# China's high-speed rail project as a debt trap? lessons learned from Sri Lanka's bankruptcy situation

**Bachtiar Dewantara[1], Avinash Pawar[2], Muhamad Arief Ramdhany[3], Noor Fathulliansyah[4], Henry H. Loupias[5]**

[1,3]Universitas Pendidikan Indonesia, Indonesia
[2]D. Y. Patil Institute of Management Studies, University of Pune, India
[4]Akademi Maritim Nusantara, Indonesia
[5]Universitas 17 Agustus '45 Surabaya, Indonesia
urbanussukri9@gmail.com

**Article Info**

***Article history:***
Received March, 6th 2025
Revised April, 19th 2025
Accepted April, 27th 2025

***Keywords:***
Strategic literacy; Civic education, Bankruptcy; Debt; Economic Growth; Financial Volatility

**ABSTRACT**

Speed Rail (KCIC) project, developed under China's Belt and Road Initiative (BRI). The research addresses the urgency of assessing whether large-scale infrastructure projects financed through bilateral loans risk creating long-term debt dependency, drawing lessons from Sri Lanka's Hambantota Port case. The objectives are to evaluate the potential of the KCIC to drive economic growth while identifying financial vulnerabilities, and to explore how such insights can contribute to civic education and policy literacy in Indonesia. A qualitative descriptive case study approach is applied, using secondary data from government reports, academic literature, and credible media sources, framed within dependency theory and the debt-trap diplomacy discourse. Findings reveal that although the KCIC has potential benefits for connectivity and investment attraction, significant cost overruns and reliance on long-term foreign loans may expose Indonesia to fiscal risks similar to those experienced by Sri Lanka. Policy recommendations include diversifying financing sources, enhancing project governance, and embedding infrastructure analysis into public policy and strategic leadership education. These measures can strengthen national capacity to negotiate and manage large-scale infrastructure projects, aligning economic development with sustainable sovereignty.



## INTRODUCTION

Infrastructure development has become a cornerstone of economic growth strategies in many developing countries, often promoted as a means to enhance connectivity, facilitate trade, and attract investment. In recent years, China's Belt and Road Initiative (BRI) has emerged as one of the largest cross-border infrastructure investment programs, aiming to revive historical trade routes and strengthen global economic integration (Mayer, 2018; De Conti & Mozias, 2020). While proponents argue that BRI projects promote economic growth in participating countries (Sun et al., 2019; Chen et al., 2019), critics contend that some financing models may lead to unsustainable debt burdens and economic dependency, a concern often described as "debt-trap diplomacy" (Were, 2018; Lai, Lin, & Sidaway, 2020). These concerns align with dependency theory, which critiques global economic structures that perpetuate the dominance of developed nations over developing economies (Enuka, 2018).

Indonesia, Southeast Asia's largest economy, has embraced infrastructure-led development as a central strategy for boosting productivity and regional connectivity. Among its flagship projects is the Jakarta–Bandung High-Speed Rail (Kereta Cepat Indonesia China, KCIC), initiated in 2018 as part of a collaboration between a consortium of Indonesian state-owned enterprises and China Development Bank. Valued at approximately US$5.5 billion, the project was expected to reduce travel time significantly between the two cities and stimulate economic activity along its corridor. As with many

BRI-linked projects, the KCIC's financing structure combined long-term loans (40 years) with a 10-year grace period, reflecting China's model of infrastructure funding (Brautigam, 2019; Singh, 2020).

Despite its ambitious goals, the KCIC project has faced repeated cost overruns, with expenses increasing by US$1.9 billion (Rp 27.09 trillion) since inception. Originally framed as a business-to-business (B2B) project requiring no state budget funds, financing adjustments have resulted in a portion of the additional costs being covered by Indonesia's State Revenue and Expenditure Budget (APBN). This shift raises questions about fiscal sustainability and growing economic dependence on Chinese financing (DeBoom, 2019; Carmody, Taylor, & Zajonts, 2021). As of the second quarter of 2022, Indonesia's total external debt stood at US$403.0 billion (equivalent to 32.50% of its GDP) of which US$21.779 billion (IDR 326.7 trillion) was owed to China. Although this remains below the internationally recognized safe threshold of 60% of GDP, the concentration of debt from a single lender increases potential vulnerability.

