

Pushing boundaries in the African aviation sector through Chinese expansion

Sijmen Schoonderwoerd

Thesis

Master of Arts

Asian Studies: Politics, Society and Economy

Faculty of humanities, Leiden University

July 1, 2021

Supervisor: Dr. S. Links



**Universiteit
Leiden**

Executive summary

The continent of Africa has a massive deficit in infrastructure, which is a bottleneck for the continent's economic development. To overcome this deficit, Africa needs to invest heavily in its infrastructure. The current road and rail networks are insufficient to cope with the increasing demand, and, taking into consideration the vast distances on the African continent, it is essential for Africa to develop aviation. With a developed domestic aviation market, China is stepping up to help with this task as it is expanding its global presence due to growing welfare and demand for resources and markets. This research aims to find out how African aviation benefits from this cooperation. The following research question has been drawn up for this purpose: How much does the Chinese drive for expansion contribute to the African aviation market? Case studies were carried out to answer this research question. These case studies have shed light on the partnership between China and Africa. It also shows which lessons can be learned from China. Based on these findings, it can be said that China's expansion is making a positive contribution to improving and expanding the African aviation sector as a whole.

Table of Contents

1. Introduction	4
2. Literature review	6
2.1. The China-Africa relationship	6
2.2. Infrastructure in the China-Africa relationship	7
2.3. The debate on China in Africa	9
2.4. Conclusion	10
3. Theoretical Framework	11
4. Methodology	14
5. Africa's needs and problems	16
6. Opening up and liberalisation of the Chinese aviation market	18
7. Opening up and liberalisation of the African aviation market	20
8. The current state of the African aviation market	22
9. Growing environmental awareness in infrastructure investments	23
10. Airport projects in Zanzibar (Tanzania) and Ethiopia	24
10.1. Case study: Abeid Amani Karume International airport Zanzibar (Tanzania)	24
10.2. Case study: Addis Ababa Airport Ethiopia	25
10.3. Discussion	26
11. Conclusion	28
References	29

1. Introduction

After the death of Mao Zedong and the end of the Cultural Revolution, China's economic development began at the end of 1978 due to a change of direction by the Chinese government. One of the significant changes was opening up the borders to foreign trade and investment. The focus shifted from agriculture to industry, and it became necessary to work on the infrastructure to develop regional connectivity. The Chinese government stimulated an array of transport infrastructure projects, as they are found to be more important to economic growth than labour (Li & Qi, 2016). The situation and capabilities of an area determine the actual relationship between transport infrastructure and economic development. When looking at China, the landlocked provinces are more likely to have lower levels of accessibility due to lack of specialisation, standardisation, and intensification (Li & Qi, 2016). Besides transport infrastructures such as roads and railroads, all kinds of hubs and logistic parks that serve passenger and cargo flows are considered part of connectivity improvement (Asian Infrastructure Investment Bank, 2020). Within China, there is a focus on increasing the capacity to stimulate the infrastructure network's growth, expansion, and improvement by removing bottlenecks from the infrastructure networks, enhancing the connectivity and economic situation. The growth of the economy runs parallel with the growth of the civil aviation market in China. Civil aviation is now essential for the domestic and international connections of the country and ensures that the outer, less populated regions are accessible as well. With the construction of its own aircraft, the Comac C919, for example, China is now even competing with global players such as Boeing and Airbus.

At the end of the 20th century, China has become more reliant on strategic resources. The Chinese manufacturing sector is mainly dependent on the raw materials they import from elsewhere. Initially, Asia and the Middle East were the leading regions for China's mineral commodities supply. However, during the last decades, China has been expanding its efforts to other resource-rich areas, such as South America and Africa. With the acquirement of strategic resources, Chinese companies are encouraged to carve their position in the global market to use their foreign exchange reserves (Alves, 2013). Chinese companies invest in the African countries as this offers them an excellent opportunity to extract resources and create new markets for Chinese-produced goods. The underdevelopment of the African countries is an obstacle for both the African countries and China. This underdevelopment of the African countries is the legacy of centuries of colonialism whereby both resources and humans were taken from the continent. When colonialism ended, the African countries were left with no capital and skills to grow their economy. By investing in transport infrastructure, China helps to provide economic and social growth for the different African countries. The improved infrastructure ensures lower transport costs, saves time, and provides China with new sales markets and resources, as the Chinese economy will continue to flourish, evidenced by the new infrastructure projects in Africa, which are linked to Xi Jinping's "New Silk Route".

The China-Africa relationship plays an increasing role in the development of the continent. The Forum On China-Africa Cooperation (FOCAC) is one mechanism that builds on enhancing understanding, expanding consensus, strengthening friendship, and promoting cooperation (FOCAC, 2004). For this cooperation, the African countries use a significant amount of Chinese finances for their infrastructure projects carried out by Chinese contractors (OECD/ACET, 2020). This Chinese funding comes without political and institutional interference or rejection and is an excellent opportunity for African countries to secure investment. The Chinese strategy based on non-interference and building infrastructure is vital for moving Africa's development process forward (OECD/ACET, 2020).

The infrastructure project portfolio of China in Africa keeps growing, but only a small part is aviation-related. With the growth of the Chinese economy, not only has aviation developed along with it but has supported economic growth in a broader sense. It could be of equal value for Africa if they, too, could go through this development. After all, Africa is the second-largest continent and distances

at national and international levels are vast. Some infrastructure projects have already been completed, which have led to reductions in travel time and prices. However, the effect on long-distance connections between countries or very remote areas is not forthcoming. Aviation makes it possible to open up areas, transport (perishable) goods, and bring aid and development. Compared to China, where the aviation sector supports continental passenger and cargo transport, the African aviation sector lags far behind. The African situation is also shown by two airport project case studies in this research. One project is in Zanzibar, and the other in Ethiopia. For Zanzibar, the airport is crucial for tourism, whereas, for Ethiopia, the airport functions as the gateway to Africa as many Chinese and other international travellers use this airport to fly to other African countries. The case studies illustrate the impact of aviation development on African economic development with the help of Chinese technological knowledge, skills, and resources. China is thus expanding its portfolio on the African continent. This expansion raises the question of: How does the Chinese drive for expansion contribute to the African aviation market? This thesis will first explain the current debates on the relationship between China and Africa in the literature review (2). The theoretical framework and methodology explain and analyse the reasoning behind international relations (3,4). The following chapters look at the African infrastructure situation (5) and the Chinese and African aviation markets (6,7). Furthermore, the current African aviation market (8) and the importance of the environment (9) are discussed and finally, the case studies (10) and the general conclusion (11).

2. Literature review

As this research focuses on cooperation and aviation, it is crucial to understand the current debates about the China-Africa relationship. This literature review will first focus on the different points of view regarding the motivation for the China-Africa relationship. Secondly, the different areas of cooperation are examined, and, finally the literature review will elaborate on the positive and negative aspects of the existing relationship.

2.1. The China-Africa relationship

When it comes to China-Africa relations, there different points of view. Brautigam et al. (2017) start with the argument that data in their research indicates that China's influence in Africa is not as significant as generally believed. They find that Chinese investment is more diverse and more growth-orientated as Foreign Direct Investment (FDI) moves away from resource-rich countries. The more common view on China in Africa is that China has two primary motivations for its practices in Africa.

According to Dollar (2019), the first motivation is economic, as China has vast excess savings, resources, and trade expansions to use. China becomes more and more reliant on strategic resources to carve out new positions for its enterprises on the global market (Alves, 2013). These are not the only points of view scholars have on the motives of China for investing in Africa. To explain these economic motives, scholars use the terms neo-imperialism and authoritarian capitalism to describe natural resource and labour exploitation (Brautigam et al., 2017). The difference between these two terms is that neo-imperialism refers to the phenomenon that richer countries are responsible for exploiting previously colonised countries, whereas authoritarian capitalism is a system in which an authoritarian regime and capitalism coexist.

The second motivation is a strategic one, as China gains friends and influence in the countries it invests in (Dollar, 2019). Du Plessis (2016) further supports this strategic engagement as he points out that Chinese investment in non-resource-rich countries increased by a factor of seven, and that for resource-rich countries investment only doubled between 2005 and 2012. The non-resources rich countries have the fastest growing economies, which complements the diversifying of Chinese FDI to less resource-rich countries (Brautigam et al., 2017). Maru (2019) adds that two-thirds of China's investment goes towards the infrastructure, construction, and manufacturing sectors. Therefore, China even has a lower share in extractive assets than other developed countries. With the experience and knowledge of the current situation of the African countries, China has become an alternative to international norms and Western initiatives. China is the foremost economic and military actor in the developing world (Van Staden, Alden, & Wu, 2018).

For the African countries, China has established itself as a good alternative for the West, as it does not make the same demands for its investments. China as a new player following its own path, unknown to the West, makes the Western world suspicious of China-Africa relations. The West is concerned that the lack of data and transparency on Chinese overseas loans brings several risks to the host country. Those risks consist of corruption, keeping authoritarian regimes in place, and social and environmental hazards (Horn, Reinhart, & Trebesch, 2019). However, these consequences are not unique to Chinese investment alone (Brautigam et al., 2017). Even though it often seems that African countries are the victim, as they accumulated debt, China is financially vulnerable when investments go wrong and put its reputation on the line (Van Staden et al., 2018).

As both Africa and China face risks of cooperation, it is essential to make their cooperation work at all levels. On an institutional level, the weak African institutions cannot negotiate with China and represent the African people. Van Staden et al. (2018) point out that the African Union (AU) is inadequate in handling contemporary issues such as climate change, migration, and terrorism, challenges that the AU take on in an inconsistent manner. These shortcomings of the AU weakens, its negotiating position vis-à-vis China. African countries step up to their values and acknowledge their

shortcomings in the weakness of regulatory and enforcement mechanisms, as China still holds on the One China principle as an essential requirement for investment and aid (Adisu & Sharkey, 2010; Maru, 2019). Alden and Alves (2017) show the other side of this perspective. They found an ongoing socialisation process at FOCAC that shapes China's behaviour even when it holds the most structural power at FOCAC.

When it comes to Chinese aid and investment for Africa, scholars remain sceptical about the real purpose. Naim (2007) presents China as a threat to developing Africa, arguing that they work responsible organisations out of the market. Others go even further and describe China as a neo-colonial power as it 'plunders' the continent from its resources and it brings the spoils back to China (Manji & Marks, 2007; Trofimov, 2007). Power and Mohan (2011) argue that China's engagement with Africa has changed and expanded over the last decades but builds on longer geopolitical traditions and history of interaction with the continent. This history is ideologically used by China to legitimise its recent, more commercially focused activities. They further argue that China's actions could be associated with being imperialist regarding the extraction of resources. China always pointed out a non-interference stance with their investment practices in Africa. However, as Karumbidza (2007) points out, this is probably not possible in the view that the Chinese are well aware that this stance is untenable in Africa. They are protecting their investments by protecting specific regimes. However, this study will have to prove if all this scepticism is fully justified.

