Business Transformation: Exploring Dynamic Capabilities, Technological Innovation, and Competitive Advantage through the Lens of Resource-Based View in Construction Services Companies

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Abstract. Construction services companies, as an integral part of the construction sector, face significant challenges in coping with rapidly changing business environments. In the face of this uncertainty, business transformation becomes a necessity to ensure the sustainability and success of the company. This research aims to explore the relationship between business transformation, dynamic capabilities, technological innovation, and competitive advantage in construction services companies. The research utilized an extensive examination of existing literature employing qualitative analysis to acquire a comprehensive insight into the subject, covering the period from 1991 to 2023. The study results indicate that in the era of globalization and business dynamics, business transformation is crucial for construction services companies. The Resource-Based View (RBV) approach emphasizes the importance of internal resources and capabilities such as technical skills, managerial skills, innovation, and rapid adaptation to changes. The implementation of technologies such as BIM, IoT, and AI is key to enhancing efficiency and expanding interactions with customers. Successful transformation requires a focus on the development of unique resources and capabilities, rapid adaptation to market and technological changes, and customer engagement by understanding their needs and providing excellent services.

Keywords: Dynamic Capabilities, Technological Innovation, Competitive Advantage, Resource-Based View, Construction Services Companies

1. Introduction

This research is rooted in a profound understanding of the ever-shifting global business landscape, characterized by increasing dynamism and complexity. Construction service companies, as integral players in the construction sector, find themselves at the forefront, grappling with substantial challenges stemming from rapid and unpredictable changes in the business environment [1]. In light of pervasive uncertainty, the imperative for business change and transformation transcends being a mere option; it stands as an essential necessity. This imperative is crucial not only for immediate adaptability but also for ensuring sustained success amid the continuously evolving business dynamics.

Central to this business transformation is the concept of dynamic capability, which encapsulates a company's capacity to adapt and evolve in response to changing market conditions and business environments. In the specific context of construction service companies, where projects are in constant flux and technology undergoes continual evolution, dynamic capabilities play a pivotal role in preserving and augmenting competitiveness. Swift responsiveness to shifting customer needs, adherence to industry regulations, and harnessing technological innovations are critical elements in navigating the inherent dynamics of the construction industry. Consequently, business transformation emerges as a necessity, not merely in response to current changes but as a foundational strategy for establishing sustainable excellence in the face of future challenges [2].

It is imperative to acknowledge that technological innovation has become a paramount force driving business transformation across diverse industry sectors [3]. In the construction industry context, the adoption of
emerging technologies like Building Information Modeling (BIM), the Internet of Things (IoT), and the
digitization of construction processes has the potential to reshape the landscape fundamentally. The seamless
integration of these technologies not only enhances operational efficiency but also yields substantial
improvements in project quality and cost reduction. Therefore, a comprehensive understanding and strategic
application of technological innovations are essential to guide business transformation measures, aiming for
sustainable competitive advantage in this era of constant change and evolution.

The Resource-Based View (RBV) offers a valuable framework for comprehending business transformation,
particularly within the context of construction companies. RBV underscores the pivotal role of a firm's internal
resources and capabilities in shaping and sustaining competitive advantage [4]. Within this research, RBV
serves as a robust analytical lens, facilitating an in-depth exploration of how dynamic capabilities and
technological innovations can become invaluable, rare, difficult to imitate, and irreplaceable resources. Through
the lens of RBV, this research aims to investigate thoroughly how the unique amalgamation of dynamic
capabilities, fostering adaptability, and smart technological innovations can establish a solid foundation as a
competitive advantage for construction companies. By adopting this perspective, RBV promises profound
insights into how firms can leverage internal resources to respond to and even lead change in a dynamic
business environment.

This research embarks on the ambitious goal of bridging the knowledge gap by delving deeply into the
interconnected relationships between business transformation, dynamic capabilities, technological innovation,
and competitive advantage within the framework of construction firms. Through this in-depth exploration, the
research aspires to contribute significantly to our understanding of the complexity and dynamics inherent in
these relationships. The anticipated findings aim not only to offer a richer perspective on how business
transformation influences and is influenced by dynamic capabilities and technological innovation but also to
provide strategic insights for stakeholders in the construction industry. Amidst the ongoing evolution of business
paradigms, this research serves as an indispensable guide, empowering construction industry stakeholders to
navigate complex challenges and seize emerging opportunities in this era of transformative change.