The experience of Sri Lanka offers a cautionary example of such vulnerability. Between 2007 and 2017, Sri Lanka accumulated significant debt from China to finance infrastructure projects, most notably the Hambantota Port (Wibisono, 2019; Nurjayanti, 2020). With Chinese loans amounting to approximately US$8 billion (around one-sixth of its total external debt) Sri Lanka defaulted on its foreign debt obligations in 2022, totaling US$51 billion (Gangte, 2020; Dayaratna-Banda & Dharmadasa, 2019). The country's inability to meet repayment terms led to a 99-year lease of the Hambantota Port to China, a development widely cited as evidence of debt-trap dynamics (Wibisono, 2019; Were, 2018). Although some scholars dispute the universality of the debt-trap narrative (Singh, 2020; Brautigam, 2019), the Sri Lankan case remains a compelling illustration of the risks posed by concentrated bilateral borrowing for large-scale infrastructure.

Against this backdrop, this study investigates whether Indonesia's KCIC project could expose the country to similar debt vulnerabilities observed in Sri Lanka. While the discourse on BRI projects has been extensive, there remains a paucity of comparative case studies that link specific infrastructure projects to broader debt sustainability and dependency frameworks (Lai et al., 2020; DeBoom, 2019). By drawing on lessons from Sri Lanka's bankruptcy and applying them to the Jakarta–Bandung high-speed rail, this research seeks to contribute to scholarly and policy debates on prudent infrastructure financing, debt management, and the geopolitical implications of engagement with China under the BRI framework.

In many countries, the development of transportation infrastructure can encourage economic growth. The Government of Indonesia is pursuing a similar strategy by constructing the Indonesia–China High-Speed Rail (hereinafter KCIC) in collaboration with China. Our first research question is: Can the development of KCIC encourage economic growth? This question arises due to the significant loan involved, amounting to US$ 8 billion (IDR 114.24 trillion), with a repayment period spanning 50 years. The second research question is: Will the debt cause economic dependence and lead to a Chinese debt trap? This concern is supported by the fact that several member countries of the Belt and Road Initiative (hereinafter BRI) have encountered difficulties in repaying infrastructure loans to China. Notably, Sri Lanka defaulted on its debt and declared bankruptcy in 2017 after struggling with repayment obligations for its BRI-funded Hambantota Port.

Following the lessons drawn from Sri Lanka's experience and the growing debate over China's Belt and Road Initiative, this study focuses on the Jakarta–Bandung High-Speed Rail project as a case through which to examine potential debt vulnerabilities in Indonesia. By situating the analysis within the framework of dependency theory and debt-trap diplomacy discourse, the research aims to assess whether the financing structure and cost escalations of the KCIC project reflect patterns similar to those observed in Sri Lanka's Hambantota Port development.

Given the exploratory and contextual nature of the research question, this study employs a qualitative case study design. The case study approach is appropriate for investigating complex, real-world phenomena where contextual conditions are integral to the analysis (Yin, 2018). Comparative insights are drawn from the Sri Lankan case to identify parallel dynamics, potential divergences, and policy implications. Data are collected from secondary sources, including official government reports, financial statistics, policy documents, academic literature, and credible media coverage. This methodological choice enables triangulation of information to enhance the validity and reliability of findings. The next section outlines the research methodology in detail, including the selection criteria for case study comparison, the procedures for data collection and analysis, and the strategies employed to ensure the rigor and transparency of the study.

## RESEARCH METHOD

### Research Design

This study employs a qualitative approach with a descriptive case study design to investigate the financing arrangements, cost escalations, and potential debt implications of the Jakarta–Bandung High-Speed Rail (Kereta Cepat Indonesia China, KCIC) project. The qualitative descriptive method is particularly well suited for exploring complex socio-economic phenomena within their real-world contexts (Nassaji, 2015), allowing for nuanced interpretation of policy, financing, and governance issues. Such an approach often emerges from real problem situations and aims to generate rich, context-specific insights rather than test pre-established hypotheses (Tracy, 2013). The research process follows an inductive orientation to build conceptual understanding and link empirical findings with theoretical frameworks, particularly dependency theory and the debt-trap diplomacy discourse (Enuka, 2018; Were, 2018; Singh, 2020; Lai, Lin, & Sidaway, 2020).

