

## Determinants of construction organisations' performance: A systematic literature review

Hamzah Alqudah<sup>1</sup>, Mani Poshdar<sup>2</sup>, James Rotimi<sup>3</sup> and Luqman Oyewobi<sup>4</sup>

<sup>1&2</sup>School of Engineering, Computer and Mathematical Sciences,  
Auckland University of Technology, Auckland, 1010, NEW ZEALAND

<sup>3</sup>School of Engineering and Advanced Technology, Massey University,  
Auckland, 0745, NEW ZEALAND

<sup>4</sup>School of Environmental Technology, Federal University of Technology,  
Minna, Niger State, 65, NIGERIA

E-mails: [hamzah.alqudah@aut.ac.nz](mailto:hamzah.alqudah@aut.ac.nz); [mani.poshdar@aut.ac.nz](mailto:mani.poshdar@aut.ac.nz); [j.rotimi@massey.ac.nz](mailto:j.rotimi@massey.ac.nz);  
[l.oyewobi@futminna.edu.ng](mailto:l.oyewobi@futminna.edu.ng)

### Abstract

Organisations in the same industry compete with observable performance differentials. Efforts to understand the causes and the determinants of performance differentials among organisations have led to both empirical and theoretical controversy in mainstream strategic management research. Despite all the efforts that have been done, no research has developed a comprehensive review. This research carried out a Systematic Literature Review (SLR) to create an overview of the currently available scientific knowledge on determinants of construction organisations' performance. Competitive advantage has been adopted as an idea that is superior to the traditional indicators which are seen as being sufficient to enable continuous improvement of performance. The research design involved two parts, the first aimed to analyse and synthesize related literature to present the main determinants of construction organisations' performance. The second part focused on developing a conceptual framework of these performance determinants. Of the 781 articles retrieved, 81 articles met the inclusion criteria and were included in the review. The analysis of the results showed that competitive strategies, resources and capabilities, and diversification had the most attention from the researchers. These results provide a benchmark on what has been done, provides a direction for future research and indicate their potential areas of focus.

### Keywords:

Competitive Advantage, Conceptual Framework, Construction Organisations, Performance Determinants, Systematic Literature Review

## 1 Introduction

It is essential that organisations continuously seek to improve their performance to gain a competitive advantage and maintain sustainability in the dynamic and hypercompetitive construction industry (Rudd *et al.*, 2008).

Many factors contribute to shaping organisational performance, which also explain the differences in those performances. Attempting to understand causes and sources of these differentials, is one of the fundamental motivations in strategic management research (Oyewobi *et al.*, 2016). Construction organisations need this knowledge as part of their survival strategy. It will help them to design and to adopt efficient approaches to improve their performance (Gavera *et al.*, 2011).

Despite all the advancements in organisational performance research, there is a lack of aggregated information across different research studies. The systematic literature review

only the performance of single dimensions. The current study focuses on identifying the main determinants of performance at the organisational level.

### 3 Research Methodology

This study conducted a systematic literature review (SLR) to outline the determinants of organisations' performance in the construction industry. It used the Scopus database as the main source of data collection. Figure 1 gives the flowchart of literature showing the design of this research, statistics of the results and the flow of the SLR. This study involved identifying the determinants of organisations' performance in the construction industry and the development of a conceptual framework of the performance determinants. A mix of qualitative and quantitative methods was followed for analysing the search results. The analysis used NVivo software package that has a proven ability in mixed research method (Andrew et al., 2008). The details of the stages undertaken to develop the SLR are explained in the following section.

