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NAVIGATING SUCCESS: EXPLORING PROJECT MANAGEMENT, COMMUNICATION, AND TECHNOLOGY IN GHANAIAN

CONSTRUCTION PROJECTS

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ABSTRACT

Effective project management and communication are crucial elements in the success of construction projects. This compilation of excerpts explores various facets of project management, communication barriers, and the use of technology in the construction industry. Key themes include the impact of poor management practices on project outcomes, the role of communication in construction project success, and the identification of communication problems specific to the Ghanaian construction industry. Additionally, the literature highlights the importance of trust, commitment, and innovative solutions in fostering effective communication. The role of technology, such as Building Information Modelling (BIM), in reshaping construction practices is also discussed.

Keywords: Project Management, Communication, Construction Industry, Stakeholder, Goals, Innovation, Ghanaian Construction Industry, Organizational Alliances.

I. INTRODUCTION

Project management within the architecture and construction sphere is a multifaceted undertaking, involving intricate planning, execution, coordination, and control. The provided excerpts illuminate critical aspects, including the repercussions of poor management, conflicting goals among stakeholders, and the pivotal role of effective communication in bolstering economic and time performance, quality, and customer satisfaction. The discussion also touches on challenges such as communication barriers, the need for innovation in construction production management, and the impact of organizational alliances within the dynamic construction industry. Overall, these insights collectively offer a nuanced perspective on the complexities inherent in successful project management within the architecture and construction domain.

II. LITERATURE RIEVEW

Karen khoury et.al (2019) underscores the multifaceted nature of project management in architecture, encompassing planning, executing, coordinating, and controlling practices. They emphasize the repercussions of poor management practices, highlighting the propensity for construction projects to deviate from their intended targets. A pivotal theme that emerges is the critical role of communication in the success of construction projects. The authors stress that effective communication serves as a linchpin, influencing economic performance, time efficiency, quality standards, and overall customer satisfaction. Moreover, they identify trust and commitment as major mechanisms within the communication process, further underlining their significance in fostering positive project outcomes. This comprehensive synthesis illuminates the interconnectedness of project management, communication dynamics, and the ultimate success of construction endeavor.

James vaux et.al (2018) the intricate landscape of project stakeholders in the construction industry is explored, revealing a common occurrence of conflicting goals among these key players. The authors delve into the potential ramifications of such conflicts, emphasizing that they can precipitate breakdowns in communication within the construction project. This breakdown, in turn, may necessitate mediation or, in more severe cases, escalate to litigation. A crucial dimension highlighted is the adversarial climate that can ensue in construction projects, acting as a catalyst for the amplification of conflicts. Vaux et al. illuminate the challenges posed by divergent stakeholder goals, the resultant communication breakdowns, and the consequential



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adversarial atmosphere, providing valuable insights into the dynamics of stakeholder interactions in the construction industry.

V Dhemchenko et.al (2021) a comprehensive exploration of communication barriers in construction company network management is undertaken. The authors delve into the intricacies of information and intelligent environments, shedding light on their potential applications in the realm of production management within the construction industry. Notably, expert solutions are underscored as pivotal elements in the innovation process, emphasizing their significance in overcoming communication challenges. Dhemchenko et al. advocate for the creation of institutional forms of innovation specifically tailored to construction production management, thereby providing a nuanced perspective on addressing communication barriers and fostering innovation within the complex network dynamics of construction companies.

Stephen akunyumu et.al (2019) an exhaustive examination of communication problems within the construction industry is presented. The authors synthesized findings from previous studies, illuminating pervasive issues such as information overload, distortion, and various barriers hindering effective communication. Within this context, the review highlights additional challenges, encompassing the lack of feedback, difficulties posed by technical language, and the impact of cultural differences on communication dynamics. The collective insights from diverse studies underscore the multifaceted nature of factors influencing ineffective communication in construction projects. A distinctive feature of this review is its specific focus on the Ghanaian construction industry, aiming to provide a targeted exploration of communication challenges unique to this context.

Kirti rajhans et.al (2018) contribute to the evolving landscape of organizational theory by examining a shift in focus toward the invasive environment. Their literature review emphasizes the need for organizations to cultivate proactive alliances and adept relationship management with multiple entities. The authors delve into the dynamics of this evolving organizational paradigm, shedding light on the strategic imperatives associated with navigating and engaging with the invasive environment. The review underscores the significance of forging collaborative relationships as organizations adapt to the complexities and challenges presented by an ever-changing external landscape.

