

Strategic decisions impacting construction organisations' performance: Evidence from South Africa

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Abstract:

This study examines the strategic decisions of construction company leaders in South Africa. The central objective of this study is to determine how the strategic decisions of construction company leadership impacts on the organisation's performance. The rationale of the study stems from continuous failure of large contractors and the view of some scholars that leadership makes the difference. However, there are limited studies that investigate the strategic decisions of construction leaders and how it affects the company health and survival. First, the study used a qualitative approach employing semi-structured interviews to obtain information from twelve Chief Executive Officers (CEOs), of construction companies with head offices in the Western Cape, South Africa and listed in grades 6-9 of the cidb Register of Contractors. A survey of large contractors was then carried out across the nine provinces of South Africa. The findings of this study reveal that decisions on change and innovation have the most impact on organisational performance (ORP). The findings explain that strategic decision is a major role in construction company leadership. The leadership of construction companies is expected to cast visions, channel new opportunities, and reposition their companies according to the current and future economic situations.

Keywords:

Large contractors, leadership, performance, strategic change, strategic decisions

1 Introduction

This study examines the strategic decisions that impacts on large construction business organisations in South Africa. Strategic decisions are hard-to-reverse decisions to determine the commitment of essential resources in the organisation, including setting of precedents, and directing of the necessary highest firm-level actions, to shape the company's general direction for the future (Carmeli *et al.*, 2012; Mitchell *et al.*, 2011; Papadakis and Barwise, 2012). According to Samimi *et al.* (2020), making strategic decisions is the first function of strategic leaders, at the organisational apex. Given that contemporary organisations are dynamic, leaders are often faced with ill-defined problems that require interpretation and decision-making at very complex levels. This point notwithstanding, research on strategic leadership and strategic decision-making (SDM) in construction is dismal. The main quality, and first function of organisational leaders is strategic (Borkovskaya, 2018; Samimi *et al.*, 2020). As such, the need for strategic perspectives by construction company leaders has long been stressed by scholars (Borkovskaya, 2018; Dikmen, *et al.*, 2009; Oyewobi *et al.*, 2019).

Whereas Hitt (1991) concluded that strategic decision models are quite complex and vary from industry to industry and with executive characteristics, the ability of the executive leaders to develop quality strategic decisions in relation to their context determines how the organisation will operate more innovatively, sustainably and ethically, and ultimately the long-term performance (Carmeli *et al.*, 2012; Chang *et al.*, 2019; Zhang *et al.*, 2018). Despite the large body of research on the strategic decision function, Chinowski and Meredith (2000) recognised that the pressures of project performance often obscure the broader social, economic, and professional context for strategic issues in construction. Samimi *et al.* (2020) also recommended an examination into the changing patterns of strategic decisions over time to understand strategic leadership. They argued that gradual changes in an organisation's strategy could reflect significant efforts from leaders to change the course of the organisation, concluding that several important aspects of the strategic decision functions, such as delay in decision-making, delegating decisions, discarding choices, and indecision, are still understudied. Therefore, this study investigates the strategic decisions that impacts on business performance in the context of South Africa construction. The next section presents the operational definitional bases for strategy, decision-making, strategic decisions, and strategic leadership in construction organisations.

2 Literature Review

Strategy is an integrated and extensive set of resource commitments that position an organisation to bring competitive advantage in changing environmental conditions (Celik, Ozkul and Tuna, 2016). The dimensions for defining strategy as a word is vast in the literature. Mintzberg *et al.* (1998) considered strategy as a plan, pattern, position, ploy, or perspective. McCabe (2010) however, included mission, vision, goal, objective, capability, systems, models, control, strengths, weaknesses, opportunities, threats, values, and initiatives as the key terms common to the word. When it relates to the process of development, strategy can be 'deliberate' or 'emergent' (Mintzberg, 1987). It is deliberate when procedures to realise the strategies are formalised, and emergent when patterns are developed without intentions. Unlike execution and control plans developed for individual projects in construction, strategy does not have intrinsic steps to achieving the destination (Chinowski and Meredith, 2000).

