

THE EFFECTS OF BUSINESS ENVIRONMENTS ON CORPORATE STRATEGIES AND PERFORMANCE OF CONSTRUCTION ORGANISATIONS

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The study examines the moderating effects of business environment in the relationship between strategies used by construction organisations and examines how these can be used in attaining competitive advantage, and improved corporate performance. The grounds for the examination stems from arguments by researchers that efficient and effective business strategy is an essential tool employed by organisations to direct their business endeavours to the ever changing business environment and record continuous improved performance. The study involves a meta-study of extant literature on construction business environments and business strategies in-use. From this approach, a conceptual framework is proposed for relating business environment and corporate strategies used by construction organisations to their corporate performance that could serve as the basis for further studies in construction organisation strategic planning. Preliminary results of a pilot survey to examine the moderating effects of environmental dimensions on strategies and organisational performance are provided in support of the concept developed. The results reveal that organisations adopt differentiation strategies to ensure survival in a complex business environment. It thus concluded that dimensions of business environment have moderating effects on organisational strategies and performance.

Keywords: business strategy, competitiveness, corporate planning, organisation.

INTRODUCTION

Today's construction business is universal, extremely obsessed and technologically driven most especially with the advancement in information technology (Parnell, 2013). According to Parnell (2013) the resulting business tasks for strategist in organisations is vast, unstructured and woolly, and would demand effective and efficient strategies that could provide sustained competitive advantage and the achievement of superior performance. Conversely, Thompson and Strickland (2003) argue that no matter how good formulated strategies are, superior performance can only be attained and sustained if the strategies are rightly matched with the organisation's external environment and internal circumstances. Dess and Keats (1987) contend that existing literature on strategic management allude to the fact that successful organisations' strategy and structure must be auspiciously aligned with the

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external environment to guarantee optimal performance needed for their survival. Construction organisations operate in environments that are so active and quick changing, making it very difficult for any modern business enterprise to function. The construction environment is often regarded as uncertain and generally assumed to be more risk prone than any other (Balatbat, Lin and Carmichael, 2011). Owing to these difficulties, threats and restraints, construction business organisations are under intense pressure to find ways and means for their healthy survival. Balatbat et al. (2011) for example, conclude that abysmal business performance and failure of construction businesses are the result of poor business strategies. Under these circumstances, the only fall-back is to make the most and effective use of strategic management tools that could help construction organisations' business management to explore their potential opportunities. They very often would simultaneously work around the threats either to avoid them or turn them into organisational advantages to achieve an optimum level of efficiency.

The objective of this study is to examine the effects of the business environment and strategies on the corporate performance of construction organisations with a view to having a better understanding of the nature of relationships that exist between these concepts. Several studies determine the impact of strategies on performance, strategy process or formulation, while others examine the relationship between business environment and organisational performance within the construction industry (Junnonen, 1998; Tan, Shen and Langston, 2012). However, not many of these studies investigate the effects of the business environment and strategies on corporate performance in a single study. Hence, in this paper a review of literature on construction business environments, business strategies and corporate performance is provided. The approach would give theoretical basis for further studies that would incorporate this triad of knowledge into better construction organisation performance. The concluding parts of the paper present a developed conceptual framework for relating business environment and corporate strategies used by construction organisations to their corporate performance.

LITERATURE REVIEW

Rue and Holland (cited in Nandakumar, Ghobadian and O'Regan, 2010) assert that organisational strategy describes the approach a firm will pursue in achieving its strategic objectives and mission. Such organisational strategies would consider the threats and opportunities within the operating environment, resources at its disposal and capabilities. Organisations cope with significant restraints and exigencies from their external environments and their competitiveness depends on their ability to monitor the environment and adjust their strategies accordingly (Boyd and Fulk, 1996). According to Audia, Locke and Smith (2000), failure of an organisation to address changes in the environment can negatively affect performance. Present day economies appear to be more challenging than before to effectual and effective management of any organisation. The nature of the present day environment is regarded as hyper-competitive or in other words of high-velocity (Bourgeois & Eisenhardt, 1988; D'Aveni, 1994). Thus environments' are likely to be associated with an increasing occurrence of major, discrete environmental shifts in competition, technology, social, and regulatory domains.

