African Returnees in International Knowledge Transfer: A Social Capital Perspective

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Abstract

In response to the fast growing number of African returnees and the important roles that they play in transferring international knowledge back to the African continent, this qualitative, exploratory study unpacks the role of African returnees in delivering international knowledge obtained from another social context of the Global South through their work and/or study experience, and identifies social factors that facilitate or hinder international knowledge transfer from a social capital perspective. Drawing on qualitative interview data collected from 20 Ghanaian returnees plus an expert interview, observation notes and archival data, we develop an enhanced social capital model in the Global South context. Our model strengthens the understanding of the role of diaspora in international knowledge transfer in general, and that of African returnees in knowledge transfer in the Global South in particular. Specifically, this study offers insights on the interconnections among the three dimensions of social structure (i.e., market relations, social relations and hierarchical relations), African returnees' relations in their social structure, the sources of social capital derived from social relations through opportunity, motivations and ability, and the value created for successful knowledge transfer as a result of the integrative effects of returnees' social capital.

Key words: African returnees, international knowledge transfer, social capital, China, Global South

1. Introduction

The role of international returnees in international knowledge transfer has attracted much attention in the literature (Bai et al., 2019; Liu et al., 2010; Tran and Truong, 2022; Wang, 2015). However, to the best of our knowledge, few studies have focused on African returnees. An exception is a recent publication by Lam and Rui (2023) on highly skilled migrants who returned from developed countries to Ethiopia. The rarity of knowledge stands in striking contrast with the reality of business and society in African countries: about 40.6 million African migrants live outside their country of origin, of which over 48% were outside the continent in 2020, according to a recent report jointly published by Africa Europe Foundation (AEF) and Mo Ibrahim Foundation [1]. These diaspora, if returned home, could play a multifaceted facilitative role in transferring knowledge that they learn from their host countries to African organizations, such as supporting the latter to improve their efficiency and competitiveness, facilitating networking activities of indigenous organizations, and mentoring indigenous managers; these will ultimately contribute to economic and social development of their home countries (Gillespie et al., 1999; Ojo, 2017; Wang, 2015; Wei and Balasubramanyam, 2006). Thus, there is an urgent need to understand the nexus of African returnees and international knowledge transfer. This study tackles the research gap by addressing the research questions: *What social factors facilitate or hinder international knowledge transfer by African returnees, and how do they make the impact?*

There are two parallel streams in research on returnees and multinational enterprises that are related to our research questions. First, although the positive role played by returnees in international knowledge transfer is widely accepted (e.g., Han et al., 2019; Lam and Rui, 2023; Lin et al., 2019; Zhang and Guan, 2021), the returnee literature has highlighted potential returnee liabilities: cross-institutional differences between the *developed* host country and the *developing* home country for returnees may hinder the degree of knowledge transferred (Mreji and Barnard, 2021). Nevertheless, the only publication on African returnees by Lam and Rui (2023) addresses the *developed-developing* country migratory context, leaving a glaring gap on the role of returnees in international knowledge transfer in the *developing-developing* country context, or the *Global South[2]* context where collaborations among developing countries have

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[1] Africa and Europe: Facts and Figures on African Migrations [online]
https://mo.ibrahim.foundation/sites/default/files/2022-02/aef_summit_african-migrations.pdf.
[2] The Global South, or developed regions, broadly comprises countries in the regions of Africa, Latin America and the Caribbean, Asia (without Israel, Japan, and South Korea), and Oceania (without Australia and New Zealand); the Global North, or developing regions, broadly comprises Northern America and Europe, Israel, Japan, South Korea, Australia and New Zealand, according to United Nations Conference on Trade and Development. The Global North-South divide refers to the social-economic and political characteristics between developed and developing countries. https://unctadstat.unctad.org/EN/Classifications.html

received greater attention as they gain increasing economic power in the world economy (Dados and Connell, 2012; Dahi and Demir, 2018).

Second, research on multinational enterprises (MNEs) has argued that similar institutional environments between the *developing* home and the *developing* host countries of MNEs can give these firms advantages over *developed* country MNEs (Cuervo-Cazurra and Genc, 2008; Rui et al., 2016). Knowledge and resources possessed by MNEs headquartered in developing countries can be more relevant to other developing host countries, whereas MNEs headquartered in developed countries may not have compatible knowledge about a developing host country, such as knowledge about local consumers' preferences (Cuervo-Cazurra and Genc, 2008; Rui et al., 2016). Moreover, knowledge from different institutional or organizational contexts in a developed country may not be effectively absorbed by recipients in a developing country due to technological gaps or the recipients' weak absorptive capacity (Cuervo-Cazurra and Genc, 2008; Rui et al., 2016). Bridging these two parallel research streams that have highlighted the role of knowledge relevance and knowledge transferability, we focus on international knowledge transfer by African returnees who worked and/or studied in developing countries, addressing the research gap on international knowledge transfer in the *Global South* context.

We adopt social capital theory (Adler and Kwon, 2002) as our theoretical lens, since knowledge, particularly tacit knowledge, is socially situated and socially constructed. The tacit element of most knowledge thus makes social factors a particular important influence in successful knowledge transfer. Although the knowledge transfer literature has deemed social capital as a valuable strategic instrument for the understanding of how knowledge, organizations (knowledge source and knowledge recipient), and strategy interrelate and interact in the process (Gooderham et al., 2011; Inkpen and Tsang, 2005, 2016; Wei et al., 2011), social capital theory has not been employed to unpack underlying social conditions of international knowledge transfer in the Global South context. Drawing on qualitative interviews with 20 Ghanaian returnees from China, we build on Adler and Kwon's (2002) model by identifying the interconnections among three dimensions of social structure (i.e., market relations, social relations, and hierarchical relations), African returnees' relations in the social structure, the sources of social capital derived from social relations through opportunity, motivations and ability, and the value created for successful knowledge transfer as the result of the combinative effects of returnees' social capital. Since context is essential to international knowledge transfer enabled by social capital and affects the translation and absorption of international knowledge transferred (Choi and Johanson, 2012), our findings further reveal new insights into the contextual contingency that underpins the nexus of African returnees and international knowledge transfer. Specifically, language and perception underscore the value of social capital in international knowledge transfer.

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The paper intends to make the following contributions. First, it sheds light on the role of returnees in international knowledge transfer by focusing on one of the novel foci, African returnees. As noted by Adomako et al. (2022) in the Special Issue Call for Journal of International Management, more research is needed to improve the attractiveness and the competitiveness of African business environment; and to refine theories that were developed outside Africa and explore context-specific theories for Africa. We respond to this call by focusing on African returnees who are important human capital in the business environment and the successful utilization of human capital would make Africa more attractive and competitive. We use qualitative interviews to investigate how social capital is created and further leveraged by African returnees who worked and/or studied in another developing country to transfer knowledge back home. Informed by research data and focusing on the Sino-African context, we extend a social capital-based conceptual framework - Adler and Kwon's (2002) model - to highlight social factors that facilitate African returnees to transfer knowledge transfer from the developing host country to their home country.

Second, this study provides a holistic, multi-level view on international knowledge transfer in the *Global South* context. Our literature search reveals that the majority of returnee research focuses on the Global North-South context where collaboration and knowledge transfer take place between developed and developing regions (e.g. Krannich and Hunger, 2022; Croitoru, 2020; Gruenhagen, et al. 2020; Liu, et al. 2020; Wentrup, et al. 2020; Armanios, et al. 2017; Zagade and Desai, 2017; Farquharson and Pruthi 2015; Avle, 2014; Higuchi and Inaba, 2012; Akesson, 2011). Within the Global North-South context, literature on international knowledge transfer is restricted to very few bilateral links from the Global North to the South and other historical links (Bakewell and de Haas, 2007), for instance, from France to Francophone Africa and from the UK to British ex-colonies (Bakewell and de Haas, 2007). In stark contrast, very few studies address the Global South context where returnees move between developing regions. For example, Gomes (2018) focuses on Ethiopia-Saudi Arabia return labor migration. With the rise of the Global South (such as Brazil, China and India), it is opportune to study the Global South context to develop theory and advance practice and policy on international knowledge transfer. For example, China is a widely recognized for its extensive and effective employment of diasporic returnees in its development. Scholars have argued that China's development might have been very different, had it not been the contributions of its returnees (Saxenian, 2002; Wei et al., 2017) and it is hoped that this strategy can be replicated by returnees from China to Africa.

Overall, our study highlights that international knowledge transfer is a costly, complex and challenging process, constrained by many factors including characteristics of the knowledge giver and the knowledge recipient, the quality of their relationship, and causal ambiguity - a state of uncertainty

that entails incomplete understanding and knowledge (Liu et al., 2015). With their knowledge about the home and host countries, returnees can act as an agent for international knowledge transfer (Kapur, 2001; Kenney et al., 2013; Lin, 2010; Liu, Lu and Choi, 2014; Liu et al., 2010; Wang, 2015). The tacit element of most knowledge makes the social and cultural context a particular important factor in successful knowledge transfer. This research has illustrated that returnees can act as both the source of international knowledge and the facilitator for international knowledge transfer (Saxenian, 2002). They can also establish formal and informal contacts with indigenous organizations (Commander et al., 2008). Indigenous organizations can observe and absorb new knowledge and ideas from returnees that are not otherwise readily accessible locally and tap into returnees' networks easily due to shared cultural background (Nanda and Khanna, 2010). Through interacting with returnees, indigenous organizations can collect and evaluate information and knowledge possessed by these returnees, establish new contacts through returnees' networks and identify economic opportunities. Thus, returnees are not only direct source of knowledge transfer; their presence also facilitates knowledge transfer and diffusion. Returnees have been documented to contribute to scientific and technological development in China, France, India, Russia, South Korea and Taiwan (Altenburg et al., 2008; Breschi et al., 2017; Choudhury, 2015; Commander et al., 2008; Nanda and Khanna, 2010; Saxenian, 2002).

2. Theoretical Background

2.1 Returnees and International Knowledge Transfer in the Global South Context

The role of diaspora in their home country development is a widely studied topic (e.g., Breschi et al., 2017; Gillespie et al., 1999; Rana and Elo, 2017; Tung and Chung, 2010; Wei and Balasubramanyam, 2006). Recently, the focus of academic attention has shifted from monetary remittance by migrants to contributions of returnees to their home countries. Returnees, defined as individuals who left their home country for education or work for a period of time and then returned home, have been recognized as a major conduit of international knowledge transfer (Bilecen and Faist, 2015; Kapur, 2001; Kenney et al., 2013; Lin, 2010; Liu et al., 2014; Liu et al., 2010; Park, 2019; Wang, 2015). International knowledge transfer is defined as "transferring general and specific knowledge regarding foreign cultures, political-social context, and business environments, knowledge of local organizational practices, as well as knowledge of key suppliers and clients" (Lazarova and Cerdin, 2007: 422).

Returnees can act as both the source of international knowledge and the facilitator for international knowledge transfer. They are simultaneously embedded in two country contexts, their home and host country, and are familiar with social norms in both countries (Han et al., 2019; Tran and Truong, 2022). Embeddedness in the host country gives them an opportunity to acquire host country knowledge. When

returning to their home country, they can assess local environment, negotiate with local bureaucracy, and leverage the acquired knowledge for their own work. Returnees may have retained social and professional contacts they built while in the host countries and draw upon sources of additional knowledge from host countries, acting as a conduit continuously transmitting scientific and technical knowledge on a contractual or causal basis (Lin et al., 2019). They may also establish formal and informal contacts with indigenous organizations. Indigenous organizations can observe and absorb new knowledge and ideas from returnees that are not otherwise readily accessible locally and easily tap into returnees' networks due to a similar cultural background. Through interacting with returnees, indigenous organizations can make use of information and knowledge possessed by these returnees, establish new contacts through returnees' networks, and identify economic opportunities (Tzeng, 2018). Thus, returnees are not only direct sources of knowledge transfer, but also cross-border knowledge brokers. They are well positioned to facilitate international knowledge transfer and diffusion and integrate knowledge acquired from the host country with their activities in the home country. There is clear evidence that returnees have contributed to scientific and technological development in different countries (Altenburg et al., 2008; Breschi et al., 2017; Choudhury, 2015; Commander et al., 2008; Nanda and Khanna, 2010; Saxenian, 2002a).