Decision on the other hand, is a response, revealing judgement, expectations, and evaluation in a situation (Wang *et al.*, 2015; Oliveira, 2007). Decision-making in business, however, means choosing between alternatives to achieve business aims (Celik *et al.*, 2016; Casadesus-Masanell and Ricar, 2010). Decision-making involves the process of human thought and reaction to the external world, which includes the past and possible future events, and the psychological consequences of those events for the decision maker (Oliveira, 2007). Decision-making limitations and biases have been used to relate the dispositional features of leaders to their strategic choices. Scholars have argued that the hierarchic decision-making control in organisations is key to delivering high quality outcomes (Graham *et al.*, 2020; Samimi *et al.*, 2020).

Figure 1 shows that decisions in organisations are usually in different forms, based on the organisational hierarchy. At the lowest level of the organisation are operational decisions, which are simple routine decisions made by the junior management on a day-to-day basis. Tactical decisions are at the middle level of the organisation, made by the middle managers,

and are concerned with how to achieve policy in the medium term. At the organisational apex, however, are the strategic decisions. Papadakis and Barwise (2012) identified these decisions as extensive, substantial, non-routine, all-pervading and complex decisions made by the leaders at the highest level of the organisation that reveals and shape the company's direction for the future.

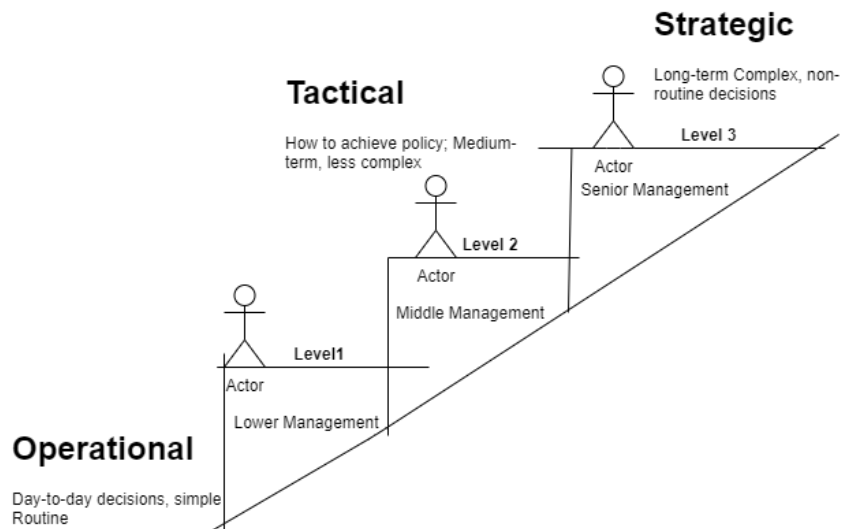


Figure 1: Comparison of strategic, tactical and operational decisions in an organisation.
(Developed from: Campbell et al., 2004; Papadakis and Barwise, 2012).

In the construction context, no precise scale has been developed for measuring the levels of strategic decisions and factors appropriate for construction company survival, as at the period of this study, pointing to a gap in the literature. Some construction management scholars however gave indication as to what is meant by strategic decisions in construction organisations. Specifically, Demirkesen and Beliz Ozorhon (2017) reported that strategic integration and management strongly impacted on performance of construction companies. Orozco et al.'s (2014) study in Chile revealed that the traditional project performance indicators (cost, time, quality, safety and security) are very important to assess the competitiveness of any construction company. They however found that leadership and company image and reputation were the most relevant and decisive strategic factors affecting performance in the Chilean construction industry being orientated towards price as the primary contract award criterion. Wu et al. (2017) viewed those strategic decisions influence the future execution of techniques, as well as the future endurance, sustainability, and advancement of the organisation. Similarly, transformational leaders enhance their firms' dynamic capabilities and sustainability directly or indirectly through their decisions, by creating an organisational atmosphere where employees and followers are encouraged, motivated, inspired, and open to change and innovation (Celik et al., 2016; Akkaya, 2020).

