. They typically involve transfer of sector-specific knowledge that would benefit the foreign firm's local competitors. One of the common mechanisms of knowledge diffusion from MNCs to local firms is via labour turnover/mobility (Glass and Saggi, 2002). According to Slaughter (2002: 13), 'if at least some of the knowledge particular to foreign affiliates is embodied in their labour force, then as affiliate employees leave to work for domestic firms this knowledge may move as well'. MNCs often provide their employees with regular training on the job to help them keep up with the latest technology and industry advancements. When these employees leave the MNC, the knowledge and skills acquired may spill-over to local firms that they may join or to the firms they may start (Kokko, 1994).

Labour turnover is more common and perceived more favourably in some sectors, such as high-tech, than in others. Highlighting the peculiarities of the high-tech industry, Shankar and Ghosh (2013) assert that 'the first distinguishing feature is the persistence of substantial employee turnover'. They add that labour turnover is particularly high among high-ability workers than less productive employees. Another distinguishable feature of labour turnover in high-tech industries is that it is perceived as a positive development; thus, no stigma is attached to it, unlike in traditional labour markets. This supports the notion that labour turnover and the consequent transfer of technical knowledge and skills has played a role in the success of many high-tech companies (Shankar and Ghosh, 2013). Given the high turnover rate experienced in the high-tech sector and the subsequent knowledge spillovers, one might posit foreign MNCs operating in a high-tech sector may likely experience knowledge transfer via labour turnover. This study aims to determine if there has indeed been a flow of knowledge via labour turnover through the operations of Chinese enterprises in Nigeria.

Knowledge and technology transfer via vertical spillovers. 'Vertical spillovers' are inter-industry spillovers between firms in customer–supplier relationships. They are likely to involve the transfer of general knowledge, instead of sector-specific knowledge, which would benefit the suppliers or customers of foreign firms. Research has found that technology transfer often occurs through linkages between MNCs and local suppliers (Batra and Tan, 2002). Close linkages between the two create an environment where the local suppliers and customers can assimilate some technology and skills from the MNC (Porter, 1980).

According to Botelho and Pfister (2011), 'business links between MNCs and small and medium-sized enterprises can allow small local producers to benefit from an exchange of relevant information and technical knowledge, promote production efficiency, production growth and market diversification, among other benefits'. Informally, local firms learn from MNCs via trade shows, marketing, supplier/distributor discussions and training, and exposure to MNCs' products, technical support and reverse engineering (Slaughter, 2002). In their study based in Thailand, Wisarn and Bunluasak (1995) found that local supplier firms acquired a basic knowledge of product, quality control, and process technology through their interactions with MNCs. Thus, substantial linkages between MNCs and the local industry may serve as an avenue for knowledge transfer and technology diffusion.

Thus, to the extent that Chinese enterprises have an active network of local partners, suppliers and clients, opportunities for knowledge spillovers are likely. This paper aims to explore the linkages between Chinese firms and local firms in Nigeria, and how these linkages have enabled the flow of knowledge and technology to the local industry.

Methodology

A case-study approach was selected for this study because case studies allow for knowledge building through in-depth observation of a phenomenon, within a contextually rich environment (Schell, 1992). In this paper, the case study provides a deeper understanding of the processes and channels by which MNCs contribute to HCD in host countries and, in particular, how one Chinese MNC contributes to HCD in Africa.

The studied MNC, Huawei Technologies Ltd., is the leading telecom equipment manufacturer in the world and the leading Chinese MNC operating in Africa's telecom industry. Huawei was selected because of the nature of its business and the position and extent of its operations in Africa. Huawei began operating in Africa in 1998 as a complete solutions provider starting with Kenya; today it has offices in 13 African countries, and a presence established in most of the 54 African states. Huawei has been highly successful in Africa, building a reputation of being a 'preferred low cost yet high quality mobile network builder' (Chang et al., 2009). Huawei has dominated the African market with a combination of superior pricing, customer service and brand awareness strategy (Chang et al., 2009). The company is the market leader in terms of market share, ahead of popular brands such as Ericsson, Nokia, and its Chinese counterpart, ZTE. Huawei has embedded itself in the largest telecom market in the world in diverse ways such as building and managing telecom backbone infrastructures, managing telecom networks, offering solutions to network operators and businesses, and selling products such as mobile phones and tablets to consumers. Huawei uses its business in Africa as a training ground to become a global brand, using three channels of Policy, Local Investment, and Marketing (Chang et al., 2009). It prides itself on its ability to leverage its products and resources to connect with development policy in Africa.

