The Impact of Corporate Culture on Value Management Adoption in the Construction Industry

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Abstract. Value management (VM) is considered a multidisciplinary process that seeks to achieve the best value in a construction project to meet clients' needs and enhance the sustainability of construction projects in the built environment. In addition, it has been referred to as a team-oriented, structured, and analytical process that targets the systematic analysis of function. However, despite numerous studies on VM and its importance, the concept of VM has not been fully embraced in the construction industry. Its application is still confronted with multiple barriers and challenges. This study, therefore, aims to bridge the gap by understanding the impact of corporate culture on VM adoption by examining the relationships between corporate culture and VM integration through an extant literature review. This is one of the first papers to measure corporate culture's importance in the VM context.

Keywords: Value management · Culture value · Corporate culture · Adoption · Construction industry

1 Introduction

The main goal of a construction project is to meet clients' satisfaction in terms of cost, time, and quality [1]. However, the present-day construction industry is experiencing dramatic changes from what it was some decades ago. Issues attributed to increased project complexity, inefficiency in the construction process, cost and time overrun, delay in delivery, poor project planning, and project abandonment have been significant concerns in the construction industry [2]. To curb some of these issues, many studies have advocated the integration of value management (VM) practices to successfully deliver construction projects [3–6]. Notably, many studies have proven its benefits when successfully implemented in construction firms as an effective tool in achieving clients' satisfaction, reducing project abandonment, and reduced construction costs [7].

However, some studies describe a pattern of failure in VM adoption. Its idea has not been widely implemented worldwide, particularly in developing countries [8]. Some of the major factors attributed to VM integration are attributed to readiness to adopt,

organisational barriers, awareness, lack of implementation by decision-makers, collaboration, skill and training, management support, corporate strategy, and teamwork among different project team members that are impacted by the culture of the firms [9].

Among all the possible antecedents of VM adoption, this paper is predominantly intrigued by corporate culture (CC), which is referred to as the values and beliefs shared by an organisation [10]. CC plays a vital role in the adoption of VM because appropriate CC will influence the integration and behaviour of team members regarding information dissemination, partnership, collaboration, trust, decision-making, and risk-taking, among others [11]. These CC-related features are also significant for the successful implementation and adoption of VM as these will help improve workflow and guide the decision-making process. It will also overcome ambiguity barriers and promote an organized work structure that will help team members work together with purpose. Organisations may not achieve their stated goals if they lack the backing of a suitable corporate culture [12]. According to [11], Japanese firms' European subsidiaries have occasionally failed to provide good courier service due to internal workplace conflict.

Given the relevance of corporate culture for VM, the impact of corporate culture on VM incorporation must be investigated. This study aims to examine corporate culture using the Competing Value Framework (CVF) model, which is regarded as a highly reliable and widely used framework for measuring the culture in an organization. Several studies have acknowledged the use of CVF for analyzing corporate culture on innovation [13] and [14], knowledge management [14], job satisfaction [15], among others. However, there is no research focusing on the impact of corporate culture on VM integration. Research in this area needs to analyse how corporate culture may facilitate organisations' value chain processes. This study intends to establish the impact of CC on VM adoption in the construction industry.

2   Research Method

This study was conducted as a systematic literature review. This technique is critical in any particular research since it highlights existing research and identifies research gaps in previous papers. According to [16], a systematic literature review involves assessing, analyzing, and summarizing all existing studies about a specified research topic to identify knowledge gaps and recommend areas for additional research. A systematic literature review is typically conducted utilizing large databases with an extensive number of articles and comprehensive search techniques that permit the use of complex and sophisticated expressions. Qualitative content analysis was used to obtain the primary data. Based on this method, a two-stage process was used to acquire, analyse and present the findings from the articles. In the first stage, articles published in journals and academic conferences were collected in major databases such as Emerald, Scopus, Science Direct, Google Scholar, and Web of Science. A total number of 112 articles were retrieved. The literature sample includes English-speaking journals and proceedings from academic conferences on value management practices in the construction industry, covering periods from 2008 to 2020. The second stage involved testing the eligibility of the papers based on inclusion, exclusion, and quality criteria, and some papers were filtered out based on incomplete abstracts or conclusions, literature reviews, language,

duplications, and papers that did not apply to the research. A literature search was conducted to compile the literature based on a pair of keywords such as "VM," "adoption," "organisational culture," "corporate culture," and "construction industry" to be jointly found in the title keywords or abstract. Forty-two (42) scholarly articles about VM and CC were identified (hereafter referred to as the 'final' number of articles).

