

Stakeholder Theory Implications for Capacity Development of Local Contractors in Developing Economies: A Bibliometric Review

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Abstract

Developing nations continue receiving technical and financial assistance to implement capacity development programmes to support local contractors. Despite a plethora of capacity development programmes, there has been limited progress in local contractors participating in high-value infrastructure projects, as foreign entities dominate this sector. Despite extensive development programmes, the lack of local contractor participation has led to many questioning the effectiveness of such capacity development programmes. Local stakeholders perceive these programmes as lacking value and not meeting their intended objectives. This paper explores research on local construction contractor capacity development programmes, focusing on stakeholder requirements. A stakeholder theory lens was used to unravel factors that impact the effectiveness of contractor development programmes. The study found limited research on contractor requirements definition based on stakeholder interests. The involvement of stakeholders remains crucial in the success of the construction sector, highlighting the need for further research on how stakeholder requirements can be integrated into capacity development program designs.

Keywords:

Stakeholder, Construction, Contractor, Capacity Building/Development, Developing Economies

1. INTRODUCTION

Despite several capacity development programmes being implemented, stakeholder satisfaction and local contractor participation in high-value projects continue to elude the construction sector in most developing economies. This paper explores existing literature on how stakeholder requirements are incorporated into the various capacity development programmes in developing countries. The inherent challenge of large foreign contractors dominating the high-value and mega projects in these developing countries serves as evidence of ineffective contractor development programmes that have led to locally trained construction contractors not participating in these projects (Sharma, 2020, Targautov *et al.*, 2021). This paper aims to highlight the importance of stakeholder requirements in designing capacity development programmes that provide an outcome to satisfy key stakeholders and enhance the participation of local construction contractors in infrastructure development.

The study explores existing published studies on capacity development programmes with a focus on stakeholder requirements during the formulation phase. Therefore, the objectives of this study are:

- Examine research key features of contractor development programmes in developing countries.
- Determine stakeholder implications for a contractor development programme.

The main research question explores the impact of contractor development programmes on local construction contractors' development.

2. LITERATURE REVIEW

Contractor development programmes are traced as far back as 1969 when the International Labour Organisation (ILO) initiated a training program in Geneva (McCutcheon and Parkins, 2002:15-18). The programme was dubbed the World Empowerment Programme (WEP), primarily aiming to test and define an engagement-oriented development strategy. Due to a lack of trained and qualified indigenous local contractors and largely the presence of foreign contractors in

the developing regions in the 1970s. This empowerment programme was translated into smaller CDPs (McCutcheon and Crosswell, 2001). The idea was to attract a larger pool of small-scale construction firms into these capacity development opportunities and enhance their capacity to deliver quality infrastructure in their countries. However, there remains confusion about the definition of these programmes.

2.1. Capacity and Capacity Development

There is still confusion in defining and understanding how capacity development is operationalized (Light and Hubbard, 2002:2). Capacity development should not be seen as a fleeting anomaly, but rather as the recognition that change is the norm during and after carrying out a capacity development programme (De Vita and Fleming, 2001). According to Light and Hubbard (2002), the main objective of capacity development should be to enhance institutional capacity through organizational development, leadership training, technical assistance, and management improvement. Jeanette et al. (2022) introduce a new aspect of capacity development, regarding the social change achieved because of participating in a capacity development programme.

Light and Hubbard (2002) assert that capacity development can be seen as mere staff development by one institution, while another institution, such as a non-governmental organization, may define it as meeting the needs of a specific community. According to the UNDP (2009), capacity development is a process through which individuals, organizations, and societies gain and maintain the ability to establish and achieve their development goals over time. On the other hand, it appears that some donors define capacity development as any program that strengthens the organization, rather than initiatives that enhance the organization's programmes and services (Morgan, 2006). Other scholars define capacity development as a process of cultivating networks, which in turn fosters social capital and enhances the community's ability to provide services (Ferrero *et al.*, 2019).