The positive role that returnees played in international knowledge transfer, nevertheless, is subject to debate. Questions have been raised on the effectiveness of returnees as knowledge agents. Tung and Lazarova (2006) find that many returnees had difficulty in re-adjusting to their home culture and experienced reverse cultural shock, which limits their ability to reconnect with networks in their home countries. This in turn restricts their role in international knowledge transfer. Chen (2008) considers a contingency factor - the degree of embeddedness of the returnees in both the home and host country networks in international knowledge transfer. In the case of high-tech entrepreneurship in Zhong Guan Cun, Beijing, most returnees are weak knowledge brokers due to the low degree of embeddedness of the returnees in the networks. Wang (2015) echoes Chen (2008), but also argues that there is another contingency factor – knowledge complementarity between the returnees and the knowledge recipients; the positive effects of embeddedness on international knowledge transfer diminish when other returnees are present in the home-country workplace, but such positive effects are reinforced when returnees' industry experience from abroad matches the industry category of their home-country organizations.

Notwithstanding the insights that we have gleaned from these studies, prior research has yet to focus on international knowledge transfer between developing and developing countries in the Global South. Such research setting is important for reasons related to knowledge relevance and knowledge transferability. The international business literature has recognized that developing countries have similar

institutional environments, thus knowledge and resources possessed by developing countries can be more relevant to other developing countries than knowledge from developed countries (Cuervo-Cazurra and Genc, 2008; Kubny and Voss, 2014). The technology catch-up literature has also paid attention to the role of knowledge and particularly drawn attention to the role of technology gap (Wang et al., 2014). Whereas some degree of technology gap generates the scope for catch-up through knowledge transfer, diffusion and assimilation, significantly higher levels of technology gap create barriers to knowledge transfer, diffusion and assimilation, undermining catch-up. As technology gaps between developing countries tend to be lower than that between the developing and the developed countries, the catch-up literature reinforces the view that advanced knowledge created in another developing country may be more relevant to African countries. Additionally, the relatively lower technology gap between African and other developing countries may enhance knowledge transferability, as such knowledge may be perceived as being of higher value to indigenous organizations due to the match between high knowledge adequacy and high context relevance; hence, such knowledge may be easier for locals to assess, understand and absorb (Armanios et al., 2017; Dahi and Demir, 2018; Rui et al., 2016; Wang, 2015).

To enhance our understanding on whether and how African returnees transfer knowledge from other developing countries, this study uses social capital theory to explore social factors that facilitate or hinder international knowledge transfer by Ghanian returnees from another developing country – China. Furthermore, the context is essential to the international knowledge transfer process and affects the translation and absorption of international knowledge recipient countries (Cuervo-Cazurra and Genc, 2008; Kubny and Voss, 2014). Our findings can help researchers and practitioners focus on policy and managerial attentions on diaspora and knowledge transfer in the Global South context. For example, China is a widely recognized for its extensive and effective employment of diasporic returnees in its economic development. Scholars have argued that China's development might have been very different, had it not been the contributions of its diaspora (Saxenian, 2002; Wei et al., 2017). Hence, it is hoped that Ghana can replicate China's success in international knowledge transfer facilitated by their own returnees.

2.2 Social Capital and Knowledge Transfer

As the tacit element of most knowledge makes the social context a particular important factor in successful knowledge transfer, we invoke social capital theory as the underlying theoretical foundation of this study. The seminal work of Inkpen and Tsang (2005) marks the start of incorporating a social capital perspective into knowledge transfer research. Research in this area continues to develop, but it has largely focused on individuals within specific networks, e.g. professional networks,

intergovernmental organizations (as a network form) and networks of buyers and suppliers, and knowledge transfer within or across organizations (Inkpen and Tsang, 2016). In contrast, this study focuses on social capital of a particular group of population, i.e., African returnees, and its effect on international knowledge transfer. Thus, this study contributes to the micro-foundation (African returnees) of a macro-phenomenon (international knowledge transfer).

We follow Adler and Kwon (2002, p.23) in conceptualizing social capital: "[s]ocial capital is the goodwill available to individuals or groups. Its source lies in the structure and content of the actor's social relations. Its effects flow from the information, influence, and solidarity it makes available to the actor." Adler and Kwon (2002) differentiate the sources and effects of social capital, and also propose a conceptual model of social capital. The logic of their model is that social structure underlies social capital. Social capital, i.e., the "goodwill", becomes resources available to individual actors for their use in the knowledge transfer process. The sources of social capital are located in the formal social structure, which consists of three inter-related dimensions: market relations, social relations and hierarchical relations. Within market relations, products and services are exchanged by actors/agents for compensation, while hierarchical relations are about the compliance to authority in return for economic, health and safety security. Social relations concern activities that actors carry out together for social, as opposed to production/work, purposes. These relations become "social capital" when they can be converted into resources that can be used to meet the interests of actors (Coleman, 1988). Both market and hierarchical relations interact with social relations that underlie social capital. In other words, social relations directly influence social capital, but both market and hierarchical relations play an indirect role by shaping the structure of social relations.

The convertible process from social relations to social capital involves three conditions: opportunity, motivation, and ability (Alder and Kwon, 2002). Opportunity signifies a relevant event to utilize the social relations for social capital creation and transaction (Alder and Kwon, 2002). Motivation concerns the relevant stakeholders' willingness to engage in social relations in the absence of market or hierarchy requirements, while ability pertains to an actor's competencies and resources when engaging in the social relations in a way that generates value of social capital (Alder and Kwon, 2002). These three conditions are closely associated with the generation of social capital as social relations only become valuable when the actors are motivated and have the ability to leverage their social relations with others for their own benefits, given opportunities. This value creation process is not cost-free, but instead requires extensive engagement in a variety of social relations over time.

Social capital affects an individual's ability to transfer knowledge. Leveraging social capital for international knowledge transfer is also a contingency process. Adler and Kwon (2002) argue that the

value of a specific type of social capital relies on diverse situational factors, such as the specific task and symbolic demands placed on the focal individual and the accessibility of complementary resources. By employing a qualitative approach, we set out to yield more detailed and nuanced understandings of these contingencies that affect the knowledge transfer process in the research context within which African returnees deliver international knowledge obtained from another social context of Global South.

3. Data and Methodology

This study focuses on African returnees who had studied and/or worked in China with cumulative experience of at least one year. China is a widely recognized example in its extensive and effective utilization of diasporic returnees in her development. There is a targeted and institutionalized plan for diaspora's involvement in homeland development. At the start of opening up in the late 1970s, official organizations at the central, provincial, county, and even village levels were established to encourage diaspora to contribute to homeland development. The government also instituted a range of policies and programs to attract diaspora investment or diaspora scholars and innovators, e.g., the Law of the People's Republic of China on the Protection of the Rights and Interests of Returned Overseas Chinese and the Family Members of Overseas Chinese, the State Council's Regulation on Encouraging Overseas Chinese, Hong Kong, and Macao Compatriots to Invest in the Mainland, Ten Thousand Talents Program (previously Thousand Talents Plan), the Changjiang Scholars Program, the International Talents scheme of the Chinese Academy of Sciences, and the National High-level Talents Special Support Program. China has also enacted various returnee policies to improve returnee firms' access to finance (Zhang and Guan, 2021).

While existing research has suggested potential knowledge transfer and spillover effects from China to Africa due to Chinese organizations using knowledge and technologies that may be more appropriate for the Africans (Busse et al., 2016; Rui et al., 2016), we know little about the role of returnees in the process of transferring Chinese knowledge for use in the African context. It has been reported that China is a host to about 500,000 African migrants[3]. Among African countries, Ghana is one of the leading home countries of returnees. For example, although data on Ghanian traders are unavailable, Ghana Immigration Service data reveal that an estimated 22,000 Ghanaians visited China in

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[3] https://www.migrationpolicy.org/article/migration-trade-china-africa-traders-face-precarity

2019[4]. It has also been recorded that Ghanaian was the largest group of African students in China between 2011 and 2016[5,6]. We therefore choose Ghanaian returnees from China as our sample frame.

We adopted a qualitative research approach to understand this complex phenomenon. The qualitative approach is suitable for this study given its focus on understanding the Ghana-China context and the meaning of human experiences by capturing subjective insights and perspectives from African returnees (Denzin and Lincoln, 2018), which aligns with the objective of this study. In particular, a qualitative, exploratory approach helps to better understand the complexities of this emergent and evolving phenomenon given its effective use in investigating complex interrelationships between research objectives and their contexts. It also provides a richer and deeper understanding than a large sample quantitative study (Morris and Wood, 1991). Qualitative interviews were most appropriate because Ghanaian returnees are still an emerging phenomenon due to its short history of a significant increase of Ghanaian returnees from China. To provide flexibility and enhance trustworthiness to yield new understandings (Denzin and Lincoln, 2018), interviews with returnees were complemented and triangulated with expert interviews, observation notes and secondary data. The data collection process was completed in three stages (see Figure 1).

Insert Figure 1 here.

In the first stage, two of the co-authors visited Ghana to collect observational data to explore the research context and understand the research setting (Lincoln et al., 2011). By visiting the workplaces of Ghanaian returnees from China and observing their daily practices, we set the preliminary research direction to probe the influence of social factors on international knowledge transfer. Since there is no existing database on Ghanaian returnees from China, we tapped into one co-author's personal network and LinkedIn.com first to identify potential interview participants, and then applied snowballing sampling to increase the number of potential participants to build up our own sample frame, with a list of names and contact details. We also developed the first draft of interview questions for the planned semi-structure interviews in the second stage. After coming back from Ghana, we had multiple face-to-face and online meetings to exchange ideas and revise interview questions with the support from observation notes and relevant literatures (Charmaz, 2006).

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[4] https://news.cgtn.com/news/2020-07-05/Ghana-China-diplomatic-relations-A-journey-worth-celebrating-RStwASQigo/index.html
[5] https://chinapower.csis.org/china-international-students/
[6] https://thebftonline.com/2018/editors-pick/ghana-tops-african-students-in-china/

In the second stage, we conducted an online expert interview with one Ghanaian immigration officer, who had training experience in China. Benefiting from his knowledge and information in the experience of Ghanaian returnees from China, we further confirmed our research objectives and context (Lincoln et al., 2011). We then carried out pilot interviews with two returnees to test and improve our interview questions (Cataldi, 2018). Subsequently, we completed the interview guideline (see Appendix A) which includes 20 open-ended semi-structured questions, allowing us to ask follow-up questions when needed.

In the third stage, we conducted interviews with 20 Ghanaian returnees. From the list of potential participants that we identified in Stage 1, we selected interview participants to cover diverse study and work experiences, current professional backgrounds, and to ensure age and gender diversity. The demographic information of interviewees is reported in Table 1. Interviews lasted about one hour. Under the guarantee of anonymity, all interviews were digitally recorded and transcribed within 24 hours of the interviews to minimize information loss. Supplementary information was obtained through emails, where necessary, following the interviews.

Insert Table 1 here.

In the data analysis process, multiple meetings were held among all co-authors to discuss the interview contents and emerging codes and themes, especially in light of our novel research context as African returnees from China contributing to their home country development through international knowledge transfer. Noteworthily, an iterative and reflexive data analysis approach was adopted which enabled timely reflections and intellectual exchanges among co-authors (Miles and Huberman, 1994). This helped authors remain focused on the research question and to (re-)interpret and (re-)analyze the data in a reflexive manner. We followed the guidelines suggested by Miles and Huberman (1994) and Charmaz (2006) to implement a grounded approach to data analysis, given the emerging and unestablished nature of international knowledge transfer by African returnees (Ado et al., 2017; Liu et al., 2015).

Specifically, we took the stance of a grounded theorist to understand experiences and perceptions of samples in a rigorous and specified manner (Denzin and Lincoln, 2018). The coding process is guided by this stance and objective. First, recordings and transcriptions were reviewed by two co-authors. This offered us an opportunity after the interviews to revisit the data and to prepare for the first cycle open coding. Second, during the transcription and proofreading process, we kept a memo noting changes of tone, including pauses and emphasis, and marked those changes together with notes taken during the

interviews. This enabled us to track the emotional change of participants and supported subsequent analysis by providing 'a written video recording' to probe the reason for their emotional shifts relating to the research topic. Third, we wrote down information that we were curious to know more. This allowed us to see whether this issue was brought up in the follow-up questions during the interviews and encouraged us to reflect and improve for future interviews. The notes taken in the memo act as our mirror and assistant during data analysis.

Within the first cycle open coding process, we made judgements on the meanings of contiguous blocks of text by highlighting and labelling them with codes (Saldaña, 2016). This was an iterative and comparative process of linking a conceptual label (e.g. expectations) with a section of the conversations that delivered an understanding of the related topic (Flick, 2007). We (re-)read the transcriptions line by line and primarily drew from etic codes (e.g. intellectual exchange) in relevant but limited existing literature, following Charmaz (2006)'s notion on constructivist grounded theorist possessing knowledge and guidelines before collecting and analyzing data. A systematic codebook was developed in this stage, listing key codes, explanations and examples to facilitate the formation of hierarchical codes (Tracy, 2013).