#### A. Identification of research questions, objectives and methods

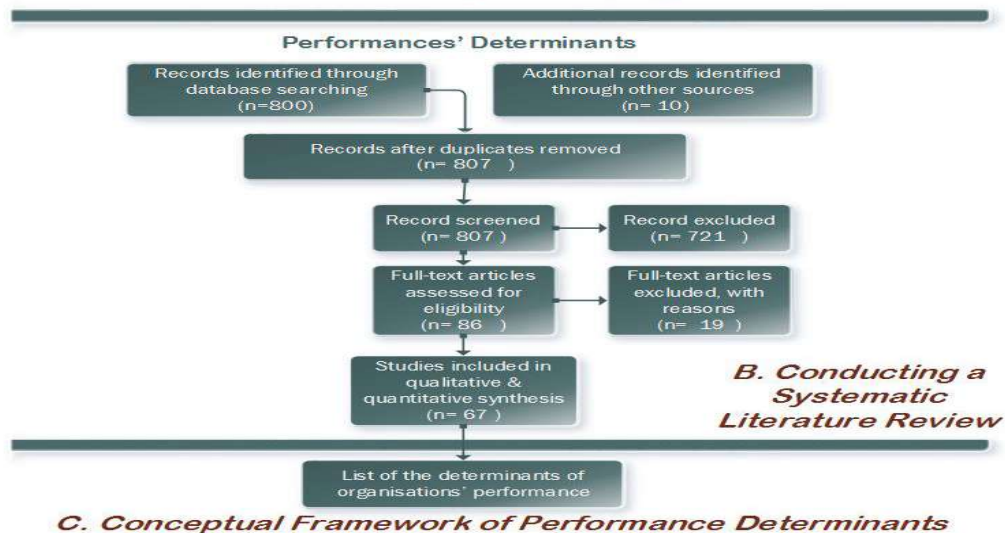


Figure 1: Flowchart of literature search performed.

#### 3.1 Developing the SLR

The three phases of developments were as follows:

##### 3.1.1 First Phase: Identification

Scopus was chosen as the primary search database because of its broad coverage of the leading journals and conferences in the construction management subject area. The database was searched for keyword strings within the title, abstract, and keywords. Careful attention was given to choosing the search keywords to maximize the coverage of the related article. No restriction was decided to be set on the publication date, which ensured the conclusiveness of the search results.

The string of the keywords selected in the search criteria was as follows:

*TITLE-ABS-KEY((Determinants OR Source OR Cause OR Effect OR Influence) AND (Performance OR Effectiveness OR "Competitive Advantages") AND (Construction) PRE/5 (Organisation OR Company OR Firm OR Contractor))*

articles, far more than the 46 published in the 1990s. A peak was observed in 2017 with 89 articles.

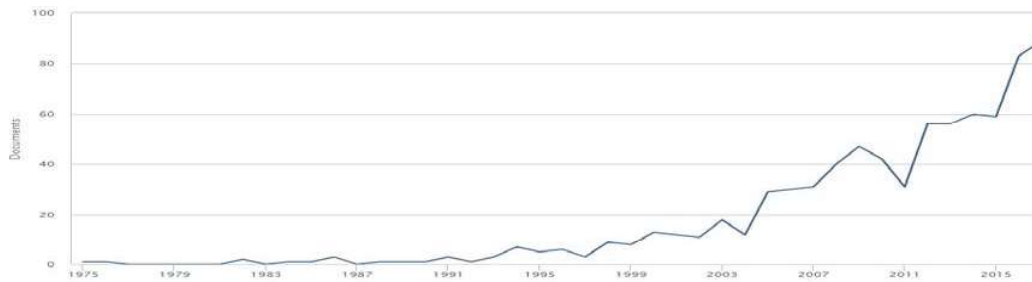


Figure 2. Annual distribution of the Performance determinants related article (Source: Scopus)

## 4.2 Main Determinants of Organisational Performance

The primary objective of the current study was to identify the primary determinants of organisational performance from previous studies to develop a conceptual framework. A comprehensive analysis and review of selected articles were conducted using NVivo software. The results show that researchers considered 18 factors as the main organisational performance determinants. These 18 determinants and the frequency of their mention in previous studies are summarised in Table 3. The table shows that competitive strategy received the most attention from researchers.