From these definitions, the significance of training in every capacity development process cannot be overstated (Ferrero *et al.*, 2019). Furthermore, despite the variations in definitions, capacity development is implemented to enhance the performance of individuals, organizations, and societies, and remains a crucial factor in enabling impact for any institution or company. Conversely, for an organization to strengthen its capacity and be able to provide services, its staff needs to possess the necessary skills and knowledge (Targautov *et al.*, 2021). This knowledge and skills translate into the competency of individual staff members to be able to effectively deliver the organization's objectives in service delivery and most importantly contribute to its growth (Targautov *et al.*, 2021; Mengistu and Mahesh, 2020). As such individual employees should be competent to contribute to the effectiveness and efficiency of an organisation's complex system. However, it is acknowledged that the increase in complexity and magnitude of projects makes it impracticable for an organization to develop expertise in all trades and disciplines (Mengistu and Mahesh, 2020).

2.2. Significance and Training of Contractors

The significance of the construction industry on an economy has been extensively researched. Many authors agree that "construction," (Ofori, 1990 pp23-4; Ofori, 2015; Babatunde and Makarfi, 2019) as an industry, remains a major contributor to most countries' gross domestic products (GDP) (Ravselj et al., 2019:69; World Bank Group, 2015). In addition, capacity development remains a crucial strategy to empower construction sector players and achieve sustainable infrastructure development for economic growth (World Bank, 2015). Hence studies on capacity development programmes are relevant in the construction sector to enhance sustainable economic development, especially in developing economies.

Due to the nature and effect of these programmes in the construction industry (Tripathi and Jha, 2018), capacity development efforts continue to evolve (Jeanette *et al.*, 2022). Various frameworks and strategies support the sector's growth (Sharma, 2020, Targautov *et al.*, 2021). However, there are imbalances in the participation of local construction contractors in infrastructure development processes (Ceric and Ivic, 2020; Onososen and Musonda, 2022), mostly in developing economies. In addition, existing literature continuously highlights stakeholders' dissatisfaction with the trained local construction contractor's performance in the construction sector in developing economies.

2.3. Stakeholder Influence on Contractor Capacity Building

The construction sector comprises multiple stakeholders with varying levels of influence on the sector's success. Like any other industry, the construction sector includes both internal and external stakeholders, each with different degrees of impact on the success of those involved. While there is a consensus on who qualifies as a stakeholder (Benn *et al.*, 2016, pp1-11), there are various definitions of what constitutes a stakeholder. With its origins traced back to the

eighteenth century in England (Pirozzi, 2019), the definition of stakeholders continues to evolve, now categorized as primary and secondary stakeholders (Clarkson, 1995). This evolution further examines a stakeholder as someone who is the "holder of interests" to someone who "has an interest" (Pirozzi, 2019).

Freeman (1984) is credited as the originator of the first modern definition of a stakeholder. He defines stakeholders as groups whose support is necessary for the organization to continue existing. The Project Management Institute (PMI) also saw stakeholders as active participants in the development process (PMI, 1987). However, simply viewing stakeholders as participants does not contribute significantly to the sustainability of the construction sector. Therefore, a more comprehensive definition of stakeholders has been developed and is referred to as individuals, groups, or organizations that may be influenced, impacted, or perceive themselves to be affected by decisions, activities, or outcomes of a project, programme, or portfolio (PMI, 2017). Based on these definitions, it is evident that stakeholders have a major role and impact on the construction sector, particularly in capacity development programmes. As such, their requirements are critical during the formulation of capacity development programmes to achieve success.

3. MATERIALS AND METHODS

3.1. Data source

The study utilized results from bibliometric analysis and science mapping techniques to analyze different bibliometric data of published journal articles for ten years commencing in 2014. Bibliometric analysis was adopted due to its ability to expose the intellectual structure of a specific domain in the extent of different fields of research. It also helps to identify knowledge gaps and the positioning of the intended contribution to the field of study (Lim *et al.*, 2021).