Its operations in Nigeria are particularly significant, because Nigeria represents the largest telecom market in Africa. The telecommunication sector has increasingly become a significant sector for its economy. This is particularly true following the government's plan to diversify the economy, with the sector as of Q1 2018 contributing up to 9.19% to the nation's gross domestic product (Nigerian Communications Commission (NCC), 2018). The presence of heavyweight global telecom equipment companies such as Huawei, Ericsson, Siemens, and ZTE in Nigeria has been pivotal to the transformation of the Nigerian telecom industry, leading to much-needed upgrades to infrastructures, increased capacity, accessibility, and coverage. Huawei entered the Nigerian market in 1999, establishing its West African headquarters in Lagos. Since entering the Nigerian market, Huawei has played a critical role in upgrading the country's ICT infrastructure. It has become the leading telecom network equipment provider in terms of market share, and the firm has worked with various network providers, the Nigerian government, and other stakeholders in the sector to upgrade the country's ICT infrastructure.

The telecom industry was selected because this sector has seen a substantial flow of Chinese investments. Further, the telecom industry is a knowledge-intensive high-tech sector and one that is seldom studied in relation to Chinese economic engagement in Africa and its implications for HCD. This case study can potentially offer insights into other MNCs in the ICT industry from emerging economies operating in developing countries.

The findings in this study rely mainly on interview data and on-site observations carried out by the author from March to April 2016 at Huawei's offices in Lagos and Abuja, Nigeria. Twenty-nine semi-structured interviews were conducted. Participants were selected using purposive sampling and the snowball technique. This ensures that individuals with an important perspective on the topic being studied were selected (Mason, 2002; Robinson, 2014). Details of the interviewed participants are presented in Table 2. The interviews explored Huawei's contributions to HCD in Nigeria via the dimensions of local employment, training and skill building, and knowledge and technology transfer. The questions also addressed the policy measures and actions of the Nigerian government in leveraging FDI for HCD in the telecom sector.

Transcripts from the interviews were manually coded and analysed in line with the theory-driven conceptual framework presented earlier. The interview transcripts were also thoroughly examined to gain useful insights into the three HCD dimensions. Excerpts from the interviews have been used to shed light on these key concepts and how they manifest in this case. Interview data were supplemented by other documents such as company reports, press releases, training reports, and policy documents. The supplementary documents were sourced from Huawei's extensive website and its in-house magazine called 'Huawei People', all available in English. Further, policy documents and industry data were sourced from a government agency in Nigeria, namely the Office for Nigerian Content Development (ONC). The document review focused on retrieving critical information about government policies on HCD in the ICT sector (e.g., local content in ICT policy documents) and Huawei's training programmes and CSR initiatives. These documents were also used to supplement and triangulate data obtained from the interviews.

Findings and analysis

The main objective of this work is to investigate opportunities for HCD within Chinese economic engagement using the case study of Huawei technologies, a large Chinese MNC in Nigeria. The paper examines the following: the employments effects of Huawei's operations in Nigeria, its contributions to skills development, and instances of knowledge and technology transfer via labour turnover and linkages between Huawei and local firms.

Table 2. Details of interview participants and schedule.

Code	Affiliation/role of interviewee	Number of interviewees	Location	Interview format	Date of data collection
Government					
R1,2	Federal Ministry of Communications Technology	2	Abuja	Face to face (individual)	30 March 30; 7 April 2016
R3	National Communications Commission	1	Abuja	Face to face	8 April 2016
R4	Federal Ministry of Trade and Investment	1	Abuja	Face to face	6 April 2016
R5, R6	Federal Ministry of Labour and Productivity	2	Abuja	Face to face (paired)	4 April 2016
R7	One Stop Investment Centre	1	Abuja	Face to face	29 March 2016
R8, R9, R10	Nigerian Investment Promotion Corporation	3	Abuja	Face to face (individual)	29 March 2016
R11,12	National Information Technology Development Agency	2	Abuja	Face to face (individual)	6 April 2016
R13,14	Office of National Content in ICT	2	Abuja	Face to face (individual)	30–31 March 2016
T1, T2, T3, T4	Trainee – 1000 Girls in ICT Training programme	4	Remote contact	Skype interview	17 June–22 July 2016
R15	UNILAG Student Affairs Official	1	Lagos	Face to face	22 March 2016
S1, S2	Beneficiaries of Huawei-UNILAG Scholarship	2	Remote Contact	Skype	16 June 2016
Huawei					
R16, R17, R18	Ex-employees	3	Remote contact	Skype	2 August 2016–19 May 2017
Current employees					
R19, R20	Engineer	2	Lagos	Face to face; Skype	15 March 2016; 4 October 2016
R21	Manager	1	Lagos	Face to face	15 March 2016
R22	Training Centre Manager	1	Abuja	Email communication	10 May 2016
R23	Trainer	1	Abuja	Face to face (individual)	7 April 2016
Total number of interviewees		29			

