

Strategic Collaboration in Entrepreneurship in the Construction Industry

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Information of Article	ABSTRACT
<p><i>Article history:</i> Received: Jan 2024 Revised: Jan 2024 Accepted: Feb 2024 Available online: Feb 2024</p> <p><i>Keywords:</i> Construction industry collaboration entrepreneurship</p>	<p>This paper presents a critical literature review of research into strategic collaboration in entrepreneurship in the construction industry. Findings show that strategic collaboration is underutilized in most sectors of the construction industry, although it may be used in sectors like public procurement, renovation and green construction, and prefabricated housing. Strategic collaboration's long-term relationships can help firms develop their products/services through network connections and deliver long-term continuous improvement. However, there are also challenges such as lack of IT system integration and power differentials. There are some areas, such as critical success factors and readiness evaluation, which have not been investigated in detail.</p>

1. Introduction

The construction industry is one of the world's largest and fastest growing industrial sectors. As of 2021, it was estimated that the construction industry was worth \$7.3 trillion (Statista Research Department, 2023). Furthermore, it was estimated that the value of the industry would rise to \$9.6 trillion by 2024, and further to \$14.4 trillion by 2030 (Statista Research Department, 2023). With the size of the industry nearly doubling within a decade, it is worth looking at what factors can drive growth and make it more efficient. However, there is limited research on strategic collaboration in the construction industry, as well as limited practice. Therefore, the aim of this research was to investigate strategic collaboration for entrepreneurship in the construction industry. To support this aim, the researcher has conducted a critical literature review on one of these factors – strategic collaboration and its role in entrepreneurship in the construction industry. Here, strategic collaboration is defined. Its connection to entrepreneurship is discussed. This is followed by a review of how strategic collaboration is used in the construction industry.

2. Literature Review

2.1 Strategic collaboration

Strategic collaboration refers to a partnership between one or more firms or other organizations, through which strategic goals are aligned and organizations work together to achieve these strategic goals (Goode, 2017). Strategic collaboration may be defined in the construction industry as “a building client, who enters into a long-term contract with a consortium consisting of architects, consulting engineers, and contractors (Jensen *et al.*, 2018)”, as well as other parties like design and subject matter experts. Such partnerships can be used in contexts like sustainable building renovation (Jensen *et al.*, 2018) and public procurement (Berg, Thuesen and Jensen, 2023), although there has been little discussion of how strategic collaboration occurs in commercial contexts.

Strategic collaboration has been identified as a central tenet of lean construction management, through which suppliers and end users engage in long-term partnerships for continuous improvement (Koskela, Vrijhoef and Dana Broft, 2020). Strategic collaboration is viewed as a tool towards improvement of customer value by improving the product/service delivery (Koskela, Vrijhoef and Dana Broft, 2020). However, in general strategic collaboration is underutilized in the global construction industry (Jensen *et al.*, 2018). As a result, it is not surprising strategic collaboration in the construction industry has not been investigated thoroughly in the literature, for example with only a few papers investigating the core aspect of supply chain resilience (Philsoophian, Akhavan and Abbasi, 2021). This justifies future research, as well as investigating what has already been done.

2.2 Strategic collaboration and entrepreneurship

There is a strong connection between strategic collaboration and effective entrepreneurship. Strategic collaboration between different partners has been described as a central part of entrepreneurial orientation, or in other words the extent to which a business pursues entrepreneurial activities such as developing new markets, products, services, processes, and so on (Al-Tabbaa, Ciulli and Kolk, 2022). Strategic collaboration, often through collaborative networks, provides entrepreneurial firms, particularly those in early start-up stages, with resources and knowledge required to meet strategic objectives that are outside the reach of their own resources (Partanen *et al.*, 2020). However, not all entrepreneurial firms will draw on strategic collaboration as a tool. Al-Tabbaa *et al.* (2022) identified factors including relational proactiveness, relational innovativeness, and relational risk management as influences on the extent to which firms will pursue strategic collaboration. Thus, even though strategic collaboration is one aspect of entrepreneurship, but it is not always used.

Strategic collaboration has been identified as a factor in entrepreneurial activities in the construction industry, particularly during expansion and diversification phases of growth (Clegg *et al.*, 2017). Clegg *et al.* (2017) conducted a case study of a small firm in the construction industry of the United Kingdom, which used tools including strategic collaboration to move away from a single product and toward a servitized model. The firm used its collaborative relationships with suppliers and other partner firms to provide a more extensive set of services, rather than its previous focus on only goods (Clegg *et al.*, 2017). Strategic collaboration may also be used in emergent construction sectors such as prefabricated housing, where less rigorous existing structures of competition offer more room for collaboration and where long-term relationships benefit collaborative partners (Steinhardt *et al.*, 2020). Thus, there are domains where strategic collaboration may be more common in the construction industry as a tool to achieve entrepreneurial goals, even if it is largely unadopted in the broader industry.