The databases from which research articles could be drawn include popular search engines, such as Scopus, Google Scholar, and Web of Science (Lim *et al.*, 2021). However, Scopus was chosen for this study. Scopus was adopted as it is known to be the world's largest abstract and citation database of peer-reviewed research literature in different scientific fields (Chadegani *et al.*, 2013; Guz and Rushchitsky, 2009). In addition, Scopus offers smart tools to track, analyze, and visualize research-indexed publications within the construction industry (Wuni *et al.*, 2019; Onososen and Musonda, 2022).

3.2. Data Search, Retrieval, and Adoption

The selection of keywords during data search is crucial for retrieving relevant data in the study domain. In this study, Scopus was queried using the keywords "Stakeholder Theory," "Contractors," "Construction," "Capacity Building," or "Capacity Development" and "Developing Economies or Countries". An inclusion criterion was then developed to minimize article selection bias. Only journal articles categorized by Scopus and classified within engineering, project management, construction, and building technology were included in the study to ensure a comprehensive analysis of articles. Journal articles were chosen due to their rigorous peer review process and the presence of pertinent academic information related to the construction industry (Zheng *et al.*, 2018). The selection of articles was restricted to published English articles from 2014 to 2024 to establish recent discussions related to local contractor capacity development programmes.

By using keyword expressions to search for articles, a total of 436 articles were retrieved. Duplicate articles and those whose aims were not aligned with the study were removed, leaving 260 articles selected. After reviewing the abstract of each of these articles, those unrelated to the construction sector (such as capacity building in the banking sector, healthcare, marketing strategies, and transportation) were also excluded. A total of 38 relevant articles were identified and exported into a Comma Separated Value (CSV) file. These 38 documents were then adopted for a bibliometric analysis and science mapping.

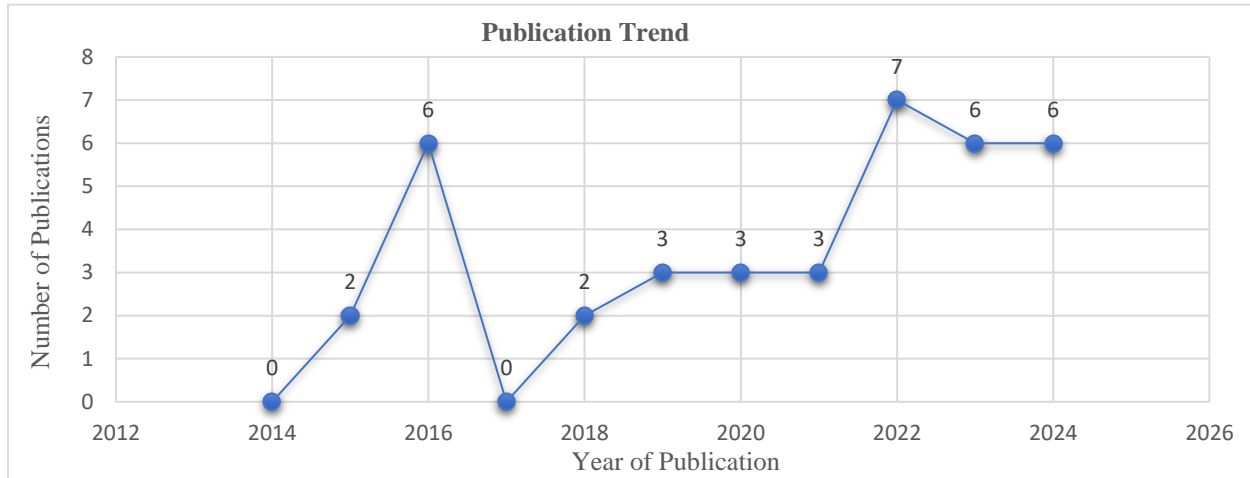
3.3. Science Mapping

The data was analyzed using VOSviewer, a science mapping software tool. VOS stands for "Visualization of Similarities" (Moral-Munoz Jose A *et al.*, 2020). VOSviewer was selected due to its versatility and capability to conduct various analyses and visualize the available data (Moral-Munoz *et al.*, 2020). Through the creation of maps, visualization, exploration of maps, and depiction of trends in tabular form, it becomes convenient to refer to the adopted data during a bibliometric analysis process (Van Eck & Waltman, 2014).