Grounded theory analysis further calls for integrating significant codes emerged to yield contextual and justifiable themes (Bryant and Charmaz, 2007). The constructivist grounded theorist stance guided us to adjust and summarize micro-level codes in order to develop abstract themes which eventually led to contextual theory emergence and extension (Tracy, 2013). Within this process, we reduced and revised codes where necessary and summarized them (e.g., market relations, social relations) to form overarching theoretical dimensions (e.g., social structure). Once one theme is identified, we went back to the codes and related text to confirm that there was an overlap in meaning and the theme presented integrated information. Furthermore, we compared and contrasted emerged codes and themes synchronously (Faircloth, 2012) to revise inappropriate ones and reduce repeated ones. The data structure is illustrated in Figure 2.

Insert Figure 2 here.

In the meantime, following Lempert (2007)'s suggestions, we kept two types of memos in the stage of data analysis. We used a codebook to register all first-order codes, second-order codes, theoretical categories and theoretical dimensions that we proposed during data analysis. Given the iterative and comparative nature of constructivist grounded theory analysis, the codebook worked as a diary and bank for us to reflect and track the record of coding. It was also helpful to generate models as the definition of

each code and the summary of every group of codes were recorded. Besides, we kept operational memo notes to track how we processed the data and generated codes, categories and themes. Our ideas on coding and thoughts on theory development were registered in the memo. Noteworthily, all co-authors were conscious of potential bias generating from their own cultural backgrounds (i.e., British, African, Chinese). Our different cultural backgrounds helped mitigate biases via multiple meetings and discussions.

Our data collected from 20 returnee interviews, one expert interview, observation notes and secondary data were sufficient to answer the research question in this study from two perspectives. First, our research participants were recruited based on their diverse study and work experiences, current professional backgrounds (such as researchers, entrepreneurs, and industry practitioners), as well as age and gender diversity (see Table 1). This selection criteria allowed us to gather data from a wide range of perspectives, enhancing our ability to capture the knowledge transfer process from China to Ghana with richness. Second, we achieved data saturation during the final interviews, as participants began to repeat what had been reported by previous interviewees (Miles and Huberman, 1994), and no new categories or themes emerged from the synchronous data analysis (Gioia et al., 2012). This provided evidence to support that our interview sample was appropriate and ensured the trustworthiness of our data.

4. Research Findings

We build on the social capital model originated by Adler and Kwon (2002), and develop an enhanced model (see Figure 3) that further identifies unique underlying social structure that enables international knowledge transfer by Ghanaian returnees from China. We define social structure as the organized social configurations within society that stem from and shape the behaviors of individuals, following Adler and Kwon (2002) and Uzzi (1997). Social capital refers to resources that individuals have access to, determined by their position within the structure of their social relations (Adler and Kwon, 2002). Therefore, the origins of social capital are rooted in the social structure of both Ghana and China where individuals, i.e., Ghanaian returnees, have been situated. Furthermore, the dynamic interplay among market, social, and hierarchical relations – the three dimensions of social structure – impacts African returnees' opportunity, motivation, and capability, which subsequently shape the formation of their social capital. As a result, the social structures of the host country and home country ultimately play a role in influencing the process of international knowledge transfer carried out by African returnees, and this role can be an enabler or a barrier.

Insert Figure 3 here.

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Below, our findings are presented following the logic of this enhanced model. We start with articulating Ghanaian returnees' relations in their social structure that works as an enabler for, or a barrier to, international knowledge transfer. The social structure consists of three dimensions: market relations, hierarchical relations, and social relations with both market and hierarchical relations interact with social relations. We then discuss the identified theoretical categories of opportunity, motivation, and ability, which originate from the social structure and lead to social capital creation and transaction. Finally, we elaborate the value created for successful knowledge transfer as the result of integrative effects of returnees' social capital incorporating identified contingencies including language and perception. Table 2 presents a selection of supporting quotes.

Insert Table 2 here.

4.1 Social Structure as a Knowledge Transfer Enabler

Drawing from the secondary data, there has been an overall strong bilateral market relations between Ghana and China at the macro level (Sibiri, 2021). Appendix B presents market and economic connections between Ghana and China through aid, trade and foreign direct investment (FDI). China's rising economic power and its economic engagement with the African continent in general and Ghana in particular have inspired many Africans viewing China as a destination country to pursue opportunities for business and personal development (Awoonor and Forson, 2020; Li, 2018). Strong bilateral relations also extend to the socio-cultural sphere. As mentioned above a significant number of Ghanaians has visited and lived in China. A similar case is for the Chinese in Ghana. The estimated number of Chinese residents in Ghana was between 7,000 and 20,000 (Mohan et al., 2014). Ghana Immigration Service data show that about 10,500 Chinese visited Ghana in 2019. Movements of people further promote bilateral market relations. The positive bilateral relations at the macro-level lead to opportunities and motivations for social exchanges.

4.1.1 Opportunity

Opportunity identified from our primary data refers to the opportunity for returnees to engage in international knowledge transfer. Their study and work experience in China enabled returnees to transfer the knowledge obtained in China back to Ghana. To begin with, interviewees revealed the interactions between market and social relations in influencing their perception before the international exposure. They spotted opportunities for African regional development along with individual career advancement,

which resulted in their decision to leave Ghana for China and eventually to return to work in Ghana. There were common cases of returnees who understood the market and economic conditions in China before departure and aimed to take advantage of the opportunity originated from the strong bilateral relationships. In particular, returnees benefited from the knowledge and experience of their family members when choosing China as a country for study and work. Their decisions were also based on recommendations from friends in Ghana and in China.

"I went to study in China because my parents were running a business in Shanghai. Their Chinese friends also recommended that it's better to come and study in China. Because the economy is moving really fast. I can get to know how the world moves in the biggest developing country. So, it was easy for me to learn and know about our [Ghanaian] economy in a lot of different ways." (Respondent 2)

Market and hierarchical relations give rise to social relations. The experience in China fostered useful social relations for Ghanaian returnees. These social relations provided them opportunities to gain international knowledge while in China. In particular, Ghanaian returnees benefitted and cherished the mentorship they received when studying or working in China. According to their reflections, the relationship with their mentors was one of the most important connections they formed and maintained even after returning Ghana. This relationship opened the doors for them to learn the Chinese culture, business and academic practices. Furthermore, the knowledge on culture and language facilitated returnees to access and obtain professional and subject-specific knowledge in the Chinese social context which was later transferred to Ghana. This was often referred as information relevant to culture and language including history, philosophy, and communication skills. The experience to be exposed in the Chinese cultural context to obtain the information provided African returnees with the opportunity to carry out international knowledge transfer once they returned to their home country.

"It wasn't just academic. This really is precious like personal guidance, how to talk to local Chinese people. So many things and skill relating to cultures. So, I really recommend my Chinese professors – really, really." (Respondent 5)

Furthermore, the strong bilateral relations offered opportunities and motivation for returnees to return to Ghana and engage in international knowledge transfer, bridging the two economies and enhancing their market relations. With their study and work experience gained in China, Ghanaian returnees' contribution was not limited to the organisations which employed them (e.g., *Respondent 2*

remarked "I am working in the marketing department of a Chinese company in Ghana. So, I help market their products to African continents."), but also beyond their organizations. For example, returnees helped to enhance the exchanges of culture, businesses and technology between Ghana and China (e.g., *Respondent 5 noted "Besides my day job, I'm also supporting the organization 'Ghana China Friendship Association'. I do some research for them too."*). Moreover, returnees leveraged the knowledge gained from China for career development and career change after returning to Ghana (*Respondent 6 mentioned "You need the PhD to become a lecturer in university. I moved from a head teacher at secondary school to a lecturer at university"*, and *Respondent 15 also noted "with my China experience, I have just come back. Maybe some people who graduated from University of Ghana are still there jobless, I have just come back and have a lectureship job and I think it is a promotion"*). A majority of the interviewees made similar comments about how their Chinese experience had helped them get permanent jobs, promotion, and transfer to prestigious organizations in Ghana.

On hierarchical relations, we define it broadly to include those with government authorities and organizations. According to Adler and Kwon (2002), hierarchical relations involve interactions where individuals exchange their obedience to authority for assurances of both material prosperity and spiritual security. In our study, some African returnees received financial support from the Chinese and/or Ghanaian government. By taking advantage of the financial support and the promising prospects of the fast-growing Chinese economy, African returnees exploited this opportunity to obtain knowledge and create social capital in China which could be transacted to their home country upon return. They were also motivated to engage in the international knowledge transfer process aligning with the personal objective for material prosperity and the sense of psychological belongingness. As a result, the hierarchical relations played an important role in building social capital for international knowledge transfer within which African returnees acted as agents to transfer knowledge from China to Ghana.

Just on the day of my graduation from [the] master [degree], I had a call from the [Chinese] university. They gave me the scholarship and I stayed for the PhD." (Respondent 5)

"I got my scholarship from the Ghanaian government. I started the PhD [in China in] September 2013 and defended my thesis in March 2018. [Afterwards,] China government supported me as a visiting scholar for 1 year." (Respondent 7)

Although increasingly many more African students are self-funded (Li, 2018). Chinese and Ghanaian government and research institutions offer targeted supports to Ghanaians studying in China.

The support can take different forms including scholarships, research grants and training funds. In 2019, Chinese ambassador to Ghana noted that China offered 1,000 scholarships for both short-term and long-term training[7].

Within the process of social capital creation by African returnees, both market relations and hierarchical relations interact with social relations which act as the source for opportunities to be identified and utilized. Therefore, the opportunity to engage in international knowledge transfer from China to Ghana was spotted and employed by African returnees. Opportunity together with motivation and ability constituted social capital of African returnees that helped to transfer knowledge from China to Ghana.

4.1.2 Motivation

Our findings reveal that hierarchical relations at the level of individual-organizational interface also shaped the nature of social exchanges and affected the acquisition of social capital. The motivation to engage in international knowledge transfer originated from the initial opportunity-spotting which shaped returnees' perception before the international exposure. At this stage, they identified the motivation as to acquire knowledge from the international context. This identified motivation was enhanced while studying and working in China, benefiting from social relations established in the Chinese social structure.

> *"My best friend is a very good guy, and we go [went] to gym and watch[ed] football together. He helps[ed] me with onboarding and getting to know the Chinese community in China. He introduced me and I'm [was] familiar there to really learn those things." (Respondent 11)*

The enhanced motivation promoted the creation of social capital for African returnees. The welcomeness and friendliness received from their peers in China opened doors for African returnees to be exposed in the Chinese context to acquire information; this further facilitated the creation of social capital in China. Through exploiting learning opportunity, African returnees obtained knowledge, developed their abilities and fostered more social connections which created social capital for international knowledge transfer upon return to their home country. Furthermore, the perception of potential career advancement after returning to Africa boosted the willingness for knowledge acquisition by African returnees. It is revealed in the interviews that after returning home, returnees received

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[7] http://www.xinhuanet.com/english/2019-06/27/c_138176269.htm

promotion (either internally or through moving jobs). This further motivates their knowledge transfer practice.

> *"I was working at a hospital before going to China. But now I am in a health training institution. Still in the health sector but moved jobs. This transition is enabled by my MBA study in China. The MBA qualifies me for that job comparing with other people. That has taken me higher. I am a management member and also the administrative manager." (Respondent 4)*

Furthermore, the knowledge and skills gained from China helped identifying potentials for some returnees and motivated them to change career paths. They were able to create social capital relevant to the identified potentials and to acquire relevant knowledge to be transferred home. The acquired knowledge provides better career opportunities for them. Therefore, this further motivates their behaviors in knowledge acquisition in China and knowledge application in Ghana.

> *"Once I was in Ghana, I have [had] not really identified what was my potential. But China taught me, I'm not only talking about the organization of GCFA, but I'm really really grateful for being educated there [in China]. Because it really helped me to identify my talents and my potentials. It's a big opportunity that has granted me." (Respondent 5)*

Ghanaian returnees indicated that they were motivated to study in China and were motivated to use the knowledge and competency gained from China for their current work. Some revealed that they were the point of contact in their organizations when they had Chinese customers or partners (e.g., *Respondent 1 mentioned "There are many top Chinese firms which are moving into Africa [as our clients]. So, I noticed in order to apply these IT skills, I have to be good [at] not only oral, but also [at] writing and reading Chinese."*), and some also said that they were willing to teach their colleagues on how to socially interact with Chinese and other Asian people. Their knowledge acquired from China made them valuable assets in the organizations to deal with issues associated with China. The psychological fulfilment and recognition from Chinese/Asian customers/clients and fellow colleagues can be seen as rewards for acquiring knowledge and applying it through workplace connections, further motivating the knowledge transfer behaviors of Ghanaian returnees.