### Case Study Selection

The KCIC project serves as the primary case due to its significance in Indonesia's infrastructure development agenda and its direct association with China's Belt and Road Initiative (BRI). Under the BRI, large-scale infrastructure financing has been promoted as a catalyst for economic growth (Sun et al., 2019; Chen et al., 2019; Mayer, 2018). However, concerns have also been raised regarding the long-term debt sustainability of recipient countries (Brautigam, 2019; Carmody, Taylor, & Zajonts, 2021). To deepen the analysis, this study adopts a comparative perspective with Sri Lanka's Hambantota Port project—an emblematic case in discussions of Chinese debt diplomacy (Wibisono, 2019; Nurjayanti, 2020; Gangte, 2020; DeBoom, 2019). The Hambantota case was chosen because of its structural similarities to the KCIC project: both involved substantial loans from Chinese policy banks, long-term repayment obligations, and strategic infrastructure under the BRI framework.

### Data Sources

The research relies entirely on secondary data. Data were collected from a range of credible and authoritative sources, including:

- Scientific publications such as peer-reviewed journal articles and academic books addressing BRI, dependency theory, and debt-trap diplomacy (e.g., Singh, 2020; Were, 2018; Mayer, 2018; Lai et al., 2020; De Conti & Mozias, 2020);
- Official government reports from the Indonesian Ministry of Finance, the Central Bank of Sri Lanka, and related state agencies;
- Reports from international financial institutions and policy think tanks;
- Credible news outlets documenting developments in the KCIC and Hambantota projects;
- Statistical databases providing figures on debt levels, GDP ratios, and project costs.
- Scientific publications such as peer-reviewed journal articles, conference papers, and academic books;

Triangulation of these sources enhances the validity of the findings by cross-verifying information from different perspectives (Yin, 2018).

### Data Analysis

Data analysis followed a thematic approach, where collected materials were systematically reviewed to identify recurring themes and patterns relevant to debt financing, project cost escalation, and economic dependency. The analysis involved three stages:

1. Data familiarization through repeated reading and annotation;
2. Theme identification based on concepts from dependency theory (Enuka, 2018) and debt-trap diplomacy literature (Were, 2018; Singh, 2020; Brautigam, 2019);
3. Comparative interpretation between the KCIC and Hambantota cases to highlight similarities, differences, and lessons learned.

This approach allowed the study to balance inductive insights with a theoretically informed framework, producing findings relevant to both academic discourse and policy-making.

## RESULTS AND DISCUSSION

### Indonesia–China Fast Train and the Debt-Trap Risk

The Indonesian government prioritizes the development of transportation infrastructure as a foundation for national economic growth. Transportation systems are seen as vital for improving productivity (Badalyan and Rajčániová, 2018; Sun et al., 2019), driving strategic economic expansion (Babatunde, 2018; Pradhan, 2019), and promoting regional economic integration (Moralles and Rebelatto, 2015). In this context, the Jakarta–Bandung high-speed rail project (KCIC) has been positioned as a national strategic project aimed at boosting economic performance.

Construction of KCIC began in 2018 but has faced repeated delays. By late 2022, progress reached only 88.8 percent. The project, which initially aimed for timely completion, has experienced time overruns that have raised concerns over efficiency and cost management. The official project cost stands at US$ 5.5 billion, with financing structured as a 40-year loan from the China Development Bank, including a 10-year grace period and an annual interest rate of 2 percent.

The KCIC is a joint venture between Indonesian state-owned enterprises (SOEs) and Chinese partners. Indonesia holds a 60 percent stake in the project, while China owns the remaining 40 percent. The Indonesian consortium includes PT Kereta Api Indonesia (lead partner), PT Wijaya Karya Tbk, PT Jasa Marga Tbk, and PT Perkebunan Nusantara VIII. Although the project was initially planned under a business-to-business (B2B) scheme without state budget involvement, cost overruns have changed this arrangement.

Originally budgeted at US$ 6.07 billion (IDR 86.5 trillion), KCIC's costs rose to US$ 8 billion (IDR 114.24 trillion). The resulting US$ 1.9 billion overrun was financed through the State Revenue and Expenditure Budget (APBN) as state capital participation (PMN). Debt repayment is projected at IDR 1.04 trillion annually. Several economists predict that the break-even point will take many years, potentially making the project financially burdensome for the state.