Elnaz safapour et.al (2019) offer a thorough examination of effective communication in construction projects. The authors meticulously identify and analyze 50 project characteristics that exert influence on the quality of internal communication within construction endeavors. Within this insightful exploration, the literature review skillfully pinpoints three knowledge gaps in the realm of construction project communication. Notably, the study highlights the scarcity of research addressing the impacts of project characteristics on internal communication, emphasizing the need for further investigation in this domain. The overarching aim of the research is to determine and assess effective communication indicators among stakeholders, thereby contributing valuable insights to enhance communication practices within the construction industry.

Vinod Prachi et al (2020)-conducted a comprehensive exploration into the multifaceted dimensions of construction project success, delineating both financial and non-financial performance areas as crucial benchmarks. Critiquing the limitations of traditional financial performance assessments for their failure to fully encapsulate stakeholder interests, the study places emphasis on non-financial realms such as customer relations, stakeholder satisfaction, and employee motivation. The authors delve into widely practiced performance measurement models, notably the balanced scorecard and EFQM, shedding light on their applicability in evaluating project success. Encompassing critical aspects like schedule adherence, budget compliance, quality, safety, client satisfaction, and environmental considerations, the literature review underscores the multifaceted nature of performance areas. In dissecting the components of project success, the study distinguishes between project management success and product success, recognizing the nuanced interplay between these dimensions. The performance areas outlined in the literature are revealed to span both objective and subjective indicators, with the authors acknowledging the impact of soft skills and external factors on the overall success of construction projects. This comprehensive review culminates in the synthesis of performance.

Bhavana pandit et al (2020) – conducted a critical examination of social-network worker interactions and skill development within the construction industry, highlighting a notable dearth of empirical studies in this



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domain. Emphasizing the significance of open and frequent communication among co-workers, particularly for safety purposes, the literature underscores the pivotal role of effective safety communication in reducing the likelihood of injuries, especially in dynamic work environments. The study elucidates a positive correlation between safety climate and hazard recognition skill, further emphasizing a synergistic effect between safety climate and patterns of social-network communication. However, the authors caution against solely relying on real construction case images, suggesting that they may not fully capture the dynamic nature of operations. The research also delves into the reliability of performance measures derived from case images, revealing a correlation with workplace performance. Acknowledging the limitations of their cross-sectional non-experimental data, the authors recommend longitudinal studies for more robust evidence in understanding the intricate interplay between social-network communication, safety practices, and skill development in the construction sector.

Abid Hasan et al (2019)-aimed to identify patterns and trends in existing knowledge related to factors influencing construction productivity. Employing systematic review methods from prior studies, the researchers conducted a comprehensive search across top-ranked construction journals and other peerreviewed publications. The snowballing technique was utilized to find additional pertinent papers through citations. In total, 46 articles were carefully selected for inclusion in the review, with a primary focus on empirical research approaches, particularly employing surveys as the preferred method. This exhaustive literature review explored a range of factors impacting construction productivity, addressing issues such as labor absenteeism, communication effectiveness, site layout, rework, and the competence of the construction management team. The findings provided valuable insights and recommendations for enhancing productivity in construction projects, emphasizing improvements in site organization, working environments, and the management of various factors influencing construction operations. The study also identified gaps in existing research and proposed future directions for investigating the impacts of technology, site amenities, project culture, and psychological factors, while highlighting the need for increased attention to green construction projects in future studie

Soo-yong kim et al (2020)-address a critical gap in the existing literature on Supply Chain Management (SCM) in the construction industry. They highlight a notable absence of emphasis on barriers in prior studies, noting that only three studies have identified obstacles to Construction Supply Chain Management (CSCM) implementation. Critiquing previous research for its lack of detailed analysis and assessment of these barriers, the authors undertake a comprehensive review to bridge these gaps. In their study, barriers are meticulously selected based on clear content and a commitment to avoiding repetition, aiming to contribute valuable insights to the understanding of challenges in CSCM implementation that have been underexplored in prior scholarly work.

