

MEDIATING ROLE OF COMPETITIVE STRATEGY ON RELATIONSHIP BETWEEN KNOWLEDGE MANAGEMENT AND PERFORMANCE OF NIGERIAN SMALL AND MEDIUM ENTERPRISES

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ABSTRACT

The study examines the intervening role of competitive strategy on the relationship between knowledge management and firm performance in the SME sector. Data was collected from a sample of SMEs operators operating in Southwest of Nigeria through a cross-sectional survey. Out of 1428 data instruments circulated to firms that were sampled, 1158 questionnaires were returned out of which 978 provided useful responses. The results of the study revealed that direct effect of knowledge management is significant with a reducing effect on performance. The results showed further that the addition of competitive strategy contributes a significant mediating effect on the relationship between knowledge management and performance of SMEs. It is concluded that managers of business must search for the development of business model that will enable them identify and provide customer value in a unique form and at low price for improve performance relative to competitors.

Keywords: Knowledge Management, Competitive Strategy, Balanced Score Card, Performance, Structural Equation Modeling.

INTRODUCTION

A competitive small and medium enterprises (SMEs) sector operating in a dynamic and unpredictable market environment will no doubt exert a strong influence on economies of many nations (Ladzani & Vuuren, 2002). The sector has not only played major role in generating job opportunity and reducing poverty, but also has provided nation's economy with sustained growth and development (Arinaitwe, 2006; Karides, 2005). While SMEs account for most businesses in Nigeria (Smedan & Nbs, 2017), they are faced with challenges characterised by market dynamism in the form of changing customer and investor's demand, ever increasing competition which posed pressure on them to generate an equally fast responses in order to survive and achieve sustained competitive advantage.

Achieving superior performance through sustained competitive advantage has been the concern of strategic management Barney (2001) since its inception. Factors that are internal and external to firms' operations and the way they are leveraged have been singled out as causing why some are poor performers and why others are good in performance. For instance, the internal systems and processes of firms have been responsible for their performance differential (Peteraf, 1993). This perhaps include knowledge management as a resource which is strategic for creating sustained competitive advantage Lado and Wilson (1994); competitive strategy(s) that is

or are adopted (Johannessen & Olsen, 2003) for maintaining efficiency and differentiating their products to create customer values, culture, structure among others.

Knowledge management has received increased attention towards explaining performance differential in firms. The awareness of knowledge as leading to survival and prosperity of organisations has increased the need for its proper management. Thus, it is the best practice that business can use to improve competitive level (Audretsch & Thurik, 2004). It has been identified as an important resource and basic source of competitive advantage (Gold et al., 2001, Conner & Prahalad, 1996). Therefore, effective management of knowledge enables firms to fully recognise stakeholders' and customers' needs (Bigzadeh & Ameli, 2015). Since knowledge is considered an organisation's most strategic resource Zack (1999), business that strives to remain competitive according to Byukusenge et al. (2016) thought to put more efforts on the management of its knowledge resources which are necessary to improve the level of profits, sales growth and market share.

Competitive strategy and performance perspective recognises the rationale of firm being in an attractive strategic position to gain competitive advantage which is derived from its strategic activities (Porter, 1985). It has for long been proven to be a critical tool for any business to do better than rivals and obtain enhanced performance (Gbolagade et al., 2013). It means choosing to carry out firm's different activities in a unique way than rivals so that values can be created for customers (Porter, 1985). This means that competitive strategy explores how firms operate their businesses for performance improvement.

The recognition of knowledge management as a critical construct, and in particular, strategic resource in the strategic management domain has been long. As a result, extensive research interests have been generated on both direct and indirect linkage between knowledge management and performance influence Alkhazali et al. (2017); Martinson et al. (2017); Al-Qarioti (2015); Meihami and Meihami (2014); Merono-Cerdan et al. (2007) with mixed outcomes in many corporate contexts and large organisations, as well as various aspects of firm's performance indicators and organizational practices. The mixed outcomes are making the concept of knowledge management complex in theory development. To resolve the conflicting results on whether knowledge management has effect, various organisational practices have been used as mediators (Munyanyi & Pooe, 2019; Byukusenge & Munene, 2017; Chuan-Peng et al., 2017; Uhlaner et al., 2007).