The view of scholars and their scepticism does not reflect the view of all sides regarding the China-Africa relationship. The African view is far less presented within literature. African countries have several reasons for choosing China over other countries, such as less political and economic conditionalities and services that complement the regional value chains (Du Plessis, 2016). The African view is often neglected and overshadowed by a Western perspective of the China-Africa relations. Sautman and Yan (2009) point out that African views are not in line with the opposing views of the West and the positive sources of the Chinese. They argue that the African opinion of China in Africa is variegated and complex. Maru (2019) adds that the failure or success is not on the Chinese but the African governments and their accountability to the people of Africa.

Authors agree that China has influence in Africa but differ over its extent, as China's influence is more diverse and growth orientated than is often thought. Chinese investments move away from resource-rich countries. This move clearly illustrates that China, besides economic interests, has strategic interests in the African region. As stated above, for the African countries, China is a welcome alternative to the Western countries as it makes fewer demands than the West. However, the African countries have to be careful, as China engages with the African countries on its own terms. Scholars remain sceptical as the China-Africa relationship is associated with neo-imperialism and authoritarian capitalism. The African people themselves are also divided in what they think about the China-Africa relationship. The agreements that are made revolve around investments and not about cooperation or relationship building. The importance of equal cooperation does not seem relevant at all in the agreements that are made.

2.2. Infrastructure in the China-Africa relationship

Within the China-Africa relationship, infrastructure is an important subject. Zhi (2018) mentions that infrastructure development has become one of the major programs in the China-Africa relationship. With the prospect of growing investment in the African countries, the demand for construction projects is expected to be rapid (Brautigam et al., 2017). However, Zhi (2018) also points out that China-Africa cooperation goes further than just infrastructure. They work together in areas such as peace and security, international affairs, development assistance and cultural communication. Vhumbunu (2016) reflects on the same line of reasoning, arguing that the Tanzania Zambia railway project is a significant project that builds on the transformation of the China-Africa partnership in

infrastructure development. The significance of cooperation spreads further than infrastructure alone, as cooperation has great influence on the fields of economics, politics, and social development. He further points out that China shifts its vision from national to regional and even in some cases continental. According to Das and Sanchita (2015), this shift from national to regional is because China wants to play an active and leading role in increasing regional connectivity plans. The Belt and Road Initiative (BRI) fits in this vision shift, as the initiative does not limit itself to one country. The BRI is often associated with transport infrastructure but is more than just physical infrastructure (Dollar, 2019). For example, to connect markets, soft infrastructure such as customs clearance and logistic services play an equal important role for China.

Du Plessis (2016) points out that China recognises the lack of infrastructure in Africa and sees it as a bottleneck for further development. China's infrastructure investments are often associated with the One Belt One Road initiative (OBOR), now more commonly known as the BRI. The BRI has become more at the centre of the China-Africa debate, as Africa's role changes from being targeted for investment to becoming a competitor with other BRI countries. The inclusion of Africa in the BRI raises new questions on how African agency will strengthen their bargaining power and ability to make independent decisions (Van Staden et al., 2018). The BRI projects in Africa are often based on transport and power, as Africa has a significant power deficit (Alves, 2013). Especially rail and road are frequently mentioned as China is involved in high-speed rail networks going both horizontally and vertically across the continent (Zhi, 2018; Dollar, 2019).

Reliable infrastructure is vital for the further development of African countries. Zhi (2018) stresses the importance of China's experience with industrialisation and the growth of infrastructure to solve structural optimisation. Bond (2016) points out the importance of infrastructure as a worldwide analysis shows a positive correlation between infrastructure stocks and income. The investments in transport infrastructure have had a positive influence economic development (Li & Qi, 2016). Africa's infrastructure deficit is reflected in its low gross domestic product per capita income levels. Shepard (2016) argues that, for value chain connectivity, maritime and air connectivity are particularly important for the regional dimensions as they can capture spill over elements from national policies. Further, he mentions a strong positive association between infrastructure and trade facilitation on the one hand, and value chain connectivity on the other. This is in line with Li and Qi (2016) who mention in their research that economic development and transport connectivity are interrelated. This interrelation is what makes the right start for the aviation sector vital so it can support the development of the African continent.

China and Africa cooperate in many areas, of which infrastructure is an important one. China knows the importance of infrastructure and sees that the shortage of infrastructure needs to be solved. These infrastructure projects often fall under the BRI and consist of both hard and soft infrastructure. China now has an extensive infrastructure network consisting mainly of roads and railways and, at a later stage, also expanded its civil aviation. Aviation has taken off in China and now owns a significant share; it has also had a positive impact on the economy. This is not yet the case in Africa. Aviation is initially helpful for improving connections and later for the growth of the economy. China is now following the same path in Africa as they have done domestically. By allowing several elements of infrastructure to flourish, the foundation has been laid for aviation. Therefore, the literature about road and rail projects is much more extensive than literature on aviation-related investment. The African civil aviation market is still in its infancy when compared to other regions, and Africa would do well to learn from the experience of other regions, in particular from the way in which other regions took care of problems during their growth.

2.3. The debate on China in Africa

Within the China-Africa relations debate, there is a division between the positive and the opposing view on the Chinese being active in Africa. These views are a point of consideration when looking at China-Africa cooperation.

Dorosh et al. (2012) point out that areas with a larger population have better road networks and have less travel time to nearby cities. At the same time, higher economic productivity is observed in areas with better infrastructure and larger populations. Investments in infrastructure will only benefit a country as the investment climate is at a certain level. Having a poor investment climate is a hindrance for using infrastructure investments as intended (Dollar, 2019). Zhao et al. (2017) mention the considerable scope of the Chinese companies to build and expand rail and road networks, thus contributing to a positive feedback loop between economic centres. The Chinese construction projects contribute to labour opportunities for the African people. Chinese investment in airports and aviation-related infrastructure benefits the African labour market in every stage of the process. During the different stages, direct and indirect jobs will be created and opportunities will arise to expand on cooperation and mutual benefits. Brautigam et al. (2017) show that Chinese companies hire significant amounts of labour from the host countries. Sautman and Yan (2015) add that over 80 per cent of the workers on Chinese projects are local. The Chinese infrastructure investment has positive spill overs, as it creates substantial local employment (Sindzingre, 2016).

Some scholars take a middle ground position. Isaac (2019), for instance, argues that African countries may see better connectivity due to infrastructure investments, but he is concerned for the effect on the local environment and businesses. Adisu and Sharkey (2010) complement this perspective by stating that the infrastructure built by the Chinese is essential for the continent, but that, at the same time, the relationship holds back governments in their progress to political and economic reform, as corrupt or authoritarian regimes are supported and kept in power.

Critical negative views on the Chinese being in Africa seem to outweigh the positive. Foster et al. (2008) contend that most of the Chinese investments are based on infrastructure-for-resource-based loans. According to Foster, these loans, easily recognisable because of the extent of the loans, help China expand its geographical footprint. Most countries that receive these infrastructure-for-resources loans are oil-rich countries so also in Africa, which shows an inequality between investment in African countries. Alves (2013) supports the argument that concessional loans primarily focus on industries related to resource extraction, mainly in resource-rich countries. Further, she argues that the draft of these loans favours the expansion of Chinese companies in construction and resources with minimal risk. Aris (2016) adds the BRI as another way in which China attempts to expand its geopolitical interests. He further argues that when countries can contribute little to the infrastructure projects, China demands greater control, leading to debates within the host country about whether having these investments are worth the risk of losing sovereign control and becoming dependent on China. Inclusion in the BRI project can lead to the fall of national governments due to the increasing national debt (Van Staden et al., 2018). However, there is another side to this as Zhi (2018) points out: cooperation agreements between China and African countries had a positive stance towards infrastructure development. He is of the opinion that the resource-infrastructure-finance model should expand to other industries.

According to Das (2017), these geopolitical interests are the reason for scholars' concerns that they might create new problems for African countries. Delving further into these problems, Alves (2013) argues that China is benefiting itself rather than helping the African countries. China brings its own materials, equipment, and labour to do the job, thus destroying local businesses and hindering the development of African countries and their people. In addition, she points out that Chinese contractors use methods they use at home, namely working long shifts, working during the weekends, often under poor safety conditions, and thus not considering the culture and the way the African people work.

Chinese that oversee African workers neglect the local labour laws and cultures (Adisu & Sharkey, 2010). Bah, Pahuamba, and Zhao (2012) note that Chinese investment kills the competitiveness of local businesses in the long term and that Chinese labour limits the transfer of skills and technology to the locals. A survey by Sautman and Yan (2009) shows that the Chinese presence is seen both as a help and as a source of problems for local people. In addition to the concerns about work quality and business opportunities, there are problems caused by corruption, violation of human rights, and unknown environmental risks due to the relocation of polluting industries (Bosshard, 2007; Tracy et al., 2017).

2.4. Conclusion

This literature review clearly demonstrates that the views on Chinese investment in Africa are diverse. The scholars who point out the positive aspects tend to neglect all negative aspects pointed out by the other scholars. No one will deny the fact that there is a positive link between infrastructure and economic productivity and that Chinese infrastructure investments are of great value to the African continent, but it is also clear that there are both advantages and disadvantages. The moderate scholars point out that, even though these investments benefit the African countries, they must remain careful of what other intentions China may have. The Chinese investments strategy ensures minimal risk for its companies and could increase the burden for the African countries. The negative critical scholars express their concerns that, if the African countries do not ensure the transfer of skill and technology, the Chinese investments are a burden on the local economy, environment, and human capital. If this is the case, there is no question of a win-win situation, and one could hardly talk of cooperation. A group that shouts the loudest can hinder cooperation and the development of aviation. If the opposing side drags the moderate group with them, they form an inhibiting block for development. Especially the moderate group needs to be reassured of China's good intentions. When the positive group reassures, the moderate group, development will continue, and new problems may arise, but these are of future concern.

3. Theoretical Framework

For this research, several theories were examined to find a fitting theory which would help answer the research question posed in the thesis: How does the Chinese drive for expansion contribute to the African aviation market? Scholars can use many theories when considering international relations. Within International Relations, realism, liberalism and constructivism are frequently used, and these theories were also studied during the Master. Both realism and liberalism are two of the more traditional central theories in International Relations. On the other hand, constructivism is seen as a more middle ground theory (Mcglinchey, Walters, & Gold, 2017). Given the nature of the research and the research question, a middle ground theory will be explained in this theoretical framework.