3   The Moderating Role of Corporate Culture

The concept of corporate culture (CC) has received considerable attention in organisational theory. CC has been defined as the social or normative glue that holds an organisation together [17]. According to [18], CC is a long-term collection of shared attitudes, beliefs, and meanings that influence the thoughts and behaviour of members of the organisation. Cameron and Quinn [19] suggested that implementing change developments while maintaining the CC is difficult, even if the organisation offers basic capabilities, methodologies, and change strategies. According to [20], the successful adoption of change programs in a firm is determined mainly by CC, including the values and ideas underpinning the culture. Since CC can explain more about internal characteristics such as managerial attributes, human resource management, and organisational behaviour, CC becomes an essential subject in sustainable goals [20]. According to [21], CC comprises a firm's rules of conduct, organisational standards, processes, and management systems. Galpin et al. [22] further claimed that organisations must stress their mission, values, norms, and strategy to accomplish excellent CCve the sustainable development aim, [23] stated that sustainable efforts should be gradually integrated with CC, necessitating bringing cultural changes to an organisation. Arditi et al. [17] investigated the influence of organisational culture on construction projects delay and observed a substantial link between corporate culture and the extent of project delay. Albayrak and Albayrak [24] also examined the effect of organisational culture on the construction sector's adoption in Turkish and found a significant impact. Prior research has extensively investigated an association between CC and adoption [14]. For example, Change-resistant behaviour, information sharing among workers, and non-acceptance of external innovation are all CC-related characteristics influencing a firm's ability to innovate, according to [13]. As a result, [25] emphasized the role of management in encouraging employees to promote innovative behaviours to build a CC that fosters innovation. Several other researchers have also concentrated on the impact of CC on innovation [13] and [14], knowledge management [26], and job satisfaction [15]. The reviewed literature shows that professionals and researchers acknowledged that CC substantially impacts the long-term adoption of construction projects, change programs, and even the organisation. However, research on the effects of CC on VM integration and adoption in the construction industry is limited.

4 Measuring Corporate Culture - the Competing Value Framework (CVF)

In order to understand the impact of CC in an organisation, several theoretical models have been proposed to measure organisational culture [24]. The literature review shows that the Competing Value Framework (CVF) is well known in research and practice and has been widely employed in management studies. Cameron and Quinn [19] divided the CVF framework into the group, rational, hierarchical, and developmental cultures. The group culture value involves trust, participation, commitment, involvement, and teamwork [11]. Cameron and Quinn [19] asserted that "group culture" is modeled after a family-type pattern. According to [11], group culture is the value of long-term advantages embraced by employees in a firm. Employees in a firm give more attention to tasks that create long-term value when they have a strong group culture [27]. This is because organisations adopting such a culture encourage flexibility and individual openness [15]. This study affirmed that construction project stakeholders who embrace group culture are interested in establishing teamwork, information sharing, cooperation, and partnership within the value chain. However, [24] concluded that communication is crucial for adopting this culture in the value chain. The absence of communication will lead to confusion, thereby altering the informal relationship. Development culture involves innovativeness, creativity, risk-taking, and adaptable nature [1] and [19]. The organisation that adopts this culture focuses on entrepreneurship development, motivation, and a sound reward system [28]. This dimension of culture emphasises incentives to achieve a firm's well-defined goals, such as outstanding adoption and competitive advantages. Atuahene and Baiden [29] asserted that leaders adopting such cultures are risk-takers, and the followers or employees are committed to taking a risk in the value chain.

