

Exporting the China Model? Two Chinese Technology Firms in Kenya's Digital Development

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Western pundits have warned about the risks posed by Chinese companies for exporting surveillance technologies to Africa (Bartlett 2023) due to not only risks in the technology but also the exportation of authoritarian development. Scholars who perceive Chinese technology companies as state instruments that facilitate the state's agenda to expand authoritarian digital development in Africa support this view (Cheney 2019; Gravett 2020; Khalil 2020; Mozur, Kessel, and Chan 2019). This view is contested by empirical findings arguing that Chinese companies primarily engage in digital capitalism, providing products that meet certain African states' digital control and heterogeneous development needs (Bagwandeem 2019; Gagliardone 2019).

Existing debates have either essentialized the "China model" in digital development, focusing solely on advancing authoritarianism, or contested such a view but not scrutinized in depth the intricate interactions of Chinese technology firms with this model. This article moves beyond these debates by revealing nuances in Chinese technology firms' interpretations and reproductions of the China model in digital development within the context of Kenya. The recent digital boom in Kenya has seen substantial Chinese involvement in finance and infrastructure construction (Africa Policy Institute 2021). This article is embedded within the literature that investigates adaptive Chinese business operations due to relational dynamics with various contextual stakeholders such as government officials, business partners, employees, and customers, in different African contexts (Fei 2020, 2021; Gu et al. 2016; Han and Webber 2020). It specifically investigates how Chinese technology firms draw on and transplant the China model in their relational dynamics with various contextual stakeholders.

DECONSTRUCTING THE CHINA MODEL AND ITS EXPORTATION

The discussions of the China model originate from identifying a Chinese alternative to the Western "neoliberal democratic" doctrine for development, encapsulating a collective of Chinese economic development experience (Breslin 2011; Li and Lin 2017). They are sometimes embedded with the fear that China might challenge or undermine the influence of Western powers in the developing world (Thompson 2004; Windybank 2005) or the global order built on neoliberalism (Barma and Ratner

2006). Some scholars identify state-led innovations and the pursuit of self-determination as significant features in this model (Kennedy 2010; Pan 2009; Ramo 2004). It is considered opposite to neoliberal prescriptions for modernization that establish the market as prominent while limiting state power. These features are in line with the latest articulation of the "Chinese path to modernization" by Xi Jinping (*People's Daily* 2023), which accentuates the leadership of the party-state in steering China's development.

However, Babones, Åberg, and Hodzi (2020) identify another interpretation of the China model, which sees China as not revolutionarily departing from global neoliberal economic governance. Partially allied with them, Breslin (2011) highlights pragmatism in China's gradual economic reforms to incorporate and use neoliberal market mechanisms to incentivize economic actors' autonomous operations to achieve economic growth.

The above discussions aggregately manifest the binary, idea-typical perceptions of the China model. They represent the multidimensional interpretations of such a model, which encompass state strategies, policies, institutional reforms, and industrial development practices within Chinese economic development (Breslin 2011; Huang and He 2023). Despite this complexity, the binary perceptions continue to dominate debates about the China model in digital development. Some scholars highlight state dominance in building physical digital infrastructures, facilitating investments in technology, and controlling access to digital content in China (Mueller 2011; Polyakova and Meserole 2019). Large technology companies are seen as subject to state control due to strict licensing and market entry restrictions (Deibert et al. 2011; Mueller 2011). Another perspective highlights post hoc regulations to create a tolerant environment and the collaboration between firms and the state to ensure the success of the Chinese digital sector (Higgins 2015; Plantin and De Seta 2019; Stevens 2019).

The concern raised in the introduction regarding China exporting authoritarianism through the operations of Chinese technology firms primarily stems from the perceived state dominance in digital development and the intention to export the model of state dominance to other countries (for example, see Gravett 2020). However, this concern can be theoretically contested from two perspectives. Initially, some empirical studies have contested that Chinese technology firms are relatively independent from the state and operate contingently

due to the local contexts of African countries (Gagliardone 2019; Wang, Bar, and Hong 2020). Explicitly, Gagliardone (2019) scrutinizes Chinese technology companies' operations in four African countries and asserts that these companies are entangled within the host technopolitics built by local networks of technologies, discourses, and actors and therefore support African nations' own ideas of digital development. The flexibility and adaptations of Chinese firms to different African contexts are recognized by a broader range of literature that empirically investigates both Chinese state-owned and private business entities (Fei 2020; Gu et al. 2016; Han and Webber 2020).