Samad seoazgozar et al (2020)- delve into a comprehensive exploration of factors influencing students' experiences with technology. Their literature review includes Nakarada-Kordic et al.'s examination of measures of presence in Virtual Reality (VR) experiences, emphasizing the potential benefits of VR in enhancing participants' experiences, particularly before stressful medical examinations. The discussion extends to published papers addressing the occurrence of sickness related to VR applications, contributing to a nuanced understanding of the technology's impact. Additionally, the authors introduce the GWiP model, which advocates for active student engagement and real-time feedback, offering a holistic framework to optimize the integration of technology in educational settings.

Hanna B.love et al (2019)-contribute to the discourse on learning by emphasizing its social nature in literature. Their literature review highlights the insufficiency of High-Impact Activities (HI-Activities) alone for achieving robust learning outcomes. The authors categorize six specific HI-Activities—reflection, collaborative learning, service-learning, applied learning, problem-based learning, and active learning—acknowledging their individual benefits. They draw attention to the tendency in literature for authors to focus on reporting the benefits of a single activity rather than considering the holistic impact. The study employs Freeman's centralization measure to evaluate each Learning Network, revealing that unequal centralization indicates a centralized network. The authors argue that centralized networks impede the flow of knowledge and



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information, advocating for distributed networks as more conducive to collective learning and knowledge building.

Uchana sampson igwe et al (2020)-conducted a comprehensive review of 81 publications focusing on recent technologies in construction cost management. Their exploration encompassed a range of cutting-edge technologies, including IoT, AR/VR, 5D-BIM, and AI, among others. The authors highlight the diverse applications and benefits of these technologies in areas such as quantity take-off, cost estimation, and budgeting. They emphasize the role of mobile technology in enabling real-time communication and data collection on construction sites. The review underscores the significance of budgeting, involving the collection of cost estimates and establishing an overall cost baseline. Cash flow forecasting is identified as a crucial component, breaking down the project budget and establishing project cash flow. The authors note that technologies facilitate progress assessment through cost reports, and site meetings and inspections are conducted to review progress and compare it to the budget. They stress the importance of record-keeping and the evaluation of work carried out, highlighting the transformative potential of technologies in reshaping the construction cost management approach.

Paul chan et al (2020)-concentrate on digital platforms within the architecture, engineering, and construction (AEC) sector. The review reveals a predominant focus on enhancing functionalities in platforms, with particular emphasis on the central role of Building Information Modelling (BIM) in studies connected to the production of the built environment. The authors distinguish between studies specifically addressing the production of the built environment, which tend to be more technically oriented, and general studies that center on engagement with end-users and citizens. This differentiation highlights the dual nature of research within the AEC sector, where technical advancements coexist with broader considerations of user engagement and societal impact.

Abid hasan et al (2019)-systematically identified factors influencing construction productivity. The review emphasizes key contributors to productivity challenges, encompassing issues such as material shortages, inadequate supervision, and poor communication. Additionally, the authors highlight the impact of factors like a lack of training and incomplete drawings on construction productivity. The detrimental effects of reworking and change orders are discussed, pointing out how they contribute to a decrease in labor productivity. Furthermore, the review addresses the negative impact of overtime work on overall productivity levels in the construction industry.

Anthony Shoolanke et al (2019)- conducted by Anthony Shoolanke et al. (2019), the literature review is an integral section that serves various crucial purposes. Firstly, it functions as a component of the paper, offering a foundation of background information on the chosen topic. Beyond its informative role, the literature review plays a pivotal role in identifying gaps in existing research, laying the groundwork for the study's focus on unexplored areas. Moreover, the literature review guides the formulation of the research methodology and approach, providing a theoretical framework for the study. As the research unfolds, the literature review serves as a support system for the findings and conclusions, anchoring them in the context of prior scholarly works. Overall, the literature review serves as a multifaceted element within the paper, enriching it with context, focus, and theoretical underpinnings.

Zingxiao zang et al (2019)- the focus revolves around the insufficient research in three critical areas within the construction, engineering, and project management domain. Firstly, the review emphasizes the scarcity of studies addressing the upskilling of undergraduate students in Construction, Engineering, and Construction Management (CECM) majors. This gap underscores a need for comprehensive exploration and development of educational strategies to enhance the skill set of students in these crucial disciplines. Secondly, the literature highlights the limited research on leveraging experiential knowledge to guide Building Information Modeling (BIM) project execution. This gap suggests an opportunity for further investigation into practical applications and benefits of utilizing experiential knowledge in the context of BIM projects. Lastly, the integration problem of fragmented curricula and knowledge modules in project design, construction, and operation is identified as an area requiring more scholarly attention. This underscores the importance of cohesive and integrated educational approaches to prepare students for the multifaceted challenges of the construction industry. The literature review thus outlines key knowledge gaps and research directions within the broader field of construction education and project management.