However, there has been less attention on competitive strategy despite the claim of scholars that there is need to align knowledge management with competitive strategy for synergistic effect Bagnoli and Giachetti (2014) particularly in the SME sector of emerging economies. For instance, note that improving SMEs knowledge management will have its positive effect on the economy since their entrepreneurial owners are seen as the pioneers of innovation. Besides, large organisations' decision making processes and information systems capabilities differ thereby leading to its inappropriateness in applying such research outcomes and management theories to SMEs. To fill this gap, this study seeks to investigate the role of competitive strategy in mediating knowledge management and performance relationships. It is hoped that the outcome will provide a better understanding on appropriate mechanism that connect knowledge management strategy to performance in the SME sector.

MATERIALS AND METHODS

The study design was based on the use of quantitative research. The study includes all small and medium-sized enterprise (SME) operators in the six states of Lagos, Ogun, Ondo, Oyo,

Osun and Ekiti, which together form the Southwest geopolitical zone in Nigeria and are covered by the findings. The zone is made up of people who share a common cultural characteristic that is homogeneous and dominant.

The operators were chosen because they are believed to have a comprehensive understanding of how their business processes operate and are thus in a position to provide accurate responses. This figure represents one-third of all SMEs, or 31.86 percent, out of a total of 73,081 (71, 288 SEs and 1,793 SMEs) in the 36 states of the federation (Smedan & Nbs, 2017). In order to select a total of 1428 owners/managers, a multi-stage sampling technique was employed. The categorical data for the latent constructs was obtained through the use of a 7-point Likert scale, which was included in the design of the research instrument. An adaptation of Porter (1985)'s cost leadership strategy has been developed, and it consists of fourteen items. In the dependent variable, the questionnaire items incorporate various dimensions of firm performance that are compared to major competitors in the industry of operation (Choi & Lee, 2003; Lopez-Nicholas & Merono-Cerdan, 2011).

Each of the three dimensions includes financial performance, which is measured in terms of profitability growth, customer satisfaction, sales growth, and market growth; process performance, which is measured in terms of quality and efficiency; and internal performance measured in terms of individual capabilities such as employee qualification, satisfaction, and innovation. The collected data was analyzed using descriptive statistics, the maximum likelihood approach, and structural equation modeling statistical techniques, among other techniques.

RESULTS

Mediating role of competitive strategy on knowledge management and performance relationships

The results in Figure 1 show the evaluation of the mediating role of competitive strategy on the relationship between knowledge management and SMEs performance. The evaluation was carried out through the pathways of SEM. The indices of the model presented in Table 1 show the fit of the specification. The value of the indices conforms to the varying level of reference values (Wheaton et al., 1997). The root mean square error of approximation (RMSEA) value is less (0.06) than the specified benchmark 0.08. The comparative fit index (0.98), Normed Fit Index (0.94), Relative Fit Index (0.92), and Incremental Fit Index (0.95) are all less than in agreement with the required fit of the specification.

Goodness of fit indices	Construct	Reference value
χ^2 /degree of freedom	4.80	$1 < \chi^2/df < 5$
CFI(Comparative Fit Index)	0.984	$0.95 < CFI < 1$
NFI (Normed Fit Index)	0.941	$0.90 < NFI < 1$
RFI (Relative Fit Index)	0.921	$0.90 < RFI < 1$
IFI (Incremental Fit Index)	0.953	$0.95 < IFI < 1$
TLI(Tucker-Lewis Fit Index)	0.962	$0.95 < TLI < 1$
RMSEA (Root Mean Square Error)	0.06	RMSEA < 0.08

Source: Data Analysis, 2022

The first approach to evaluation of the mediating role of the competitive strategies of the SMEs is to examine the direct of the two variables being examined (Knowledge management and performance). This will make it easier to determine whether the inclusion of competitive strategies have actually mediated the two variables.