ICT: information communication technology; UNILAG: University of Lagos.

Local employment

The job creation opportunities that MNCs bring are especially important to developing countries such as Nigeria, plagued by high unemployment rates. Given the influx of Chinese FDI into Nigeria, it is expected that Chinese enterprises will generate employment, among other benefits, for the local populace. Findings indicate that Huawei pursues a workforce localisation strategy in

Nigeria, which is reflected in their labour practices. The company currently employs about 1000 employees in Nigeria, out of which more than 70% are locals. The Chinese MNC recruits host country nationals (HCNs) into both expert (engineering and technical) and non-technical/administrative positions. It also offers opportunities for career development based on employee performance. Although the data collected are not adequate to assess the creation of indirect employment by Huawei's operations in Nigeria, they do reveal that the Chinese MNC under study here has an active network of local suppliers and partners. During interviews at Huawei's Lagos office, R21 shared that the company's supply chain currently includes over 500 local partners (suppliers, subcontractors). Given the Chinese multinational's engagement with local suppliers and partners, the indirect employment creation effects in this case are most likely as significant as its direct employment effects (as suggested by Miranda, 1994).

Huawei's labour practices in Nigeria have also been influenced by factors such as industry type, regulatory environment pertaining to work permits and expatriate quotas, presence of skilled labour, the firm's strategy, and its size and scale of operations. Firstly, Huawei is a large MNC operating in a high-tech sector with its West African headquarters in Lagos. This implies that its job creation potential in Nigeria will be high, as large MNCs tend to hire more than their local counterparts (Abdullah, 1994; McKendrick et al., 2000; Ritchie, 2002; Tan and Batra, 1995). Secondly, because Huawei operates in a high-tech industry, its requirement for skilled employment will also be high. Moreover, Nigerian policy on local content (The Office for Nigerian Content Development in ICT (ONC), 2013) and expatriate quotas permits the hiring of skilled expats only in the absence of local capacity. Interviews conducted at the Huawei HQ in Lagos revealed that this Chinese MNC has been successful in hiring locals as a majority of its workforce in Nigeria. A respondent (R21) credits this to the influx of foreign-educated Nigerians returning to the country, enticed by the opportunities. The respondent explained, '…a lot of people are coming back to Nigeria to work here because this is a booming economy. So I don't think that is a challenge for us, we have enough highly sufficient skills'. These returnees or 'repats' have been satisfying the personnel needs of not only Huawei but other MNCs operating in Nigeria.

Studies have shown that MNCs not only create jobs but also actively provide education and training in host countries (Majeed and Ahmad, 2008). Interviews with current and former employees revealed that jobs at Huawei include a high component of both formal and informal employee training, forming one of the reasons that HCNs opt to join the company.

Training and skill building

While most MNCs provide some training to their local employees, the nature and duration vary depending on a number of factors, such as mode of entry, industry, size and time horizon of the investment, type of operations, motivation for the investment, and local conditions (Blomstrom and Kokko, 2002). This is true for Huawei. This Chinese MNC contributes to training and skill development in Nigeria's telecom sector via multiple routes: internal employee training activities; training for clients and partners; and training programs in partnership with the Nigeria government. To date, over 50,000 people have been trained at Huawei's training centre in Abuja (R22). The centre serves Huawei employees in Nigeria and the West African region. Interview responses from former and present employees confirmed that Huawei offers regular training, including classroom and on-the-job training sessions. In fact, the learning and training opportunities offered by the company are among the reasons that many choose to join that Chinese MNC (R16, 17, 18, 19, 20).