The study of Bin Jomah (2017) examined the impacts of decision-making and leadership styles on organisational development, effectiveness, and sustainability in Saudi Arabia. This investigation established that leaders, through their decisions, inspire their followers to achieve beyond their expectations. Eweje et al. (2012) reported that strategic decisions made

by construction companies leadership created strategic value in project delivery. Ates et al. (2019) suggested that a construction firm is bound to apply both industry-specific and generalised management practice to achieve success. Hence, it can be argued that some strategic decisions that apply to other business organisations will also apply to contracting businesses (Celik *et al.*, 2016). Table 1 describes the strategies and strategic decisions used by companies obtained from the literature. These strategies are classified into organisational planning, differentiation, procurement, project management, investment, and organisational change strategies.

Table 1: Organisational strategies used by project-based companies

Strategies	Description
Organisational planning	Decisions pertaining to setting the vision and mission of the organisation
Project management	Decisions relating to execution of projects and leveraging the mission of the company and the company's business environment to achieve project goals.
Differentiation	Various products or services that provide a competitive advantage, and allow a company to meet the threat of new entrants to the market
Procurement	Market, project, client, and partner selection strategies, that characterise construction projects; these include the location and complexity of the project, environmental conditions, availability of materials, competent subcontractors, etc
Organisational change	Decisions pertaining to the company's response to environmental changes, as well as the management of the informal relations among the different parties within the company
Investment	Occurs along several dimensions such as capabilities of the company resources, pricing, financial decisions, product, construction project-related factors including research and development

More recently, Oyewobi et al.'s (2019) study investigated the strategic clusters and moderating role of competitive strategies on the relationship between resources, capabilities and performance of large construction organisations in South Africa. The results show that cost-leadership strategy has a positive impact on the financial performance of the organisation, although using a differentiation strategy influences it negatively. Despite the large body of research on the strategic decision function, Samimi et al. (2020) recommended an examination into the changing patterns of strategic decisions over time to understand strategic leadership, submitting that gradual changes in an organisation's strategy could reflect significant efforts from leaders to change the course of the organisation.

3 Research Methodology

A convergent mixed-method research design was used to advance the investigation. Fifteen semi-structured interviews were conducted with purposively selected construction company leaders of large contracting firms in the Western Cape, in positions of Group Chairman, CEO or Managing Director in major building construction, civil engineering, or geo-technical companies of good repute. A survey of contractors listed in Grades 7-9 of the cidb Register of Contractors was also conducted. The respondents for this study were asked to indicate the statements that related to their SDM style using the following Likert scale: *1-strongly disagree, 2-disagree, 3-undecided, 4-agree, 5-strongly agree*. At the end of the survey period

between April and September 2020, 257 responses were received, representing 56.86% response rate. The data collected were analysed using descriptive and inferential statistics, including Structural Equation Modeling (SEM), to validate the hypothesis developed that construction company leaders positively impact organisational performance through their strategic decisions on project management, change, and innovation and investment. The strategic decisions made by the respondents were investigated using three types of strategic decisions - strategic project management, strategic change and innovation decisions, and strategic investment decisions. Using the findings from the initial literature review and qualitative study, a total of 19 statements were formulated to describe the three types of strategic decisions made by company leadership.

4 Findings and Discussion

The research set to test the hypothesis that strategic decisions made by construction companies' leadership, directly impact the company's performance. Under strategic project management (see Table 2), the respondents agreed that their *preference was client satisfaction* (3.2).

Table 2: Strategic project management carried out by construction company leadership

Code	Statement	Mean score
V8	Our preference is client satisfaction	4.53
V7	We re-invest profits first into project execution	3.89
V4	Our preference is for government contracts	3.82
V6	Our services are mainly procured through customer relationship	3.70
V1	We have a compelling narrative of our company	3.68
V2	Our company plans up to 5 years or more in advance	3.44
V5	We prefer private clients and contracts	3.42
V3	We use the National Development Plan (NDP) to determine our company direction	3.27

Regarding strategic change and innovation decisions (Table 3), the respondents agreed that they *put the people and public good first* (4.47), *maintain high ethical standards on our projects* (4.41), and *adjust the company policies as quickly as possible in line with market demands and adapt as occasion demands* (4.07).