The conceptual model proposed in this study, which depicts the linkages among the constructs discussed in this paper is shown in Figure 1. This framework illustrates business environment factors as a moderator of the relationship between business

strategies and performance. Increase in competitiveness and internationalisation of construction markets has made many organisations to differentiate themselves from their industry rivals by continually reviewing their business strategies. As organisations grow and operate in hyper-competitive environments, it is essential that the moderating effects of the business environment be investigated to examine the nature of relationship between strategies and performance.

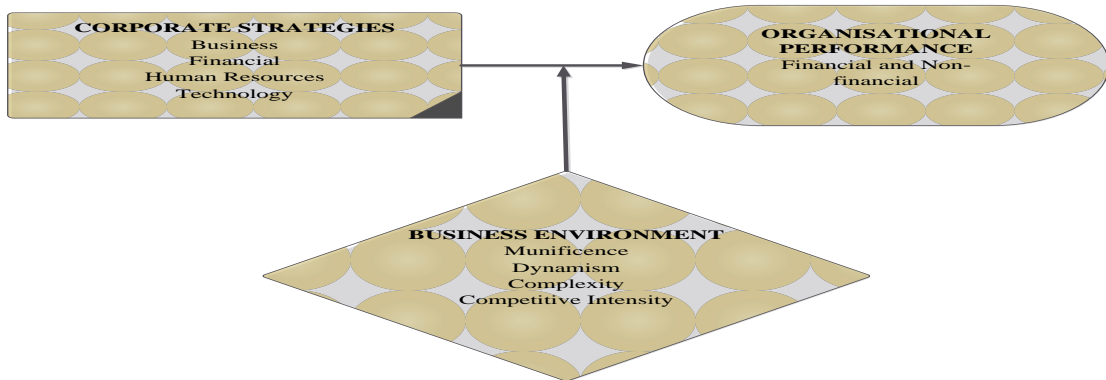


Figure 1: Conceptual framework for moderating effects of business environment in the relationship between strategies and corporate performance

Business environment

Duncan (1972) views business environments as the interaction between organisations' internal and external factors consisting of pertinent physical and social factors within and outside the organisation boundaries that exhibits direct influence on decision making actions of individuals and groups. Khandwalla (1985) views the environment as the main cause of exigencies, constraints, problems, threats and opportunities that influences the terms on which organisations base their business transactions. Chi, Kilduff and Gargeya (2009), support the Khandwalla's view that innumerable forces are present in the environment where organisation functions. These forces are most often beyond the control of managers and constitute threats or opportunities to organisations. Therefore considerable attention needs to be paid to environmental elements in almost every business strategy and operations design/management (Ward, Duray, Leong & Sum, 1995). Inattention (poor corporate strategies) could result in abysmal business performance and failure (Balatbat et al., 2011).

In strategic management literature, several authors have classified environmental latent variable that jointly whittle the business environment in variety of ways. For example, Lenz and Engledow (1986) analyse and classify business environments using five models namely: industry structure, cognitive, organisation field, ecological and resources dependence, and era model. In the current paper, four environmental variables identified from Mintzberg, (1979), Dess and Beard (1984), Ward et al. (1995) and Sougata (2004) are considered which include: munificence, dynamism, complexity and competitive intensity.

Munificence explains the existence of a myriad of resources and opportunities that abound in the environment where organisations operate, and the competition among them for those limited opportunities and resources. This environmental influence was further classified by Sougata(2004) into intensity of market forces and regulatory intensity. Dynamism refers to uncertainties and it is viewed as the rate or speed of change in an industry as well as predictability or uncertainty in the business environment. Dynamism stems from the actions of industry rivals or customers

including advancements in technology and shifts in aggregate demand (Chi et al., 2009; Nandakumar et al., 2010). The fourth environmental variable, complexity refers to the heterogeneity and the degree to which organisations are required to have a great deal of marketing techniques or leading-edge knowledge about their products, needs of their customers, or multiplicity in production. Finally competitive intensity refers to the degree to which threats of environmental influences such as regulatory and market forces (hostility as a result of competition), is experienced by firms while operating within the construction industry.

The underlying assumption here is that environments influence organisations resource availability required for survival. Hence, turbulent environmental circumstances can cause external changes that may increase diversity in the business environment, and the more diverse the interface set, the higher the complexity. Externally induced changes in a diverse environment can create low munificence, which depicts scarce resources and vice versa. The later part of this paper examines the effects of business environmental latent variables on the relationship between strategies and performance.