Rational culture involves a competitive culture that involves addressing rivalry and reasonable achievement toward corporate goals and objectives [17]. In rational culture, the organisation's leaders adopting this culture are result-oriented, mainly concerned with how the task or project will be completed [19]. Arditi et al. [17] mentioned that rational culture focuses on getting the job done, bringing goal-oriented competition. Adhesives in the organisation are mainly the desire to win a competition. On the other hand, the organisation's employees or members have clear instructions regarding their roles and are rewarded based on their adoption [30]. The hierarchical culture dimension is focused on ensuring a hierarchy and strict control of activities [19]. The hierarchy culture led by an organisation has a formalized structure, formal rules, and policies. There are standard procedures that define how work should be performed. Cao et al. [11] mentioned that shared values of top-down control and coordination are maintained. Strategies and activities are limited, decision-making frameworks are standardized, and outcomes are presented to superiors for authorization in a company that has a robust hierarchical culture [31]. In a value chain system, hierarchical culture has two meanings. Firstly, personnel at companies with a robust hierarchical structure are dominated by a "functional silos" approach [11]. Implementation is hampered because the division of operations prevents a company from taking a holistic approach to sharing responsibilities with external value chain partners. Secondly, personnel in hierarchical organisations are accustomed to following rules and regulations [32]. As a result, they are reluctant to respond to change.

5   Cultural Alignment and VM Integration

Arditi et al. [17] discovered that CC with a high degree of group, development, rational cultures, and low hierarchical culture is ideal for implementing numerous management strategies. This assertion overlap with VM practices. Successful VM has a specific culture profile, according to [33], which includes more institutional collectivism, future orientation, a compassionate orientation, and a reduced level of aggressiveness. CC can help VM adoption by creating an environment where companies can learn and collaborate with value chain partners, especially in developing countries where VM practices have not been fully adopted [3]. As a result, it is envisaged that CC will substantially impact VM integration as a crucial component of a firm's operational practice. According to the literature, effective VM integration involves both the ability and the intention to adopt [5]. Organisations that fully implement VM can create and handle connections with clients and project personnel and facilitate teamwork, client satisfaction, and cross-functional cooperation, allowing them to integrate their value chains [34]. Firms willing to implement trust and interpersonal influence are more likely to proactively implement internally and externally, allowing them to better engender cooperation during the VM process [5]. As a result, CC is linked to relationship abilities and willingness to integrate, influencing VM adoption.

Group culture emphasises interpersonal relationships, communication, cooperation, and collaboration with internal and external team members during and after a VM process [11]. There are clear communication and transparency, and every team member is comfortable voicing their opinions and ideas, which is a significant prerequisite for positive VM adoption. Cooperation and collaboration values are essential for VM because VM requires the working together of team members/ stakeholders involved to solve problems [25] jointly. Employees that lack a cooperative spirit will find it challenging to collaborate closely with their colleagues during a VM process. In competitive situations, group culture will enable team members to work together to win [11]. Organisations will be motivated to cooperate to improve shared understanding, minimize conflict, enhance trust relationships, and commit to relationships with their clients to enhance the successful integration of VM [35]. According to [36], collaborative practices such as brainstorming are beneficial to establishing a shared language, which is a popular approach utilized during the VM workshop process. This sort of shared language is critical for information and knowledge sharing [37] and communication across functions within project stakeholders. The client's involvement and participation in group culture will be enhanced [1], which is an essential prerequisite for successful VM integration. In addition, [38] found that group culture is positively related to trust. Trust is a crucial component of the successful implementation of the VM process [39]. Therefore, it can be deduced that group culture would positively influence VM adoption.

The importance of a long-term goal shared by all personnel in an organisation is emphasized by a development culture. Workers give more importance to initiatives that have the potential establish lengthy worth when a firm has a substantial development culture [15]. Thus, VM, as a crucial practice for generating long-term value for organisations [40], is more likely to be realized in organisations that prioritize development culture. In this case, an organisation is motivated to gather data on present conditions, future requirements, and technological innovations or skills that could help them steer

their VM-related programs. To obtain such market and technological data, a firm must integrate its internal activities with external stakeholders and clients through VM integration [8]. Also, a development culture that encourages enterprises to take risks and accept short-term losses can integrate VM practices. According to existing research, VM integration necessitates a significant collective commitment from value chain partners, both tangible and intangible [41]. Therefore, organisations concentrating on short-term rather than long-term goals cannot afford the short-term losses caused by risky integration practices. Firms with a strong development culture and a focus on long-term goals, on the other hand, will be more ready to take risks and endure short-term losses because they will expect to reap long-term rewards from doing so. As a result, VM facilitates product innovation, which is crucial for a company's long-term success. Hence, these findings suggest that VM integration will be more prevalent in a construction firm with a development culture.