Subsequently, the exportation of the China model is not dominated solely by the Chinese state. For example, Hodzi (2020) argues that African governments draw a strong state from the China model when they intend to build up authority or emphasize self-dependence when contending with Western-led norms and rules. Hodzi's study opens space to scrutinize how various actors are involved in divergently interpreting and transplanting the China model to different African contexts.

Based on these two perspectives on the contextual adaptations of Chinese firms and the multiple actors involved in reproducing the China model that encompasses multiple dimensions, this article explores how Chinese technology firms connect digital development between China and Kenya by interpreting and transplanting the China model in Kenya. This exploration epistemologically situates Chinese firms in an overseas context in which they interact and coevolve with various contextual stakeholders to construct the current configuration of Chinese multifaceted economic presence in African countries (Fei 2020, 2021; Mohan and Lampert 2013). It delves into how Chinese technology firms interpret and transplant the China model in their relational dynamics with contextual stakeholders, specifically the Kenyan government, civil society, and urban communities.

METHODOLOGY: TWO CASES OF CHINESE COMPANIES IN KENYA

Kenya has experienced a digital boom with the support of international partners, including Chinese technology companies. Beyond building infrastructures for the Kenyan government, Chinese technology companies have contributed to technology transfer by investing in extensive training programs for engineering staff and young talent (Tsui 2016).

The purpose of this study was to contrast the practices of two companies in Kenya. Given that the exportation of the China model is often interpreted as entangled with the Chinese state's strategy, the researcher investigated a firm with a close connection with the Chinese state, which is reflected in obtaining loans from Chinese policy banks in past projects, and the one without such a connection. They also represent diverse engagements of Chinese companies, from macro-backbone construction to peripheral urban digital communities in Kenya's digitalization. Data come from interviews with informants from field trips during 2021–2023. The interviews followed a close-dialogue approach (Clark 1998). The author

contacted relevant informants through friends. Multiple visits and preinterview chats were employed to establish familiarity with the informants, which helped them to share deep reflections about their knowledges of Chinese businesses in Kenya with the author.

FITTING INTO THE CONTEXT: THE PRACTICES OF CHINESE COMPANIES

Branding "Internet Sovereignty"

The first company is a large private company and has been in Kenya for more than two decades. It provides IT solutions and equipment to enterprise customers and contracts the infrastructure construction of cellular networks and government service systems (Manager A. 2022. Interviewed by author. Nairobi).

The China model is reflected mainly in the recurring emphasis on the element of respecting "internet sovereignty" (Manager A. 2022. Interviewed by author. Nairobi). The company viewed previous experience in dealing with the Chinese government as an asset for understanding the needs of the Kenyan government and assembling suitable service plans. This aligns with the firm's broader operational logic to research the Kenyan government's national development schemes and government authorities for their digital governance needs to find business opportunities (Manager A, Manager B, and Manager Assistant. 2022. Interviewed by author. Nairobi). In this process, this company operates in a competitive environment where the Kenyan government collaborates with global contractors. The Cabinet Secretary of the Ministry of Information, Communications and the Digital Economy, Eliud Owalo (n.d.), used to comment that

through the partnership with ... China, Kenya has successfully implemented and expanded its [information, communication, and technology] infrastructure... . Additionally, Kenya has also benefited from partnerships with other development partners, including with France ... Belgium ... the US... . These collaborations with various partners have played a significant role in advancing Kenya's digital infrastructure and connectivity initiatives.

The current president, William Ruto, also seeks contractors among global technology companies, including those in the United States and China, to build and develop digital infrastructures (Mwangi 2024; *The Star* 2023). This competitive environment implies that the construction of new digital infrastructures in Kenya is not locked in by Chinese technology firms. On the other hand, civil society in Kenya holds concerns about the reliance on foreign companies (as documented by Arnold 2024). The respect for internet sovereignty became a brand feature to gain government projects in this environment that is formed by global competitors and civil society scrutiny (Manager A. 2022. Interviewed by author. Nairobi). What constitutes this brand feature lies in the design of service plans. For example, a Kenyan government official (2021. Interviewed by author. Nairobi) detailed that the Chinese company used the storing of data in Kenya to compete with some Western companies' plans to store data in cloud servers outside Kenya

in one government project. This design gave government officials a sense of ownership and control over the facility, which, from their point of view, addresses public concerns about data security.

Transplanting the E-Commerce System

The second company is a small start-up company. The company founder (2022. Interviewed by author. Nairobi) discovered the business opportunity to run community internet services in Kenya, as residents in middle- and low-income communities did not have affordable internet services.