Table 3: Strategic change and innovation decisions made by construction company leadership

Code	Statement	Mean score
V9	We put the people and public good first	4.47
V15	We maintain high ethical standards on our projects	4.41
V10	We adjust the company policies as quickly as possible in line with market demands and adapt as occasion demands	4.07
V11	We usually choose projects in favours of new ways of doing things	3.69
V19	We commit the substantive part of our profits to Corporate Social Responsibility	3.31

The results of the mean score analysis of the strategic investment decisions in (Table 4), shows that the respondents agreed that they *are open to expand their business operations to new geographic areas* (4.29), *diversify operations and activities* (4.06), and *re-invest the bulk of the profits made back into the business* (4.02). These results suggest that the strategic decisions of the respondents centred on satisfying clients, corporate social responsibility, ethics, innovation, diversification, and internationalisation.

Table 4: Strategic investment decisions made by construction company leadership

Code	Statement	Mean score
V12	We are open to expand our business operations to new geographic areas	4.29
V14	Our preference is diversifying our operations and activities	4.06
V16	We re-invest the bulk of the profits made back into the business	4.02
V17	We prefer to save bulk of the profits made by the company in investment portfolios	3.60
V13	Our preference is specializing in one area of operation	2.89
V18	Our preference is to share the profits amongst employees/shareholders or spend it	2.93

Figure 2 is the path model illustrating a structural equation model for the hypothesis which posits that strategic decisions made by construction company leadership directly impact the company performance. The result of the SEM validates the hypothesis by revealing a positive and significant relationship between strategic decisions made by construction companies' leadership and organisational performance.

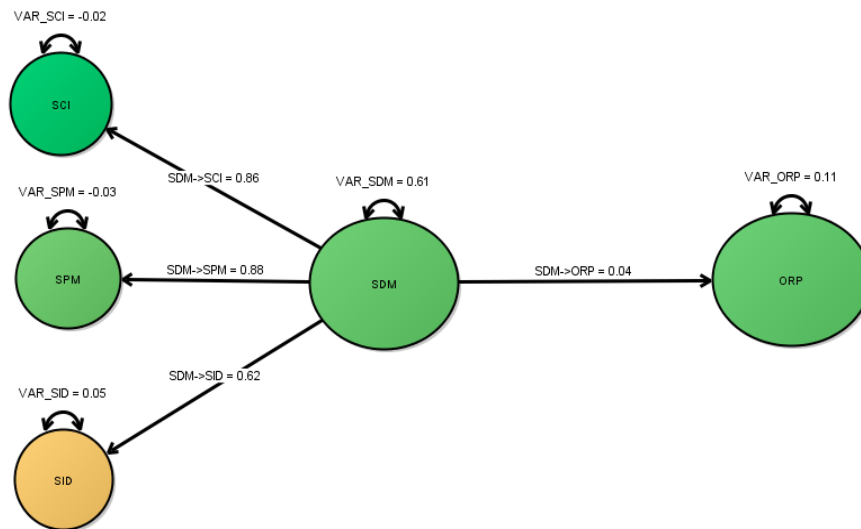


Figure 2: Path model for impact of strategic decisions made by construction company leadership on performance

The model estimation for the hypothesis is presented in Table 5. The results in the table revealed that strategic change and innovation ($SDM \rightarrow SCI = 0.863708138829623$), strategic investment decisions ($SDM \rightarrow SID = 0.6195937054687952$), and strategic project management

(SDM->SPM = 0.8770132622524256) are strongly associated with strategic decisions. The relationship between strategic decisions and company performance was indicated to be strongly positive and significant: [(SCI->ORP; $r = 0.6386341849646883$; $z = 1.3412936034826015$), (SID->ORP; $r = 0.5477637236305062$; $z = 0.8605777844469235$); (SPM->ORP; $r = 0.347663283054646$; $z = 0.7098756381666587$)]. The fit indices for the structural equation model are presented in Table 6. The results in the table confirm that the structural equation model is a good fit, because the Standardised Root Mean Square Residual (SRMR) index is below 0.10, Comparative Fit Indices (CFI) and Tucker–Lewis Index (TLI) are above 0.97, Root Mean Square Error of Approximation (RMSEA) is below 0.08, and the chi square test statistics are not significant at the 0.05 level. These results validate the hypothesis that strategic decisions made by construction company leadership directly impact the company performance.