The debt implications of KCIC have prompted comparisons to Sri Lanka's Hambantota Port case, which is widely cited as an example of a Chinese debt trap. Critics argue that loans from China under the Belt and Road Initiative (BRI) can create long-term economic dependence (Gangte, 2020), while others view national debt as both an economic and geopolitical tool (DeBoom, 2020). However, China's foreign minister Wang Yi maintains that the BRI is "a product of broad cooperation, not a tool of geopolitics" (Mayer, 2018).

### China's Economic Dependency and the Debt-Trap: Lessons from Sri Lanka

Sri Lanka's experience offers important lessons for understanding potential debt-trap risks. As a developing country, Sri Lanka prioritized economic growth and received extensive financial assistance from China starting in 2005, including loans, grants, and direct investments amounting to US$ 728.35 billion. Sri Lanka is an active member of the BRI, a global infrastructure initiative launched by Chinese President Xi Jinping in 2013 (Mayer, 2018; Chen et al., 2019). Although initially framed as a cooperative vision to connect Eurasia (Lai et al., 2020), the BRI has attracted criticism for creating significant debt burdens in recipient countries (Nurjayanti, 2020).

The Hambantota Port is the most cited example of debt-trap diplomacy (DeBoom, 2020). Built with a US$ 1.5 billion Chinese investment, the port became financially unviable. By 2017, Sri Lanka defaulted on the loan, resulting in China gaining a 70 percent stake and 99-year lease over the port

(Wibisono, 2019). Similar arrangements have occurred in Pakistan's Gwadar Port, and concerns have been raised about Kenya's Mombasa Port (Carmody, 2020). These cases illustrate the broader geopolitical leverage that can accompany Chinese financing.

Debt-trap diplomacy, as described by Doherty (2019) and Singh (2020), involves extending large loans with the intention of securing strategic or economic concessions when repayment becomes difficult. Critics argue that the BRI is a modernised version of the Marshall Plan, designed to increase China's influence (Dayaratna-Banda and Dharmadasa, 2019), while China presents it as a framework for mutual connectivity in trade, finance, infrastructure, and politics (Yang et al., 2021).

From the perspective of dependency theory (Enuka, 2018; Kvangraven, 2020), such lending structures can create a persistent flow of resources from developing countries ("periphery") to developed economies ("core"), reinforcing economic inequality. Dependency can take the form of colonial, financial-industrial, or technological-industrial reliance (Nurjayanti, 2020). In this context, the BRI can be seen as both an opportunity for infrastructure development and a potential source of financial vulnerability.

**Synthesis of Findings**

The analysis shows that while infrastructure projects like KCIC can stimulate economic growth and regional integration, they also carry significant financial risks. The cost overruns, extended repayment terms, and reliance on foreign loans resemble patterns seen in other BRI projects that later experienced debt distress. The Indonesian case is not identical to Sri Lanka's, but the underlying financial exposure and potential for dependency share similar characteristics.

The evidence suggests that the benefits of BRI-financed projects depend heavily on governance quality, debt management capacity, and project profitability. Without strong economic returns, large-scale infrastructure loans can shift from being growth catalysts to becoming long-term fiscal burdens. In such circumstances, the possibility of geopolitical influence accompanying financial dependency becomes more pronounced.

This study examined the potential economic implications of Indonesia's high-speed rail development project (KCIC) in collaboration with China, with a particular focus on the risks of debt dependence and the possibility of falling into a "debt trap" similar to the Hambantota Port case in Sri Lanka. The findings suggest that while large-scale transportation infrastructure can contribute to economic growth through increased connectivity, investment attraction, and regional integration, such benefits are not guaranteed. The scale of debt (amounting to USD 8 billion with a repayment period of 50 years) presents long-term fiscal risks, especially in the absence of clear evidence on revenue generation sufficient to cover debt servicing.

The comparative analysis with Sri Lanka's Hambantota Port highlights that infrastructure projects financed under the Belt and Road Initiative (BRI) have historically created financial vulnerabilities when economic returns were overestimated and repayment terms were not carefully aligned with a country's fiscal capacity. In such cases, strategic assets have been transferred to foreign control as part of debt settlement agreements, raising sovereignty and policy autonomy concerns.