4. RESULTS

4.1. Publication Trend Analysis

Analyzing the adopted articles to determine publication trends, an uneven pattern was observed from 2014 to 2024. There were no publications in 2014 on theoretical approaches to understudying capacity development of local contractors in developing economies, but the number rose to six in 2016, before dropping to zero in 2017.



Subsequently, there was an increase in publications from 2018, with two articles published, reaching a peak of seven articles in 2022. However, publications declined in 2023 and 2024, with six articles recorded in each respective year. Figure 1 illustrates the publication trend from 2014 to 2024.

Figure 1: Publication Trend Analysis on capacity development of local contractors in developing economies

4.2. Country of Origin

It was astonishing to discover that most articles originated from developed countries rather than developing countries. Among the top ten countries, the United States of America (USA) leads in publications with six articles, followed by India and Sweden with four articles each. South Africa closely followed with three articles, while Kenya, Tanzania, Canada, and Malawi each contributed two articles. Indonesia and Australia each contributed one article. Figure 2 depicts the publication countries.

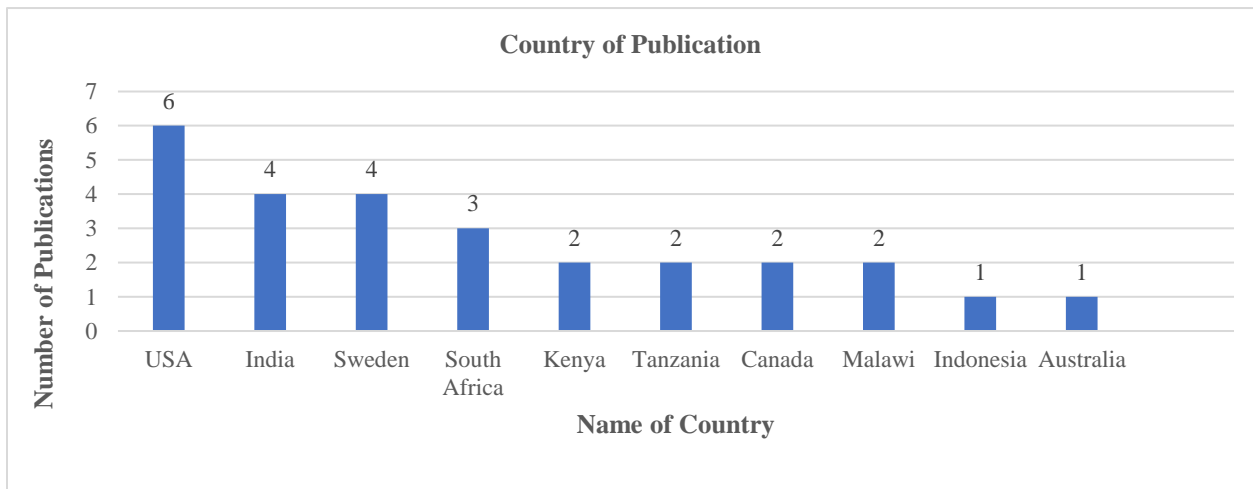


Figure 2: Country of Origin of Publications

4.3. Key Words Analysis

Research articles contain keywords. According to Van Eck and Waltman (2014), keywords represent the relationship between different areas of knowledge and the organization of research topics. Upon visualizing the keywords and examining the top five clusters, the main themes discussed were "collaboration", "capacity building and education stakeholders", "stakeholders", "transformation", and "implementation". The most commonly co-occurring and linked keyword was "capacity building", with six co-occurrences and 24 links. Following that, "stakeholders" had five co-occurrences and 15 links. "Collaboration" was the least commonly co-occurring keyword. Figure 3 displays the visualization of the keywords.