The realist theory is a school of thought associated with the nation-state as the principal actor in international relations. The state is the unitary actor and national security is of prime concern (Antunes & Camisao, 2017). Morgenthau (1948) argues that the direction of political actions is to secure and increase the state's power. Whereas Kenneth Waltz (1979), in his explanation of realism, emphasises that any action a state pursues is measured against other states, and therefore Waltz considers power as relative. Thus, international politics are described as a result of humankind's egoistic nature as the action is not judged by moral principles but by ethics of responsibility (Antunes & Camisao, 2017). Realism is a pessimistic movement in which power, conflict, and war are central, with no progress. For this research, using this theory would be a paradox, as not power and conflict are the aim but progress that benefits both parties.

The second central theory, liberalism, bases itself on the individual's rights such as life, liberty and property as the highest goal of government. This theory emphasizes the individual's well-being as a vital element of a political system (Meiser, 2017). The creation of a political system that allows states to protect themselves should not affect individual rights. Within the liberalist theory, the threat to individual liberty must be restrained using institutions and norms at all levels. The institutions limit the power of states, foster cooperation, and act on states that violate international agreements (Meiser, 2017). Lastly, liberal norms shape the understanding of appropriate behaviour and limit the use of power (Meiser, 2017). This theory is far from how current government interference occurs in China and African countries. After all, China and many African countries have authoritarian regimes that restrict the people's freedom. Liberalists see institutions as a limiter for the power of a state, which does not fit in with the idea that they could also play a guiding role in cooperation to achieve essential changes. For Africa's economic growth and China's influence, precisely those institutions will be needed to make the first connections.

The constructivist theory builds on the idea that what we can know about the world is socially constructed. Constructivists go beyond material reality by looking at ideas and beliefs in world politics. Constructivists give material conditions a meaning, and those can change over time. When ideas change back and forth, the social relationship changes as well. (Theys, 2017). They argue that a state has multiple identities shaped by social interaction with other actors. The identity of the state is only valid as the state does not act contrary to this identity. Thus, constructivism is based on the principle that actions, interactions, and perceptions shape reality. They show that alternative explanations and insights can describe events occurring in the social world (Theys, 2017). This theory, which has a more social character, is best suited to look at the expansion drift of China on the one hand and aviation development for Africa on the other. In international relations, constructivism assumes that power is based on more than materialism, namely on knowledge of sociology and communication. Although it is the most appropriate of all three, constructivism itself does not provide a complete footing, as the aim is not to find alternative explanations.

Hence, the need to look further at how relationships and cooperation can lead to successful changes for China and Africa. Changing existing processes is not easy, especially if the relationships are

complex. Several models look at complex change. They are concepts that guide an individual or group in implementing changes. Change management focuses on improving the structure and working methods to efficiently achieve business goals (Zeker Weten Verandermanagement, 2020). These changes have spill over effects on others as well (Prosci Inc, n.d-a). Change management is used to make sure that any changes made or processed and appropriately applied. Old routines are hard to change and can form a hurdle when cooperating with others. If collaboration does not change, it will grind to a halt, and development will stagnate. (Mulholland, 2017). For China and Africa, these are different changes where cooperation and working methods can lead to the achievement of their goals. Using a change management model makes it is interesting to see how this works in practice. One of the models that deals with managing complex change is the model presented by Knoster. Further research shows that in 1987 this model was already in a book with copyright by Mary Lippitt (Caredda, 2020). In the Netherlands, the Knoster model is widely used in change management in healthcare and education. Knoster presented this model during the TASH congress in 1991. TASH is an advocate for people with disabilities. Knoster's model is an analytical framework used to clarify the analysis phase of an issue or problem. The model consists of five building blocks that only together ensure the success of a complex change. If one of the building blocks is missing, this will directly affect the result, and a successful improvement cannot be obtained (Vermeulen & Tiemens, 2015). The five-building blocks can be described as follows:

1. Visions: The first building block must give the reason and goal of why change is needed. Motions of change often raise questions; therefore, a good explanation is a key to dealing with all the questions. A vision must be unambiguous and supported by everyone.
2. Skills: This building block shows which skills are needed and how to use them to make a change. It is necessary to consider what is wrong with the current skills, and whether they need changing, or whether a better explanation of the skills is required. Think about how people deal with new technology and make them aware of implementing what they have learnt.
3. Incentives: For all parties, it must be clear how they will benefit from the change. If a party does not see the value, they might resist. The awareness of the situation and the benefits of change play an essential part in this.
4. Resources: This includes everything, both physical and non-physical, that contributes to the change. Think about the time, automation of processes, machines, systems, and authority to get things done. Power and mandate play an essential factor in progress from idea to action.
5. Plan of action: A clear plan of action is needed for all parties. All forms of creating and bringing over information play a vital role. Everyone needs to have a clear view of the end goal and the steps to achieve this.

When one of those building blocks is missing or if there are problems different situations occur (Figure 1). When vision is lacking, there is no guideline to achieve successful cooperation. This lack of clarity leads to confusion. In the absence of skills, those who have to make the change will feel unprepared. What is expected of them and what they should do is unclear, and in extreme cases, this leads to fear. The lack of incentives leads to resistance due to the lack of involvement of certain parties. If there are no resources, parties become frustrated because there is a plan to get there but no possibility to execute. And if the action plan is missing, one can do things but make no progress.



Adapted from Knoster, T. (1991) Presentation in TASH Conference, Washington, D.C. Adapted by Knoster from Enterprise Group, Ltd.

Figure 1: Possible outcomes of complex change adopted from Knoster (Knoster, 1991)

In short, while all theories about international relations explain why states behave in a certain way, Knoster's model offers the possibility to use the five building blocks to look at the Chinese perspective of expansion drive and what this brings to Africans in developing their aviation with a positive effect. On economic growth. The sum of the different building blocks can lead to constructive cooperation and relationship building. The views that will emerge in the process of change and cooperation in China and Africa will then contribute to constructivism's perception of how countries relate to each other. China needs different approaches to deal with the different African countries and to expand its power and influence. Change is not what this research aims for, but the building blocks will help understand the challenges facing both China and the African countries.

4. Methodology

For this research, a qualitative approach was used to analyse both qualitative and quantitative data. The qualitative approach made it possible to look at all aspects of international relations as both qualitative and quantitative data could be analysed from different angles. Analysing quantitative data helped to understand what was written in literature and vice versa. Thus, the relationship between China and Africa could be viewed from different perspectives in this study. In this way, this research will contribute to the general discussion as it looks at several points of view in the China-Africa relationship.

When studying the China-Africa relationship, social, political and economic aspects have been considered. Analysing literature provided a good opportunity to determine the reasoning behind the decisions and the relationship between the social and political elements. Whereas for the economic aspect, analysing statistical data often offered a clearer view of the situation, which was linked and compared with the literature for an explanation.

For the actual collection of data, online information was the main way to gain proper primary and secondary sources. While gathering for information specific terms such as aviation, infrastructure, Africa, and China were used to find specific information on the topic. During the selection of literature attention was paid to the official source. The university website helped with the search for peer-reviewed articles, academic journal articles, and e-books. Other ways of gathering online information was done by consulting websites of international organisations and institutions such as the AU, Organisation for Economic Cooperation and Development (OECD), The World Bank, and Chinese and African authorities. Taking all the different sources into account, it was important not to get an biased view of the China-Africa relations. Therefore attention was paid to the background and nationality of the author or institutions. By doing this, it was possible to assure that not all the literature came from Western sources. The main aim was to get a diverse as possible scope of view of the situation. The diversity of perspectives provided a much clearer picture of the actual situation. For the study's relevance, a time frame was set from the beginning 90s as air travel took off in China, whereas in Africa this did not happen up until this point. Still, some essential indicators are there in that same period. For the literature itself, the focus was on sources from 2010 onwards, with exceptions where this was not possible. As far as reports from authorities or institutions are concerned, the latest versions were consulted where possible, and the cited data was checked to see if it was outdated or not.

Media outlets were consulted to get a broader perspective on the thoughts of the African and Chinese people on the whole situation of the China-Africa relations. For Africa, sources such as African Aerospace Online News Service bring the latest news on African-related aviation news and African Business, which looks at African affairs from an African point of view, were consulted. For the Chinese news outlets, the English page of the Xinhua news agency was consulted. Xinhua news agency is the official state press of the PRC. Besides Xinhua, the China Daily and English newspaper monitored by the Chinese state was used. By selecting these sources, attention was paid to the writer's bias, and the people referred to in the interviews.

Lastly, case studies of Chinese infrastructure projects in Africa were used to understand the cooperation. Case studies provide insight into projects that have been carried out with all their positive and negative sides, allowing a more concrete look at where the learning points lie. Furthermore, it shows the interaction between China and Africa at the executive level. It shows where steps can be made for the future in the field of cooperation and aviation. In addition, the cooperation shows the increasing role of China on the African continent. Since cooperation at the aviation level is still lagging behind other infrastructure forms, the choice for case studies was limited. Multiple case studies were examined, but only two case studies were selected for this research because they offer enough information on the project and cooperation. These two case studies are in low-income countries as

they represent the majority of the African countries economic situation. Furthermore, these two projects took place during the last decennia, which gives a quite accurate image of the current situation.

By analysing the literature and the statistical data, there was a focus on the commonalities and differences and how these would fit within the broader discussions about the China-Africa relationship. Special attention was paid to explaining actions and how they comply with numbers or show something different. The date of the sources played a vital role to make connections between the literature, as information in papers of earlier date did not always reflect the current situation, was invalidated or replaced with new visions. The media outlets and the case studies were connected to constructivism and the model of Knoster to let them explain the situations of success or failure.

Under the circumstancing using a qualitative approach was the best possible manner to obtain information. COVID-19 gave some limitations to what was possible for this research. The main limitation was that certain forms of sources were not available because they were placed behind a paywall, and, during the past months, consulting the information in libraries was not possible.

5. Africa's needs and problems

The continent of Africa has its needs caused by specific root problems concerning infrastructure. Alves (2013) points out that infrastructure investments in Africa did not keep pace with the African countries' demographic growth. Over the years, this lack of infrastructure investments created a huge deficit, especially in low-income countries. The low quantity of infrastructure dates back to colonial times, when infrastructure was often neglected or damaged by internal conflicts (Alves, 2013; Foster, Briceño-Garmedia, 2010). During the periods of conflict, both rebels and governments destroyed infrastructure deemed helpful for the other party (Naude, 2009). Renovating this old colonial infrastructure is one way of enhancing cross-border interaction (Vhumbunu, 2016). However, the design is causing problems and does not meet present day requirements, as the networks often follow routes suited to the former colonialists and were built for purpose only to benefit the colonialists. Nowadays, multiple factors shape the initiatives to improve connectivity, such as projects design, financing, geopolitical concerns, national and international interests, and competition and cooperation between countries (Das, 2017). In addition to the old colonial infrastructure networks that result in a physical deficit of infrastructure, there is poor connectivity between the different forms of infrastructure. Although there are a reasonable number of ports along the continent's coasts, they are not well connected with roads, railways and other ports. Therefore essential infrastructure has some fundamental problems regarding capacity, travel time, and handling costs (Scholvin & Draper, 2012). Closing the current infrastructure gap will have a substantial positive impact on the development of the continent.