> *"Chinese companies are entering African countries. I benefit of [from] serving a company here by virtue of the transfer of Chinese knowledge. You can use [borrow] the vision from Chinese*

companies. Communicating with other nations based on the people you met while you were in China. And then people recognize you and your company to get to other nations [for business expansion]." (Respondent 14)

4.1.3 Ability

The ability refers to African returnees' competencies and resources to engage in the international knowledge transfer process from China to Ghana. In particular, as knowledge is socially embedded, African returnees relied on their competencies and leverage available resources to adapt to the Chinese social context in order to obtain knowledge. This aligns with Alder and Kwon (2002) that both abilities of the focal actor, i.e., Ghanaian returnees, and the actor's relations in the social network, i.e., mentorship and friendship obtained in China, could lead to social capital creation and application. For example, some returnees reported that the ability of developing and utilizing supportive interpersonal relationships obtained in China played an important role in facilitating international knowledge transfer, and enabled them to achieve career goals and strengthen the collaborative business and technology relationships between Ghana and China at both country- and organization- levels.

"I attribute this [ability] to professors who taught me in China. Because they were really strict, and their judgement helped me. So, this sets me apart [from colleagues in Ghana] ... The unique knowledge is the patience and the teachers taught me to identify my skills in my work." (Respondent 5)

"Through my observation of some of these companies in China, I decided to adopt some of the models to run an Agri-tech [start-up in Ghana], and that's using the same [business model] and we are still in touch and exchange ideas [with Chinese entrepreneurs]." (Respondent 11)

Our interviews reveal that when first arrived in China, the adaptation process influenced returnees' ability to engage in knowledge transfer. In particular, returnees went through the unlearning process in order to learn effectively in the Chinese social context. They realized the need to abandon certain mindsets and habits that were cultivated when living in Ghana in order to embrace the learning opportunity in China. Given that knowledge is rooted in the social context, the ability of unlearning and learning is essential for African returnees to engage in international knowledge transfer.

"I began to know that Chinese are not willing to open up to engage. Of course, the language barrier. But also, that I need to be more proactive to them [Chinese colleagues]. I am a well-accomplished guy [in Ghana] and have the skillset that [could] benefit people. I need to take the first step [to engage in China]." (Respondent 11)

"I needed to adjust my mindset because I realized that these are the people I've come to live with [in China]. I need to learn their culture. When you [they] do something that I don't like, I need to work on my mindset so that I don't have to still be living like I'm a Ghanaian in China. It is a different country with different culture. And with that, if I don't like something, I need to find a way that I can speak about things with the person, instead of me doing it in a reversed way. So, I needed to adjust my mindset. I think within a week or two I was able to." (Respondent 12)

During the onboarding process, returnees often drew from their previous perception before arriving in China to compare with their experience after arrival. If different, in order to achieve expected goals, they felt the need to adjust their perception and goals to be able to obtain knowledge through studying and working in China. We also find that the perception that returnees held influenced their engagement in international knowledge transfer by utilizing their newly created social capital in China. We explain the perception as a contingency factor in the later section.

"It was my first time traveling, so I was concerned about the social acceptance. Because I heard about a few things that were happening there. Like how Africans are perceived to be…After a few occasions and hanging out together [with Chinese friends] and having discussions about the Chinese culture. It is very welcoming. People are helping and I feel safe, and my thinking is different. I'm more willing to hanging out with them and see." (Respondent 13)

Furthermore, Chinese language proficiency influenced returnees' ability to engage in the international knowledge transfer process. In particular, returnees reported that limited Chinese language proficiency restricted the knowledge acquisition process from two aspects. First, insufficient language skills limited the comprehension and absorption of knowledge when studying. Some returnees struggled with understanding lecturers during class and completing assessments at university. Moreover, deficient language skill hindered the interaction with classmates and colleagues. This led to the lack of involvement of activities with local and international friends and colleagues during the onboarding

process and reduced subsequent engagement opportunities. Therefore, Chinese language proficiency acted as another contingency influencing the knowledge transfer by African returnees.

"I would say the language. There are moments where I couldn't understand lectures and times when I understand but cannot express myself. Comparing international students with the Chinese, I realized the Chinese students learned more. And I feel it has to do with language." (Respondent 13)

"Because I couldn't speak the language, sometimes making friends with the Chinese was difficult. Socializing with Chinese people was difficult. You cannot express yourself in the Chinese language. I think that was the major challenge we encountered." (Respondent 14)

As a contingency factor, language is also linked with the cultural context (Welch et al., 2005). According to Buckley et al. (2005), the way of using language is the practice to exercise our understanding of environment. Therefore, language influences the relationship between the two variables, i.e., the creation and transaction of social capital, and the transfer of international knowledge. Specifically, being bilingual and possessing a multi-cultural background could help an individual, e.g., African returnees, to identify opportunities and make sense of social relations.

Drawing from this, we echo Liu et al. (2015) and expand the current understanding by arguing that the capacity to identify opportunities and effectively interpret social relationships is closely intertwined with the depth of understanding that African returnees possess regarding both language and cultural context. In other words, a returnee's ability to perceive and seize advantageous prospects, as well as to navigate and comprehend the intricate web of social connections, relies on their level of proficiency in the language spoken within the community they are (re)integrating into, along with their appreciation of the cultural nuances that influence interactions within that community.

After returning to Africa, returnees utilized their capabilities and existing networks to re-align with the Ghanaian context to apply the knowledge gained in China. The ability of recontextualizing the knowledge is essential for returnees to transfer the knowledge effectively (*Respondent 1 noted "Bringing the two cultures by understanding the essences of each one and exchanging ideas and voices in a suitable way is important for me to work here [in Ghana]."*). In particular, returnees reported that they often evaluated the context and made the decision to adopt either the Chinese approach or the blended approach, which integrated the Chinese approach and the Ghanaian approach, in their work practice.

"I would like to go the Ghanaian style [after returning to Ghana]. But it didn't work. And I tried it [the Chinese approach]. Most of the time, 70 percent of the time, I adopt the Chinese style. It was really helpful." (Respondent 5)

"Apart from respect and let them [Ghanaian colleagues] own the learning process, to teach them to get the task done on time [is another Chinese way]. The punctuality. It is Chinese too. To give them the idea to work on time." (Respondent 6)

It is important to note that de-contextualization of the knowledge obtained in China as well as the re-contextualization of the gained knowledge in the Ghanaian context was of necessity to the international knowledge transfer process as denoted by our data. Knowledge is embedded in the context and influenced by specific institutional and market conditions of its origin (Lam, 2007; William, 2007). Therefore, when transferring knowledge from one country to another with different cultural characteristics, recontextualization of the knowledge is required to fit the new setting. This process of recontextualization is essential to successful international knowledge transfer (Ansari et al. 2010; Lin, 2010). According to Tran and Truong (2022), while knowledge transfer is primarily concerned with the movement and effective use of knowledge, knowledge recontextualization involves replicating, adapting, modifying, and creating new meaning and knowledge within the receiving context.

Therefore, when applying the knowledge in the African business context, returnees utilized their ability in understanding both cultures to recontextualize the knowledge with the aim to transfer the knowledge effectively. The recontextualization and application of knowledge was noted as the last stage of the international knowledge transfer which promoted the effectiveness and efficiency at the workplace in Ghana. To sum up, by exploiting the *opportunity* provided by social structures of both countries, Ghanaian returnees enhanced and utilized their *abilities* by acquiring knowledge and skills in the Chinese social context and were *motivated* to act as the source as well as the translator and facilitator for international knowledge transfer.

4.2 Social Structure as the Knowledge Transfer Barrier

The interview data shed light the situations where existing social structures of both countries hindered international knowledge transfer. For example, one returnee reported that upon returning Ghana when seeking for employment, the certificate she obtained in China was not recognized because of the inefficient authentication of her education experience in Ghana (*"I applied for jobs. They didn't trust my certificate because it was from China. And then, they wanted to contact my school. It took so long. I*

couldn't get the job." (Respondent 4)). The lack of trust in Chinese qualifications limits the opportunity to effectively transfer the knowledge obtained by returnees. Although the bilateral social and economic relationship witnessed significant development, the communication and authentication on the organizational and national levels remained to be improved. This indicates the cost of social capital to be transacted in another social setting.

Moreover, some returnees reported that being the newcomer to a collectivism social context in China challenged their onboarding process in the first place. They encountered barriers to set up connections with existing nodes in the social network often because of insufficient language proficiency and cultural knowledge. As they possessed limited social relations upon arrival in China, they were often excluded in the existing social structure (*Respondent 2 stated that "[t]o get a job is not easy [in China for African students] even if you have experience or the certification or the degrees. I have to put in more effort [to be recognized]."*). The unfamiliarity of the social setting could also result in misunderstandings and inappropriateness when interacting with local colleagues (*Respondent 1 noted "[c]an you believe we have a meeting with some [Chinese] governmental officials and someone sitting in front of me farted? And I used Chinese in Mandarin [to ask] 'Who farted?'. You can't just live that embarrassment."*). This led to barriers in forming new social relations to acquire knowledge and skills.

However, when returnees were accepted as nodes of the social network, sufficient opportunities and resources were present to develop their abilities. In this case, the collective social context became an enabler for returnees to acquire knowledge and skills, which formed social capital to be transferred back home. Returnees emphasized the importance of the social relations for identifying opportunity, enhancing motivation, and developing abilities to yield social capital.

"When I worked there as a beginner, I also had these challenges. I got to know that there is a chance [opportunity] to keep learning more [motivation], to see the development [ability] I made. That's the only way that someone can improve themselves. You need an environment surrounded by Chinese. You need that environment." (Respondent 1).

"In China, my Lecturers don't give you everything. They wouldn't point everything out to you. There is no telling. If you are interested in learning more, you can see me later, read more and do it yourself in the lab. And there is nothing like handouts, you have to pink the textbooks, journals and read it yourself and practice to know and master it." (Respondent 17)

At the start of the onboarding process, the existing social structure challenged African returnees to be accepted in China. Due to limited social relations they possessed when arriving in China, they found it difficult to get involved in the new social context to acquire knowledge. Later on, facilitated by newly formed connections through friendship and mentorship, some challenges were mitigated with the creation of social capital in China. Therefore, the acceptance and involvement of the existing social structure in China facilitated returnees to acquire knowledge after the onboarding stage.

Upon returning to Africa, similar onboarding process occurred for returnees to transfer knowledge. In order to transfer and diffuse knowledge and skills gained from the host country, they needed to be embedded again in their home country context. However, even if possessing pre-existing social relations, some returnees reported difficulties in re-accommodating the social setting. For example, some reported that they were seen as competitors for colleagues at the home country. Moreover, some of their initiatives based on their knowledge gained in China were refused at the workplace as they themselves were seen no longer familiar with the African business context.

"My first experience working in my own country [after returning to Ghana]. The experience wasn't much like what I expected. I think I could do more. I didn't feel achieved and satisfied. That was the reason to me to give up this job." (Respondent 1)

"That's part of the resistance of absorbing something new. And the perception that, wow, you went to China, you got trained in China and now all of a sudden you feel that you are better than us and we have to listen to you. That kind of perception resistant… A lot of times I had to tell them I'm not here to take your job. I'm only helping. I'm still learning what's happening now." (Respondent 12)

Therefore, existing social structure in Africa may hinder knowledge transfer by returnees at the start of their onboarding stage upon arrival. However, the ability to connect with African colleagues and to recontextualize knowledge helped returnees to establish new social relations to facilitate the knowledge transfer. This echoes Tran and Truong (2022) that international knowledge acquired by returnees needs to be recontextualized before application in a different social context. The ability to properly adapt and apply knowledge and skills to the new setting is crucial for achieving successful knowledge transfer. We find supportive evidence in our interviews.

"It [The knowledge gained in China] could be [transferred]. But it is difficult. Immersed in the [Ghanaian] environment is needed. Also, because most of the knowledge we [Ghanaian] assess

are written from a western perspective, with a western bias. So, in order to get this kind of knowledge [obtained in China] work, sometimes it has to be in that society [China]. The knowledge of that society comes within that society." (Respondent 6)

Therefore, social structure can be a barrier for international knowledge transfer. To be specific, lacking communication, recognition and authentication at the organizational and national levels hindered international knowledge transfer by returnees. Moreover, the necessity for de-contextualizing knowledge gained in China and recontextualizing the knowledge to be effectively applied in Ghana challenged the knowledge transfer carried out by African returnees. In addition, the need for recontextualization illustrates that social capital, which leads to international knowledge transfer, not only generates benefits but also yields costs.