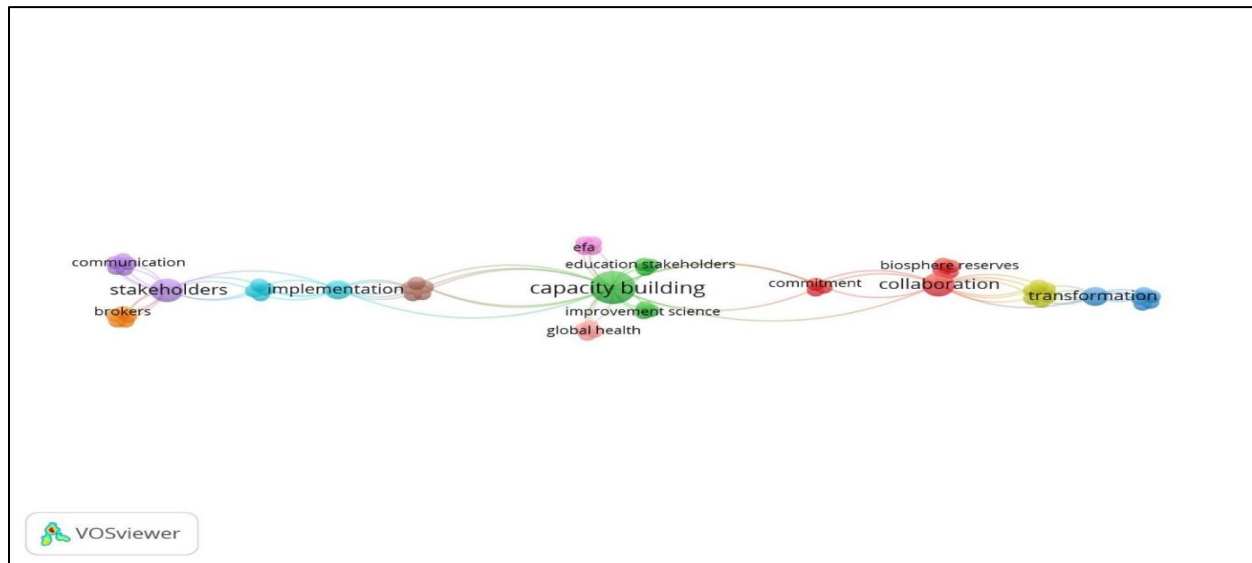


Figure 3: Keyword Visualization

5. DISCUSSION

A literature review establishes a foundation for an academic inquiry and identifies an opportunity for future research direction (Xiao and Watson, 2017). This can be achieved by critically analyzing existing published academic knowledge on a study domain. Based on the analysis of the results conducted, an overview of the extent to which the research domain has been discussed over time is revealed. The results of the study are presented in three thematic areas namely, research trends, source of publication, and co-occurrence of keywords.

5.1. Research Trend

A research trend shows the focus of a study domain in a particular region or country. The inclusion of 38 articles in this review indicates that more research needs to be conducted in this domain in developing countries. The trend started with zero articles in 2014, reached a peak in 2022 with seven articles, and then declined to six articles in both 2023 and 2024. Despite an increase in publications (n=6) over the last two years, the haphazard nature and the number of articles published in the previous ten years show that there is still more work to be done.