Besides transport infrastructure, the African continent has a significant deficit in the power sector. The lack of interconnectivity of electricity grids and frequent outages plagues the Sub-Saharan region (Alves, 2013). Africa's most significant infrastructure challenge is to cope with the continent's power needs. Africa's power infrastructure delivers far below the service found in other developing areas of the world (Foster & Briceño-Garmedia, 2010).

A worldwide analysis shows that the correlation between infrastructure stocks and income is substantial and compelling (Bond, 2016; World Bank, 1994). The low infrastructure endowment in Africa reflects its low level of gross domestic product per capita (Bond, 2016). However, there is an infrastructure need in Africa due to demographic changes such as new agglomeration patterns in urbanisation that change spatial geography play an important role in Africa's infrastructure necessities. Given these changes, there is a need for cost-effective infrastructure to sustain the growth in demand for food, water, and electricity resulting from African population's growth. With the rapid urbanisation in Africa, the demand for products in the cities relies heavily on imports. A sufficient urban-rural infrastructure is vital for sustaining these new spatial features considering the demographic changes (OECD/ACET, 2020). With this, the location of a country plays an essential role in the need for investments in infrastructure. For example, the sixteen landlocked countries in Africa experience higher trading cost, and their trade volumes lag far behind the coastal countries (Bond, 2016). These coastal countries lack the incentive to connect the landlocked countries with the different forms of transport infrastructure because their benefits lack compared to those of the landlocked (Naude, 2009).

The current infrastructure in Africa has several problems (Bond, 2016). When looking at the number of roads in Africa, the density is only 152km/km², whereas low-income countries have 211km/km². Both numbers are severely behind the 757km/km² for middle-income countries. Besides the scarcity of roads, the quality is insufficient. They are mostly unpaved and not suitable for all seasons, and non-physical constraints negatively influence goods and passengers' flow and volume (Foster, Briceño-Garmedia, 2010). After road transport, rail transport is the most used. However, rail networks on the continent are underdeveloped, poorly maintained, and of incompatible gauges, making international connections a challenge (Bond, 2016; Naude, 2009). The countries that have access to

the sea are connected to the world by their ports. Many of those ports' problems are that they cannot operate at full capacity due to low berths and insufficient docking facilities. Even when operating at full capacity, handling management is insufficient and terminal facilities are not up to date. Air transport has grown in recent years but remains an expensive way of transport for most African people. Besides being expensive, there is a lack of sufficient air connections, and safety is a problem. Airports often have high landing charges due to the absence of support from concessions enjoyed by liberalisation of the air transport sector (Bond, 2016).

These poor conditions of road, rail, port, and airport facilities add substantial numbers in trading costs, affecting all the other sectors and the flow of foreign direct investment. These poor conditions lead to significant costs for the African countries. Aside from hard infrastructure, soft infrastructure including all forms of communication systems play an important role. However, there are a number of structural problems that affect Africa's soft infrastructure. This includes the lack of capacity to operate and maintain the existing networks. In addition, there is a weaker integration of national and regional plans, a lack of funding for project development, and implementation is subject to corruption. (Alves, 2013; Ikome & Lisinge, 2016).

The development of infrastructure is crucial for sustainable growth, poverty reduction, and attainment of the Millennium Development Goals. According to the Infrastructure and Urban Development Annual Report 2019 by the African Development Bank (2020), there have been investments in roads, airport, and ports. The lion share of these investments in the way of loans was made to road construction projects. These road projects cover 2148 km of new roads in Africa, focusing on improving the national infrastructure as only 650 km out of the total 2148 km of road will contribute to international connections. Out of the 21 approved projects, just two were airport-related showing the status of aviation related projects on the continent (African Development Bank, 2020).

A major challenge considering the China-Africa relationship is developing compact and replicable projects for project developers across Africa, considering that not all African countries have the same capabilities and opportunities (OECD/ACET, 2020). Another challenge is the investment share of GDP in infrastructure. Comparing these percentages with industrializing countries like China (7.7%) and India (5.2%), the African countries since the year 2000 only invested 3.5 per cent of their GDP (Lakmeharan et al., 2020). The African Continental Free Trade Area is a way to generate new opportunities to sustain the new challenges due to the growing population's increasing demand (OECD/ACET, 2020).

6. Opening up and liberalisation of the Chinese aviation market

The liberalisation of the Chinese aviation market started with Deng Xiaoping's 1978 policy of reform and opening up (Liu & Luk, 2009). Before 1978, air transport was under the dual control of the central government under the Civil Aviation Administration of China (CAAC) and the Chinese air force. Hence, military regulation had a strong influence on daily operations. A strictly regulated central system controlled all the flights, and the launch of new routes was often due to political interests (Zhang & Round, 2008; Wang, Bonilla & Banister, 2016). In 1980, the CAAC became independent from the military and took steps to deregulate the system with a series of reforms. In 1987, six state-owned airlines (Air China, China Eastern Airlines, China Southern Airlines, China Southwest Airlines, China Northwest Airlines, and China Northern Airlines) were established. However, the CAAC remained as the regulator of the air transport industry as well as the manager of airports, airlines, and other air transport-related services. From the following year, the CAAC allowed certain airlines to enter the market. However, this was short-lived, as the Asian financial crisis of 1997-1999 led to restructuring due to the shocks the aviation market had to endure. In the same year that the crises started, the Chinese airlines faced aggressive international airlines, more deregulation demands from foreign governments, and the worldwide trend of joining airline alliances (Zhang & Round, 2008). In 2002, the CAAC regrouped all the state-owned airlines in the "Big Three" airlines (Air China, China Southern, and China Eastern) to create more cost-efficient airlines. The merging parties hoped that by consolidation, the airlines would increase their efficiency to deal better with foreign rivals (Zhang & Round, 2008). Besides the restructuring, the CAAC transferred the ownership of almost all airports to the local authorities by 2004. In the following year, China opened the civil aviation sector to private investors. This opening up led to an increase in private airlines as well as government-owned enterprises. These new airlines are often jointly owned airlines between one of the Big Three and a local government. From 2007 onwards, the CAAC slowed down the acceptance of new airlines in response to the rapid growth of airlines (Wang et al., 2016). The air deregulation led to an increasing number of airlines owned by different parties, but overall, the main focus stayed on developing the Big Three and securing their market position.

In the early 2000s, the growth of China's airport network was almost linearly correlated with the Chinese GDP, which entailed that one million RMB of GDP supported seven passengers and 153 kg of cargo (Zhang, Cao, Du, & Cai, 2010). China's airport network is set up in such a way that several layers of airports can be differentiated (Du et al., 2016). Regulating the Chinese aviation network is done by establishing connections between these layers that have different functions. The core layer consists of capital cities and important economic/tourist cities. These cities are densely connected and sustain the bulk of the flight flow within the Chinese airport network. The second layer is the bridge layer. These airports usually are connected with the airports in the core layer, but there are also connections with airports in the same layer. At last, the periphery is the lowest level, and those airports connect to the bridge layer and sometimes the core layer. There are no connections between the periphery airports. This lack of connection ultimately results in the bridge layer's importance of connecting the periphery to the core and sustaining the flow of travel to the periphery. It is too costly and unnecessary to connect each airport directly to all others especially considering the linkages between areas with a high population density and low population density (Zhang et al., 2010).

The Chinese aviation policy is reviewed once every five years as it is part of the five-year plan. Over the years, China has been developing more and more bilateral air service agreements with other countries, and, by the end of 2007, China had already signed agreements with 110 countries (Liu & Luk, 2009). By signing bilateral agreements, China opened its air transport market to the world. However, the liberalisation of the aviation market brought new problems for the Chinese airspace. With the increase in flights, air traffic management for civil aviation and military aviation had to work together

to optimise the Chinese airspace (Liu & Luk, 2009). The government stays involved when airlines want to expand because they have the final say where the purchasing of aircraft is concerned. They have to balance even between Airbus and Boeing due to political reasons (Zhang & Round, 2008). This balancing remains important, but with China's own aircraft development and production, a new option becomes available, heavily supported by the government. The Chinese government is known for providing substantial support for the development of the civil aviation industry in the form of subsidies. In 2016 alone, the Big Three and privately owned Hainan Airlines together received 467 million Renminbi (RMB) in subsidies. Besides the Chinese government, local governments give various types of support to airlines to incentivise them for establishing new routes to their cities (Wang, Jiang, Ng, & Zhu, 2020). This support to improve direct air connections is because most Chinese tend to use direct flights between domestic airports (Zhang, Zhang, Zhu, & Wang, 2017).

While air transport is becoming increasingly important in China, this trend is also visible in developing countries. In 2017, the CAAC declared that, by 2020, there would be 260 civil airports and 370 by 2025 (CAAC, 2017). Zhang et al. (2017) point out that China demonstrates that China's air transport market is a growth market but they also mention that, for smaller cities, growth has been stagnant between 2005-2016, compared to the bigger cities. The higher degree of connectivity shows a positive influence on the stream of tourism. The addition of low-cost carriers is likely to increase consumer choice and make air travel more affordable for a larger group of people. The combined services of the airports and the high-speed rail network are becoming more and more feasible in practice and are actively promoted (Wang et al., 2020).

7. Opening up and liberalisation of the African aviation market

Until now, African aviation policy focused mainly on protecting the interests of the national airline and not those of the consumers of air services. To improve the experience for the consumers, liberalisation of the aviation market is the next step. Multiple stages have been through to expand on the liberalisation of the African aviation market. However, the signing of several declarations did not have much effect. The latest and more promising one is the Yamoussoukro declaration adopted in 1988 and implemented through the 1999 Yamoussoukro decision (YD) named after the Ivorian city in which it was agreed as the umbrella arrangement for all the liberalisation initiatives (World Bank, 2010). It commits its 44 signatory countries to the YD's full implementation as it would liberalise the intra-African air transport market, with equal commercial opportunities for the African airlines (World Bank, 2010; Abate, 2016). As the successor of the Yamoussoukro Declaration, the YD became fully binding in 2000 as the heads of states and governments at the Organisation of African unity endorsed it. This liberalization includes the elements of the first, second, third, fourth and fifth aviation freedom rights (Schlumberger, 2010). These rights allow (figure 2) airlines to provide services from their country of origin and back, and between countries other than the country of origin. However, some African countries ratified or did not sign the YD. The slow and partial implementation combined with the ongoing pressure for liberalisation puts even more pressure on the African aviation market (Njoya, 2016).