The results of the direct effect of knowledge management on SME performance is presented in Table 2. The direct effect of knowledge management on performance is negative but significant ($P < 0.05$). The implication of the result is that poor knowledge management has reducing effect on performance by 37.4%.

Variable	Path	Variable	Standardized estimate	CR	P-value	Remark
performance	<---	Knowledge management	-0.374	-2.748	0.006	significant

CR= critical ratio

Source: Data Analysis, 2022

Following the establishment of the direction and magnitude of effect of knowledge management on performance, the analysis proceeds to evaluate the mediating role of competitive strategy on the two variables (Figure 1). The mediation analysis is presented in Table 3. In the mediation results, the addition of competitive strategy shows a significant mediating effect on the relationship between knowledge management and performance of SMEs.

In the previous Table 2, the effect of knowledge management is high with a reducing effect of 37.4% on performance of SMEs. However, the inclusion of competitive strategy to mediate the relationship results in a reduction of the negative consequences exerted by knowledge management. Consequently, competitive strategy helps to reduce the 37.4% negative effect to negative 11%. This indicates that the possible loss of performance value by 37.4% due to poor knowledge management application could be reduced by 26.4%, if competitive strategy is applied to the SMEs process and business activities. This indicates the critical role of competitive strategy in reducing the consequence of poor management in the SMEs sector.

Variable	Path	Variable	Standardized estimate	Sig
Performance	<---	Knowledge management	-0.106	$P < 0.05$
Performance	<---	Competitive strategy	0.812	$P < 0.05$

Source: Data Analysis, 2022

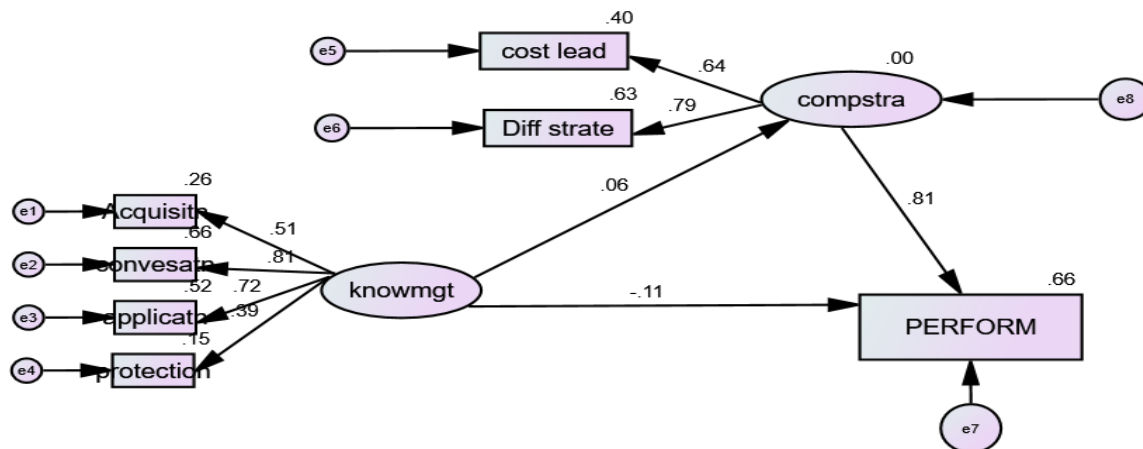


FIGURE 1
PATH ANALYSIS OF MEDIATING ROLE OF COMPETITIVE STRATEGY ON
RELATIONSHIP BETWEEN KM AND PERFORMANCE

DISCUSSION

This study investigates the influence of knowledge management strategies on performance through the role of competitive strategy as a mediator variable. The overall implication is that competitive strategy provides a foundation for performance enhancement in the context which the study is carried out. To the best of researcher knowledge after a thorough and careful review of the literature, this is the first study that demonstrates the mediating role of competitive strategy on knowledge management and performance nexus in small firms.

The results of the study revealed that knowledge management effect is high with a reducing effect of 37.7% on performance. This indicates that when knowledge is poorly managed, it will have a reducing effect on firm performance. However, when competitive strategy was included in order to mediate, it reduced the negative results posed by poor knowledge management strategies by 11% on SMEs performance to 20%. This means that the inclusion of competitive strategy to play a mediating role helps to understand or explain how performance can be affected by knowledge management factors or strategies.