To summarize, the social structure that Ghanaian returnees embedded in can act as an enabler for international knowledge transfer. The Chinese education and/or work experience offers Ghanaian returnees the *opportunity* to gain exposure in a different country context, to acquire international knowledge that is of relevance and importance to their work upon returning home, and to advance their career through promotion or change of career paths. Furthermore, this experience *motivates* returnees to become an active member in the social networks of Ghana-China relationship to promote bilateral social and economic exchanges. Lastly, *abilities* equipped by Ghanaian returnees from the Chinese experience enable them to fulfill their aforementioned ambitions after returning home. This aligns with the three sources for social capital creation identified by Adler and Kwon (2002). We now move on to articulate successful knowledge transfer as the result of the integrative effects of returnees' social capital incorporating identified language and perception contingencies.

4.3 Social Capital Leading to International Knowledge Transfer

Social capital affects an individual's ability to transfer knowledge. Leveraging social capital for international knowledge transfer is a contingency process with contextual factors often undermining the value of social capital for knowledge transfer. Our data reveal the important role of language and perception as contingency factors. Both contingencies highlight the nature that knowledge is embedded in social context therefore the knowledge transfer process requires recontextualization to replicate, adapt, modify, and create new meaning and knowledge within the receiving context (Tran and Truong, 2022).

4.3.1 Language as a Contingency Factor

From obtaining social capital to transferring international knowledge, for returnees, language acted as a contingency which influenced the learning process in the host country and the application of knowledge in the home country. All interviews were focused on Ghanaian returnees who had high language proficiency in their mother language, but their Chinese language proficiency varied. We found that returnees' language ability bridged the gap between Ghana and China and affected what knowledge was transferred and how the knowledge was transferred. In particular, returnees' language proficiency influenced their ability to understand and appreciate the tacitness of knowledge.

"I obtained these skills in China. As for now, I am applying it [them] here. It is beneficial. But I think the number one key skill that I've obtained is the Chinese language. [I'm able to] bridge the two cultures by understanding the essences of each one and exchanging ideas and voices in a suitable way." (Respondent 1)

The understanding of culture from both countries plays a key role in equipping returnees with the capabilities to obtain and transfer knowledge. Some returnees regretted for not being able to gain more knowledge in China due to the language barrier (e.g., "*There are so much knowledge that I could acquire if my Chinese language proficiency was better. Because my Chinese language was survival Chinese, I was using translators and all that. It wasn't really the best." Respondent 5*). Others reported that the improvement of Chinese language proficiency provided them with more opportunities to be exposed in the Chinese social context. As a result, they were able to establish more social relations to develop social capital to facilitate knowledge transfer from China to Ghana. The knowledge acquired by returnees included both explicit (e.g., subject-specific) and tactic knowledge (e.g., marketing to Chinese customers) in the Chinese social context.

"I had to pick it [Chinese language skill] from the shape. My speaking is not so good... I had to do a lot of business in Guangzhou. That taught me a lot and made me stay and I learnt from it. So, I learnt how to handle business and negotiate. The way you talk to your clients or your customers, the way you communicate. I'm a marketing expert [after returning to Ghana]. I have a way of making that that no one [in my current organisation in Ghana] knows about it." (Respondent 2)

Language contingency also influenced the relative value of knowledge which was obtained in China and applied in Ghana. Knowledge is context-bounded and is only useful in a given context. One piece of our observation notes discovered that some Chinese companies in Ghana employed Ghanaian

returnees with Chinese language ability. However, they found that it was difficult to communicate with these returnees. In particular, these returnees were identified with the language proficiency, but lack the understanding in the Chinese context, especially slangs and non-verbal language. This created barriers for successful knowledge transfer when working in Ghana. However, for returnees who had both verbal and non-verbal language ability, they became the source and capable facilitators for knowledge transfer.

"My company [in Ghana] is facing communication challenges and cultural differences. For someone like me who speak Chinese fluently and can work with the Chinese, that was ideally pictured…Chinese firms are moving into Africa and one major challenge is the language barrier. I noticed in order to apply these skills [obtained in China], I also have to be very fluent, not only oral, but also in writing and reading Chinese." (Respondent 1)

"One advantage is that in enlightenment and cultural sensitivity. Yes. The way it is also involves understanding the environment causes some sense of identifying problems and finding ways and means to address these through more research." (Respondent 19).

In some cases, by utilizing sufficient Chinese language skill, African returnees were able to understand the tacit element of the knowledge and apply the knowledge effectively in Africa after returning from China. It was also evident that language as a contingency factor affected returnees' employability and the effectiveness of knowledge transfer. Some participants commented that Chinese culture was the most valuable knowledge they acquired in China, and if given the chance to study in China again, they would strengthen their Chinese language skills and deepen their understandings of the Chinese culture. The knowledge and skill set on language was seen as an important factor influencing their career advancement and capability in successfully transferring knowledge from China to Ghana.

"I'd say the unique knowledge is Chinese cultural values. You need to live there to gain this. For instance, you are on a bus and then a young man stands up and let the old man to sit down. You stand up for a pregnant woman to sit down. This has values that you cannot learn them without living there to experience… [If given the chance to study in China again] This time I want to do a full-time Chinese language training." (Respondent 6)

In summary, insufficient language ability undermines the social capital for knowledge transfer as it limits new social relations formation and knowledge acquisition in the host country. Furthermore, in

order to transfer knowledge successfully, recontextualization requires the ability to understand and translate both explicit and tactic knowledge gained in China with sufficient understanding of both social settings. Within the Chinese social context, sufficient Chinese language skill enables returnees to understand the culture and the tacit element of knowledge Therefore, what knowledge is transferred and how it is applied in returnees' home country depend on the social capital and the language contingency.

4.3.2 Perception as a Contingency Factor

Drawing from the interview data, perception played a key role in influencing the decision on going to the host country to acquire knowledge and to return home country to deliver the obtained knowledge and skills. Returnees' perception influenced the creation and exchange of social capital for international knowledge transfer. To begin with, their perception of the host country to gain the international exposure motivated them to go to China to develop own social capital and acquire knowledge and skills in the Chinese context and to participate in international knowledge transfer.

"China is going to be one of the world's great powers in some few years to come. So, my dad suggested that if you have to go abroad to continue schooling in any foreign country, China should be the best option. Then I did get along with the idea and I arrived [in] China. That was when everything changed." (Respondent 1)

"Chinese economy is fast developing. Everybody outside (China) wants to be associated with the best now, to learn from the Chinese example... I love the opportunity. I said to myself 'why not?' [laugh]." (Respondent 5)

The perception of fast economic development of the host country, together with the aforementioned strong bilateral relationship between Ghana and China, was held by returnees and their social contacts who could influence their decision-making. Therefore, the decision to go to China to "*get to know how the world moves like (in another) developing country (Respondent 2)*" was made by returnees as an outcome of the influence from this perception. This perception also acted as the motivation for returnees to develop social capital with the aim to "*learn from the Chinese example*" and to "*be associated with the best (Respondent 5)*", which laid the foundation for transferring the international knowledge to Ghana.

Returnees' perception also works as a contingency affecting their behaviors in social capital creation to acquire knowledge in the Chinese setting after arrival. For example, some participants

perceived that this opportunity to study in China was helpful for them to identify their talents and potentials which they failed to do when in Ghana. For others, they regarded this experience as a good opportunity to learn updated knowledge in a fast-moving developing country for achieving personal goals, i.e., professional training, career advancement, changing career path, by engaging in international knowledge transfer. As a result, they proactively participated in creating social capital to transfer knowledge.

"Because China has good professors in my area. My area of study was on information and communication engineering. And you know, countries like China, they are advanced in information and communication engineering." (Respondent 7).

"Leaning in China gives you a real perspective of the Chinese people, culture and languages. It's just like when somebody sees Africans, they think that Ghana and even Togo or Nigeria is the same. However, when you get there and notice that the quality, the taste, everything is totally different than what we think about China, it is not inferior or low quality in everything." (Respondent 18).

Drawing from the interview data, African returnees reported some concerns on the political system originated from their previous understanding of the Chinese political structure before departing to China. These concerns were mitigated based on their in-person experience after arriving in China. In particular, their perception regarding this concern was adjusted after the onboarding process which offered them the opportunity to engage with Chinese friends, colleagues, mentors and local communities. This adjusted perception further provided African returnees with the sense of security and freedom to engage in international knowledge transfer.

"In Ghana, beneath a democratic country, we have the freedom of speech. On the other hand, China is a communist country. So, I felt a bit worried [before going to China]. But everything [experienced in China] I didn't have much to say [to complain]." (Respondent 13)

Returnees' perception also influenced how they applied and disseminated the knowledge and skills obtained in China after returning to Ghana. Some returnees held the perception that social capital obtained in the Chinese context put them at an advantageous position in acting as the source and facilitator to transfer knowledge. While others perceived that the social capital they developed in China could be utilized through international knowledge transfer to promote the efficiency and productivity in

their organizations in Ghana. Therefore, they were motivated to apply and diffuse knowledge gained in China.

"Skills side that I've got from China is (how) to negotiate… My [Ghanaian] teammates, I share with them. People in my organisation doesn't know much about it…Negotiation skills can be used outside China. China's fast-growing companies involved in other countries. People from other countries come to do business. So now that I'm back home and I can see some different things that I've learnt in China that I can apply in Ghana." (Respondent 2)

"The knowledge that I've obtained in China helped to combine those two roles together…I was the only one to act like that. Before I moved to this training institution, there were three people who applied for this job. I was picked because of my experience in China." (Respondent 4)

Moreover, returnee's perception shaped their proactivity to engage in the knowledge transfer from China to Ghana. To be specific, in order to apply the obtained knowledge and skills in China effectively, returnees realized the necessity for recontextualizing knowledge to be adapted to the Ghanaian context. The adaptation of the knowledge required effort and influenced the knowledge transfer process after their returning to Ghana.

"I actually learned a lot from China. I'm trying to install this same knowledge in my country. Ever since I returned, I've been sharing some experiences with them [Ghanaian colleagues]. I noticed Chinese is the more disciplined. They have good structures. But here in Ghana, we don't really have good structures in place. People tend to work anyhow because they are not going to check. So, there's no form of accountability…So, I adapted here and designed incentives. We get paid by how much you work. So, at least the workers [in Ghana] are always ready to work and put in more effort." (Respondent 13)

Notably, some returnees reported challenges relevant to perception when applying the tactic knowledge in Ghana (e.g., *"If those [Ghanaian colleagues] around us would understand and work with us in that same line [as in China]. Chinese people work tirelessly. They [Ghanaian colleagues] don't appreciate how hard-working you are and the knowledge you want to transfer. That was really a very big concern." Respondent 14*). This was due to the distinctive social settings returnees were exposed to.

The perception of the usefulness of the knowledge motivated African returnees to put effort into recontextualization and application of the knowledge in the Ghanaian context.

To conclude, perception affected the process of utilizing social capital gained in China to transfer knowledge back to Ghana. Before the international experience, the perception that China could be a good destination to acquire and develop one' social capital encouraged returnees to go to China to obtain knowledge and skills. Furthermore, the perception that the knowledge returnees acquired in China could help identify their potentials and achieve personal goals motivated returnees to engage in knowledge acquisition. Additionally, the perception held by returnees that the social capital gained in China could fulfill individual returnee's career ambition and benefit colleagues and organizations in Ghana motivated returnees to participate in the international knowledge transfer process to return to Africa as the carrier of knowledge as well as the translator and facilitator of the international knowledge transfer.

5. Discussion and Conclusion

We set out to explore the social factors that facilitate or hinder international knowledge transfer by African returnees, from a social capital perspective. Drawing on Adler and Kwon's (2002) social capital theory and qualitative evidence from Ghanaian returnees who studied and/or worked in China, this study offers theoretical contributions to the literature on the role of social capital in international knowledge transfer in the Global South context. Extending Adler and Kwon's (2002) model, we develop an enhanced model of social capital in the Global South context, which also has important implications for international knowledge transfer practice and policy.

5.1 Theoretical Contributions

In terms of theoretical contributions, this study draws extensively on Adler and Kwon's (2002) social capital model, and provides much intricate evidence on the interplay of social structure, opportunity, motivation and ability on the promotion of social capital that is of potential value to international knowledge transfer. The multilateral and bilateral economic relations between China and Africa have seen significant development in recent decades (Brautigam, 2011; Lee, 2018). Much has been written on the fronts of aid, trade and FDI (Ado and Su, 2016; Busse et al., 2016). However, few studies have examined the cross-border flows of human capital that also accompany the intensified relationships between China and Africa. We highlight the interconnections between three dimensions of social structure (market relations, social relations and hierarchical relations), the relations that African returnees form within these structures, and the sources of social capital that are derived from these relationships through opportunity, motivation and ability.