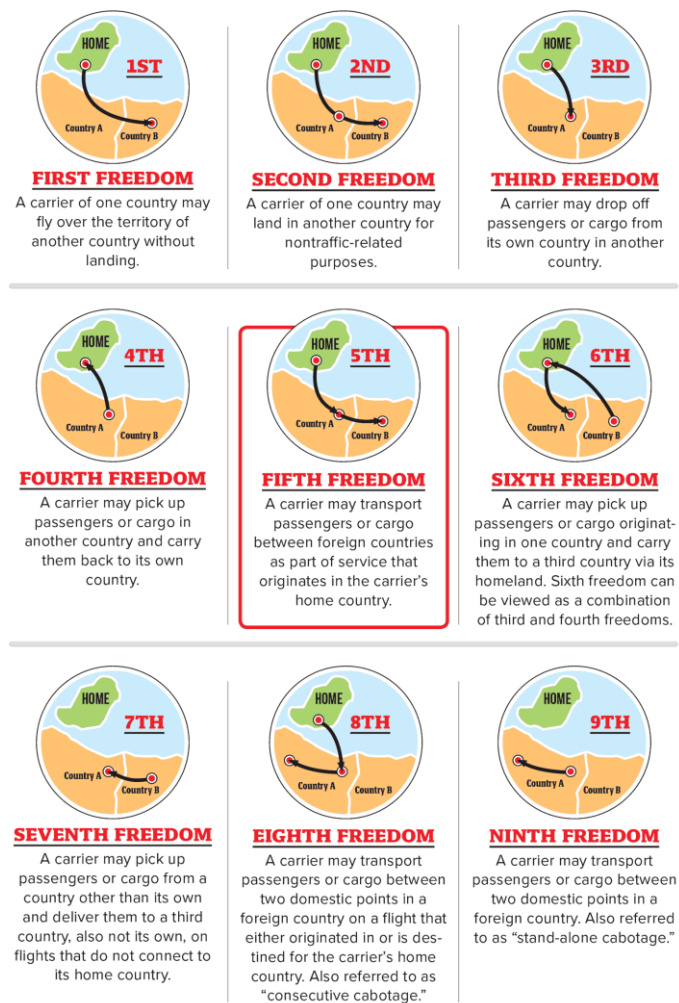


Figure 2: Aviation freedom rights (Airline Pilots Association, 2019)

Despite worldwide integration by air travel, integration is not the main reason for the rapid growth of the African aviation market. Despite the high growth rate compared to other regions, the contribution to the global aviation markets stays relatively small (IATA, 2020). The contribution of passenger transport is only 2.1 per cent and for cargo even less at 1.7 per cent (IATA, 2019; IATA, 2020). In addition, there is a major imbalance in services to and from the continent. Non-African airlines perform over 80 per cent of these intercontinental services (Njoya, 2016). The African countries are well known for protecting their airlines from competition and foreign exchange, neglecting the service and not

prioritising their contribution to more comprehensive economic development (Button, Martini, & Scotti, 2015). The countries with small national airlines are concerned about the full implementation of the YD due to how the more prominent airlines will react to the full liberalisation and settle their position within the Continental market. They fear the disappearance of their small or national airlines because of the fierce competition (Geda & Haile, 2008). For many African countries, these national airlines are a symbol of being a nation after a time of colonisation (World Bank, 2010). They see their freedom confirmed by a national airline of “the state” as not aiming for the usefulness of air services but as a “state symbol”.

Nevertheless, Multiple studies showed a positive reaction as a result of the implementation in the forms of aviation-related jobs, substantial growth in GDP, and better intra Africa connections (Ismaila et al., 2014; Abate, 2016; Njoya, 2016). Others point out that the implementation of the YD will lead to more competition between African airlines and intercontinental airlines (Dobruzkas & Mwanza, 2007). For example, in 2003, the Nairobi (Kenya) – Johannesburg (South-Africa) route was fully opened, and passenger volumes increased sixty-nine-fold. As well as the liberalisation of the South African aviation market passenger volumes increased by 80 per cent and fare dropped by 18 per cent (Button et al., 2015). Even though liberalisation of the air market showed its positive effects, the overall implementation of liberalisation by the Yamoussoukro decision lags behind. Button et al. (2015) point out that 20 per cent of the African carriers transport 80 per cent of the passenger volume in Africa, which shows that the market remains dominated by a small percentage of players.

So far, liberalisation has not made giant steps. Bilateral agreements continue to dominate most international services with many restrictions such as market access, capacity, and airline ownership. In addition, regulatory control denies the implementation of certain aviation rights (Abate, 2016).

8. The current state of the African aviation market

The African aviation market is not comparable with the Chinese aviation market because Africa first has to tackle certain problems such as high costs, safety issues, old aircraft, sparse demand, lack of skills, penetration of the market, etcetera (Heinz & O'Connell, 2013). Beyond such problems, there is the interference of the governments and the regulation of the aviation market. For example, airport charges in Africa are higher than in European countries, even for the major airports. Flying is too expensive for many Africans, so demand is scarce and prices remain high, partly due to the low amount of competition on the intra-African routes (Heinz & O'Connell, 2013). The influence of demand determines which business models will work for Africa and show that full service carriers with a rolled out network are preferable at the moment. In the current environment, the low-cost carriers will not be successful. The lack of connectivity and load factors still remains an important step to overcome (Heinz & O'Connell, 2013).

The current aviation market in Africa is dominated by six leading carriers: Egypt Air, Ethiopian Airlines, Kenya Airways, Royal Air Maroc, Air Algeria, and South African Airways (The latter under bankruptcy protection from 2019 until 30th of April 2021) (AFRAA, 2019; Luchtvaartnieuws, 2021). In 2018, these six carriers accounted for almost 75 per cent of the passengers transported by African airlines including both domestic and international flights (AFRAA, 2019). These carriers have established hubs in their countries that are well connected with important cities and capital cities on the continent and beyond (Njoya, 2016). A problem with these six carriers is the distribution among the continent, which results in a surplus and deficit of connections for specific regions. The African cities have been connected due to global economic, social, and political integration processes. Air travelling is more and more regarded as a substitute for the poor and costly overland transport systems (Bassens et al., 2012).

9. Growing environmental awareness in infrastructure investments

Banks are fundamental for infrastructure cooperation, such as the Chinese Export-Import Bank and the China-Africa Development Fund (Zhi, 2018). When it comes to Chinese investment in Africa, the AU plays a crucial role in negotiating how to deal with the Chinese investments. In 2006, the AU taskforce agreed that one of the challenges was to ensure more protection for the environment by means of investments (Bosshard, 2007). This vision does not just come from the African continent. The former chairman and president of The Chinese Export-Import Bank (EXIM), Li Ruguo, said that the bank wants to do more with the environment. He further said there is a need to balance environmental concerns regarding investments such as infrastructure for economic development (Bosshard, 2007). During the beginning of the 21st century, the same kind of views occurred in financial institutions in China. Within the literature, the environmental aspect around infrastructure investments is growing. During the first decade of the 21st century, the environment is often neglected or just briefly mentioned at best. In 2008 China's Industrial Bank became the first Chinese financial institution to adopt the Equator Principles as a result of the increasing number of complaints about Chinese companies ignoring environmental regulations in Africa. (Alves, 2013). Financial institutions use the Equator Principles as a framework with a minimum standard for determining and assessing environmental and social risks for responsible decision-making (Equator Principles, n.d.).

During the second decade of the 21st century, the environment has become a well-discussed topic within the debate about infrastructure investments. The African Development Bank (2020), in their annual 2019 report, mentions the importance of implementing measurements to reduce CO₂ emissions in the form of cleaner vehicles and compensating emission with tree planting alongside newly constructed roads. Besides, there is a focus on protection against more extreme weather due to climate change. According to the OECD/ACET (2020), rapid urbanisation also poses a challenge where environment is concerned. African countries can build new infrastructure that is more resilient to climate change and less disruptive to the environment by using more recyclable material and by moving away from carbon-intensive infrastructure projects.

The China-Africa relationship needs to align decisions about infrastructure investment with low-carbon and climate-resilient infrastructure, as infrastructure assets generally last for decades. Pointing out the essence of implementing environmental objects during design, planning, construction, and operation (OECD/ACET, 2020). Sub-Sahara Africa is rich in green energy resources such as solar, wind, hydro, and even geothermal. The African countries can resolve their power deficit by investing in energy infrastructure. Thus, they are tackling two problems at the same time (Bond, 2016).

10. Airport projects in Zanzibar (Tanzania) and Ethiopia

As indicated, two case studies from the portfolio of China. They illustrate how the aviation market in and for Africa is growing and how this has a positive effect on China's influence in Africa. The first case is about Tanzania and then specifically Zanzibar, and the second about Ethiopia. Both countries saw their GDP rise sharply over the past decade (figure 3). Both countries are considered low-income countries, and they recognize the importance of the aviation sector for the development of the economy. However, the countries do not have the same motivations behind their airport projects, which gives different perspectives on the motivation and way of working together.

Gross Domestic Product, 1990 to 2017

Gross domestic product adjusted for price changes over time (inflation) and expressed in US-Dollars.

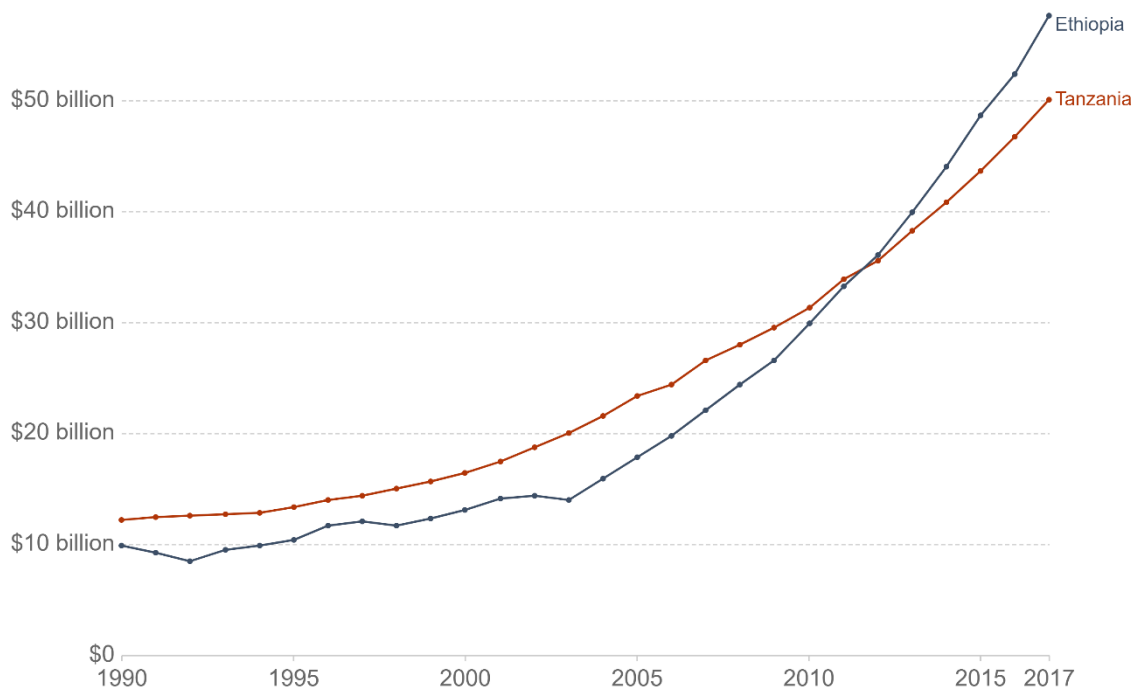


Figure (3) Gross Domestic product Ethiopia and Tanzania 1990-2017 (Our World In Data, 2021).