The study findings lend support to the argument for a complementarity theory on link that exists between knowledge management and performance (Milgrom & Robert, 1995). These findings are congruent with Song et al. (2019) that a complementary effect has greater influence on the third variable. So also Choi and Lee (2003) study revealed that complimentary effect of knowledge management strategies will produce synergistic effects on firm performance. Additionally, the competitive strategy and knowledge management adoption makes a related support of the resource based theory.

CONCLUSION AND RECOMMENDATIONS

In the business environment today business enterprises' major challenge is how to devise means of achieving competitive advantage over rivals so that it can meet bottom line results. However, this is possible through the ability to gain customers' knowledge in order to provide unique products that meet their needs and preferences. In spite, the incoherence among past

researchers on how knowledge is managed and effects on firm outcomes leads to the search of an organizational practice that may act as mechanism through which value can be created to satisfy customers for improved firm performance. To this end, the study aims at investigating the intervening effect of competitive strategy on the nexus between knowledge management and SMEs performance.

The study found that the direct influence of knowledge management strategies were significant but negatively impact SMEs performance. However, the inclusion of competitive strategy in the model reduced the negative outcomes significantly indicating the effects of competitive strategy in mediating the knowledge management and performance relationships.

Based on the findings of the study, SMEs operators need to deploy methods of managing knowledge than ever before particularly on how they apply knowledge because the negative but significant coefficient of knowledge management strategies imply the existence of reduced level of value creation through knowledge application. Managers of business must also find practices that align together in order to produce synergistic effect on the outcomes of their operations. The search for the development of business model must continue in order to identify, provide customer value in a unique form and at low price for improve performance relative to competitors.

One of the limitations of the study is that it used a cross-sectional survey to obtain data on firm performance. A longitudinal survey would better be used in further research so that in-depth analysis of the problem would be provided. Besides, the study collected data on performance using perceptual scale, covering SMEs operators from a sectional part of the country with a homogeneous culture. Since Nigeria is a nation state with three dominant cultures, further research can extend to other geopolitical zones for the purpose of generalisation of results.

REFERENCES

- Arinaitwe, S.K. (2006). Factors constraining the growth and survival of small scale businesses: A developing countries analysis. *Journal of American Academy of Business*, 8(2), 167-179.
- Alkhazali, Z. Bakar, R. & Halim, M.A. (2017). The role of knowledge management and entrepreneurial orientation on organizational performance among commercial banks in Jordan. *International Journal of Academic Research in Business and Social Sciences*, 7(11), 928-936
- Al-Qarioti, M.Q.A. (2015).The impact of knowledge management on organizational performance:An empirical study of Kuwait University. *Eurasian Journal of Business and Management*, 3(4), 6-54.
- Audretsch, D.B., & Thurik, A.R. (2004). A model of the entrepreneurial economy. *International Journal of Entrepreneurship Education*, 2, 143–166.
- Barney, J.B. (2001). Resource based theories of competitive advantage: A ten-year perspective on the resource based view. *Journal of Management*, 27(6).
- Bagnoli, C. & Giachetti, C. (2014). Aligning knowledge strategy and competitive strategy in small firms. *Journal of Business Economics and Management*, 16(3), 571-598.
- Bigzadeh, Y. & Ameli, O. (2015). Investigation of knowledge management effect on strategic orientation and organizational performance: A case study of Steel producing companies. *Management Research Report*, 3(2), 44-53.
- Byukusenge, E. & Munene, J.C. (2017). Knowledge management and business performance: Does innovation matter? *Cogent Business and Management*. 4, 1-18.
- Byukusenge, E., Munene, J. & Orobia, L. (2016). Knowledge management and business performance: Mediating effect of innovation. *Journal of Business and Management Sciences*. 4(4), 82-92.
- Chuan-Peng, Y. Zhen-Gang, Z. & He, S. (2017). The effect of organizational learning and knowledge management innovation on SMEs technological capability. *EURASIA Journal of Mathematics Science and Technology Education*, 13(18), 5476 -5487.