Table 5: Structural model for the impact of strategic decisions made by construction company leadership on performance (Hypothesis developed for the study)

Relationships	Estimate	Standard Error	Z-value
SCI->ORP	0.6386341849646883	0.4761330280756626	1.3412936034826015
SDM->SCI	0.863708138829623	0	0
SDM->SID	0.6195937054687952	0	0
SDM->SPM	0.8770132622524256	0	0
SID->ORP	0.5477637236305062	0.6365069300302043	0.8605777844469235
SPM->ORP	0.347663283054646	0.4897523796598081	0.7098756381666587
SDM->ORP	0.0450780117737215	0.0328693970973390	1.3714280076457768
SCI= strategic change and innovation, ORP= organisational performance, SDM= strategic decision-making, SID= strategic investment decision, SPM= strategic project management			

Table 6: Fit indices for the estimated model of the relationship in the Hypothesis

Fit index	Values
Basic statistics	
Estimated parameters	23
Observed Statistics	78
Number of Observations	257
Restricted Degrees of Freedom	55
Degrees of Freedom (independent)	66
The goodness of fit index	
Model Chi-Square	1013.659
Chi-square from independent variable	294.069
RMSEA	0.037
SRMR	0.071
CFI	0.978
TLI	0.967

The findings of this study are similar to previous research conducted by Eweje et al. (2012), Demirkesen and Beliz Ozorhon (2017), Oyewobi et al. (2019), Turskis et al. (2019) and Tariq and Rehman (2020). Turskis et al. (2019) and Tariq and Rehman (2020) found that sustainable

prevention of accidents on construction sites, conflict management effectiveness, and the use of the integrated Entropy-Fuzzy VIKOR decision-making model, are strategic tactics that positively impact the performance of construction companies. The validation of the hypothesis suggest that construction organisational leaders positively impact their organisational performance through their decisions.

According to the findings of this study, decisions on change and innovation have the most impact on the organisational performance. This suggests that construction companies with change- and innovation-conscious leadership will likely achieve high organisational performance. This finding is in line with findings of previous studies by Horta et al. (2012), Asgari et al. (2016), Onubi et al. (2020), Yusof and AbuBakar (2012). Horta et al. (2012) found that strategic decisions on change and innovation enabled construction companies in Portugal to achieve best performance levels. Strategic decisions on change and innovation such as risk allowance (Asgari et al., 2016), embracing technology and innovation (Alade and Windapo, 2019), green construction site practices (Onubi et al., 2020), knowledge management (Yusof and AbuBakar, 2012), e-procurement (Hashin et al., 2013), and cost benefit analysis of procurement systems (Onosakponome et al., 2011) have been reported in literature as positively impacting on the economic performance of construction companies.

5 Conclusion and Further Research

The centrality of this study is that organisational apex leaders in construction do influence the firm's performance outcomes through strategic decisions. There is evidence from this study to suggest that construction organisational leaders positively impact their organisational performance through their decisions. As such, strategic decisions play a significant role in construction company leadership. The leadership of construction companies is expected to set the agenda of sustainability by clearly casting the vision, channeling new opportunities, and repositioning their companies according to the current and future economic situations. The gap between expectations and performance must thus be filled by leadership through their strategic decisions that are premeditated and calculated towards the expectations and visions of the construction companies. The notable findings of this study are limited to contracting firms in South Africa and caution must be made in the generalizing the result findings.

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7 References

Alade, K. & Windapo, A. 2019, July. 4IR leadership effectiveness and practical implications for construction business organisations. In *Construction Industry Development Board Postgraduate Research Conference*. 62-70. Springer. Cham, Denmark.