10.1. Case study: Abeid Amani Karume International airport Zanzibar (Tanzania)

Xi Jinping's 2013 visit to Tanzania resulted in new projects funded by China. Such as, for example, on the Tanzanian island of Zanzibar as a semi-autonomous state regarding the expansion of Pemba and Abeid Amani Karume International airport. These projects would provide the airports with the ability to handle larger planes and enable more tourists to visit the islands (Xinhua, 2013). The current prime minister of Tanzania, Kassim Majaliwa, spoke out about the Chinese investment in the country. He mentioned the excellent long-term relations between the two countries. Mr Dafeng, Vice-Chairman of the National People's Congress of China, was pleased with the transformation of Tanzania. His government will continue to stimulate Chinese enterprises to invest in the various sectors of Tanzania and Zanzibar (Forum on China-Africa Cooperation, 2018).

Zanzibar's Abeid Amani Karume International Airport is vital to tourism but needs several upgrades to meet growing demand. China's EXIM Bank has provided loans to expand the airport's platforms so that passenger and cargo volumes could grow (China Daily, 2017). The Beijing Construction Engineering Group (BCEG) acquired the main contract for the project. Before the start of the project, the government of Zanzibar carried out a feasibility study that included an environmental assessment (Wu, Gomera, & Vaidyanathan, 2019). After this assessment, the work started on the

project, and multiple countries worked together on the airport. The Chinese contractors, the French consultant, and the Tanzanian operator found ways to ease the communication difficulties by using code names, so ideas did not get lost in translation (Wu, Gomera, & Vaidyanathan, 2019).

During the project, the implementation did not go smoothly. There was insufficient space between the taxiway and the aerobridge for large aircraft. This costly design flaw created difficulties in ensuring adequate space for Code E aircraft, including the Boeing 777, an airliner that can carry between 300 and 400 passengers. With more flaws in the design and rising costs, the project was suspended in 2013 and 2015 (Wu, Gomera, & Vaidyanathan, 2019). Since the financing for the project came from EXIM Bank, the condition was that Chinese contractors had to source materials from China. Besides this, the local materials often did not meet the high standards for the project (Wu, Gomera, & Vaidyanathan, 2019).

Besides construction flaws, there were hurdles to overcome on the human aspect as well. In large projects, multiple groups work together, and they all have different priorities of interest. The contractor wants the cheapest solutions and the consultant the best quality (Wu, Gomera, & Vaidyanathan, 2019). For the Chinese, it is challenging to operate in Africa due to an insufficient African workforce. The Chinese managers complained about the work ethics. They found that African daily wage workers disappeared after getting paid and that the breaks are too long. Wu Qing, a BCEG Ltd. representative, pointed out that local people work as supervisors with a high wage compared to the country's average. Besides, he mentions that the projects carried out by his company bring many job opportunities (Ying, 2011). In addition, the Chinese managers found that sufficient skilled managers were unavailable in Tanzania, whereas the Tanzanian engineers argued that they could do mid-management work. The Chinese enterprises are hiring local workers for their projects in Zanzibar, so it would not be fair to say that they only hire workers from China. Both sides agreed that lack of communication and cultural assimilation led to misunderstanding (Vaidyanathan, 2019). This cultural assimilation is stimulated by the Tanzanian workforce, who find it problematic that all slogans are in Chinese and there are none in their language. (Vaidyanathan, 2019).

This case shows that changes are complex when two cultures meet. Assuming that Zanzibar considers it important that the airport is expanded and modernised, the project's purpose is clear to them. What China's real goal is with this modernisation is somewhat unclear. At the implementation level, there are different visions of work and entrepreneurship. The first building block vision of Knoster is not unambiguous. The skills-building block (2) starts positive because language is sought to understand each other and to enable collaboration. This case shows that errors in the design were not identified in time and did not provide insight into the exchange of technological knowledge. A joint incentive (building block 3) seems minor and is counteracted because the local population mainly sees Chinese slogans and flags, and the local labour is not seen in them. The local workers feel less appreciated by the Chinese managers due to the differing views on filling the work. For resources (building block 4), the power of the financing conditions plays a role. The materials have to come from China, and the materials' requirements were also so high that local African materials could not meet this. Building block 5, in which the transfer of information and an action plan is essential, is not discussed in the case. However, two decisions have been made to suspend the project.

10.2. Case study: Addis Ababa Airport Ethiopia

The capital of Ethiopia has diplomatic and political significance for the continent as it hosts numerous continental and international organizations. Addis Ababa Bole International Airport is seen as the gateway to Africa (Tadesse, 2020). The aim of the project is the expansion of the airport to meet the increasing demand for flights to Africa from China for business and tourists. The Chinese influence at the airport is visible as the crews of the African airlines are partly Chinese. In addition, airport signs show Chinese characters, and some shop and restaurant employees speak simple Chinese. Products

and food from China are present at the airport, although the Chinese often prefer to buy local delicacies (China-Africa Economic and Trade Expo, 2020). As Ethiopia's largest investor and trading partner, China marked its 50th anniversary of the relationship in 2020 (Tadesse, 2020). China already has an infrastructure portfolio in Ethiopia through the Addis Ababa-Djibouti Railway project, among others. Besides the fact that Chinese contractors have carried out this airport project, the exploitation is also in Chinese hands. Ethiopians lack the skills to do this independently (Global Infrastructure hub 2020). The China EXIM Bank then funded the \$345 million airport project to enable the expansion. In 2015, the China Communications Construction Company (CCCC) started the project to extend the airport's two terminals (United Nations, 2021). Two contracts were signed: one is a concessional loan from EXIM from the Ethiopian government (Tadesse, 2020). The terminal project created direct and indirect jobs, according to Li Xiudong, project manager of CCCC, and Liu Yu, Economic and Commercial Counsellor of the Chinese Embassy in Ethiopia, mentioned the project as game-changing for further economic development (Tadesse, 2020).

The project was carried out while the airport remained in operation. This project showed what the Chinese are capable of. Completion went on schedule despite system compatibility issues. With the opening of the new terminal, Ethiopia is a step closer to achieve the highest aviation standards. Some Africans are questioning the quality of the buildings constructed by the Chinese as they mention that an airport needs at least 30 years to see a return on investment. As there is a risk of sustainability, it will be hard for the African people to keep them in good shape (Dliamini, 2016). Considering the environment and sustainability Ethiopia already has quite developed legislation on the environment and sustainable development (Carrai, 2021). When it comes to overseas projects, the Chinese government also encourages its companies to protect local customs, labour and environment and fulfil social responsibilities (Carrai, 2021). However, the lack of skills being transferred to the local workforce complicates their implementation (Dliamini, 2016).

Based on the Knoster model, this case shows that China and Africa have a shared vision (building block 1) and realize that this project will bring them both a change from which they benefit (building block 3). As a gateway to Africa, the airport is becoming an essential player in the continental and intercontinental aviation market. For China, it is a way to gain a foothold in Africa, not just any place, but a city that is diplomatically and politically important to the continent. Concrete information is lacking about building block resources and action plan (Building blocks 4,5) if the plan for China proves to be successful because it was completed on time. This experience can be an incentive for Africa to make additional project agreements with China, which contributes to the great goal of China to expand its influence. The skills (building block 2) reflects the social side of the project and the collaboration. At the airport, the Chinese language is recognizable and simple Chinese is spoken. Language is an element of culture, and language can contribute to the exchange of knowledge and skills. On the other hand, this transfer lacks in the field of technology necessary for the long-term maintenance of the airport.

10.3. Discussion

These cases are an example of the stimulating influence that the improvement of infrastructure has on the economy. They show that cooperation between two very different countries is possible and leads to improvements that benefit both. In addition, it reflects the reality in which projects experience setbacks but have not hindered their completion. For example, in case 2, Ethiopia seems to have prevented a false start, as the airport could continue general operations during the project. Based on the Knoster model, it can be argued that there must have been an action plan. The vision and incentive building blocks together, explain the Chinese and African interests in the continent's market on an overall level. These interests are not the same as China, and the African countries do not have the same incentives to do these airport projects. For Zanzibar, the main incentive is to attract more tourism

for economic growth. However, the Tanzanian workers were not incentivised due to a lack of stimuli compared to the Chinese workers. For Ethiopia, the Addis Ababa Bole International Airport serves as the hub in a hub-and-spoke network as this airport is the main gateway to Africa. The creation of hub airports ensures more indirect connections because hub airports give more effective transfers and only slightly increase the total travel time, while passengers benefit from low fares. In addition, the centralisation of passengers at an airport improves traffic for continuing flights (Huang & Wang, 2017). The Chinese airport tier structure is an example of the effectiveness of a hub-and-spoke network system. The needs of the consumers also drive a hub-and-spoke network due to the demand for good connections. Besides, frequent flyers benefit from their pledge to an airline (Zhang & Round, 2008). The Addis Ababa Bole international airport is crucial in the eyes of the Chinese to get a foothold on the continent. Addis Ababa is Africa's political and institutional capital, with increasing numbers of Chinese tourists and business people travelling to Africa. This increase in passenger flow is beneficial for the African economies, the image of Ethiopia and suitable for China's portfolio.