Control and top-down decision-making are critical aspects of hierarchical culture. These characteristics may hinder employees' willingness to take chances and adapt to change, reducing the scope of VM practices and thwarting their effectiveness. The hierarchical culture places a high value on getting the task done, defining protocols and routines, standardized decision-making mechanisms, and superiors reporting decisions for authorization [29]. The integration and adoption could be hampered in this situation because the division of functions could prevent an organisation from taking a broader view of responsibilities shared with external value chain partners. Also, employees in firms with a hierarchical culture are used to following rules and regulations [28]. Functional and organisational boundaries may need to be broken to combine multiple functions and project stakeholders into cohesive entities. Furthermore, if organisations want to combine their operations, they may need to modify their relationships with clients. Also, organisations may need to shift from transactional ties to strategic partnerships to accomplish VM [42]. As a result, VM implementation may be hampered by a hierarchical culture that prioritizes stability. Furthermore, such a culture will provide little or no encouragement for employees to participate in dealing with the new problems and contingencies that VM entails, limiting VM deployment and negatively impacting its adoption.

Rational culture refers to the shared beliefs and incentive systems adopted to fulfill the objectives of a firm [11]. In rational culture, values are emphasized as result-driven, rational-oriented, and highly competitive. This culture is influenced by outcomes, and it works tirelessly to infiltrate the market and gain its most market share attainable. This dimension of culture emphasizes rewards for accomplishing a business's well-defined objectives, such as extensive utilization and competitive advantages [42]. Organisations with a solid rational culture will motivate their staff to devote time, resources, and effort to VM to deliver construction projects successfully and meet their defined objectives. As a result, the four culture dimensions are predicted to influence VM integration and adoption. Furthermore, the four culture dimensions may affect VM integration as a whole. When both group and development cultures are emphasized, for example, the group attitude of teamwork may help to speed up the VM development culture-driven process. By emphasizing the importance of VM for the firm's future success, development culture can boost the effect of group culture on VM adoption. As a result, the four

dimensions of CC can have a combined impact on VM adoption. In summary, the group, development, rational and hierarchical culture can influence VM adoption individually and jointly. In relating the rational culture dimension to VM, this study asserts that a construction project stakeholder adopting such a culture is interested in satisfying the client regardless of the principles and opinions of other stakeholders [11].

6 Conclusion

In corporate firms, corporate culture can be considered an essential factor affecting the adoption and integration of VM, most especially in developing countries. This paper presented a systematic review of various renowned literature concerning CC's role on the adoption of VM in the construction industry. The result found that CC strongly impacts the adoption and implementation of VM practices. The study also revealed that the lack of cultural integration between members of an organisation might lead to failure in the successful implementation of VM practices. Therefore, it is ascertained that enhancing value culture would result in VM adoption enhancement. Organisational stakeholders must understand the values and customs emphasised in their organisations to facilitate the effective implementation of VM practices at the initial stage of construction projects. Organisations with a quality focus should support the values and beliefs of group and development cultures. Greater organisational involvement, decreased project costs, waste reduction, employees' engagement, empowerment, job satisfaction, early project delivery, and increased productivity will help improve work-life quality. Furthermore, appropriate CC and knowledge of VM will enhance organisational effectiveness. Moreover, the findings of this study will help clients, construction professionals, and other construction stakeholders better comprehend the influence of CC on the adoption of VM practices, especially in developing countries. This knowledge of the influence of CC will assist in developing and making VM implementation easier. Therefore, the effectiveness of CC in enhancing VM implementation can be recognized as a needed research scope.

7 Limitations of the Study

In this research, a systematic literature review is used which might have a few limitations such as may not represent the studies of VM in totality, only selected journals and conference articles were considered for the study while other sources of information were not considered in this study.

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