More importantly, we go way beyond Adler and Kwon's (2002) social capital model, and develop our enhanced social capital model in the Global South migratory context. In addition to delineating the interplay of social structure, we identify two contextual factors of language and perception that condition the nexus of social capital and international knowledge transfer. Thus, our analysis sheds new lights on how social capital is created by returnees, how it is further promoted for transferring international knowledge back home, and what the nature of the knowledge transferred is. A general contribution of our research is visualized in Figure 3 which presents a modified version of Adler and Kwon's (2002) social capital model.

The two contingency factors of language and perception are derived from qualitative evidence in the context of China-Ghana, two countries of vast contrast in terms of social, cultural, economic and political characteristics, despite the fact that they both belong to the Global South and have strong bilateral economic relationships. This explains the prominent roles played by language and perception. In other words, our findings suggest that the social and cultural distance between two countries has greater explanatory power on the role of social capital in international knowledge transfer, and language and perception can help to bridge the social and cultural gap. It is, therefore, reasonable to argue that our enhanced social capital model can guide the development and utilization of social capital to facilitate international knowledge transfer between two countries of different social and cultural characteristics - regardless of their positions in the Global North or the Global South.

However, the social and cultural factors must be considered in the broader institutional and technological contexts. For example, institutions are often immature – a similar characteristics between the Global South countries, and technology gap is smaller between the Global South countries (Cuervo-Cazurra and Genc, 2008; Kubny and Voss, 2014; Wang et al., 2014), making it easier to transfer knowledge between the Global South countries. Whereas some degree of technology gap generates the scope for catch-up through knowledge transfer, diffusion and assimilation, significantly higher levels of technology gap create barriers to knowledge transfer, diffusion and assimilation, undermining catch-up. As technology gaps between developing countries tend to be lower than that between the developing and the developed countries, the catch-up literature reinforces the view that advanced knowledge created in another developing country may be more relevant to African countries. Additionally, the relatively lower technology gap between African and other developing countries may enhance knowledge transferability, as such knowledge may be perceived as being of higher value to indigenous organizations due to the match between high knowledge adequacy and high context relevance; hence, such knowledge may be easier for locals to assess, understand and absorb (Armanios et al., 2017; Dahi and Demir, 2018; Rui et al., 2016; Wang, 2015). Therefore, institutional and technological context must be taken into

consideration together with social and cultural differences. It is the combinative effects of social capital and institutional and technological context that facilitate or hinder international knowledge transfer.

5.2 Practical Implications

Our enhanced social capital model in the Global South context and the empirical findings from Ghanaian returnees are of great relevance to international business and migration practice and policy. The movement of people from developing to developed countries has been a long-standing debate, particularly around "brain drain" and "brain circulation" (Wei and Balasubramanyam, 2006). The emerging literature on returnees has also largely focused on the developing-developed country context with concerns raised about returnee liabilities and the need of knowledge recontextualization that constrain the international knowledge transfer by returnees (Mreji and Barnard, 2021; Tran and Truong, 2022). What has gone relatively unnoticed is the international human mobility in the Global South. Our findings suggest that African returnees are important agents for international knowledge transfer. African countries may focus on policies to attract diaspora back home and tap into human capital of returnees, including those who are studying or working in other developing countries (Kenney et al., 2013). In this regard, lessons might be learnt from other developing countries, such as China, whose knowledge is more relevant and transferrable to Africa.

5.3 Limitations and Future Research

Finally, our study has several limitations that also offer future research avenue. First, despite efforts to improve the transferability of findings, in this emerging field of study with limited database, we might have traded complex information of cases for the generalization of the adapted social capital framework. Future research could investigate the potential differences in the process of social capital to knowledge transfer between returnees who are academics and business practitioners, and differentiate their study and work experience in the host country to yield more nuanced understanding in relation to the identified language and perception contingencies. Second, this study focused on knowledge transfer from an African perspective of knowledge acquirement. To obtain comprehensive understanding of international knowledge transfer, future studies could investigate practices adopted by the host country to assist or impede knowledge transfer by African returnees.

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Table 1. The Profiles of Interviewees

Participant	Gender	Current Position	Current Organization	Training Type Abroad	Funding Source	Length of the International Working Experience	Cumulative Length of the International Studying and Working Experience	Organizational Position Before Going to China
0 (Expert Interview)	M	Officer	Government Agency	Work Training	Ghanaian Government	N/A	1 month	Immigration Officer
1	M	Manager	Private Chinese Company in Ghana	Bachelor & Master	Self-funded	5 years	12 years	N/A
2	M	Marketing Director	Private Chinese Company in Ghana	Bachelor & Master	Self-funded	6 years	13 years	N/A
3	M	National Coordinator	World Bank Funded Project (Government)	PhD	Chinese Scholarship	No	1 years 9 months	Lecturer
4	F	Manager	Training Institution (Government)	Master	Self-funded	2 years	2 years	Hospital Staff
5	F	Lecturer	University	Master & PhD	Chinese Scholarship	No	5 years 2 months	N/A
6	M	Lecturer	University	PhD	Chinese Scholarship	No	4 years	Head Teacher at a Secondary School
7	M	Researcher	Research Council (Government)	PhD	Ghanaian Scholarship	No	4 years 6 months	Researcher
8	M	Registrar	University	Master	Chinese Scholarship	No	2 years	Admin Assistant
9	M	Engineer	University	Master	Chinese Scholarship	No	2 years	Admin Assistant
10	M	Lecturer	University	PhD	Chinese Scholarship	No	3 years	Lecturer
11	M	Entrepreneur	Agricultural Consulting Start-up	Master	Chinese Scholarship	6 months	5 years	Programme Manager
12	M	Administrator	Regional Business Council	MBA	Self-funded	4 years	6 years	Marketing Officer

13	M	Entrepreneur	Private Company	Bachelor	Chinese Scholarship	2 years	5 years 6 months	Intern
14	M	Manager	Pharmaceutical Company	Master	Self-funded	5 years	5 years	Data Officer
15	M	Lecturer	Professional Institute	Masters	Scholarship	4 years	4 years	N/A
16	M	Practitioner	Healthcare/ Traditional Medicine	Bachelor	Self-funded	4 years	4 years	Freelancer
17	M	Lecturer	University	PhD	Scholarship	4 years	4 years	Research Assistant
18	F	Entrepreneur	Private Company	PhD	Scholarship	3 years	3 years	Self-Employed
19	F	Entrepreneur	Private Company	Masters	Scholarship	3 years	3 years	Entrepreneur
20	M	Registrar	University	Masters	Scholarship	3 years 2 months	3 years 2 months	Assistant Registrar

Table 2. Summary of Findings and Quotes

Theoretical dimensions	Theoretical categories	Findings	Selection of Supporting Quotes
Social Structure	Market/ Economics Relations	• There are strong market and economic relations between Ghana and China which influence Ghanaians' decisions on choosing China as a study destination to acquire knowledge.	• China is going to be one of the world's great powers in some few years to come. So, my dad suggested that China should be the best option [for me to study abroad]. Then I did really get along with this idea after I arrived China and started doing my bachelor degree. That was when everything changed. (Respondent 1) • Actually, I went to study in China because my parents were running a business in Shanghai back then. And they wanted me to know more about it. Their Chinese friends also recommended that it's better to come and study in China. Because the economy is moving really fast. There's much technology around. And I can get to know how the world moves in the biggest developing country. So, it was easy for me to learn and know about our [Ghanaian] economy in a lot of different ways. (Respondent 2) • Chinese economy is fast developing. Everybody outside (China) wants to learn from the Chinese example. I love the idea and the opportunity to study in China. (Respondent 5) • I looked at China's growth over the recent years and I chose to (go there) to stay in the society in order to understand it better. (Respondent 6)
		• The strong economic and market relations play an important role in returnees' decision on exploiting the market and economic relations for personal benefits.	• My company is not employing people who are very low skilled. But because they are facing communication challenges, cultural differences, a lot of challenges. So, for someone like me who lived in China, speak Chinese fluently, can work with the Chinese that was ideally pictured. I passed the interview and that took less than an hour. (Respondent 1) • I am working in the marketing department of a (Chinese) television company in Ghana. So, I had to market their products to African continents. … That's one of the major things that I acquired in China like how to communicate with people from different countries, how to bargain, how to negotiate and make the deal. (Respondent 2) • I was heading a secondary school before going to China. In order to work in universities, I need a PhD degree and knowledge from China. (Respondent 6)

	Social Relations	• The experience in China has fostered useful social relations for Ghanaian returnees. These social relations provide them the opportunities to gain knowledge while in China.	• I had the promotion because when I was in China, I achieved 5 publication in SCI [with a team of researchers]. Those are highly ranked journals. (Respondent 3) • It wasn't just academic. This really is precious like personal guidance, how to talk to local Chinese people. So many things and skill relating to cultures. So, I really recommend my Chinese professors – really, really. (Respondent 5)
		• Returnees leverage social relations obtained in China to support their employers to explore opportunities in China.	• They [the Chinese government] gave me full tuition, free accommodation and the stipend for the entire three years. (Respondent 3)
	Hierarchical Relations	• Chinese and Ghanaian government and research institutions offer various supports in the form of scholarships, research grants and training fund.	• I was appointed a scholar people [for the Chinese government scholarships] and as one of the best that I had been nominated [for the opportunity to study in China]. I love the idea. I love the opportunity. I said to myself 'why not?' [laugh]. I mean, it's great. … Just on the day of my graduation from [the] master [degree], I had another call from another [Chinese] university. They gave me another scholarship and I had to stay there for the PhD. (Respondent 5) • [I had] Chinese government scholarship. My fees were paid, accommodation, and other stuff. (Respondent 6) • In China, you can make connections inside or using Internet. These connections are useful to me now [working in Ghana]. (Respondent 7) • I got my scholarships from the Ghana government. China government supported my study for one year. That was not for the PhD, it was for visiting scholar, to do some research, so they call it visiting scholar. (Respondent 7)
		• After studying in China, Ghanaian returnees received internal promotion or obtained higher	• I had the promotion because when I was in China, I achieved 5 publication in SCI. Those are highly ranked journals. (Respondent 3) • I was working at a hospital before going to China. But now I am in the health training institution. Still in the health sector but moved jobs. This transition is enabled by my MBA study in China. The MBA qualifies me

		position in their new organizations of employment.	for that job comparing with other people. That has taken me higher. I am a management member and also the administrative manager. (Respondent 4)
International knowledge acquired	Subject-specific knowledge		• I was doing the international MBA, not just an MBA. So, that program in itself is unique. We don't have an international MBA in Ghana. The international exposure to different business models and different culture settings is the unique knowledge I gained. (Respondent 4) • Oh, my greatest knowledge acquired that is really really helping me now is my knowledge in research indeed. (Respondent 5) • The most valuable knowledge I acquired was in the area that I did my (PhD) research. I did my research in information and communication engineering in hard mobility scenarios. (Respondent 7)
	Professional knowledge, skills and practices		• Yes, most of this business, negotiation skills can be used outside China. And I learnt…China's fast going company… a developing country with good businesses involved in all other countries. People from other countries come to do business there. So now that I'm back home and I can see some different things that I've learnt back in China that I can apply in Ghana. (Respondent 2) • Oh, yes. You know, in China they work in teams. So, when you have a problem, what I do is that I gave it in teams, they worked out and reported back. So, I used this same method as it's done in every lab in China. (Chinese way/ Ghanaian way). (Respondent 3) • The most valuable knowledge, apart from what I've already mentioned, is my academic and professional skills. My research and professional, yes, it's all valuable. (Respondent 5) • By reflecting on how my Chinese professors mentored me, I adopt the Chinese teaching style. It was really helpful. (Respondent 5) • … and also the system, the curriculum, teaching materials and everything. So, I have to bring in the style in China and it was really appreciated by the president of my university, including introducing and uploading the online materials. And this was really welcomed in my university. (Respondent 5) • I think that one of the things I learnt in China is to respect the students. In our society, it's like as a lecturer, as a teacher, you are more or less imposing yourself on students. But they (Chinese) have got a different idea. The lecturer (in China) actually gives you the chance to feel important. So,

			that also helped me to allow my students to feel important and to be part of the learning process. (Respondent 6)
	Culture and values		• You now have a very broad understanding of the various cultures, the influence coming from this. So, I think it's important from that aspect. It's very beneficial because … my specialty is in foreign policy. In order to understand the policy, one must understand the culture [and] the environment. (Respondent 3) • The unique knowledge I've acquire that cannot be studied here in Ghana, is Chinese, or to say Asian cultural values. You need to live there to gain this. For instance, you are on a bus and then a young man stands up and let the old man to sit down. You stand up for a pregnant woman to sit down. This has values that you cannot learn them without living there to experience. (Respondent 6) • One of the values that I learnt from my Chinese professor is to be humble, be very determined to do what you want to do. So, when I came back, I'm supposed to direct one of these business schools (in Ghana). But when I got to work the first time, I think there's somebody already. The person is very hostile. I virtually told him: 'Ok, fine. You can just keep your position. Let me just do my work.' I'm more focused (after coming back China). It's about getting the job that you really want done! (Respondent 6)
Value: International knowledge transfer	Personal Value	• Ghanaian returnees' experience of studying in China helps them acquire knowledge and advance their skills and capabilities.	• Once I was in Ghana, I have not really identified what was my potential. But China helped me to identify my <u>talents</u> and my <u>potentials</u>. (Respondent 1) • I am working in the marketing department of a (Chinese) television company in Ghana. So, I had to market their products to African continents. Before (going to China), I was a bit shy talking to people. But now, I have the confidence to talk to people about a certain type of business. That's one of the major things that I acquired in China like how to communicate with people from different countries, how to bargain, how to negotiate and make a deal. (Respondent 2) • The experience of working in a multi-cultural environment, working with people from Africa, USA and other Asian helped me to develop my <u>abilities</u>. (Respondent 6).