11. Conclusion

This research, based on quantitative research and case studies, provides insight into the China-Africa relationship. It explains the relationship between China's drive for expansion and its contribution to African aviation to answer the central question: How does the Chinese drive for expansion contribute to the African aviation market? This research shows that the lack of infrastructure in Africa is a fundamental problem for the economic development of the continent is stagnating. However, the growing demand on the African continent for basic needs such as food, water and energy has overwhelmed infrastructure growth. The African countries see China as an example that knows and recognizes the African problem. China has shown that the aviation market can fill the infrastructure gap. This market plays a crucial role in stimulating passenger and freight flows between remote areas and thus has a positive influence on the economic development of an area. The growing prosperity in China is a reason for them to look for new markets and resources to maintain the growing economy. This growing prosperity also allows China to extend its influence elsewhere. This expansionism of the Chinese benefits the African aviation market on several fronts and stimulates the economy.

This stimulation was also apparent from the case studies in which it emerged that the demand for leisure and business flights to the African continent from China is increasing. To meet this future demand, Zanzibar expanded its airport to accommodate the future tourist flow. On the other hand, the Chinese tourist goes further than just holiday destinations and wants to see more of the continent. Opening the continent to the Chinese is done through Addis Ababa Bole International Airport, which with its expansion, is responding to its role to become a hub airport to distribute traffic from China across the continent.

Knoster's model shows that China fulfils many conditions to carry out projects successfully. With more attention to the complexity of changes, however, they could achieve even greater returns. Every success will lead to more influence and strengthen their position in Africa. If incentives (building block 3) are directed in particular, and each party will benefit from the change, China can extend its influence in Africa for a long time to come. It is helpful in this regard that China keeps aloof from political judgments and does not impose any requirements on the governance of the various countries. Setting aside judgements and requirements provides scope for international relations based on constructivism, where idealism may play a role, and rational choices are made. These interactions will affect the formation of identity on the African continent. China and African countries do not always agree on standards, and the source of resources and labour remains a matter of debate. The Chinese experience that the work ethic is different and the resources are of poor quality, while the African countries have little chance of supplying them due to the condition. The transfer of knowledge and skills is vital for African countries as it makes them less dependent on China. They move along with the new situations and show China this by learning Chinese. Finally, one more concern regarding the expansionism of China and the aviation development of Africa, from the environmental debate. This environmental aspect is not discussed in the case studies, except for the environmental assessment by the government of Zanzibar and the remark in the Ethiopian case. It is hoped that both China and Africa's recognition of the environmental problems will play a role in future cooperation and that China can use its knowledge to implement this in the further expansion of African aviation.

References

- Abate, M. (2016). Economic effects of air transport market liberalization in Africa. *Transportation Research Part A*, 92, 326-337.
- Adisu, K., & Sharkey, T. (2010). The impact of Chinese Investment in Africa. *International Journal of Business and Management*, Vol. 5, No. 9.
- AFRAA. (2019). *Annual Report 2019*. African Airlines Association. https://afraa.org/wp-content/uploads/2019/11/Annual-Report_2019.pdf
- African Development Bank. (2020). *Infrastructure and Urban Development Annual report 2019* (No. 2019). African Development Bank Group. <https://www.afdb.org/en/documents/infrastructure-and-urban-development-department-annual-report-2019>
- Air Line Pilots Association. (2019, May). *Magazine - ALPA*. ALPA. Accessed on the 1st of July 2021. Retrieved from: <https://www.alpa.org/news-and-events/air-line-pilot-magazine/nine-freedoms-of-the-air>
- Alden, C., & Alves, A. (2017). China's regional forum diplomacy in the developing world: Socialisation and the "Sinosphere". *Journal of Contemporary China*, 26,103, 151-165.
- Alves, A. (2013). China's 'win-win' cooperation: Unpacking the impact of infrastructure-for-resources deals in Africa. *South African Journal of International Affairs*. 20. 207-226. 10.1080/10220461.2013.811337.
- Antunes, S., & Camisao, I. (2017). Realism. In S. Mcglinchey, R. Walters, & C. Scheinpflug (eds). *International Relations Theory*. (pp. 15-21). E-International Relations Publishing. Bristol, England.
- Aris, S. (2016). One Belt, One Road: China's Vision of" Connectivity". *CSS Analyses in Security Policy*, 195.
- Asian Infrastructure Investment Bank. (2020). *Transport Sector Strategy: Sustainable and Integrated Transport for Trade and Economic Growth in Asia*. Retrieved from: <https://www.aiib.org/en/policies-strategies/download/strategy/transport-sector-strategy.pdf>. Accessed on the 13th of December 2020
- Bah, A., Pahuamba, A., & Zhao, F. (2012). The Impact of China Aid and Investment in Africa Development, Opportunities and Challenges [E-book]. In G. Duysters, A. de Hoyos, K. Kaminishi (Eds.), *Proceedings of the 9th International Conference on Innovation & Management* (pp. 167–175). Wuhan University of Technology Press.
- Bassens, D., Derudder, B., Otiso, K., Storme, T., & Witlox, F. (2012). African gateways: measuring airline connectivity change for Africa's global urban networks in the 2003–2009 period. *South African Geographical Journal*, 94(2), 103–119. <https://doi.org/10.1080/03736245.2012.742780>.
- Bond, James. (2016). Infrastructure in Africa. *Global Journal of Emerging Market Economies*, 8(3), 309-333.
- Bosshard, P. (2007). China's role in financing African infrastructure. *International Rivers Network*, 14.
- Brautigam, D., Diao, X., McMillan, M., & Silver, J. (2017). Chinese Investment in Africa: How much do we know? Synthesis Pieces 2. London, UK, Centre for Economic Policy Research.

- Button, K., Martini, G., & Scotti, D. (2015). African Decolonisation and Air Transportation. *Journal of Transport Economics and Policy*, 49(4), 626-639. Retrieved March 22, 2021, from <https://www-jstor-org.ezproxy.leidenuniv.nl/stable/jtranseconpoli.49.4.0626>.
- CAAC, 2017. Chinese Airport Performance Statistics for 2016. Civil Aviation Administration of China (CAAC), Beijing
- Caredda, S. (2020, March 3). *Models: The Lippitt-Knoster Model for Managing Complex Change*. Sergio Caredda. Accessed on the 30th of June 2021. Retrieved from: <https://sergiocaredda.eu/organisation/tools/models-the-lippitt-knoster-model-for-managing-complex-change/>
- Carrai, M. (2021) Adaptive governance along Chinese-financed BRI railroad megaprojects in East Africa. *World Development*, 141, 1-21.
- China Daily. (2017, July 21). *Airport work expected to boost tourism*. Chinadaily.Com.Cn. Accessed on the 14th of June 2021. Retrieved from: <http://www.chinadaily.com.cn/a/201707/21/WS5a29268da310fcb6fafd40a4.html>
- China-Africa Economic and Trade Expo. (2020, January 9). *Feeling China's influence at Addis Ababa Bole International Airport - Headlines - The China-Africa Economic and Trade Expo*. Caetexpo.Org.Cn. Accessed on the 14th of June 2021. Retrieved from: <https://en.caetexpo.org.cn/index.php?m=content&c=index&a=show&catid=51&id=347>
- Das, B., & Sanchita. (2015). China's Three-pronged Strategy on Regional Connectivity. In *The ASEAN Economic Community and Beyond* (pp. 235-247).
- Das, K. (2017). International Connectivity Initiatives by China and India: For the Developing Countries. *South Asian Survey* (New Delhi, India : 1994), 24(2), 101-116.
- Dlamini, P. (2016, February). *Regulations, Securitisation and the Financing of Airport Infrastructure in Sub-Saharan Africa a case study*. Wits Business School. <https://core.ac.uk/download/pdf/188775526.pdf>
- Dobruszkes, F., & Mwanza, H. (2007). Marginalisation et dépendance aérienne de l'Afrique subsaharienne. (Marginalisation and air dependence of sub-Saharan Africa). *Belegeo*, 2, 203-226.
- Dollar, D. (2019, September). *Understanding China's Belt and Road Infrastructure Projects in Africa*. Brookings Publication. https://www.brookings.edu/wp-content/uploads/2019/09/FP_20190930_china_bri_dollar.pdf
- Dorosh, P., Wang, H., You, L. & Schmidt, E. (2012). Road connectivity, population, and crop production in Sub-Saharan Africa. *Agricultural Economics*, 43(1), 89-103.
- Du Plessis, R. (2016). China's African Infrastructure Projects: A Tool in Reshaping Global Norms. *South African Institute of International Affairs*. 35.
- Du, w., Zhou, X., Lordan, O., Wang, Z., Zhao, Z., & Zhu, Y. (2016). Analysis of the Chinese Airlines Network as multi-layer networks. *Transportation Research Part E*, 89, 108-116.
- Equator Principles. (n.d.). *The Equator Principles – The Equator Principles*. Accessed on the 28th of June 2021. Retrieved from: <https://equator-principles.com/about/>
- FOCAC. (2004). *FOCAC Mechanisms*. Accessed on the 29th of June 2021. Retrieved from: http://www.focac.org/eng/ltij_3/ltjz/

- Forum on China-Africa Cooperation. (2018, November 26). *Tanzania: PM Commends China's Development Support*. Accessed on the 14th of June 2021. Retrieved from: https://www.fmprc.gov.cn/zfhzlt2018/eng/zfgx_4/zzjw/t1614665.htm
- Foster, V., Briceño-Garmedia, C. (2010). *Africa's Infrastructure: A time for Transformation*. (Africa Development Forum). World Bank.
- Foster, V., Butterfield, B., Chen, C., & Pushak, N. (2008). *Building Bridges: China's Growing Role as Infrastructure Financier for Sub-Saharan Africa*. Washington, DC: PPIAF/World Bank.
- Geda, A., & Haile, K. (2008). Regional Economic Integration in Africa: A Review of Problems and Prospects with a Case Study of Comesa. *Journal of African Economics*, 17, 357-394.
- Global Infrastructure Hub. (2020, November). *Addis Ababa–Djibouti Railway (Ethiopia – Djibouti)*. <https://www.gihub.org/resources/showcase-projects/addis-ababa-djibouti-railway/>
- Heinz, S. & O'Connell, J. (2013). Air transport in Africa: toward sustainable business models for African airlines. *Journal of Transport Geography*, 31, 72-83.
- Horn, S., Reinhart, C., & Trebesch, C. (2019) China's Overseas Lending, NBER Working Papers 26050. National Bureau of Economic Research, Inc.
- Huang, J., & Wang, J. (2017). A comparison of indirect connectivity in Chinese airport hubs: 2010 vs. 2015. *Journal of Air Transport Management*, 65, 29-39.
- IATA. (2019, June). *Annual Review 2019*. <https://www.iata.org/contentassets/c81222d96c9a4e0bb4ff6ced0126f0bb/iata-annual-review-2019.pdf>
- IATA. (2020, February 6). *Slower but Steady Growth in 2019*. Accessed on the 24th of June 2021. Retrieved from: <https://www.iata.org/en/pressroom/pr/2020-02-06-01/>
- Ikome, F., & Lisinge, R. (2016). The political economy of infrastructure development in Africa: An assessment of the NEPAD Presidential Infrastructure Champion Initiative (PICI). *Canadian Journal of African Studies*, 50(2), 255-277.
- Isaac, O. (2019). Transport Infrastructure Development in Kenya: How Connectivity Impacts Eastern Africa Regional Integration. *Insight on Africa*, 11(2), 200-218.
- Ismaila, A., Warnock-Smith, D., Hubbar, N. (2014). The impact of air service agreement liberalisation: the case of Nigeria. *Journal of Air Transport Management*, 37, 69-75.
- Karumbidza, J. (2007). Win-Win Economic Co-operation: Can China Save Zimbabwe's Economy? in Manji, F., & Marks, S (eds), *African Perspectives on China in Africa*. Cape Town/Nairobi/Oxford: Fahamu Books.
- Knoster, T. (1991) Presentation in TASH Conference Washington D.C. Adapted by Knoster from Enterprise Group, Ltd.
- Lakmeharan, K., Manji, Q., Nyairo, R., & Poeltner, H. (2020b, October 20). *Solving Africa's infrastructure paradox*. McKinsey & Company. Accessed on the 23rd of April 2021. Retrieved from: <https://www.mckinsey.com/business-functions/operations/our-insights/solving-africas-infrastructure-paradox>