Table 3: Organisational Performance Determinates

No.	Determinants	Number of times used as the main variable
1	Competitive Strategies (CS)	12
2	Organisational Characteristics (OCH)	6
3	Resources and Capabilities (RC)	5
4	Strategic Management (SM)	5
5	Diversification and Internationalisation (DI)	5
6	Total Quality Management (TQM)	4
7	Organisational Learning (OL)	4
8	Environmental Factors (EF)	4
9	Organisational Culture (OCL)	2
10	Knowledge Management (KM)	2
11	Innovation (INN)	2
12	Information Technology (IT)	3
13	Human Resource Management (HRM)	1
14	Procurement Process Coordination (PPC)	1
15	Marketing Resource (MR)	1
16	Factors of Corporate Management (FCM)	1
17	Effect of Strength of Relationships with Other Parties (ROP)	1
18	Construction Equipment Selection Factors (CESF)	1

Competitive strategies suggest a sequence of organised and linked decisions that provide organisations with a competitive advantage over the competitors (Schuler and Jackson, 1987). Moreover, strategic management significantly related to the performance as the way it is used to achieve the present objective (Dikmen *et al.*, 2005).

Decision-making style is a significant area of interest within the field of performance differential, which is acknowledged to have an impact on organisational performance (Amzat and Idris, 2012; Oyewobi *et al.*, 2016). Three determinants have a link to the decision-making style; construction equipment selection, the factor of corporate management, and procurement process coordination. Competitive advantage positively linked with construction equipment selection (Samee and Pongpeng, 2015), the factor of corporate management (Madu *et al.*, 1996; Riantini and Firmansyah, 2008), and procurement process coordination (Lambert *et al.*, 1998; Othman *et al.*, 2015). The better capability of company's management in planning, instructing, leading, communicating and managing information to determine resources required will improve the company's performance (Madu *et al.*, 1996).

The last theme that deployed in the internal organisational characteristics is the resources and capabilities. Moreover, that categorised into six categories information technology, organisational learning, marketing resources, innovation, diversification, organisational culture. A considerable amount of literature has been published on the relationship between resources and capabilities and organisational performance in the construction industry. These studies demonstrated that resources and capabilities have a positive relationship with organisational performance and offer competitive advantages (Barney, 2011; Tan *et al.*, 2012; Oyewobi *et al.*, 2016; Tripathi and Jha, 2017).

Competitive advantage is positively and directly associated with information technology (EI-Mashaleh *et al.*, 2006; Sun *et al.*, 2008), organisational learning (Wong *et al.*, 2014; Zhai *et al.*, 2013), marketing resources (Zahra *et al.*, 2000), innovation (Crossan and Apaydin, 2010; Martínez-Román *et al.*, 2017), diversification (Oyewobi *et al.*, 2013; Horta *et al.*, 2016), and organisational culture (Li and Jones, 2010). In contrast, some other studies showed that competitive advantage could act negatively with the diversified (Kim and Reinschmidt, 2012; Ofori and Chan, 2000) and innovated companies (Noktehdan *et al.*, 2015) under specific circumstances. Due to the lack of empirical evidence, a vague and neutral situation have been found between competitive advantage and marketing resources (Covin and Slevin, 1991) and diversification (Choi and Russell, 2005; Ibrahim and Kaka, 2007). Resources and capabilities found to have a positive impact on organisational performance in a variety of ways; such as improving internal organisational performance, matching the base of resources with the fluctuating environments, and creating changes in the market.

## **5 Conclusion and Further Research**

This research focused on the determinants of performance of construction organisations. Organisations performance determinants are becoming an important vehicle for explaining performance differentials within the construction industry. A systematic literature review was conducted within the current study, in two stages. The first stage was a skim and scan of the title, abstract, and keywords of related articles published on the search engine "Scopus". The second step was a full-text review of some selected articles. A set of determinants of organisational performance were established from the review, which was then used to develop a conceptual framework. The conceptual framework presents the relationships and potential interactions between each determinant and organisations' competitive advantage. There are many dimensions of thoughts on the nature of relationships and the levels of interactions/influence of these determinants on