1.1 Dynamic Capabilities

Dynamic capabilities refer to a company's ability to quickly and effectively adapt to changes in the business
environment, adjust strategies, and develop internal resources to face new challenges [5]. In this context,
dynamic capabilities not only involve a company's ability to respond to external changes but also its ability to
create change by identifying and exploring new opportunities. Dynamic capabilities are seen as a process
involving organizational learning, innovation, and flexibility, collectively enabling a company to remain
competitive amid the uncertainty and evolving dynamics of the market [6]. Success in managing dynamic
capabilities can provide a long-term competitive advantage for a company, allowing it to face challenges and
leverage opportunities more effectively than its competitors.

1.2 Technology Innovation

Technology innovation refers to the process of developing, implementing, and adopting new technologies
or making significant changes in how existing technologies are applied to create added value in a given context
[7]. This includes the use of the latest technologies and more efficient methods to solve problems or enhance
performance across various sectors. Technology innovation can encompass the development of new hardware,
software, as well as the application of information and communication technology to improve business
processes, products, or services [8]. Additionally, technology innovation also involves the ability to leverage
existing technology in new and creative ways. Success in implementing technology innovation can provide a
competitive advantage, accelerate business growth, and enhance operational efficiency for an organization in the
face of constantly changing market demands.

1.3 Competitive Advantage

Competitive advantage refers to the condition in which a company has a superior or distinguishing position
from its competitors in the market [9]. This advantage can take various forms, including lower production costs,
product or service innovation, better access to critical resources, strong customer relationships, or the ability to
adapt to market changes faster than competitors. Competitive advantage is crucial in determining the growth and
sustainability of a business in a competitive business environment [10]. By leveraging this advantage, a
company can attract customers, increase market share, and achieve better financial results. Therefore, effective
business strategies often focus on developing and strengthening competitive advantages to provide significant
added value in the markets where the company operates.
1.4 Resource-Based View (RBV)

Resource-Based View (RBV) is a theoretical approach in strategic management that emphasizes the crucial role of a company's internal resources in creating competitive advantage [11]. According to RBV, resources that are valuable, rare, inimitable, and non-substitutable (VRIN) can form the basis for long-term competitive advantage [12]. This concept highlights that not all resources have strategic value; what is critical is a company's ability to manage and integrate these resources effectively to create value for customers and advantages that are difficult for competitors to achieve. RBV also emphasizes the importance of organizational capabilities, which are a company's ability to use resources effectively to create and sustain competitive advantage [13]. By focusing on internal aspects, RBV provides a deep insight into how a company can optimize its resources and capabilities to achieve superior performance in the market.

1.5 Construction Services Company

A construction services company is a business entity specializing in the construction services sector, responsible for providing construction services such as planning, design, project management, and the execution of physical infrastructure development [14]. These companies are involved in various construction projects, ranging from commercial and residential buildings to transportation infrastructure and utility projects. The main tasks of a construction services company include coordinating various aspects of a project, including permitting, resource procurement, budget management, and construction safety [15]. Additionally, they play a role in ensuring compliance with applicable technical standards and safety regulations. In a business context, construction services companies must have strong dynamic capabilities to adapt to changes in industry trends, the latest construction technologies, and to meet project quality and efficiency demands.

2. Method

In this research, we employ a qualitative literature review strategy to thoroughly explore the Exploration of Dynamic Capability, Technological Innovation, and Competitive Advantage within the framework of the Resource-Based View in Construction Service Companies. This investigation spans the pivotal period from 1991 to 2023. The chosen methodology involves a detailed examination of existing scholarly works gathered from diverse academic journals, conference papers, and reputable sources accessible through Google Scholar. The goal is to offer a nuanced understanding of the subject. To guide our exploration, specific search criteria were devised, encompassing keywords related to Dynamic Capability, Technological Innovation, Competitive Advantage, Resource-Based View, and Construction Service Company.

The inclusion of sources in the review is based on their relevance to the research objectives and alignment with the specified criteria. We openly communicate any limitations, such as language constraints or publication biases. The research unfolds through distinct stages, beginning with the researcher defining a specific and pertinent research topic and establishing a comprehensive understanding of the background and research objectives. Explicit search criteria are then formulated to guide the literature exploration using Google Scholar, covering the timeframe from 1991 to 2023.