During an interview at the headquarters in Lagos, interviewee R21 emphasised that continuous training and learning is crucial in the industry. Both Huawei and its employees actively ensure they are up to date with the latest technology relevant to their operations. Below is an excerpt from R21's response:

> For the staff of Huawei, they are likely to get trained every year, because…our company is a technological company[,] meaning that everybody in this organisation needs to learn fast. This is a basic request for our employee[s], everybody needs to be a big learner…you need to adapt to the technology…you need to know [all] the new things about this industry[,] so we need to [constantly] learn [new things] ourselves… the company will also provide training for us. We have a training centre in Abuja…it was established in 2006…it's for the whole region, not only Nigeria but for West Africa covering certain countries[,] and we provide training for our staff [there].

These responses are in line with studies that show that training is a crucial component for MNCs operating in high-tech sectors (Tan and Batra, 1995; Te Velde, 2002). The rapid development of new technologies and innovations in the sector requires new skills and competencies and necessitates continuous employee training (Te Velde, 2002). To remain competitive, MNCs in such sectors rely on highly skilled workers and therefore invest considerably on employee training. Huawei participates in training programs every year, and its centre has become a crucial training ground for employees of partner firms, telecom operators, clients, Nigerian youths, and government employees (R21). Broadly, the trainings provided cover ICT deployment, telecom equipment operation, management training and general ICT solutions.

Huawei's training activities in Nigeria are also linked to its CSR objectives. This Chinese MNC actively collaborates with the Nigerian government and other relevant agencies for its training activities, with the aim of contributing to social development. Huawei has collaborated with the Nigerian government on two major training initiatives. In 2013, Huawei carried out the first multiphase initiative: *1000 Girls in ICT Training programme*. As part of the programme, 1000 young women were trained in technical ICT and soft skills. Stage 1 entailed two days of ICT training for 1000 trainees; Stage 2 consisted of five days of Huawei-certified datacom associate training for 200 short-listed trainees; Stage 3 entailed a 2-month internship for 50 trainees; and finally, Stage 4 consisted of a week-long training session in Shenzhen, China, for the 20 best trainees from the initial pool of 1000 trainees. The programme was concluded in 2016.

The second CSR initiative, *ICT For Change-Nigeria 2000 Youth ICT Training*, aims at training young graduates from engineering and ICT on specialist ICT and telecom skills for use in different sectors such as banking, power, oil and gas, manufacturing, information technology, telecom, and e-governance. The manager at Huawei (R21) said the following about the program:

> We do not want to just make some noise. We really want to give them training and skills to enable them to find a good job in the ICT industry. Of course, Huawei also would provide some employment opportunities for them and also give recommendations for those people.

As part of its CSR activities, Huawei has also collaborated with tertiary educational institutes in Nigerian universities, namely the University of Lagos and the African University of Science and Technology, Abuja (an affiliate of Nelson Mandela Institute). The firm provides scholarships and technical support and donates laboratory equipment (R21). This is an example of the direct link between FDI and higher education in host countries, which, according to Blomstrom and Kokko (2002), often manifests in the provision of scholarships to students and active support of university development and other related institutes. Huawei's training activities in Nigeria have extended to include Nigerian government officials. In September 2016, Huawei, in coordination with the Nigerian government, organised a 15-day training course in China for eight government officials.

The training was designed as a 'train-the-trainer' programme to equip participants with the knowledge and skills necessary to competently carry out training programmes in their home country.

Huawei's training activities for non-employees shows the MNC's willingness to engage with the government and Nigerian public. This is in agreement with the observation by Te Velde (2002): MNCs, as part of their CSR activities in their host countries, invest in community development projects, including formal education and training.

Knowledge and technology transfer

According to the Organisation for Economic Co-operation and Development (OECD) (2002), MNCs are the world's most important source of research and development activity: they often possess more technological capability than most developing countries. Their potential to generate technological spillovers in host countries is valuable particularly to developing countries, where FDI is one of the most important sources of technology transfer (Blomstrom and Kokko, 2002; Glass and Saggi, 2002). Knowledge and technology transfer occurs through many routes such as demonstration effects, labour turnover, and vertical linkages.