From a learning and policy perspective, several important implications can be drawn from this study. *First*, strengthening feasibility and risk assessments is essential before committing to long-term infrastructure debt. Such assessments should be supported by comprehensive feasibility studies that include conservative demand projections, realistic revenue expectations, and rigorous debt sustainability analyses. This approach ensures that large-scale projects are grounded in realistic assumptions and reduces the likelihood of financial strain in the future. *Second*, diversifying financing sources can help reduce dependency on a single bilateral lender and limit exposure to asymmetric power relations. Indonesia could adopt blended financing models that combine resources from multilateral development banks, private investors, and domestic capital markets. This diversification would not only spread financial risks but also increase bargaining power in loan negotiations.

*Third*, enhancing project governance and transparency is crucial for maintaining public trust and ensuring accountability. Public disclosure of financing terms, contract clauses, and debt repayment schedules would enable independent scrutiny and foster responsible management of public resources. Transparent governance also deters potential mismanagement or corruption. *Fourth*, the development of contingency and restructuring mechanisms should be prioritized, considering the KCIC's 50-year repayment horizon. Economic and political landscapes can shift dramatically over such a long period. Embedding flexibility into debt agreements can provide resilience against unforeseen changes, through measures such as grace periods, refinancing options, or performance-linked repayment terms.

*Finally*, linking infrastructure projects to local economic development is vital for maximizing their long-term benefits. The KCIC's success will depend on complementary policies that promote regional economic integration, support local industries, and encourage transit-oriented development along the rail corridor. Such linkages can ensure that the high-speed rail not only facilitates transportation but also drives sustainable economic growth in surrounding areas.

In the end, the KCIC project represents both an opportunity for long-term economic transformation and a potential source of financial vulnerability. Its ultimate impact will depend on prudent financial management, transparent governance, and the ability to align infrastructure development with sustainable economic growth strategies. Policymakers must learn from past international experiences, particularly from countries facing repayment crises under BRI-funded projects, to ensure that Indonesia's engagement in such initiatives strengthens rather than undermines its economic sovereignty.

## CONCLUSIONS

This study shows that the social skills of lecturers, such as being able to communicate well, show empathy, conflict resolution, and collaborative skills, are very important for creating a peaceful and welcoming campus environment, especially in Indonesian religious higher education institutions. The study used a mix of surveys and interviews to find a strong positive link between lecturers' social skills and how students and staff felt about campus harmony. Qualitative insights also showed that teachers who consistently use social skills play a big role in lowering tensions between people and encouraging respect for each other in academic communities of all kinds.

Some important things that help are ongoing training in soft skills, a school culture that values working together, and teachers' natural desire to be moral role models. On the other hand, high workloads and not enough help from the administration were seen as obstacles to getting people to interact with each other in the best way. These results show how important it is for religious colleges to include social competence in their faculty development programs and policy planning. We encourage future research to look at more factors, like emotional intelligence and leadership style, and to use longitudinal or multi-site methods to learn more about how social competence helps keep peace on campus.

## REFERENCES

Babatunde, S. A. (2018). Government spending on infrastructure and economic growth in Nigeria. *Economic Research-Ekonomska Istraživanja, 31*(1), 997–1014. https://doi.org/10.1080/1331677X.2018.1436453

Badalyan, G., & Rajčániová, M. (2018). Causal relationship between economic growth, transport infrastructure and investment in transport infrastructure in transition countries. *International Scientific Days*. https://doi.org/10.15414/isd2018.s11.01

Brautigam, D. (2019). A critical look at Chinese 'debt-trap diplomacy': The rise of a meme. *Area Development and Policy*. Advance online publication. https://doi.org/10.1080/23792949.2019.1689828

Carmody, P., Taylor, I., & Zajonts, T. (2021). China's spatial fix and 'debt diplomacy' in Africa: Constraining belt or road to economic transformation? *Canadian Journal of African Studies, 56*(1), 1–21. https://doi.org/10.1080/00083968.2020.1868014

Chen, Y., Fan, Z., Zhang, J., & Mo, M. (2019). Does the connectivity of the Belt and Road Initiative contribute to the economic growth of the Belt and Road countries? *Emerging Markets Finance and Trade, 55*(14), 3227–3240. https://doi.org/10.1080/1540496X.2019.1643315

Dayaratna-Banda, O. G., & Dharmadasa, P. D. C. S. (2019). China's Belt and Road Initiative: Opportunities and challenges for economic growth in Sri Lanka. *SSRN Electronic Journal*. https://doi.org/10.2139/ssrn.3365378