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Sukhtaj singh et al (2018)-underscores its multifaceted role in the construction and project management domain. BIM is delineated as a comprehensive framework comprising policies, processes, and technologies designed for the effective management of building data. Emphasizing its collaborative nature, the literature highlights how BIM serves as a catalyst for enhanced communication and collaboration among various stakeholders involved in construction projects. The capabilities of BIM extend to facilitating input, modification, and analysis of data, thereby mitigating potential disputes through a streamlined and transparent data management process. Furthermore, the literature emphasizes that BIM contributes significantly to improved project management practices, fostering greater collaboration among diverse stakeholders. The ability of BIM models to federate different parties into a unified model is identified as a pivotal factor, promoting teamwork and synergy throughout the project lifecycle. In summary, the literature underscores BIM's pivotal role in revolutionizing project management practices through its collaborative, data-driven, and integrative features.

Hala al-Qassab et al (2019)-employed a rigorous literature review as the foundation for their research methodology. This review played a pivotal role in shaping the subsequent interviews and thematic analysis. By drawing upon existing literature, the study aimed to inform and guide the qualitative analysis of interview data. The findings of the interviews were then systematically compared to the extant literature, revealing a notable consistency between the two sources. While the alignment was evident, the literature review also unearthed subtle differences in the findings, pointing towards potential contextual inferences that enrich the understanding of the research topic. The study highlights the significance of repetition and verification in similar contexts, proposing them as valuable avenues for future research endeavors. Overall, the integration of literature review into the interview process proved instrumental in ensuring a robust and informed analysis, contributing to the study's depth and credibility.

Hazhar Faris et al (2019)-undertook a thorough literature review to gain insights into the state-of-the-art practices within the construction industry. This comprehensive review encompassed global literature, aiming to identify potential factors contributing to collaboration. Through an exhaustive examination of literature spanning from 2000 to 2018, the authors not only presented a thorough understanding of existing practices but also pinpointed a research gap necessitating the exploration of local factors influencing collaboration. The study meticulously selected and scrutinized the 35 most closely related articles, focusing on key themes and factors that emerged consistently. The culmination of this effort is encapsulated in Table 2, offering a condensed and insightful presentation of frequently mentioned factors. By bridging the global and local perspectives, this literature review serves as a valuable resource for understanding collaborative practices in the construction industry, contributing to a more nuanced and informed exploration of this critical domain.

Julia Ratajczak et al (2019)- Traditional methods of communication on construction sites face inefficiencies, prompting a need for innovation, as highlighted in Julia Ratajczak et al.'s (2019) literature review. The conventional reliance on paper-based processes poses challenges in managing and tracking information, demanding extensive efforts from construction managers. The literature underscores the significant time investment required for collecting and analyzing site data using these traditional approaches. Recognizing the limitations of such practices, there has been a notable shift towards the adoption of computing and communication technologies in the construction industry. This transformative shift aims to enhance productivity by streamlining communication, data management, and analysis. Particularly, Building Information Modelling (BIM) technology emerges as a pivotal solution, offering automation of construction processes and contributing to effective project control. Through a critical evaluation of these developments, the literature review sheds light on the evolving landscape of communication and technology integration, emphasizing the potential for improved efficiency and outcomes in the construction sector.

Amirsaman Mahdavian et al (2021)-immersive video capture, specifically utilizing 360° and 180° 3D technologies, was integrated as a supplementary tool in a freshman construction management class to enhance conventional education. The research aimed to assess students' perceptions and initial feedback through a survey. The findings revealed a positive outlook on the use of immersive videos for construction education. Students reported varying perceptions of information based on different configurations, with a preference for 360° videos followed closely by 180° 3D videos. Spatial sound was identified as a contributing factor to a better understanding of the surroundings. The study highlighted the critical importance of high-quality videos with



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high frame rates for the successful implementation of this technology. While the existing equipment's quality was deemed satisfactory, improvements in this area were acknowledged as crucial for enhancing user acceptance and facilitating the widespread adoption of immersive videos as an effective educational method in the field of construction management.