- Ateş, N. Y., Tarakci, M., Porck, J. P., van Knippenberg, D. & Groenen, P. J. 2020. The dark side of visionary leadership in strategy implementation: Strategic alignment, strategic consensus, and commitment. *Journal of Management*, 46(5):637-665.
- Borkovskaya, V. 2018. Reducing risks in the construction enterprise under strategic leadership of the management. *Вестник МГСУ*. 13(1):122.
- Carmeli, A., Tishler, A., and Edmondson, A. 2012. CEO relational leadership and strategic decision quality in top management teams: The role of team trust and learning from failure. *Strategic Organisation*. 10(1): 31-54.
- Çelik, S., Özkul, E. and Tuna, P. F. 2016. The relationship between strategic decision-making and leadership styles: An application in 4 and 5-star hotels in Istanbul. *Journal of Business Research*. 8(1):240-264.
- Chang, V., Abdel-Basset, M. & Ramachandran, M. 2019. Towards a reuse strategic decision pattern framework—from theories to practices. *Information Systems Frontiers*. 21(1):27-44.
- Cialfi, D. 2019, June. The Self-Organizing Map: A Methodological Note. In *The International Conference on Decision Economics*. 242-249). Springer, Cham.
- Demirkesen, S. & Ozorhon, B. 2017. Impact of integration management on construction project management performance. *International Journal of Project Management* 35(8):1639-1654.
- Dikmen, I., Birgonul, M. T. & Budayan, C. 2009. Strategic group analysis in the construction industry. *Journal of Construction Engineering and Management*. 135(4):288-297.
- Eweje, J., Turner, R., & Müller, R. 2012. Maximizing strategic value from megaprojects: The influence of information-feed on decision-making by the project manager. *International Journal of Project Management*. 30(6): 639-651.
- Hitt, M. A. and Tyler, B. B. 1991. Strategic decision models: integrating different perspectives. *Strategic Management Journal*, 12(5):327-351.
- Horta, I. M., Camanho, A. S. & Da Costa, J. M. 2012. Performance assessment of construction companies: A study of factors promoting financial soundness and innovation in the industry. *International Journal of Production Economics*. 137(1): 84-93.
- Onosakponome, O. F., Rani, N. S. A. & Shaikh, J. M. 2011. Cost benefit analysis of procurement systems and the performance of construction projects in East Malaysia. *Information Management and Business Review*. 2(5):181-192.
- Onubi, H. O. & Hassan, A. S. 2020. How environmental performance influences client satisfaction on projects that adopt green construction practices: The role of economic performance and client types. *Journal of Cleaner Production*. 272:122763.
- Orozco, F. A., Serpell, A. F., Molenaar, K. R. & Forcael, E. 2014. Modeling competitiveness factors and indexes for construction companies: Findings of Chile. *Journal of Construction Engineering and Management*. 140(4): B4013002.
- Oyewobi, L. O., Windapo, A. O., Rotimi, J. O. B. & Jimoh, R. A. 2019. Determining strategic clusters and performance of construction organisations in South Africa. *International Journal of Construction Management*. 19(1):46-56.
- Papadakis, V. A., Thanos, I. & Barwise, P. 2010. Research on strategic decisions: Taking stock and looking ahead. *Handbook of Decision Making*. 37:31-69.

- Samimi, M., Cortes, A. F., Anderson, M. H. & Herrmann, P. 2020. What is strategic leadership? Developing a framework for future research. *The Leadership Quarterly*. 101353.
- Tariq, H. & Rehman, M. 2020. An Empirical Analysis of Organisational Performance of Construction Companies in Pakistan through Mediating Role of Conflict Management Effectiveness. *Review of Economics and Development Studies*. 6(2): 471-484.
- Turskis, Z., Dzitac, S., Stankiuviene, A. & Šukys, R. 2019. A fuzzy group decision-making model for determining the most influential persons in the sustainable prevention of accidents in the construction SMEs. *International Journal of Computers Communications & Control*. 14(1): 90-106.
- Yusof, M. N. & Bakar, A. H. A. 2012. Knowledge management and growth performance in construction companies: a framework. *Procedia-Social and Behavioral Sciences*, 62:128-134.
- Zhang, L., Cao, T. & Wang, Y. 2018. The mediation role of leadership styles in integrated project collaboration: An emotional intelligence perspective. *International Journal of Project Management*. 36(2):317-330.