5.2. Source of Publication

Research on capacity development has garnered significant global attention for its ability to enhance performance, especially in the infrastructure sector of developing economies. In this study, developed countries dominate the research outputs. The ongoing prevalence of research output from developed economies, with the USA leading the way, underscores the necessity for further exploration in this area. While developing economies are shown to be actively contributing to research, there is still a persistent issue of stakeholder dissatisfaction in trained local contractor capacity that requires further attention. Despite the glaring low satisfaction levels among stakeholders in the trained local contractors, developing countries continue to receive support in the capacity development domain from different

stakeholders (Jain and Dhir, 2021). This underscores the need for further research on stakeholder requirements and inclusion when developing capacity development programmes in developing countries.

5.3. Co-Occurrence of Keyword

To analyze the content of each thematic cluster as defined by Donthu et al. (2021) and how they are reflected in a research publication by Wuni et al. (2019), keywords are used. The top five themes discussed in the chosen articles are "capacity building," "stakeholders," "collaboration," "transformation," and "implementation." The top two themes emphasized in the selected articles, namely capacity building, and stakeholders, underscore the significance of these factors in the study area. Capacity building continues to attract several stakeholders at funding, design, and implementation levels of infrastructure development. Stakeholders are purely individuals who are found in these levels of capacity-building processes, and their interests are significant to the success of these capacity development programmes. In this study, the fact that capacity building and stakeholders form part of the top two most discussed themes underscores the significance of exploring this study domain further.

6. THE STAKEHOLDER THEORY LENS

Stakeholder theory involves cultivating respectful and equitable relationships with individuals that are essential for adding value to organizations. This has prompted increased research on stakeholder theory in recent years, highlighting the significance of inclusivity in infrastructure development from social, economic, and ethical standpoints. Collaboration is viewed as a crucial factor in promoting societal well-being (Freeman & Phillip, 2002), with the theory underscoring the importance of fostering relationships, balancing interests, and encouraging mutual benefit (Freeman *et al.*, 2010). The core focus of the theory is to assess an organization's capability through a triangulation approach, considering individuals, systems, and entities as key components of capacity building. Refer to Table 1 for a comparison between traditional economic and stakeholder theories.

Table 1: Economic Theories versus Stakeholder Theory (Freeman *et al.*, 2010)

Traditional Economic Theories	Stakeholder Theory
Emphasizes market competition	Cooperation is the main driver of social welfare
Sees Manager's duty as maximizing the financial market value of the firm	Managers should foster cooperative relationships with stakeholders by balancing interests
Humans pursue their self-interest by responding to financial incentives	Human behaviour is much more complex than just focusing on financial incentives
No value appropriation	Reciprocity and multiple objectives

To minimize stakeholder dissatisfaction among trained local contractors, developers of capacity development programmes should be inclusive in their design process and ensure that all stakeholder requirements are taken into consideration to reduce resource wastage. It is also important to not view capacity development programmes solely as a token of appreciation from funding agencies.

7. CONCLUSION

This paper utilized bibliometric and science mapping techniques to quantitatively analyze the existing literature on capacity development programmes for local construction contractors considering stakeholder requirements. The results indicate that there is a need for further research in this area. This conclusion is supported by the fact that only 38 articles have been utilized in the past decade (n=38). Developed countries are the primary sources of publications while developing countries are falling behind despite receiving financial and technical support from funding institutions to train local construction contractors.

Interestingly, the papers demonstrate a positive trend in discussing core themes over the last ten years. Capacity building emerges as the predominant theme, underscoring the importance of research in this field. Other themes such as stakeholders, collaboration, transformation, and implementation further emphasize the necessity of continued research to enhance the capacity of local construction contractors. Riding on the principles of the stakeholder theory, the study contributes to developing an inclusive capacity development programme that addresses the ongoing dissatisfaction of key stakeholders in the construction sector. By developing this inclusive capacity development

programme, the study will add to the existing knowledge of capacity development programmes and help improve stakeholder satisfaction and the capacity of local contractors. The findings from the literature review highlight the key requirements for capacity development not only for local contractors but also for programmes that require unique stakeholder involvement. A strong framework that includes meaningful stakeholder participation, rather than just tokenism, is essential for achieving the desired stakeholder satisfaction and development goals.