Hua Jiang et al (2018)- is characterized by the willingness to be vulnerable to another party. This vulnerability is intricately tied to the concept of trustworthiness, which is further delineated through dimensions such as competence, benevolence, and integrity. The study emphasizes that trust is not a static phenomenon but is shaped by ongoing interactions, particularly within the hierarchical structure of organizations, involving supervisors or leaders. The research establishes a significant link between effective leadership and the establishment of trust among employees, highlighting the predictive nature of leadership on trust-building processes. Furthermore, the study underscores the pivotal role of authentic leadership as a fundamental construct contributing to positive forms of leadership, emphasizing the importance of authenticity in fostering trust within organizational dynamics.

Phuoc le et al (2018)-adopt a systematic literature review methodology, employing a structured approach that involves material collection, descriptive analysis, category selection, and material evaluation. The researchers leverage a combination of qualitative and quantitative content analysis methods to complement each other, ensuring a comprehensive and robust review process. The specific focus of their review is on decision-making within the realm of construction supply chain management (CSCM). Through this systematic review, the paper aims to identify and delineate the current emphases and areas of focus within decision-making processes in CSCM. This methodical and analytical approach contributes to a deeper understanding of decision-making dynamics in the construction supply chain, providing insights into the prevailing trends and challenges in this domain.

Abid Hasan et al (2018)-assert that poor communication stands out as a significant contributor to low construction productivity. The researchers highlight the functional limitations of traditional Information and Communication Technology (ICT) in construction projects, paving the way for the discussion of the potential transformative role of mobile ICT. According to the literature review, mobile ICT is identified as having the capacity to enhance fieldwork and overall productivity in construction. The adoption of mobile devices is seen as a means to bolster communication, foster collaboration among stakeholders, and streamline task efficiency in the construction sector. This perspective underscores the pivotal role of technological advancements, particularly mobile ICT, in addressing communication challenges and improving overall productivity within construction projects.

III. CONCLUSION

The field of project management in architecture and construction is multifaceted, involving intricate planning, execution, coordination, and control of projects. The excerpts gathered here shed light on critical aspects such as the consequences of poor management practices, the influence of conflicting goals among project stakeholders, and the need for effective communication to enhance economic and time performance, quality, and customer satisfaction. Communication barriers, innovation in construction production management, and the impact of organizational alliances are explored in the context of construction industry dynamics.

IV. REFERENCE

- [1] Karen Khoury (2019). Effective Communication Processes for Building Design, Construction, and Management. Construction Management Journal, 25(3), 123-145.
- [2] Vaux, J., & Kirk, W. (2018). Conflict in Construction Management: Performance and Productivity Problem. American society of Civil Engineers, 144(6): 04018032,
- [3] Demchenko, V., Khoroshevskaya, J., & Krukov, K. (2021). Communication Barriers of a Construction Company's Network Management. International Science and Technology Conference, doi:10.1088/1757-899X/1079/3/032089, 1-11.
- [4] Akunyumu, S., Adjei-Kumi, T., Danku, J., & Kissi, E. (2019). Communication Problems in Projects: A Research Study for Construction Site Projects - A Case Study of Ghana.Int. J. Project Organisation and Management, Vol. 11, No. 4, 343-361.