- Choi, B. & Lee, B. (2003). An empirical investigation of knowledge management styles and their effect on corporate performance. *Information and Management*, 40(5), 403-417.
- Conner, K.R. & Prahalad, C.K. (1996), A resource-based theory of the firm: knowledge versus opportunism. *Organization Science*, 7(5), 477-501.
- Gbolagade, A. Adesola, M.A. & Oyewale, I.O. (2013). Impact of marketing strategy on business performance A Study of Selected Small and Medium Enterprises (Smes) In Oluyole Local Government, Ibadan, Nigeria. *IOSR Journal of Business and Management*, 11(1).
- Gold, A.H., Malhotra, A., & Segars, A.H. (2001). Knowledge management: An organizational capabilities perspective. *Journal of management information systems*, 18(1), 185-214.
- Johannessen, J. & Olsen, B. (2003), Knowledge management and sustainable competitive advantages: the impact of dynamic contextual training. *International Journal of Information Management*, 23(4), 277-89.
- Karides, M. (2005). Whose solution is it? Development ideology and the work of micro-entrepreneurs in Caribbean context. *International Journal of Sociology and Social Policy*, 25(1/2), 30-62.
- Lado, A.A. & Wilson, M.C. (1994). Human resource systems and sustained competitive advantage: A competency-based perspective. *The Academy of Management Review*, 19 (4), 699-727.
- Ladzani, W.M., & Van Vuuren, J.J. (2002). Entrepreneurship training for emerging SMEs in South Africa. *Journal of Small Business Management*, 40(2), 154-161.
- Lopez-Nicholas, C., & Merono-Cerdan, A.L. (2011). Strategic knowledge management, innovation and performance. *International Journal of Information Management*, 1, 502–509.
- Martinson, M.G., Davison, R.M. & Huang, Q. (2017). Strategic knowledge management failures in small professional service firms in China. *International Journal of Information Management*, 37, 327-338.
- Meihami, B. & Meihami, H. (2014). Knowledge management a way to gain a competitive advantage in firms: Evidence of manufacturing companies. *International Letters of Social and Humanistic Sciences*, 14, 80-91.
- Merono-Crdan, A. L., Lopez-Nicolas, C. & Sabater, R. (2007). Knowledge management strategy diagnosis from knowledge management instruments use. *Journal of Knowledge Management*, 11(2), 60-72.
- Milgrom, P. & Roberts, J. (1995). Complementarities of fit: Strategy, structure, and organizational change. *Journal of Accounting and Economics*, 19, 179–208.
- Munyanyi, W. & Poee, D. (2019). Examining the role of knowledge management and technology operating capabilities in the development of customer-centric organisational systems. *Acta Commercii-Independent Research Journal in the Management Sciences*. 19(2), 1-9.
- Peteraf, M.A. (1993). The cornerstones of competitive advantage: A resource –based view. *Strategic Management Journal*, 14, 179-191.
- Porter, M.E. (1985). *Competitive Advantage: Creating and Sustaining Superior Performance*. Free Press: N. Y. New York, NY.
- Smedan. & Nbs. (2017). *Small and medium enterprises agency of Nigeria and National Bureau of Statistics Collaborative Survey: Selected Findings*,
- Song, B., Li, Y. & Zhao, L. (2019). Complimentary effect of knowledge management strategy of firm performance: Evidence from Chinese firms. *Sustainability*, 11(3616), 1-16.
- Uhlaner. L., van Stel, A. Meijaard, J. & Folkeringa, M. (2007). The relationship between knowledge management, innovation and firm performance: evidence from Dutch SMEs. *Scientific analysis of entrepreneurship and SMEs*, 3(2), 1-26.
- Wheaton, W., Torto. R. & Evans, P. (1997). The cyclical behavior of the greater London office market. *Journal of Real Estate Finance and Economics*, 15(1), 77-92.
- Zack, M.H. (1999). Developing a knowledge strategy. *California Management Review*, 41(3), 125-145.

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