- Li, K., & Qi, G. (2016). Transport Connectivity and Regional Development in China. *Journal of International Logistics and Trade*, 14(2), 142-155
- Liu, W., & Luk, M. (2009) Reform and opening up: Way to the sustainable and harmonious development of air transport in China. *Journal of Transport Policy*, 16, 215-223.
- Luchtvaartnieuws. (2021, April 20). *South African Airways niet langer onder faillissementsbescherming*. Accessed on the 24th of June 2021. Retrieved from: <https://www.luchtvaartnieuws.nl/nieuws/categorie/2/airlines/south-african-airways-niet-langer-onder-faillissementsbescherming>
- Manji, F., & Marks, S (eds), (2007) *African Perspectives on China and Africa*. Cape Town/Nairobi/Oxford: Fahamu Books.
- Maru, M. (2019) Why Africa loves China. *Poverty and Development*. Al Jazeera.
- McGlinchey, S., Walters, R., & Gold, D. (2017). Getting Started with International Relations Theory. In S. McGlinchey, R. Walters, & C. Scheinpflug (eds). *International Relations Theory*. (pp. 1-13). E-International Relations Publishing. Bristol, England.
- Meiser, J. (2017). Liberalism. In S. McGlinchey, R. Walters, & C. Scheinpflug (eds). *International Relations Theory*. (pp. 22-27). E-International Relations Publishing. Bristol, England.
- Morgenthau, H. (1948). *Politics Among Nations: The Struggle for Power and Peace*. 7th edition. New York: McGraw-Hill.
- Mulholland, B. (2017, July 17). *How to Make a Change Management Strategy (and Defuse the Growth Time Bomb) | Process Street | Checklist, Workflow and SOP Software*. Process Street. Accessed on the 5th of June 2021. Retrieved from: <https://www.process.st/change-management-strategy/>
- Naim, M. (2007). Rogue Aid. *Foreign Policy*, 159, 95–6.
- Naudé, W. (2009). Geography, transport and Africa's proximity gap. *Journal of Transport Geography*, 17, 1-9.
- Njoya, E. (2016). Africa's single aviation market: The progress so far. *Journal of Transport Geography*, 50, 4-11.
- OECD/ACET. (2020). *Quality Infrastructure in 21st Century Africa: Prioritising, Accelerating and Scaling up in the Context of Pida (2021–30)*. OECD/ACET. <https://www.oecd.org/dev/Africa-Quality-infrastructure-21st-century.pdf>
- Our World in Data. (2021) *Gross Domestic Product*. Accessed on the 17th of June 2021. Retrieved from: <https://ourworldindata.org/grapher/gross-domestic-product?tab=chart&time=1990..latest&country=TZA%7EETH>
- Power, M., & Mohan, G. (2011). China and the geo-political imagination of African 'development'. In C. Dent (Reds.), *China and Africa Development Relations: Vol. 55* (pp. 42–67). London: Routledge. <https://ebookcentral-proquest-com.ezproxy.leidenuniv.nl:2443/lib/leidenuniv/reader.action?docID=557285&ppg=61>
- Prosci Inc. (n.d.-a). *What is Change Management?* Prosci. Accessed on the 5th of June 2021. Retrieved from: <https://www.prosci.com/resources/articles/what-is-change-management>

- Sautman, B., & Yan, H. (2009). African Perspectives on China-Africa links. *The China Quarterly*, 199, 728-759.
- Sautman, B., & Yan, H. (2015). Localizing Chinese Enterprises in Africa: from Myths to Policies. HKUST IEMS Thought Leadership Brief Series. HKUST Institute for Emerging Market Studies.
- Schlumberger, C. E. (2010). *Open Skies for Africa : Implementing the Yamoussoukro Decision* (Directions in Development). World Bank.
- Scholvin, S., & Draper, P. (2012). The gateway to Africa? Geography and South Africa's role as an economic hinge joint between Africa and the world. *South African Journal of International Affairs*, 19 (3), 381-400, DOI: 10.1080/10220461.2012.740321.
- Shepherd, B. (2016). Infrastructure, trade facilitation, and network connectivity in Sub-Saharan Africa. *Journal of African Trade*, 3(1-2), 1-22.
- Sindzingre, A. (2016) Private Chinese Investment in Arica: Myths and Realities. *Development Policy Review*, 33(1), 83-106.
- Tadesse, K. (2020, January 16). *Widening Africa's Gateway-- ChinAfrica*. ChinaAfrica.Cn. Accessed on the 14th of June 2021. Retrieved from:
http://www.chinafrica.cn/Homepage/202001/t20200116_800190020.html
- Theys, S. (2017). Constructivism. . In S. Mcglinchey, R. Walters, & C. Scheinpflug (eds). *International Relations Theory*. (pp. 36-41). E-International Relations Publishing. Bristol, England.
- Tracy, E. F., Shvarts, E., Simonov, E., & Babenko, M. (2017). China's new Eurasian ambitions: Environmental risks of the Silk Road Economic Belt. *Eurasian Geography and Economics*, 58(1), 56-88.
- Trofimov, Y. (2007, February 2). New Management in Africa China's Expansion Begins to Stir Resentment: Investment Boom Fuels Colonialism Charges: A Tragedy in Zambia. *The Wall Street Journal*, p. A1.
- United Nations. (2021). *Developing Bankable Transport Infrastructure Projects: Case studies, Experiences and Learning Materials for LLDCs and Transit Countries*.
https://www.un.org/ohrrls/sites/www.un.org.ohrrls/files/all_modules.pdf
- Vaidyanathan, V. (2019) Conclusion. In Vaidyanathan, V. (eds), *China's Infrastructure Development in Africa An examination of Projects in Tanzania & Kenya*. (pp, 111-117). Institute of Chinese Studies, Dehli, India.
- Van Staden, C., Alden, C., & Wu, Y. (2018). In the Driver's Seat?: African Agency and Chinese power at FOCAC, The AU and BRI. South African Institute of International Affairs. doi:10.2307/resrep25916
- Vermeulen, H., & Tiemens, B. (2015). *Implementatie van evidence based practice: Praktische tips voor een complexe verandering*. Bohn Stafleu van Loghum.
- Vhumbunu, C. (2016). Enabling African regional infrastructure renaissance through the China-Africa partnership: A trans-continental appraisal. *International Journal of China Studies*, 7(3), 271-300.
- Waltz, K. (1979). *Theory of International Politics*. Reading, MA: Addison-Wesley.
- Wang, J., Bonilla, D., & Banister, D. (2016) Air deregulation in China and its impact on airline competition 1994-2012. *Journal of Transport and Geography*, 50, 12-23.

- Wang, K., Jiang, C., Ng, A., & Zhu, Z. (2020). Air and rail connectivity patterns of major city clusters in China. *Transportation Research Part A*, 139, 35-53.
- World Bank (1994). *World Development Report 1994: Infrastructure and Development*. Washington DC: World Bank.
- World Bank. (2010). *Open Skies for Africa – Implementing the Yamoussoukro Decision*. Accessed on the 28th of June 2021. Retrieved from: <https://www.worldbank.org/en/topic/transport/publication/open-skies-for-africa>
- Wu, T., Gomera, J., & Vaidyanathan, V.(2019). Connectivity and Transport Infrastructure – Case Studies of Mombasa Mombasa – Nairobi Standard Gauge Railway (SGR) and Zanzibar Airport. In Vaidyanathan, V. (eds), *China’s Infrastructure Development in Africa An examination of Projects in Tanzania & Kenya*. (pp, 82-94). Institute of Chinese Studies, Delhi, India.
- Xinhua. (2013, April 13). *Zanzibar to benefit from 7 China-sponsored projects - China.org.cn*. Accessed on the 14th of June 2021. Retrieved from: China.Org.Cn. http://www.china.org.cn/world/2013-04/13/content_28533136.htm
- Ying, D. (2011, September 20). *Building an airport, building a future - China.org.cn*. China.Org.Cn. Accessed on the 13th of June 2021. Retrieved from: http://www.china.org.cn/international/intoafrica/2011-09/20/content_23455793.htm
- Zhang, J., Cao, X., Du, W., & Cai, K. (2010). Evolution of Chinese airport network. *Physica A*, 389, 3922-2931.
- Zhang, Y., & Round, D. (2008). China’s airline deregulation since 1997 and the driving forces behind the 2002 airline consolidations. *Journal of Air transport Management*, 14, 130-142.
- Zhang, Y., Zhang, A., Zhu, Z., & Wang, K. (2017) Connectivity at Chinese airports: The evolution and drivers. *Transportation Research Part A*, 103, 490-508.
- Zhao, Q., Xu, H., Wall, R., Stavropoulos, S. (2017) Building a bridge between port and city: improving the urban competitiveness of port cities. *Journal of Transport Geography*, 59, 120-133.
- Zeker Weten veranderingmanagement. (2020, August 25). *Veranderingmanagement*. Zeker-Weten.Com. Accessed on the 30th of June 2021. Retrieved from: <https://www.zeker-weten.com/wat-wedoen/veranderingmanagement/>
- Zhi, Y. (2018). State of Infrastructural Development Cooperation between China and Africa. In S. Thokozani & R. Managa (Eds.), *Belt and Road Initiative* (pp. 32–53). Oxford: Africa Institute of South Africa.