Once search results are obtained, the researcher engages in a literature selection process, scrutinizing the abstracts and summaries of each identified article or source. Literature lacking relevance or failing to meet the research criteria is excluded from the analysis. The chosen literature undergoes a meticulous examination, focusing on identifying significant discoveries, concepts, theories, and trends inherent in the literature. A qualitative approach is employed to attain a comprehensive understanding of the research subject.

The findings from the literature review are then synthesized and elaborated upon by the researcher to construct a thorough understanding of the research topic. These findings are organized into a detailed research report with a structured and cohesive format, encompassing key discoveries, analyses, and profound interpretations. This methodology enables researchers to gain an extensive and profound understanding of the research topic without the need for primary data collection. By leveraging existing literature, this research has the potential to significantly contribute to advancing theories, problem-solving, or decision-making across various scientific domains, particularly in the context of the Exploration of Dynamic Capability, Technological Innovation, and Competitive Advantage through the Lens of Resource-Based View in Construction Service Companies. The methodology section is structured to provide a clear and coherent explanation of each stage of the research process, with subsections enhancing readability and ensuring a transparent and robust approach to the study.
3. Result and Discussion

In the midst of the ever-evolving era of globalisation, companies in various industrial sectors face the need not only to adapt but also transform their business on an ongoing basis in order to maintain relevance and compete in an increasingly competitive market. One of the sectors that has been heavily impacted by the changing business dynamics is the construction services industry. In the face of this transformation, the concept of Business Transformation emerges as an important key in managing rapid change. The Resource-Based View (RBV) approach emerges as a strategic foundation that enables in-depth exploration of dynamic capabilities and technological innovation as key elements in achieving competitive advantage [16]. The RBV provides a strong theoretical foundation for understanding how construction companies can effectively utilise and manage their internal resources to meet the challenges and opportunities that arise in a changing global business context. As such, the emphasis on Business Transformation and the application of the RBV approach is considered not only as a responsive strategy but also as a proactive endeavour to achieve and sustain competitive advantage in today's dynamic and complex business environment.

To begin the discussion, the Resource-Based View (RBV) adopts a perspective that sees the firm as a complex aggregation of unique resources and capabilities, which in turn can be a source of sustainable competitive advantage in the long term [17]. This approach highlights the essence that it is not only physical or financial assets that have strategic value, but also the capabilities and internal knowledge possessed by a company [18]. In the specific context of construction companies, resources such as high technical skills, deep managerial expertise and progressive innovation capabilities are key in forming the foundation of competitive advantage. The understanding and optimal utilisation of these resources and capabilities is of central concern in creating a strong foundation for a firm's competitiveness amidst the ever-changing business dynamics and intensifying competition in the construction sector. The RBV therefore provides a rich and comprehensive conceptual framework to explore how construction companies can manage, optimise and leverage their internal resources and capabilities as a strategy towards sustainable competitive advantage.

The process of business transformation within a construction services company goes beyond the adoption of advanced technology to include the implementation of dynamic capabilities that involve a number of aspects. Dynamic capability, in this context, refers to the ability of a company to quickly adjust and integrate new resources and capabilities to respond to dynamic changes in the market and business environment. Amidst complexity and uncertainty, construction companies are faced with challenges such as regulatory changes, technological evolution, and economic fluctuations that require quick and responsive adaptation [19]. Therefore, the success of business transformation depends not only on the utilisation of the latest technology, but also on the company's ability to develop and optimise its dynamic capabilities to maintain resilience and competitiveness amid the ongoing dynamics of business change. In this perspective, business transformation becomes more holistic and involves a number of strategies that involve both elements in a balanced manner to achieve the long-term viability and success of construction service companies.

Technological innovation forms one of the key pillars in the business transformation journey of construction companies, occupying a central position in the quest to modernise and improve overall performance. The adoption of the latest technologies, such as Building Information Modelling (BIM), Internet of Things (IoT), and artificial intelligence (AI), opens up great opportunities for positive change [20]. Beyond simply improving operational efficiency, these technologies also have the potential to significantly reduce production costs while improving the quality of work. Furthermore, the role of technology is not only limited to internal efficiency, but can also provide external benefits such as expanding market reach, improving customer interactions through superior digital experiences, and providing more timely solutions. Therefore, investment in technological innovation is not only considered as a necessity to catch up, but also as a proactive strategy to shape a sustainable future in the ever-evolving and changing construction services industry.