Corporate strategy

Corporate strategy is described in the context of organisations' mission objectives and vision by considering the markets and the businesses in which organisations choose to operate, the reason for their existence, where they intend to be in future and organisations' overall direction towards growth. Porter (1980: 6) emphasises that "the essence of formulating strategy is relating company to its environment". Porter contends that corporate level strategy entails a purposeful search for a new domain in which an organisation can tap or protect its ability to develop value from the utilisation of its low-cost or differentiation core competences. Corporate strategy is the responsibility of top management and it involves value creation skills that will enhance the competitive position of organisation business units. Strategy enables organisations to capitalise on their strengths to recognise and improve on their weaknesses by ascertaining the level of seriousness of business threat and differentiate between worthy and marginal opportunities open to companies (Orculo, 2008). Organisational strategy is dependent on the moderating effects of the environment where construction organisations operate and provides clearer understanding of business environment (Prescott, 1986; Kotha and Nair, 1995). Thus, as organisations increase in size and branches, the need to choreograph and harmonise business activities becomes difficult. Hence there is a need to develop a comprehensive organisational roadmap outlining how an organisation will achieve its overall mission and corporate objectives in a turbulent business environment.

Within the construction industry, Cheah and Garvin (2004) designed an open framework for corporate strategy in construction and argue that corporate strategy encompasses: business, financial, human resources, technology, marketing, information technology and operational strategies. In line with this submission, this study considers business, financial, human resources and technology strategies for inclusion in the conceptual framework presented as figure 1. Nandakumar et al.(2010: 907) reports that business strategy "is a powerful predictor of other organisational phenomena and perhaps the most useful stream of research for practitioners is the empirical examination of its relationship with organisational performance". Human resources strategy refers to the provision of an effective organisational system that will lead to recruiting, training, mobilizing and managing the human assets of an organisation to systematically carry out business operations and new business

enterprises (Cheah and Garvin, 2004). Finance strategies consist of how organisation financial activities will be managed effectively to assist in the realisation of the overall business strategy to achieve the strategic mission and objective of the finance unit of the organisation. Cheah and Garvin (2004) argue that it is difficult for any business enterprise to operate without due attention to financial issues. Technology strategy is viewed as one of the most strategic postures an organisation can adopt, particularly in dynamic business environments, to create competitive advantage by introducing novel procedure or technological process that can attract customers or change the pattern of competition within the industry (Zahara, 1996).

Organisational performance

Though, performance measurement is an essential ingredient in decision making and judgement by organisations, the definition of the term remains inconclusive, in spite of research on performance concepts focusing mostly on performance measurement. Keats and Hitts (1988) suggest that the concept is a difficult one both in terms of definition and measurement. According to Wu (2009) performance is a measure of how effective and efficient the mechanism/process put in place by an organisation attains its desired results. Effectiveness and efficiency are the two basic components of strategic control and performance, which were highlighted by Neely (2005) and Capon (2008). Effectiveness as an element of performance connotes the degree to which the requirements of stakeholders are achieved. Efficiency on the other hand measures how well the organisation utilises its resources and capabilities economically in meeting requirements or desired level of satisfaction of stakeholders. This definition suggests that performance must align to effectiveness of actions stemming from the strategic thinking of organisations (O'Regan, Sims & Gallear, 2008).

Traditionally, measures of organisations' performance have been based on financial terms or accounting-based such as return on investment, return on assets, turnover etc. Kagioglou, Cooper and Aouad (2001) argue that reliance on financial measures by organisations can only assist them identify their past performance but not what contributed to achieving that performance. Therefore, there is a need to encompass non-financial with financial measures of performance in an all-inclusive performance measurement system (Bourne, Mills, Wilcox, Neely & Platts, 2000).

Furthermore, construction organisations today require viable information across a wider scope of activities more than what the traditional measures of performance can provide. For this reason, Laitinen (2002) surmise that inclusion of both hard and soft measures of performance in a framework will provide managers with opportunities to survey performance in many areas at the same time, to assist in making effective strategic judgement or decisions. Many organisations' failures result from the inadequacy of measures of performance, which hinders their ability to convert strategy to effectual course of actions to attain their set objectives (McAdam & Bailie, 2002). However, a complete range of non-financial measures of performance rarely exists in reality, despite the volume of researches focusing on the concept of performance within the construction industry. Therefore, it is essential to have a comprehensive portfolio of measures of performance that can serve as an early warning of the health conditions of construction businesses by aligning it organisations' strategy. Price (2003) identifies Balance Scorecards (BSC) and Business Excellence Model (European Foundation for Quality Management, EFQM) as tools that are capable of aligning performance measures and strategy to achieve superior performance.