Ultimately, meeting stakeholder requirements will help in achieving capacity development objectives. Adopting a different approach to implementing these programmes has practical implications for the sustainability of trained local construction contractors and for enhancing infrastructure development. From the analysis of the reviewed papers, the uneven research trends suggest a lack of sustained focus and continuous research effort in understanding and developing the capacity of local contractors in developing economies. The absence of publications on theoretical approaches to capacity development in 2014 and the subsequent uneven pattern of publications suggest that there is not yet a robust theoretical foundation guiding these efforts. A stronger theoretical focus, incorporating stakeholder theory, could provide a more structured approach to involving stakeholders in capacity development. Moreover, most of the articles originate from developed countries rather than developing ones. This disparity highlights a gap in local context-specific research, which is crucial for addressing the unique challenges faced by local contractors in developing economies.

The dominant contributions from the USA, India, and Sweden indicate that research might not fully capture the on-ground realities and stakeholder requirements in developing economies. While "capacity building" and "stakeholders" are prominent themes, the relatively lower emphasis on "collaboration" indicates that the involvement of stakeholders in a collaborative capacity-building process is not extensively explored. Effective capacity development requires the active participation of stakeholders, including local contractors, funding bodies, and regulatory authorities. Despite ongoing efforts in capacity development, there is persistent stakeholder dissatisfaction with the outcomes. This dissatisfaction points to a potential gap in understanding and incorporating stakeholder needs and requirements into capacity development programmes.

8. LIMITATIONS

This study has limitations. The data used in this paper was selected only from Scopus, which suggests that additional literature may be available on other academic search engines that could yield different results in the analysis. Restricting studies to only those written in English may prove inconclusive, as there could be articles written in other dominant languages from developed countries.

9. REFERENCES

- Abdelaal, F. & Guo, B.H. (2022). Stakeholders' perspectives on BIM and LCA for green buildings. *Journal of Building Engineering*, 48103931.
- Babatunde, O.K. & Makarfi, A.S. (2019). Local construction companies capacity building through foreign companies' strategic partnership.
- Benn, S., Abratt, R. & O'Leary, B. (2016). Defining and identifying stakeholders: Views from management and stakeholders. *South African journal of business management*, 47(2):1-11.
- Ceric, A. & Ivic, I. (2020). Construction labour and skill shortages in Croatia: Causes and response strategies. *Organization, technology & management in construction: An international journal*, 12(1):2232-2244.
- Chadegani, A.A., Salehi, H., Yunus, M.M., Farhadi, H., Fooladi, M., Farhadi, M. & Ebrahim, N.A. (2013). A comparison between two main academic literature collections: Web of Science and Scopus databases. *arXiv preprint arXiv:1305.0377*, .
- Clarkson, M.E. (1995). A stakeholder framework for analyzing and evaluating corporate social performance. *Academy of Management Review*, 20(1):92-117.
- Collinge, B. (2016). Stakeholder management strategies during construction project work. *British journal of healthcare management*, 22(8):394-400.
- Donthu, N., Kumar, S., Mukherjee, D., Pandey, N. & Lim, W.M. (2021). How to conduct a bibliometric analysis: An overview and guidelines. *Journal of business research*, 133285-296.