Within the Resource-Based View (RBV) framework, companies need to emphasise on concrete steps that include the identification, development and optimisation of resources and capabilities that have the potential to become a source of long-term competitive advantage. A deep understanding of unique internal resources and critical capabilities is a key focus, and this may require proactive investment in employee training and development. Efforts to enhance technical and managerial skills through tailor-made training programmes can be a strategic step towards building a foundation of competitive advantage [21]. In addition, companies are also expected to build a dynamic internal innovation system, creating an environment that supports and encourages the development of new ideas. A structured and integrated innovation process can be the key to fully utilising the company's internal creativity potential, which in turn can be a vital foundation in responding to the ever-evolving changes in the business environment [22]. By combining these strategic investments, a company can...
be better equipped to optimise its resources and capabilities, thereby strengthening its competitive position in the market.

When embracing business transformation through a Resource-Based View (RBV) perspective, the success of a construction company does not depend solely on the smooth implementation of technology and dynamic capabilities. Rather, this success is also influenced by the company's ability to have a deep understanding of market dynamics, build strong relationships with customers, and create sustainable added value. In addition to making technology and dynamic capabilities a critical element, companies are also expected to put customers at the centre of their business strategy. This includes the need to thoroughly understand market preferences and demands, and to build close relationships with customers to create sustainable connectedness. In this way, the integrity between RBV and customer- and market-orientated management strategies becomes very important.

By integrating the RBV approach with management strategies that devote attention to customers, companies can achieve optimal alignment between internal assets, reactivity to market changes, and sustainable value creation, all contributing to the company's long-term success amidst ever-changing business dynamics [23].

In essence, understanding business transformation in the context of construction companies through the lens of the Resource-Based View (RBV) provides tremendous potential for achieving sustainable competitive advantage. By placing a focus on developing unique resources and capabilities, applying the latest technology, and adapting quickly to changes in the business environment, companies have the opportunity to not only survive in a competitive market [24], but also to become agents of change and shape the future of the construction services industry. Engaging in this transformation not only reflects an endeavour to keep pace with the industry, it is also a strategic move that lays the foundation to lead and inspire innovation and the development of the construction sector as a whole. By bringing together unique resources and capabilities with adaptability and the application of advanced technology, the company can achieve a top position in the industry, create a positive impact, and become a pioneer in steering the future direction of the dynamic and ever-changing construction services industry.

In pursuing a holistic business transformation journey, construction companies are faced with the need to implement strategic measures that encompass all key aspects of the Resource-Based View (RBV). Firstly, the company must start by identifying its resources and capabilities, involving an in-depth analysis of employee skills, current technology, and the network of relationships with suppliers and customers. This identification step is not just limited to the direct recognition of resources, but involves an in-depth understanding of the extent to which the company can utilise and optimise these resources. This in-depth analysis enables the company to gain a clear insight into its internal strengths and the strategic potential that can be optimised to achieve competitive advantage [25]. Thus, integrating the key aspects of RBV is a critical step in building the foundation of a comprehensive and sustainable business transformation for construction companies.

The next step in a construction company's business transformation journey is the development of dynamic capabilities that are able to respond to market and technological changes quickly and efficiently. To achieve this, companies need to establish and maintain an organisational culture that supports continuous learning and innovation as the main foundation. The centre of attention should be on employee training and development, where upgrading relevant skills and mastering the latest technology are the main focal points [26]. This investment in human capital is not only a necessity, but also a long-term strategy to ensure that the company has a team that is ready to face the changing business dynamics. In addition, it is important to create effective and responsive internal mechanisms that enable the company to identify new opportunities and integrate changes smoothly into daily operations. By detailing these steps, companies can build a solid foundation to support dynamic capabilities, so that they can agilely and effectively adapt their business strategies to changes in the external environment.