Moderating effects of the business environment on corporate strategy and organisation performance

Ward and Duray (2000) contend that both in conceptual and empirical studies involving business strategy, the impact of the business environment has been recognised for long as an important contingency factor. Mintzberg (1979) for example submits that performance of any organisation is solely hinged on the fit between its strategy and environment. Also one of the major concerns in strategic management literature has been the occurrence of strategic adaptation of organisations to their environment, which depicts how organisations achieve a proper 'fit' with the environment where they operate through changes in corporate strategy (Zajac, Kraatz & Bresser, 2000). This section explains how the identified latent environmental variable serves as a moderator in the relationship between corporate strategies and organisational performance. Munificence environment reportedly has three different dimensions, which include: growth/decline, capability and opportunity or threat (O'Regan et al., 2008) and these allows it to create opportunities, profit and growth through growth strategy. Munificence in industry environments allows an organisation to be more competitive, identify opportunities and strive for growth.

This environmental condition enables organisations to diversify because entry barriers to new markets are removed and as such an organisation enjoys balance or reduced risk that will increase its profitability through improved performance. Sougata (2004) posits that an organisational environment with higher munificence is motivated to increase business scope, scale of its operation and geographical scope to attain superior performance. In an environment where competition is intense and stiff, organisations require lowering-cost business strategy with little emphasis on product differentiation. Sougata (2004) asserts that increase in bargaining power of customers and competitive intensity reduces profitability and compels organisations to seek opportunities in another market or probably divest some part of its business, if it is a corporation, and re-strategise to remain relevant. Environments with less complexity and dynamism require organisations to adopt differentiation strategy and be more innovative in its production process to wade off imitation by rivals in the industry, and enjoy premium price because the main competitors may consider change of strategies unnecessary (Kabadayi, Eyuboglu & Thomas, 2007).

RESEARCH METHODS

This study is part of an on-going PhD research, which is at the data collection stage. Based on the conceptual framework for the research, the study designed structured questionnaires using a survey approach amongst construction organisations listed on the Construction Industry Development Board (cidb) contractor register in the South African construction industry to elicit information and collect quantitative data. Saunders, Lewis and Thornhill (2009) assert that using questionnaires in explanatory research will enable the researcher investigate and describe the nature of relationship between variables and particularly the cause-and-effect relationships. Therefore, internet mediated approach to administration of the well-structured questionnaire to construction organisations in the South African construction industry was used because it involves many provincial regions with large geographical dispersion. The items used in measuring business strategy were adopted from Kale and Arditi (2003) and Nandakumar et al. (2010). Also, business environmental dimension items were adapted from Dess and Beard (1984), Kabadayi et al. (2007), Chi et al. (2009) and Nandakumar et al. (2010). Performance of construction organisations were measured

using Return on Capital Employed (ROCE), which is a measure of both profitability, growth and how effective and efficient organisation manage its business with respect to the use of its funds in growing the size of the business. This was collected for the period of five years. The responses for the adopted constructs were elicited on 5-point Likert scale. No open questions were asked to encourage participation. The estimates of the internal consistency reliability of the constructs ranged from 0.663 to 0.944. The questionnaires were piloted to 30 large (Grade 7-9) construction organisations listed on the cidb register of contractors in the South African construction industry. The participants sampled consisted of chief executive officers and senior management employees of the organisations who have more than ten years' of work experience in their respective organisations. A total of 16 valid questionnaires were completed, returned and analysed using regression analysis at the end of the pilot study.

RESULTS AND DISCUSSION OF PRELIMINARY FINDINGS

The results of the regression analysis in Table 1 for ROCE indicates that an organisations' ROCE improves as it maintains differentiation strategy in complex business environment and the results are significant at 5% level. The presence of other factors that have the possibility of raising hyper-competition may be responsible for differentiation strategy instead of cost leadership or focus strategy (Cheah, Kang and Chew, 2007). Although, focus strategy is also significant at 5% level of confidence, it exhibits a negative relationship with ROCE. This suggests that a unit increase in spending on a focused market will lead to decrease in organisations ROCE; it implies also that construction organisations should not pursue both differentiation and focus strategy at the same time. If this done, the company may experience the situation Porter refers to as stuck in the middle. In addition, technology strategy indicates negative but significant relationship this suggests that pressure on technology by organisations to pursue both differentiation and focus strategy may be a threat to the organisation and result in inefficient utilization of resources. Furthermore, positive and significant relationship of financial strategy emphasises the ability of organisations to secure loans or financial assistance from banks to enhance business operations. None of the variables in model 2 is significant, but the R-square value indicates that the variables are capable of explaining 90% of the variations in the overall performance.