2.3 Strategic collaboration and the construction industry

One of the most common ways that strategic collaboration is structured in the construction industry is through partnerships between buyers and suppliers within the same supply chain (Berg, Thuesen and Jensen, 2023). Berg *et al.* (2023) point out that these relationships are often based on short-term contracts, and therefore are limited in their ability to provide long-term benefits. However, it is becoming more common in some countries, such as Scandinavia, for firms to engage in long-term relational collaboration, in which the client is an active participant throughout the stages of the contract rather than being a passive partner. Such relationships, which are set out based on contractual agreements, may be used for public procurement or even for commercial development activities (Berg, Thuesen and Jensen, 2023). In some segments of the construction industry, such as sustainable renovation of existing buildings, strategic collaboration is a commonplace approach, with firms often forming long-term collaborative relationships (Selberherr, 2015; Jensen *et al.*, 2018). This is like most industries, although it is missing the explicit involvement of capital funding which may characterize strategic collaboration in other industries (Goode, 2017).

Strategic collaboration offers some significant benefits for firms that participate in it. For example, strategic collaboration is associated with knowledge sharing, both within and between organizations, to facilitate alignment of strategic objectives and activities (Mehdikhani and Valmohammadi, 2019). Mehdikhani and Valmohammadi (2019) found that internal and external knowledge sharing mediated the relationship between strategic collaboration and sustainable supply chain management, indicating that knowledge sharing is a significant factor in the overall success of strategic collaboration. Strategic collaboration is also essential in domains like sustainable construction, where supply chain partners need to work closely together to ensure sustainability (Selberherr, 2015). As a result, strategic collaboration in building renovation can help firms provide customers with a better service than would otherwise be possible, significantly increasing customer value and potential returns (Selberherr, 2015). Strategic collaboration in the form of supply chain integration is also a factor in green performance in the construction industry, which may be particularly important for firms engaging in sustainable construction or who must meet specific environmental criteria (Pham and Pham, 2021). Thus, there are many reasons why firms may choose to engage in strategic collaboration within the industry, particularly in sectors like renovation and prefabrication where long-term relationships are beneficial.

There are also some challenges to strategic collaboration in the construction industry. One of these challenges is that there are different business models in use among firms in the industry – for example, architects may operate on a very different business model than large-scale developers (Berg *et al.*, 2019, 2021). Therefore, firms entering strategic partnerships need to be aware that their collaboration partners may not be operating on the same set of business structures as they do (Berg *et al.*, 2021). However, the differences between construction business models and their potential impacts on collaborative relationships within the supply chain are poorly understood (Berg *et al.*, 2019, 2021), which makes it difficult to understand the potential impact on the strategic collaboration and its consequences. Another challenge is that partners within a strategic collaboration may not have equal levels of power and participation within the project, which can hamper effectiveness of collaborative activities (Hemström, Mahapatra and Gustavsson, 2017; Deep, Gajendran and Jefferies, 2020). For example, the study by Hemström, Mahapatra and Gustavsson (2017) found that architects feel that contractors, who are often the largest partners in the collaboration, have too much power and control over the project. Deep, Gajendran and Jefferies (2020) showed similar power differentials between contractors and subcontractors, which also influenced relationships and participation. Pragmatically speaking, firms may struggle to integrate fragmented information systems and tools, which makes it difficult to share information and coordinate effectively (Pham and Pham, 2021; Samuelsen and Stehn, 2023).

Given that strategic collaboration is both advantageous and challenging for construction firms, this raises the question of what the readiness factors for strategic collaboration are. One study, conducted in the UK and Sweden, found several key readiness factors, including project partner stability and willingness to contractually commit to a long-term relationship (Jensen, Johansen and Thuesen, 2017). Alignment of the strategic partner's processes and systems, for example their information technology (IT) systems, can also be a strategic requirement (Samuelsen and Stehn, 2023). However, this is an area where there has been little research and there are few other studies that have addressed the question.

The question of evaluating readiness has been less investigated. One recent study has developed a VERDICT model to assess readiness for participation in international construction joint ventures (ICJVs) (Akunyumu, Fugar and Adinyira, 2023). The VERDICT model assesses organizational readiness in four dimensions (management, people, process, and technology), highlighting areas where improvements are needed to better align the firm with strategic partners and goals (Akunyumu, Fugar and Adinyira, 2023). Other tools, such as a maturity model for sustainable corporate entrepreneurship, are also being developed (Schönwälder and Weber, 2023). However, the extent to which such readiness tools have been applied or how useful they may be in practice remains uncertain, and their development remains an area of ongoing research.

3. Conclusion

This critical literature review has investigated the role of strategic collaboration in entrepreneurship in the construction industry. The review showed that strategic collaboration is used in some construction sectors and some countries, but not all of them. As a result, it is not surprising that the literature on the topic is limited, but there have been some studies. In conclusion, it can be stated that strategic collaboration is particularly helpful in sectors like renovation, public procurement, and prefabricated housing, which benefit from long relational contracts that allow firms to maximize the alignment of supply chain process and generate continuous improvements.

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