Knowledge and technology transfer via horizontal spillovers. When employees leave, they carry with them the knowledge, skills and know-how gained at their previous firm. Labour mobility is thus a channel by which knowledge and technology from an MNC is transferred to a local enterprise in the host country (Glass and Saggi, 2002). Shankar and Ghosh (2013) assert that high-tech industries, characterised by high labour turnover, enable the efficient transfer of technology. Given the relatively high turnover rate in the ICT industry, it is possible for some level of knowledge and technology transfer to occur via labour turnover in the case of Huawei. Interviews with former employees of Huawei confirmed this. Training and experience obtained by Nigerian employees from Huawei have proven valuable, enabling them to further their careers in other telecom companies. A former Huawei employee R16, who worked for 6 years at the Lagos head office as a Wireless 2G and 3G engineer, capitalised on his Huawei experience to obtain a higher paid position at another mobile telecom infrastructure company. He said, 'my experience with Huawei has been so beneficial knowledge-wise, working with Huawei gave me a holistic knowledge of telecom… [it gave me] an edge at my current job'. Other Huawei ex-employees (R17 and R18) shared similar accounts: the skills and experiences they gained at Huawei helped their career progression at other firms. For instance, R17 joined a competing telecom MNC as a consultant engineer and a subject matter expert after leaving Huawei. Markusen (1991: 19) summarised this phenomenon in the following words:

> It is difficult to prevent knowledge from being transferred to the local employees of the firm who work with and observe the technical and managerial techniques of the firm. After some initial learning period, the workers become capable of opening a rival firm or of transferring their knowledge to new firms in related industries. This becomes a positive externality effect for the local economy arising from the presence of the multinational.

These findings support previous research (Lampert and Mohan, 2016; Mohan and Lampert, 2013) indicating that Nigerian employees have benefited professionally from their experience at Chinese telecommunications companies. It is important to note that skill and knowledge transfer from MNCs to HCNs could also be in the form of soft skills and work attitudes, which are not sector-specific, and as such, easily transferable. A former intern at Huawei (T3) – a participant of the 1000 Girls in ICT Training programme – who was unemployed at the time, was interviewed. She considered her internship at Huawei as her first real employment experience outside her compulsory national youth service year. T3 believed that her association with Chinese culture and approach to work would serve her well in the future because it helped her ‘develop a hardworking attitude’. These experiences confirm how Chinese economic engagement can indeed contribute to HCD in Africa. Exploring and understanding skill transfer via labour turnover, particularly in high-tech sectors, could offer better insights into knowledge and technology diffusion in the context of China–Africa relations.

Knowledge and technology transfer via vertical spillovers. According to Batra and Tan (2002), technology transfer occurs via linkages between multinational companies and their local suppliers. Close links allow local suppliers and customers to assimilate some technology and skills from the MNC (Porter, 1980), and these, in turn, help the local suppliers improve the quality and efficiency of their services or products (Botelho and Pfister, 2011; Saggi, 2004). Huawei’s supply chain in Nigeria includes over 500 local partners, who provide management services, engineering services (civil work, external plant and telecom equipment engineers), auxiliary equipment, logistics, vehicle services, etc. The firm’s considerable international and local experience has enabled it to build and consolidate its local supply chain network. Moreover, its decision to engage local suppliers aligns with its localisation strategy. Further, as a market-seeking MNC (Gugler, 2008), Huawei needs strong local links to adapt its products and services to the local conditions (Botelho and Pfister, 2011). Huawei’s business in Nigeria is such that the company deals constantly with local suppliers and clients who purchase their products and solutions. R21 elaborates on the company’s linkages with local suppliers and partners as follows:

> Talking about local partners, we have a lot. I cannot get the specific figure[s], but I can tell you that we have more than 500 local partners working with us, because in our philosophy we are trying to build an ecosystem in the ICT industry not only for the telecom operators or for Huawei to grow our business, but also for the end users to benefit from the telecommunication services and our partners. To give a very simple example, there are some partners who are building the base stations, who are providing the [inaudible], deploying the cables for us. All of these jobs are done by Nigerian companies, so we focus on the planning of the business. We work with our partners in the telecom industry…we also purchase a lot from [the] local markets that we need to deploy our projects… all these jobs can be done by Nigerian companies[,] so we are outsourcing them to the Nigerian companies.