Table 1: Results of regression analysis of competitive strategies and organisation performance

Corporate strategies and environmental dimensions	ROCE model 1	Overall performance model 2
Differentiation	1.10**	-0.029
Cost leadership	0.401	0.497
Focus	-1.694**	0.326
Dynamism	-0.207	0.058
Complexity	0.915**	-0.183
Competitiveness	-0.958	0.408
Munificence	-1.078*	1.252
Technology	-0.593*	-0.253
Financial	1.068*	-1.057
Multiple R	0.989	0.889
R2	0.979	0.791
F-Change	10.35*	1.262

Note: *p<0.1; **p<0.05

Table 2 provides the summary of the moderated regression analysis conducted to investigate the nature of the relationship between business strategies and dimensions of the organisation environment indicates insignificant relationship. However, the results in model 1 suggest that environmental dimensions (Munificence and complexity) have significant moderating effects on performance. Detailed explanation of the analysis and discussions of results will be provided in another research paper.

Table 2: Results of regression analysis of business strategies and organisation environmental dimensions

Environmental dimensions	Differentiation model 3	cost leadership model 4	Focus model 5
Dynamism	0.271	-0.023	-0.238
Competitiveness	-0.1	0.008	0.181
Complexity	0.302	-0.177	-0.147
Munificence	0.496	0.022	-0.206
Multiple R	0.579	0.373	0.247
R2	0.335	0.139	0.061
F-change	1.009	0.322	0.13

CONCLUSIONS

Investigating the moderating effects of the business environment on the relationship between corporate strategy and organisational performance confers significant benefits to construction organisations. Considering the turbulent and hyper-competitive environment in which construction organisations operate, it is essential that they become adaptable, creatively crafting strategies that will ensure their survival

whilst also meeting performance expectations of their clientele. The preliminary results of the pilot study undertaken show that construction organisations adopt differentiation strategy to survive in the complex business environment. It also indicates that environmental dimensions have moderating effects on construction organisation performance. Further research work will not only test the developed framework but operationalise the construct in a manner that provides useful piece of research that could assist businesses to achieve their performance objectives.

REFERENCES

- Audia, P G, Locke, E A, and Smith, K G (2000) The paradox of success: An archival and a laboratory study of strategic persistence following radical environmental change. "Academy of Management Journal", 43, 837-853.
- Balatbat, M C A, Lin C and Carmichael, D G (2011) Management efficiency performance of construction businesses: Australian data, "Engineering, Construction and Architectural Management", 18(2), 140-158
- Bourgeois, L J and Eisenhardt, K M (1988) Strategic decision processes in high velocity environments: Four cases in the microcomputer industry. "Management Science", 34, 816-835.
- Bourne, M, Mills, J, Wilcox, M, Neely, A and Platts, K (2000) Designing, implementing and updating performance measurement systems. "International Journal of Operations & Production Management", 20(7), 754-771.
- Capon, C (2008) "Understanding Strategic Management". Pearson Education. Hallow Essex.
- Cheah, C Y J and Garvin, M J (2004) An open framework for corporate strategy in construction. "Engineering, Construction and Architectural Management", 11(3), 176-188
- Cheah, C Y J, Kang, J and Chew, D A S (2007), Strategic analysis of large local construction firms in China, Journal of Construction Management and Economics, 25, 25-38.
- Chi, T, Kilduff, P P D and Gargeya, V B (2009) Alignment between business environment characteristics, competitive priorities, supply chain structures, and firm business performance. "International Journal of Productivity and Performance Management", 58(7), 645 - 669
- D'Aveni, R A (1994) "Hypercompetition: Managing the Dynamics of Strategic Maneuvering". New Press, New York, NY.
- Dess, G and Beard, D (1984) Dimensions of organizational task environments. "Administrative Science Quarterly", 29, 2-73.
- Dess, G G and Keats, B W (1987) Environmental boundary-spanning and information-processing effects on organisational performance. "Academy of Management Proceedings", 21-25.
- Duncan R B (1972) Characteristics of organizational environments and perceived environmental uncertainty. "Administrative Science Quarterly", 17(3), 313-327.
- Junnonen, J M (1998) Strategy formation in construction firms. "Engineering, Construction and Architectural Management", 5(2), 107-114
- Kabadayi, S, Eyuboglu, N and Thomas, G P (2007) The performance implications of designing multiple channels to fit with strategy and environment. "Journal of Marketing", 71(4), 195-211
- Kagioglou, M, Cooper, R and Aouad, G (2001) Performance management in construction: A conceptual framework. "Construction Management and Economics", 19, 85-95