The role of technology is a very central pillar in this transformation, where the implementation of the latest technology not only focuses on improving operational efficiency, but also involves the evolution of the business model as a whole [27]. Tangible examples of this implementation could involve the use of Building Information Modeling (BIM) as a tool for more accurate and integrated project planning, the Internet of Things (IoT) to enable real-time monitoring and management of construction, and the use of artificial intelligence to analyse big data and identify patterns that may not have been seen before [28]. By encapsulating these technologies, companies are not only improving effectiveness and efficiency in project execution, but also opening up new opportunities to create significant added value. This business transformation involves not only utilising technology as a tool, but also integrating technology as a core element in the business model that can bring long-term positive impacts. Therefore, in the face of this transformation era, companies must adapt and incorporate technology as an integral part of their business strategy to achieve and maintain a competitive advantage in an ever-changing and evolving market.
Meanwhile, it is important to recognise that customer engagement is not just an additional aspect, but also an inevitable key factor on the road to creating sustainable competitive advantage. By deeply understanding customer needs and expectations, companies can direct their innovations in the most beneficial and relevant direction. Developing close, long-term relationships with customers involves not only providing superior, responsive and high-quality service, but also requires a commitment to constantly improving and refining the customer experience. Identifying central points of customer engagement, including providing effective communication channels, systematically collecting feedback, and holistically understanding the customer journey, opens up opportunities to create deeper and more meaningful interactions [29]. By building strong customer relationships, companies can achieve not only customer satisfaction, but also increase the level of customer loyalty, which in turn can provide a solid foundation for long-term competitive advantage.

It is important to keep in mind that business transformation is not a one-off task, but a continuous journey. In the face of the ever-changing dynamics of the business environment, companies need to develop strategies that are not only relevant for today, but can also adapt to future changes and evolutions. Therefore, the process of continuous monitoring and evaluation is key in keeping the business transformation effective and in line with evolving market demands. Opening up space for continuous renewal and improvement, companies can replace old methods with innovations that are better and in line with the development of industry trends. Customer feedback, in-depth market analyses, and an understanding of technological advances are important foundations to inform the strategic decisions needed to keep business transformation relevant and competitive [30]. Thus, companies that are able to integrate this monitoring and evaluation cycle will not only ensure the sustainability and adaptability of their business transformation, but can also become pioneers in anticipating and responding to changes in the business environment that continue to fluctuate.

Through the implementation of business transformation using the Resource-Based View (RBV) lens, construction companies can build a solid foundation to compete effectively in this evolving digital era. The competitive advantage that results from this transformation is not only technological, but also comes from mastering dynamic capabilities that enable companies to adapt and evolve over time. This transformation is not just about following technology trends, it is also about creating new trends and being a pioneer in the construction services industry, steering the future direction with innovation and the courage to make deep changes. By positioning themselves as agents of change and combining technology with a deep understanding of market dynamics, companies not only gain a short-term competitive advantage, but also build a sustainable foundation to lead and shape the evolution of the construction services industry as a whole.

4. Conclusion

In the face of the globalization era and ever-changing business dynamics, business transformation has become imperative for construction services companies. The Resource-Based View (RBV) approach emerges as a crucial strategic foundation for achieving long-term competitive advantage. RBV emphasizes the importance of internal resources and capabilities, including technical, managerial, innovation, and the ability to adapt quickly to changes in the business environment. The implementation of technologies such as Building Information Modeling (BIM), Internet of Things (IoT), and Artificial Intelligence (AI) is key to business transformation. Technology not only enhances operational efficiency but also opens opportunities to expand the market and improve interactions with customers. Successful business transformation requires a focus on developing unique resources and capabilities, as well as adapting quickly to changes in the market and technology. Companies need to involve employees in the learning and innovation process, build an organizational culture that supports change, and create internal mechanisms to identify new opportunities. Customer engagement is also crucial. Understanding customer needs and expectations, building long-term relationships, and providing excellent services can enhance the company’s competitive advantage.

To achieve holistic and sustainable business transformation, construction services companies need to take integrated strategic steps. Firstly, there should be an in-depth identification and evaluation of internal resources and capabilities, including employee skills, technology, and business partnerships. Focus on developing technical and managerial skills through training and development programs for employees and establish an internal innovation system that stimulates the development of new ideas. Furthermore, companies must build an organizational culture that supports continuous learning and innovation while involving employees in the process of adapting quickly to changes in the market and technology. Implement the latest technologies such as BIM, IoT, and artificial intelligence to enhance operational efficiency and create a more evolutionary business model. Understand customer needs and expectations through market research and customer feedback, and build long-term relationships with customers through excellent and responsive services. Finally, conduct continuous monitoring and evaluation to ensure that business transformation strategies can be updated based on customer
feedback, market analysis, and technological developments. By implementing these steps in an integrated manner, companies can strengthen their position as leaders in the construction services industry, achieve sustainable competitive advantage, and shape the future direction of the industry.

References