MNCs often provide their suppliers with technical and managerial training to improve their overall capabilities in the value chain (Botelho and Pfister, 2011). Huawei’s archival data and reports show that the company has defined clear guidelines for procurement requirements and audits to ensure that suppliers are up to industry standards and adhere to the code of conduct required in the electronic industry. Huawei also conducts training conferences on quality for its partners and suppliers across the world. For example, in 2014 Huawei organised the ‘Nigeria Supplier Quality Conference’, which was attended by 106 core supplier firms (Huawei, 2014). This conference is a part of Huawei’s supplier development programmes, which facilitate idea exchange, value integrations, and quality and service enhancements for mutually beneficial MNC–supplier relationships. This signifies some form of knowledge and technology transfer, which, according to Botelho and Pfister (2011), ‘not only includes the technical support and training activities but also means informing and educating suppliers regarding product and process standards…’. Investing in the skills and capabilities of local suppliers and partners makes good business sense, as it improves the local procurement process and ensures that the firm spends less in hiring external expertise – thus reducing operating costs and strengthening local partnerships. The prominence of local firms in Huawei’s supply chain and its supplier development programmes is indicative of considerable backward vertical linkages with local suppliers. This sets the stage for productivity spillovers to occur.

Batra and Tan (2002) argue that vertical spillovers tend to occur between firms in a customer-supplier relationship, typically via exposure to MNC products and services, provision of technical support by MNCs to clients, supplier/distributor training, and discussions leading to knowledge transfer that enhances the productivity and capabilities of the firms involved (Slaughter, 2002). Forward linkages, according to Jindra et al. (2009: 168), include 'all downstream relationships developed between foreign subsidiaries and customers, (sales) agents and distributors in a host economy'. Access to or the use of an MNC's advanced products, inputs and services can enhance the productivity of domestic firms (Driffield et al., 2002; Miozzo and Grimshaw, 2008). This study supports the above argument: Substantial forward vertical linkages have developed because of Huawei's interactions with its clients (telecom operators) in Nigeria. For example, in 2013, Globacom Nigeria, a domestic telecom operator, contracted Huawei, for USD$750 Million, to upgrade its entire telecom infrastructure network for the launch of 4G/LTE services (Telegeography, 2013). This upgrade has enabled Globacom to (a) provide better, more-reliable services to more than 25 million subscribers in Nigeria; (b) increase its network capacity; (c) grow its subscriber base; and (d) ease network congestion, and offer cheaper tariffs (Telegeography, 2015). Thus, Globacom's move has produced far-reaching effects on the productivity of the entire mobile ecosystem in Nigeria.

The introduction of new technology is beneficial not only to Huawei's clients – telecom operators – but also to a larger ecosystem of industries, businesses and individuals in Nigeria who are clients of these operators. For example, in the agricultural sector, increase in mobile penetration has improved agricultural production and distribution (Groupe Spéciale Mobile Association (GSMA), 2015). Further, the spillover effects of technology transfer have drastically changed the mobile ecosystem, as evidenced by the job-creation effect of mobile expansion. According to a GSMA (2015) report, 118,600 jobs have been created for airtime dealers and retailers operating out of supermarkets, technology stores, and small independent points of sale. Additionally, businesses are increasingly using mobile apps, websites, and short message services (text messages) to reach more customers. Nigerian retailers are increasingly using the internet to drive up their sales volume. In fact, online purchases are said to have increased by 15%, and 60% of online buyers having made purchases on their mobile phones from 2013 to 2014 (Aginam, 2014). These developments have been supported by the development and maintenance of critical telecom infrastructures by firms such as Huawei. They have contributed to increased digital penetration and the productivity of mobile operators and service providers in Nigeria. The introduction of new technology also ensures benefits for the wider telecommunications ecosystem, including the mobile operators' value chain and everyday use by individual Nigerians.

Responding to a question on Huawei leveraging its resources for development in Africa, R21 stated that the MNC has been successful in introducing new technology and upgrading existing infrastructures. These developments have not only helped telecom companies increase their productivity but have also led to lower tariffs for the end users. These results support the assertion by Kimura et al. (2011): Private investments in Africa's telecommunications sector have led to infrastructural upgrade and an increase in broadband penetration, which have contributed significantly to economic growth in various countries.