		• Study (and work) experience in China gives individuals advantages when seeking for jobs or promotion.	• As I had lived in China and I can speak Chinese fluently, I was hired immediately. (Respondent 1) • I was working at a hospital before going to China. But now I am in the health training institution. Still in the health sector but moved jobs. This transition is enabled by my MBA study in China. The MBA qualifies me for that job comparing with other people. That has taken me higher. I am a management member and also the administrative manager. (Respondent 4) • I'm currently teaching in a private university. I'm also supporting the organization associated with China. This stands me out with my colleagues at the university. (Respondent 5) • I was heading a secondary school before going to China. In order to work in universities, I need a PhD degree and knowledge from China. … I moved job from a head teacher at secondary school to a lecturer at university. (Respondent 6)
	Organization -al Value	• Ghanaian returnees brought the two cultural contexts together and utilize social and business relationships they gained in China to support the development of their organization. • Organizations offered the platform for returnees to apply the knowledge gained in China, which also creates more commercial opportunities.	• It's a very big mining company, they have 19 branches in the world, and in Africa we have four branches. Can you imagine when the company moving into Ghana, they were interviewing people and the problem is communication barrier? We even have Ghanaian interviewees with PhD degrees. My company is not employing people who are very low skilled. But because they are facing communication challenges, cultural differences, a lot of challenges. So, for someone like me who lived in China, speak Chinese fluently, can work with the Chinese that was ideally pictured. I passed the interview and that took less than an hour. (Respondent 1) • I'm currently teaching in a private university. I'm also supporting the organization associated with China. (Respondent 5) • My Chinese experience and Ghanaian background could support my employer's business development in Africa. (Respondent 6)

Figure 1: The Process of Data Collection and Data Analysis

Data Collection

Stage 1:
Onsite observation of Ghanaian returnees. Preparation for recruiting research participants. First version of interview questions drafted.

Stage 2: Expert interview with one Ghanaian immigration officer who has training experience in China. Conduct pilot interviews to improve interview questions.

Stage 3: In-depth one-on-one semi-structured interviews with identified Ghanaian returnees as interviewees.

Data Analysis

Analyse and discuss observation notes. Revise interview questions based on literature, observation and discussion.

Confirm interview guidelines. Identify interviewees to cover diverse studying and working experience obtained in China and to ensure age and gender diversity.

Weekly meetings to discuss emerged codes, themes and findings. Modify follow-up questions based on discussions.

Regular meetings to discuss first- and second-order codes, theoretical categories and dimensions. Confirm findings.

Figure 2. Data structure

First order codes **Second order codes** **Theoretical categories** **Theoretical dimensions**

| Fast-developing economy, Chinese example, National growth, Expectations, Intellectual exchange | → | Market Relations |

Friendship, Mentorship, Communication, Connection, Network	→ Opportunity
Gaining skills, International exposure, Seeking employment and promotion	→ Motivation	→ Social Relations
Occupational Competency, Problem solving, Transferable skills	→ Ability

| Relationship with employers, Support business development | → | Hierarchical Relations |

→ Social Structure

| Economic growth, Technology development, Expectation of the journey in China, Employment opportunity, Shift in career path | → | Perception |

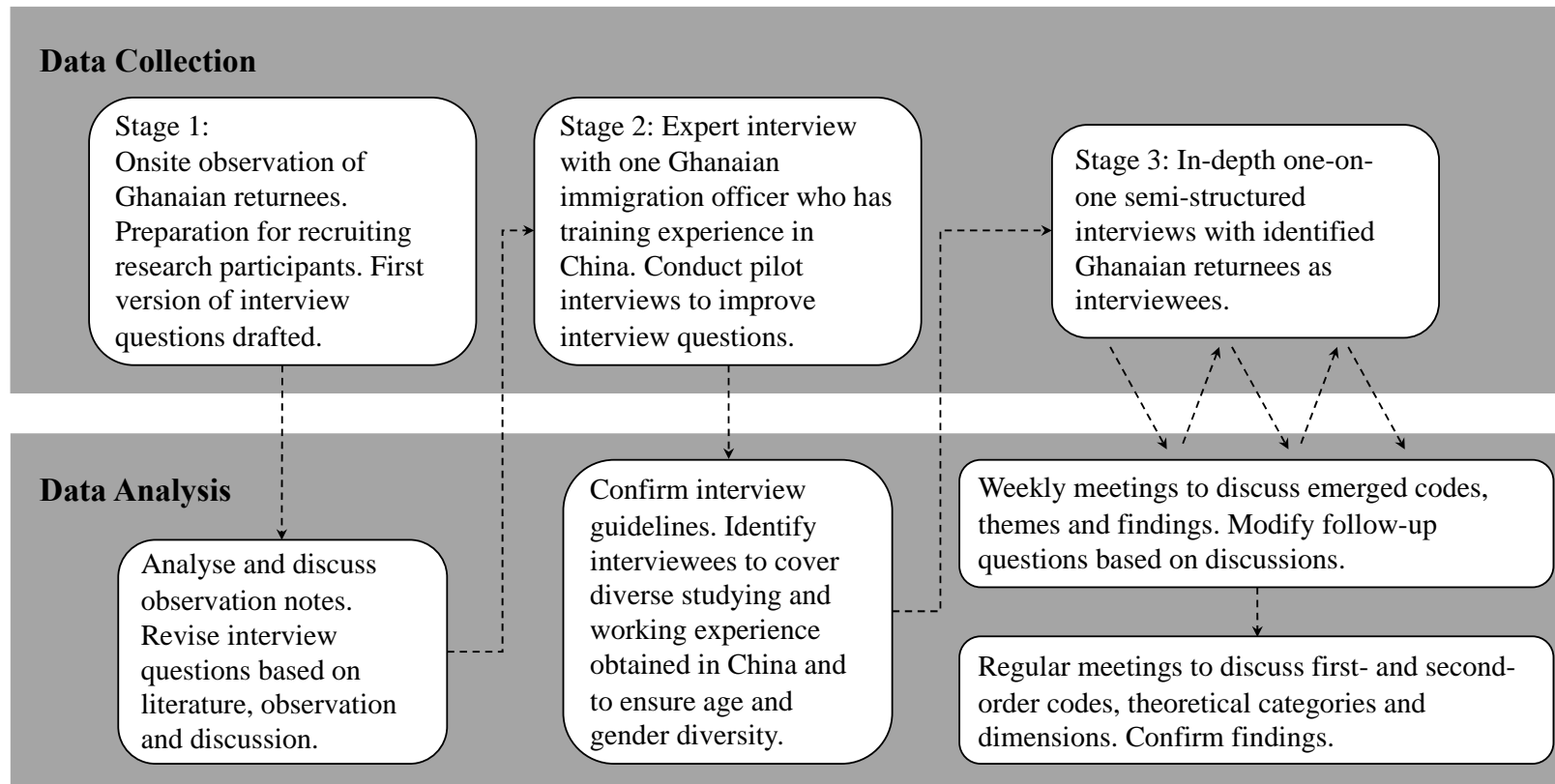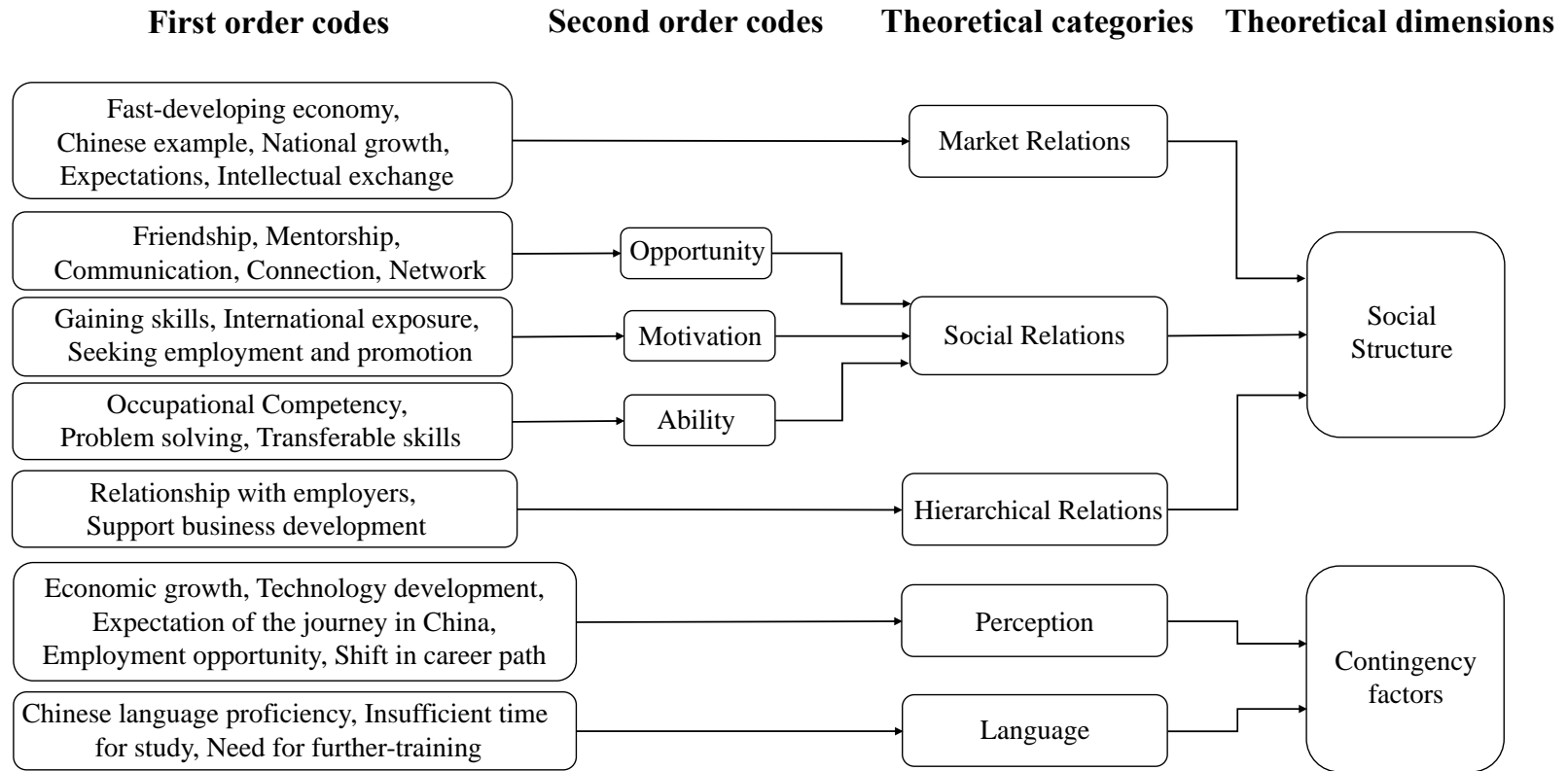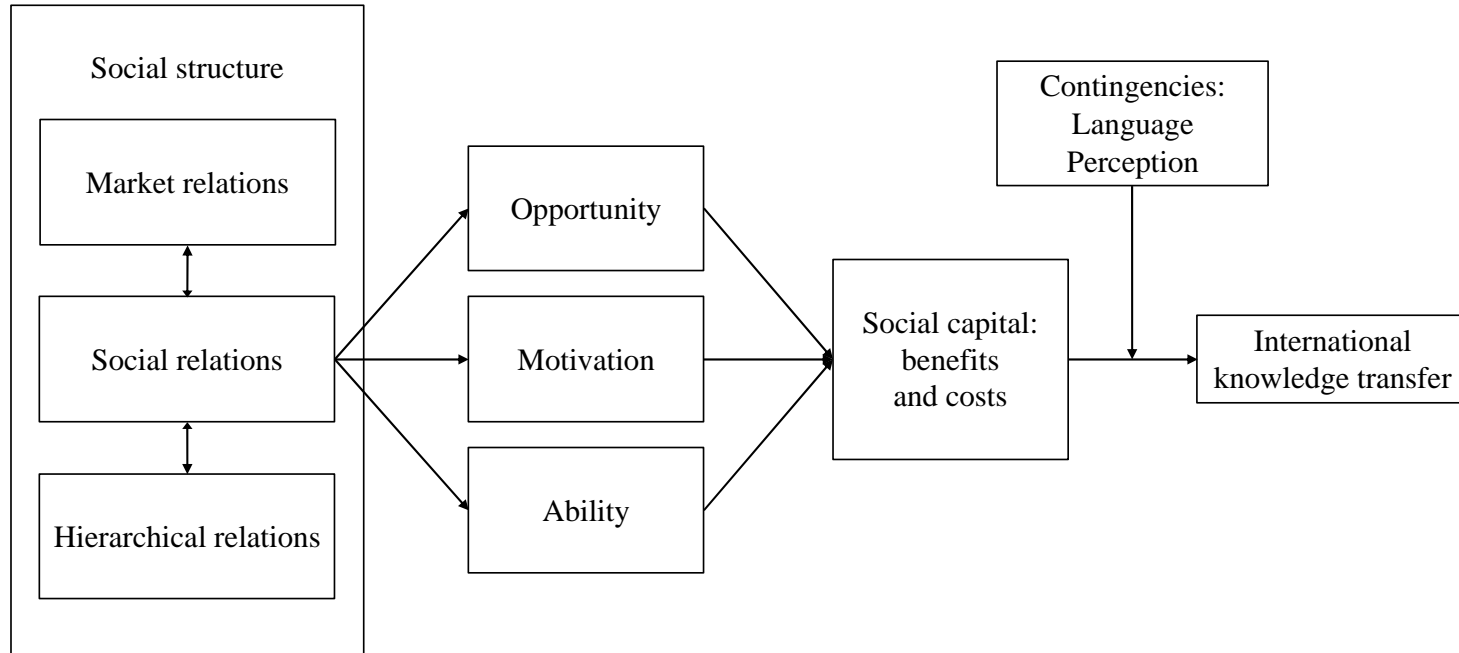| Chinese language proficiency, Insufficient time for study, Need for further-training | → | Language |