After building internet services in several urban communities, the company promptly launched community e-commerce. During this period, the China model played a more significant role (Company Founder. 2023. Interviewed by author. Nairobi). To facilitate efficient product delivery to customers, the firm took the initiative to establish its own self-owned delivery system, addressing the absence of an efficient express delivery service in middle- and lower-income communities. This firm drew inspiration from *JD.com*, a Chinese e-commerce platform that successfully built a logistics model in China that bypasses the existing post system and ensures timely deliveries. The company emulated this platform to build a system of “distributed warehouses—community sorting centers—pick-up stations” to increase delivery efficiency. To support this logistics system, the company strategically placed front warehouses on the outskirts of communities for large-scale storage, several distribution centers within each community, and numerous pick-up stations with a radius of three kilometers.

The transfer of goods from sorting centers to pick-up stations and people's homes was a big problem due to the high density of households and narrow and bumpy roads. Thus, the company largely hired unemployed residents to be motorcyclists (locally known as “Boda-boda”) and bicyclists (Company Founder and Head of Sales. 2023. Interviewed by author. Nairobi).

For community e-commerce, the firm sees the China model as a reference for immediate strategies due to the nascent development in Kenya. Adapting these strategies to grounded realities is more important (Company founder and head of sales. 2023. Interviewed by author. Nairobi). For example, this company encountered a challenge that residents were less

could hamper the firm to build up price advantages. This drove the firm to sell cheap daily necessities in large quantities to community stores while cumulatively enlarging the household customer base (Company founder. 2023. Interviewed by author. Nairobi).

Regarding this Chinese company that had been deeply integrated into community life, a resident representative (2023. Interviewed by author. Nairobi) commented that he was very pleased to see a foreign company willing to establish itself in these low-income communities, which had been overlooked by many large Kenyan technology companies. The company discovered and effectively met the demand of residents for affordable internet and digital services, thereby integrating these communities into Kenya's overall digital development. This comment reflects the positive and cordial relationship between the company and community residents, which is presumably representative. During visits to these communities, a significant number of residents, particularly children, proactively greet the founder and affectionately refer to him by the nickname they have given him, “Mr. Wi-Fi.”

In aggregate, the two private companies flexibly adapted to the Kenyan context. The China model for them does not stand for governance experience as it might be for African governments. Rather, it represents successful experience in businesses operations. For the export of this model, they transplanted experience from China's domestic realm and adjusted it to suit the Kenyan realities.

CONCLUSIONS

The interpretations of the China model are attempts by different entities and individuals trying to characterize experience in the economic development trajectory of China. However, as Hodzi (2020, 901) argued, there is no consensus on what constitutes this model. The Chinese government, African governments, and scholars have diversely interpreted it and extracted different characteristics. This study explores the perspective of Chinese firms. It offers practical details on what elements of the China model are accentuated and disseminated by firms to shape Kenya's digital landscape. Therefore, it addresses increasing concerns about the export of the China model. Additionally, it elucidates the transnational operations of Chinese technology firms in Kenya.

To interpret the China model in digital development, these firms deviate from government actors that interpret the model primarily around market governance. They extract mainly successful business operations from China's digital development trajectory, for example, regarding the acquisition and completion of government projects and the expansion of digital businesses.

interested in storing daily consumer goods but rather preferred buying in small quantities, despite higher unit prices, due to the limited daily incomes of families. The delivery of packages in small quantities incurred significant costs, which

Chinese private technology firms are commercially oriented entities that flexibly adapt their operations and reflexively develop strategies according to the Kenyan context. From their perspective, they are distant from being agents of the state to

export Chinese authoritarianism. To adapt to the context, the first company has established a close relationship with the Kenyan government by aligning its services with the government's development plans and digital capabilities improvement trends. The second company takes a community-centric approach, deeply integrating itself into the local community life and understanding the unique needs of Kenyan urban middle- and lower-income communities.

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Regarding exportation, these firms transnationally reproduce the Chinese experience contingent on the Kenyan context. This is in accordance with studies that emphasize Kenyan agency, which combines state-envisioned and state-facilitated transformation and active coparticipation with civil society (Guma and Monstadt 2021; van Noorloos, Avianto, and Opiyo 2019). The first company adeptly grasps the priority of Kenya's government to establish government ownership and leadership and constructs a brand feature around "internet sovereignty." The second company takes the experience of how Chinese e-commerce builds the logistics system and adapts this system to specific conditions in the Kenyan urban communities.

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CONFLICTS OF INTEREST

The authors declare no ethical issues or conflicts of interest in this research. ■

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