Conclusions and implications of Chinese economic engagement for HCD in Africa

This paper investigated the opportunities for HCD inherent to Chinese economic engagement, using Huawei's operations in Nigeria as a case study. The paper examined three HCD dimensions: local employment, training and skill building, and knowledge and technology transfer. Findings showed that Huawei is an active provider of employment for HCNs and has achieved a workforce localisation rate of 70% in Nigeria. This Chinese MNC is actively engaged in training not only its employees, but also employees of its suppliers, partners, and clients, apart from Nigerian youths and government employees. Further, as part of its CSR efforts, Huawei has contributed to general education in Nigeria, providing scholarships, training, and laboratory equipment to two universities. Additionally, the MNC partnered with the Nigerian government for skill development and training of Nigerian youths via two training programmes: *1000 Girls in ICT Training* and *ICT For Change*. Interview responses showed that the MNC has facilitated skill and technology transfers via labour turnover and vertical linkages. That is, training and experience obtained by Nigerian employees at Huawei have proven valuable for their career advancement outside the firm. Huawei has over 500 local partners in its supply chain and plays an active role in supplier development programmes, organising supplier quality conferences and delivering training programmes for local suppliers, partners and clients.

The case of Huawei in Nigeria's telecom sector highlights the opportunities for HCD present in the operations of Chinese enterprises in Africa. However, these opportunities may not be realisable across the board – they are subject to certain sectoral factors and contextual conditions, such as sectoral differences, institutional frameworks in host countries, firm profile and strategy, labour quality in the host country, etc. The practical and research implications of this study's findings are numerous (see Table 3 for a summary of the findings and practical implications). While there is a growing body of research on Chinese enterprises in Africa, very few studies capture the interactions between these enterprises and their host countries in relation to HCD (King, 2013). Our study fills this gap, but more research is needed to explore the impact of Chinese economic engagement on HCD, particularly across different sectoral and contextual conditions.

This study's findings contain some practical implications. Firstly, there is a clear need for African governments to attract and steer Chinese investments into crucial sectors of their economies to reap benefits for HCD. Government policies and measures are crucial for effectively leveraging these investments for development. While most African governments have relaxed their investment policy regimes to attract FDI, to maximise the benefits for HCD they also need to encourage MNCs to upgrade their operations (to include value-added production processes) and actively promote linkages between MNCs and local firms. This will allow for better knowledge and technology diffusion. This study showed that the Nigerian government uses a local content policy and expatriate quotas to encourage MNCs operating in the ICT sector to employ more HCNs, contribute to HCD, and create value for the local ecosystem. In addition, the government should actively collaborate with Chinese enterprises to route investments and CSR contributions to the appropriate avenues, including training and skill-building programmes for the youth. Further, partnerships between MNCs such as Huawei and local tertiary institutions should be encouraged so that locals and graduates have the relevant skills needed to gain employment with these MNCs. The role of Africa's governments in this engagement cannot be over-emphasised. Gu (2009: 585) summarises this sentiment as follows: "from the African perspective, in the final analysis, whether or not the development impact of Chinese private investment in Africa can be effectively realised rests with African governments and the wider policy[-]making community[,] including civil society".

The study findings also highlight an important drawback in the extant research on HCD implications of Chinese economic engagement in Africa: While there is conflicting evidence in support of and against Chinese economic engagement in Africa (Ado and Su, 2016) and its impact on HCD (King, 2013), there are no theoretical underpinnings to the explanation of the findings. Hence, this paper poses some questions that can guide future research and act as the basis for developing a theoretical framework. Our paper advances the following working hypothesis: The HCD impact of

Table 3. Summary of findings and practical implications.

HCD dimensions	Main findings	Practical implications
Employment	Direct job creation • 1000 employees in Huawei's Nigerian operations • Presence of an active localisation strategy evidenced in 70% localisation rate • Recruitment HCNs in both expert roles (engineers, technicians, network specialists, etc.) and administrative/managerial roles (sales, marketing, project management, Human resources, etc.) Possible indirect job creation • Presence of linkages with local firms such as suppliers, customers and partners	• Employment opportunities for HCNs • Opportunities to gain valuable work experience in a high-tech sector working for an MNC • Increase in income and subsequently standards of living • Jobs with a high component of training and wages
Training and skill building	Formal and informal training • Employee training delivered in classrooms, on the job and at Huawei's headquarters in Shenzhen, China • Training for local suppliers, clients and partners; contributions to general education and training in host country • Scholarships offered to students at UNILAG • Student scholarships and donations for laboratory equipment at AUST • Training programmes for Nigerian youths — 1000 Girls in ICT Training — ICT For Change-Nigeria 2000 Youth ICT Training • Training for Nigerian government officials	• Increase in advanced skills and expertise of HCNs that could potentially lead to career advancement • Acquisition of skills, leading to better chances to gain employment