DeBoom, M. J. (2019). Who is afraid of 'debt-trap diplomacy'? Geopolitical narratives, agency and the multiscalar distribution of risk. *Area Development and Policy, 5*(1), 1–8. https://doi.org/10.1080/23792949.2019.1703556

De Conti, B. M., & Mozias, P. (2020). "Belt and Road Initiative": Challenges and opportunities for China and for the world. *Austral Brazilian Journal of Strategy & International Relations, 9*(17), 198–224. https://doi.org/10.22456/2238-6912.96646

Enuka, C. (2018). Dependency theory and global economic imbalance: A critique. *UJAH: Unizik Journal of Arts and Humanities, 19*(1), 115–132. https://doi.org/10.4314/ujah.v19i1.7

Gangte, L. (2020). The debt-trap diplomacy revisited: A case study on Sri Lanka's Hambantota Port. *Artha–Journal of Social Sciences, 19*(2), 65–78. https://doi.org/10.12724/ajss.53.4

Kvangraven, I. H. (2020). Beyond the stereotype: Restating the relevance of the dependency research programme. *Development and Change, 51*(2), 302–328. https://doi.org/10.1111/dech.12593

Lai, K. P. Y., Lin, S., & Sidaway, J. D. (2020). Financing the Belt and Road Initiative (BRI): Research agendas beyond the "debt-trap" discourse. *Eurasian Geography and Economics, 61*(2), 109–124. https://doi.org/10.1080/15387216.2020.1726787

Mayer, M. (2018). China's rise as Eurasian power: The revival of the Silk Road and its consequences. In M. Mayer (Ed.), *Rethinking the Silk Road: China's Belt and Road Initiative and emerging Eurasian relations* (pp. 1–28). Palgrave Macmillan. https://doi.org/10.1007/978-981-10-5921-6

Merriam, S. B., & Tisdell, E. J. (2009). *Qualitative research: A guide to design and implementation*. Jossey-Bass.

Moralles, H. F., & Rebelatto, D. A. N. (2015). Transportation infrastructure and economic growth spillovers. In P. Cortés et al. (Eds.), *Enhancing synergies in a collaborative environment* (pp. 189–197). Springer. https://doi.org/10.1007/978-3-319-14078-0_19

Nassaji, H. (2015). Qualitative and descriptive research: Data type versus data analysis. *Language Teaching Research, 19*(2), 129–132. https://doi.org/10.1177/1362168815572747

Nurjayanti, V. A. (2020). Analisis ketergantungan China-Sri Lanka dalam proyek pembangunan Pelabuhan Hambantota tahun 2007–2017. *Nation State: Journal of International Studies, 3*(1), 24–39.

Pradhan, R. P. (2019). Investigating the causal relationship between transportation infrastructure, financial penetration and economic growth in G-20 countries. *Research in Transportation Economics, 78*, 100766. https://doi.org/10.1016/j.retrec.2019.100766

Singh, A. (2020). The myth of 'debt-trap diplomacy' and realities of Chinese development finance. *Third World Quarterly, 42*(2), 239–253. https://doi.org/10.1080/01436597.2020.1807318

Sun, Q., Zhang, X., Xu, X., Yang, Q., & Wang, S. (2019). Does the "Belt and Road Initiative" promote the economic growth of participating countries? *Sustainability, 11*(19), 5240. https://doi.org/10.3390/su11195240

Tracy, S. J. (2013). *Qualitative research methods*. Wiley-Blackwell.

Were, A. (2018). Debt trap? Chinese loans and Africa's development options. *Policy Insights, 66*. South African Institute of International Affairs.

Wibisono, A. N. (2019). China's "Belt and Road Initiative" in Sri Lanka: Debt diplomacy in Hambantota Port investment. *Mandala: Jurnal Ilmu Hubungan Internasional*, *2*(2), 94–107.

Yang, Y., Liu, W., Li, K., Jin, Y., & Liang, S. (2021). Evaluation of Chinese transport infrastructure investment performance in countries along the Belt and Road Initiative. *Mathematical Problems in Engineering*, *2021*, 1–12. https://doi.org/10.1155/2021/8357939

Yin, Robert K. (2018). *Case study research and applications: Design and methods*. Sage Publication.