→ Contingency factors

Figure 3: A Conceptual Model of Social Conditions of International Knowledge Transfer

Appendix A. Interview Questions

1. When did you go to China and how long did you stay in China?
   a) Where did you stay in China?

2. Why did you go to China?
   a) Were there any opportunities that you spotted so that you decided to go to China?
   b) What really motivated you to go to China? (Scholarship? Recommendations from family, mentors, colleagues, friends -what did they say?)
   c) Did you have any concerns before going to China? If so, what concerns did you have?
   d) What was your perception about China in general before you went there?

3. Have you worked in China?
   a) How long?
   b) What did you do – please introduce your role and the organisation?
   c) What have you learned from this working experience?

4. Have you studied in China?
   a) How long?
   b) Was it a training programme, bachelor's degree, masters or PhD?
   c) What have you learned from this study experience?

5. Have you received any forms of support during your stay in China?
   a) In which way that the Chinese government supported your study and/or work (scholarship/bursary/engagement activity, etc.)?
   b) In which way that the Ghanaian government supported your study and /or work (scholarship/bursary/engagement activity, etc.)?
   c) Have any other organisations or individuals offered you support in any form during your stay in China (scholarship/bursary/engagement activity/mentorship, etc.)?

6. Did you encounter any challenges while studying and working in China?
   a) What were the challenges? Please give an example.
   b) Were these challenges relevant to obtaining knowledge and skills, including accessing professional and social resources to gain knowledge? Can you give me some examples?
   c) If no challenge at all, what do you think made it easy for you to study/work in China?

7. Reflecting on your experience of studying or working in China, was there any difference in the way of teaching and learning if you studied, or in the way of working if you worked in Ghana?
   a) What was the major difference? Please give an example.
   b) How did you overcome the difference and adapt yourself whilst in China?
   c) At the end of your stay in China, did you get used to the way of studying and working in China? What helped you to get used to it?

8. Why did you decide to return to Ghana?
   a) Were there any opportunities that you spotted so that you decided to return?
   b) What really motivated you to return?
   c) Did you have any concerns before returning Ghana? If so, what were you concerned about?
   d) When did you return and how long you have been working in Ghana since then?

9. What are you currently doing for a living (Self-employed, working for government or private company or both?)

10. What is your current role and responsibility in this organisation?
    a) Could you briefly introduce your current role and organisation?
    b) Were you working in this organisation before going to China?
    c) Were you in this role or position before going to China?
    d) Is this your first job after returning to Ghana? If not, what positions in which companies did you work after returning to Ghana?

11. Do you think studying and/or working in China helped you to obtain this position? Or helped you to start your own business?
    a) What do you think your key strengths are to secure this role?
    b) How have you developed these strengths?
    c) What advantages or disadvantages do you possess because of your experience in China?

12. Comparing with your role before going to China, did you get a promotion or move jobs after studying and/or working in China? Or helped you to start your business?
    a) What motivated you to move jobs?
    b) Do you think your current job is helpful or unhelpful for applying the knowledge you acquired in China? Why? Can you give me some examples?

13. What knowledge obtained in China is beneficial to your career and business now?
    a) Any particular types of knowledge do you think are beneficial?
    b) How did you gain them in China?
    c) How do you apply them in Ghana?

14. What skills obtained in China is beneficial to your career or business now?
    a) Any particular types of skills you think are beneficial?
    b) How did you gain them in China?
    c) How do you apply them in Ghana?

15. On reflection, what is the most valuable knowledge you acquired from China and applying it now? Can you give me some examples?
    a) Is this knowledge you hold that no one else in your organisation has?
    b) Could the aforementioned knowledge be obtained through other channels instead of studying in China?

16. Have you encountered any problem at work that your experience in China has helped to resolve? Please provide some examples.
    a) What was the occasion?
    b) Who were involved?
    c) How did your experience in China help resolve this problem?

17. What are the major challenges when you apply the knowledge gained from China? Can you give me some examples?
    a) What do think are the causes of these challenges?
    b) What would you suggest to solve these challenges?
    c) Do you know if these challenges happened to other Ghanaians who returned from China?

18. In a business environment, what do you think are the differences and similarities between the Chinese way and the Ghanaian way of doing things? Can you give me some examples?
    a) What is the Ghanaian way like?
    b) What is the Chinese way like?
    c) What is the influence/outcome?
    d) Do you think you are influencing your colleagues by adopting the Chinese way or not? Why and how?

19. If you have the opportunity to go back to China to study or work again, what special knowledge that you would like to gain? Why?

20. In summary, what is the unique knowledge you gained in China that cannot be obtained through other channels such as similar study programmes in Ghana or other foreign countries?
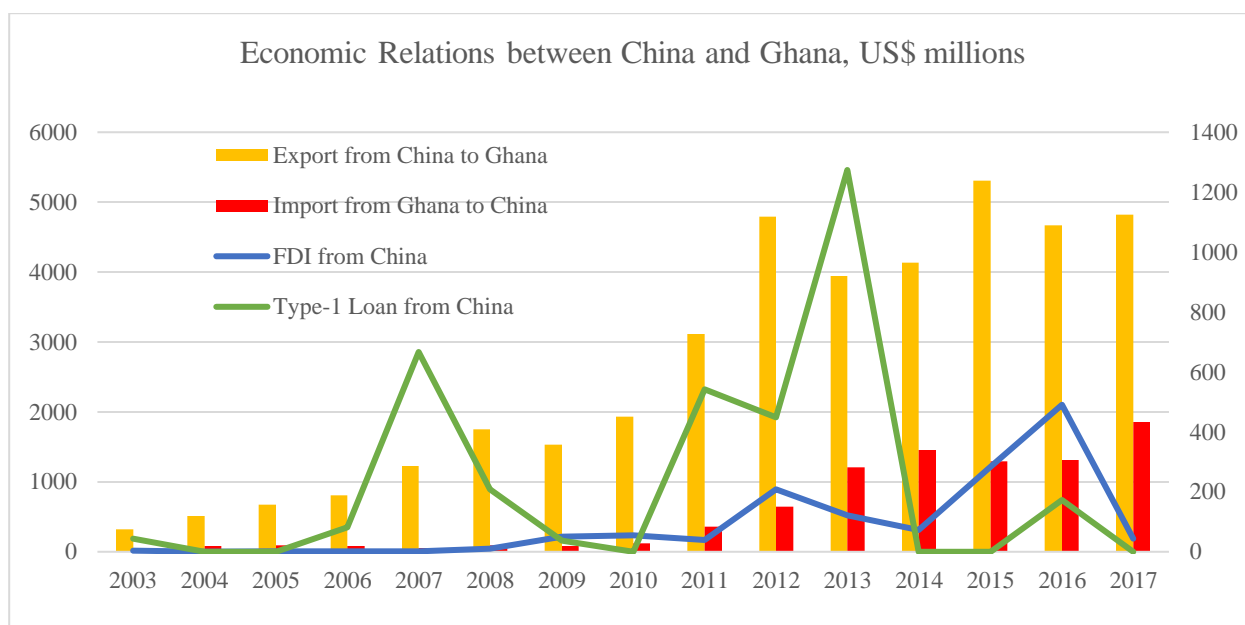
If you know anyone who also returned Ghana from China, we would highly appreciate if you could help us to establish the link to have a talk. Many thanks!

Appendix B. Bilateral Economic Relations between Ghana and China

Ghana and China have a long bilateral economic relationship (Sibiri, 2021). The two countries signed their first twenty-year agreement on economic and technical cooperation worthy of US$ 19.6 million in 1961 (Prybyla, 1964). Although military coup in Ghana in 1966 led to China withdrawing aid and technical assistance and closing its embassy, signalling the deterioration of the bilateral relation in the subsequent six years, the bilateral relation resumed in 1972 (Odoom, 2017). Since China's economic reforms in the late 1970s, China has been focusing on economic cooperation with Ghana through aid, trade and FDI. As shown in Figure 3, over the 15-year period of 2003-2017, China's aid was higher than FDI in 7 years. Indeed, in terms of economic size, trade is the most important form of economic cooperation between China and Ghana.

Chinese aid is largely provided by the government (Atkins et al., 2017; Liu and Tang, 2018). Broadly speaking, there are two types of Chinese aid: the interest-free loans and grants offered by Chinese Ministry of Commerce (MOFCOM) and concessional loans, subsidized (preferential) export buyer's credits and supplier's credit, typically supported by the Export-Import (EXIM) Bank of China or China Development Bank (CDB). Over 80% of China's aid in Ghana was in infrastructure including power, water, transport and communication including. As for trade, China became Ghana's biggest trading partner in 2014 (Awoonor and Forson, 2020). Trade between the two countries has grown exponentially, which is case for both China's export to Ghana and Ghana's export to China, albeit Ghana has been running trade deficit with China. Ghana is one of the top 10 countries for Chinese FDI, with estimated stock of US$1.96 billion in 2016[8].

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[8] UNCTAD Bilateral FDI Statistics

Economic Relations between China and Ghana, US$ millions

- Export from China to Ghana
- Import from Ghana to China
- FDI from China
- Type-1 Loan from China

Notes: Export and import figures follow the left y-axis. FDI and loan figures follow the right y-axis.

Sources: Export and import data from World Integrated Trade Solution, World Bank (https://wits.worldbank.org/). FDI data from UNCTAD Bilateral FDI Statistics (http://unctad.org/en/Pages/DIAE/FDI%20Statistics/FDI-Statistics-Bilateral.aspx) and Statistical Bulletin of China's Outward Foreign Direct Investment, various years (http://www.stats.gov.cn/english/statisticaldata/AnnualData/). Aid data from China Africa Research Initiative (www.sais-cari.org/s/Upload_LoanData_v11_October2018.xlsx).