- Ferrero, G., Setty, K., Rickert, B., George, S., Rinehold, A., DeFrance, J. & Bartram, J. (2019). Capacity building and training approaches for water safety plans: A comprehensive literature review. *International journal of hygiene and environmental health*, 222(4):615-627.
- Freeman, R.E. (2010). *Strategic management: A stakeholder approach* Cambridge University Press.
- Freeman, R.E., Dmytriiev, S.D. & Phillips, R.A. (2021). Stakeholder theory and the resource-based view of the firm. *Journal of Management*, 47(7):1757-1770.
- Jacquetta. (2002). *Proceedings, Built Environment Professions Convention*. Conference proceedings of the Xth conference held in Y.
- Jain, M. & Dhir, S. (2022). Antecedents of organization ambidexterity: A comparative study of public and private sector organizations. *Technology in society*, 70102046.
- Jennette, K.J., Rhoads, T., Resch, Z.J., Cerny, B.M., Leib, S.I., Sharp, D.W., Ovsiew, G.P. & Soble, J.R. (2022). Multivariable analysis of the relative utility and additive value of eight embedded performance validity tests for classifying invalid neuropsychological test performance. *Journal of clinical and experimental neuropsychology*, 44(7):451-460.
- Light, P.C., and Hubbard, E.T., (2002). *The capacity building challenges* the Human Interaction Research Institute.
- Luo, L., Qiping Shen, G., Xu, G., Liu, Y. & Wang, Y. (2019). Stakeholder-associated supply chain risks and their interactions in a prefabricated building project in Hong Kong. *Journal of management in engineering*, 35(2):05018015.
- McCutcheon, R.T. & Parkins, F. (2002). *Innovative research and education at the Research Center for Employment Creation in Construction. towards building capacity and accelerating delivery*, 21st Annual South African Transport Conference was held on. Conference proceedings of the Xth conference held in Y.
- Mengistu, D.G. & Mahesh, G. (2020). Challenges in developing the Ethiopian construction industry. *African journal of science, technology, innovation and development*, 12(4):373-384.
- Moral-Muñoz, J.A., Herrera-Viedma, E., Santisteban-Espejo, A. & Cobo, M.J. (2020). Software tools for conducting bibliometric analysis in science: An up-to-date review. *Profesional de la información*, 29(1):
- Morgan, P. (2006). The concept of capacity. *European center for development policy management*, 1(19):826-840.
- Ofori, G. (1990). *The construction industry: Aspects of its economics and management* NUS Press.
- Onososen, A. & Musonda, I. (2022). Barriers to BIM-based life cycle sustainability assessment for buildings: An interpretive structural modeling approach. *Buildings*, 12(3):324.
- Pirozzi, M. (2019). Stakeholders, who are they? *PM World Journal*, 8(9):1-10.
- Project Management Institute (2017). *Project Management Book of Knowledge*
- Ravšelj, D., Kovač, P. & Aristovnik, A. (2019). Tax-related burden on SMEs in the European Union: The case of Slovenia. *Mediterranean journal of social sciences*, 10(2):69.
- Sharma, H.B., Vanapalli, K.R., Cheela, V.S., Ranjan, V.P., Jaglan, A.K., Dubey, B., Goel, S. & Bhattacharya, J. (2020). Challenges, opportunities, and innovations for effective solid waste management during and post-COVID-19 pandemic. *Resources, conservation and recycling*, 162105052.
- Targautov, B., Zhanabayev, A., Tleuken, A., Turkyilmaz, A., Mustafa, M. & Karaca, F. (2021). Circular economy: Challenges and opportunities in the construction sector of Kazakhstan. *Buildings*, 11(11):501.
- Tripathi, K.K. & Jha, K.N. (2018). Determining success factors for a construction organization: A structural equation modeling approach. *Journal of management in engineering*, 34(1):04017050.
- UNDP (2009). UNDP annual report: Living up to commitments.
- Van Eck, N.J. & Waltman, L. (2014). CitNetExplorer: A new software tool for analyzing and visualizing citation networks. *Journal of Informetrics*, 8(4):802-823.
- World Bank 2015, "World Bank Group Strategy".
- Wuni, I.Y., Shen, G.Q. & Osei-Kyei, R. (2019). Scientometric review of global research trends on green buildings in construction journals from 1992 to 2018. *Energy and buildings*, 19069-85.
- Zheng, Y., Hatakka, M., Sahay, S. & Andersson, A. (2018). Conceptualizing development in information and communication technology for development (ICT4D). *Information technology for development*, 24(1):1-14.