- Keats, B W and Hitt, M A (1988) A causal model of linkages among environmental dimensions, macro organizational characteristics and performance. "Academy of Management Journal", 31(3), 570-78.
- Khandwalla, P N (1985). "Pioneering Innovative Management: An Indian Excellence," Organization Studies, 6(2), 161-83.
- Kotha, S and Nair, A (1995) Strategy and environment as determinants of performance: Evidence from the Japanese machine tool industry. "Strategic Management Journal", 16, 497-518.
- Laitinen, E K (2002) A dynamic performance measurement system: Evidence from small Finnish technology companies. "Scandinavian Journal of Management", 18, 65-99.
- Lenz, R T and Engledow, J L (1986) Environmental analysis: The applicability of current theory "Strategic Management Journal", 7(4), 329-346
- McAdam, R and Bailie, B (2002) Business performance measures and alignment impact on strategy. "International Journal of Operations & Production Management", 22(9), 972-96.
- Mintzberg, H (1979) "The Structuring of Organizations". Prentice-Hall, Englewood Cliffs, NJ
- Nandakumar, M K, Ghobadian, A and O'Regan, N (2010) Business-level strategy and performance: The moderating effects of environment and structure. "Management Decision", 48(6), 907-939
- Neely, A (2005) The evolution of performance measurement research developments in the last decade and a research agenda for the next. "International Journal of Operations & Production Management", 25(12), 1264-1277
- Orcullo, N A (2008) "Fundamentals of Strategic Management". (1st ed.), Manila, Rex Book Store, Philippine
- O'Regan, N, Sim, M A and Gallear, D (2008) Leaders, loungers, laggards: the strategic-planning-environment performance relationship re-visited in manufacturing SMEs
- Parnell, J A (2013) "Strategic Management: Theory and Practice". 4th ed, Sage Publications
- Porter, M E (1980) "Competitive Advantage: Creating and Sustaining Superior Performance". New York: Free Press.
- Prescott, J E (1986) Environments as moderators of the relationship between strategy and performance. "Academy of Management Journal", 29, 329-49.
- Price, A D F (2003), The strategy process within large construction organisations. "Engineering, Construction and Architectural Management", 10(4), 283- 296
- Saunders, M, Lewis, P and Thornhill, A (2006) "Research Methods for Business Students". 5th Ed. Hallow: Prentice Hall
- Sougata, R. (2004). Environment-strategy-performance linkages: A study of Indian firms during economic liberalization. Vikalpa, 29(2), 9-23
- Tan, Y, Shen, L and Langston, C (2012) Competition environment, strategy, and performance in the Hong Kong construction industry. "Journal of Construction and Engineering Management", 138(3), 352-360.
- Thompson, A A and Strickland, A J (2003) "Strategic Management: Concepts and Cases". Tata McGraw Hill: New Delhi
- Ward, P T and Duray, R (2000) Manufacturing strategy in context: environment, competitive strategy and manufacturing strategy. "Journal of Operations Management", 18(2), 123-38.

- Ward, P T, Duray, R, Leong, G K and Sum, C (1995) Business environment, operations strategy, and performance: An empirical study of Singapore manufacturers, "Journal of Operations Management", 13, 99-115.
- Wu, D (2009) "Measuring Performance in Small and Medium Enterprises in the Information & Communication Technology Industries", Unpublished PhD thesis submitted to School of Management College of Business, RMIT University, Australia
- Zahra, S A (1996) Technology strategy and financial performance: Examining the moderating role of the firms' competitive environment. "Journal of Business Venturing", 11, 189-219
- Zajac, E, Kraatz, M S and Bresser, R K F (2000) Modelling the dynamics of strategic fit: A normative approach to strategic change. "Strategic Management Journal", 21(4), 429-53