Table 3. (Continued)

HCD dimensions	Main findings	Practical implications
Knowledge and technology transfer	Horizontal spillovers • Labour turnover Vertical spillovers • Linkages with local suppliers, clients and partners • Supplier development programmes, e.g. 2014 Nigeria Supplier Quality Conference	• Former employees can start their own firms, thus leading to further job creation and increase in local content in the sector • Former employees can offer their experience and skills for career advancement in other choice firms • Opportunities for productivity and knowledge spillovers to occur • Exposure of local firms to industry product and process standards • Knowledge transfer and technology diffusion to local firms, leading to increase in productivity and capabilities • Introduction and exposure to new technology and processes with far-reaching spillover benefits across the entire telecommunications ecosystem

AUST: African University of Science and Technology; HCD: human capital development; HCN: host country nationals; MNC: multinational corporation; UNILAG: University of Lagos.

Chinese economic engagement will vary across different sectors of the African economy and across countries. For example, capital-intensive sectors are likely to offer more opportunities for training and technology transfer than labour-intensive sectors. Further, capital-intensive industries are more likely to benefit from HCD; employees will be provided competency-enhancing training for business reasons rather than for altruistic purposes. Likewise, the scope for local employment generation could be potentially higher in labour-intensive sectors than in capital-intensive sectors. Labour-intensive industries are more likely to benefit through direct employment. In other words, the host country's and the host industry's characteristics are the key factors determining the HCD impact of Chinese economic engagement, and these are highly likely to differ across sectors and industries. This working hypothesis raises the following research questions, which, if addressed, can contribute to a conceptual framework to guide comprehensive research on the HCD impact of Chinese economic engagement in Africa:

- Which sectors are more likely to benefit and suffer because of Chinese economic engagement in terms of HCD, and why?
- What sectoral and contextual factors enable or constrain HCD through Chinese economic engagement?
- In what ways do host government policies enable or constrain HCD through Chinese economic engagement?
- Do African governments leverage Chinese economic engagement for HCD in Africa, and if so, how?
- In what ways do home country policies enable or constrain HCD through Chinese economic engagement?
- In what ways do Chinese MNCs' organisational strategies or policies enable or constrain HCD in Africa?

These questions and the working hypothesis provide an opportunity to examine holistically the impact of Chinese economic engagement on HCD in Africa, and a range of research methods could be utilised in future studies to answer these questions. The qualitative case-study approach was the preferred method for this study. It affords an empirically rich, context-specific account of the implications of Chinese economic engagement for HCD in Africa. Due to the important nature of context in this study, the case-study approach also gives the opportunity to delve into context-specific factors that may influence HCD contributions of Chinese enterprises in Africa. Having said that, the nature of the study sample size makes it difficult to generalise the results to Chinese enterprises in other industries and countries. This, however, further stresses and supports the working hypothesis proffered in this study that *the HCD impact of Chinese economic engagement in Africa will vary across industry sectors and countries due to the differences in sectoral and contextual conditions*. Further studies could test this by carrying out a comparative study on a wider sample featuring Chinese enterprises in different sectors and different countries. Additionally, a mixed-method approach could be appropriate when looking at a wider scope of study. For example, the use of large-scale surveys coupled with in-depth interviews for multiple-country cases, with multiple organisations in different industrial sectors. Researchers can utilise large-scale surveys designed to capture and compare the role that factors such as sectoral conditions, organisational strategy and contextual conditions play, and to what degree they influence the impact of Chinese enterprises on HCD in Africa. In addition to that, in-depth interviews will help gain deeper insights into the survey results. As emphasised by King (2013), detailed studies that consider the wider investment climate and the crucial role of 'African agency' are necessary to understand Chinese FDI and its impact on Africa's industrialisation and HCD.

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