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Volume:06/Issue:03/March-2024Impact Factor- 7.868www.irjmets.com				
[5]	Rajhans, K. (2018). Effective Communication Management: A Key to Stakeholder Relationship Management in Project-Based Organizations. The IUP Journal of Soft Skills, Vol. XII, No. 4,48-66.			
[6]	Safapour, E., Kermanshachi, S., Kamalirad, S., & Tran, D. (2019). Identifying Effective Project-Based Communication Indicators within Primary and Secondary Stakeholders in Construction Projects. J. Leg. Aff. Dispute Resolut. Eng. Constr., 2019, 11(4): 04519028.			
[7]	Prachi, V., Ingle, G., Mahesh, & Ingle, M. (2020). Construction Project Performance Areas for Indian Construction Projects. INTERNATIONAL JOURNAL OF CONSTRUCTION MANAGEMENT, DOI: 10.1080/15623599.2020.1721177, 1-12.			
[8]	Pandit, B., Albert, A., & Patil, Y. (2020). Developing Construction Hazard Recognition Skill: Leveraging Safety Climate and Social Network Safety Communication Patterns. Construction Management and Economics, DOI: 10.1080/01446193.2020.1722316.			
[9]	Hasan, A., Baroudi, B., Elmualim, A., & Rameezdeen, R. (2018). Factors affecting construction productivity: a 30 year systematic review. Emerald Insight, https://doi.org/10.1108/ECAM-02-2017-0035.			
[10]	Kim, SY., & Nguyen, V. (2020). Supply Chain Management in Construction: Critical Study of Barriers to Implementation. International Journal of Construction Management, DOI: 10.1080/15623599.2020.1843768.			
[11]	Sepasgozar, S. (2020). Digital Twin and Web-Based Virtual Gaming Technologies for Online Education. Appl. Sci. 2020, 10, 4678; doi:10.3390/app10134678.			
[12]	Love, H. B. (2019). Assessment of the Development of Social and Learning Networks in Construction Management Courses Using Social Network Analysis. INTERNATIONAL JOURNAL OF CONSTRUCTION EDUCATION AND RESEARCH https://doi.org/10.1080/15578771.2019.1657208.			
[13]	Igwe, U. S., Fikri, S., Mat, M. B., & Azwarie, D. (2020). Recent Technologies in Construction: A Novel Search for Total Cost Management of Construction Projects. IOP Conf. Series: Materials Science and Engineering 884 (2020) 012041, doi:10.1088/1757-899X/884/1/012041.			
[14]	Chan, P. (2020). Construction in the Platform Society: New Directions for Construction Management Research. Construction in the Platform Society, 397-405.			
[15]	Hasan, A., Asce, A., Ahn, S., Rameezdeen, R., & Baroudi, B. (2019). Empirical Study on Implications of Mobile ICT Use for Construction Project Management. J. Manage. Eng., 2019, 35(6): 04019029.			
[16]	Sholanke, A., & Opoko, A. (2019). Effects and Resolution Guidelines of Land-Use Conflict in Construction Management. International Journal of Innovative Technology and Exploring Engineering (IJITEE) ISSN: 2278-3075, Volume-8 Issue-8.			
[17]	Zhang, J., Xie, H., Schmidt, K., Xia, B., Li, H., & Skitmore, M. (2019). Integrated Experiential Learning- Based Framework for Project Planning in CECM Courses. J. Prof. Issues Eng. Educ. Pract., 2019, 145(4): 05019005.			
[18]	Singh, S., Chinyio, E., & Suresh, S. (2018). The Implementation of Stakeholder Management and Building Information Modelling (BIM) in UK Construction Projects. Association of Researchers in Construction Management, 776-785.			
[19]	Al-Qassab, H., Paucar-Caceres, A., Wright, G., & Pagano, R. (2019). Sustainability and Green Project Management Skills: An Exploratory Study in the Construction Industry in Dubai. H. Al-Qassab et al,224-238.			
[20]	Faris, H., Gaterell, M., & Hutchinson, D. (2019). Investigating factors of collaboration in construction projects in emerging economies. INTERNATIONAL JOURNAL OF CONSTRUCTION MANAGEMENT, DOI: 10.1080/15623599.2019.1635758.			
[21]	Ratajczak, J., Schweigkofler, A., Riedl, M., & Matt, D. (2019). Augmented Reality Combined with Location-Based Management System to Improve the Construction Process, Quality Control and Information Flow. ITcon Vol. 26 (2021), Shojaei et al., pg. 886.			
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- [22] Mahdavian, A., Carson, L., & Ford, G. (2021). Using Immersive Video Technology for Construction Management Content Delivery: A Pilot Study. Augmented Reality Combined with Location-Based Management,289-296.
- [23] Jiang, H., & Luo, Y. (2018). Crafting Employee Trust: From Authenticity, Transparency to Engagement. Journal of Communication Management,1-41.
- [24] Le, P., Elmughrabi, W., Dao, T. M., & Chaabane, A. (2018). Present focuses and future directions of decision-making in construction supply chain management: a systematic review. , International Journal of Construction Management, DOI: 10.1080/15623599.2018.1488089.
- [25] Bassam Baroudi, Andrew Marshall. (2018). An Exploratory Study on the Impact of Mobile ICT on Productivity in Construction Projects. Emerald insight , https://doi.org/10.1108/BEPAM-10-2017-0080.