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Article: **Strengthening the Performance of SMEs Through Knowledge Management, Market Orientation and Competitive Environment**

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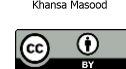
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# Strengthening the Performance of SMEs through Knowledge Management, Market Orientation and Competitive Environment

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## Abstract

This study aims to propose a framework for strengthening the performance of SMEs. It was identified that knowledge management, market orientation, competitive environment and access to finance are some of the effective tools employed by SMEs against large firms for their survival. A model was developed with the help of extensive literature review, thereby identifying the gaps to come up with four propositions. All four of these propositions were exhibited with a graphical model. The findings of this study suggest that *Knowledge Management* and *Market Orientation* have a strong association with *SMEs Performance*. The model further proposes that *Access to Finance* and *Competitive Environment* serve as a contingency between *Knowledge Management* and *Market Orientation* with *SMEs Performance*. This study significantly adds to the entrepreneurship literature and proposes a framework that has not been tested before. The theoretical model has a wider applicability and it can be used in any cultural context but it can prove more helpful in emerging economies.

**Keywords:** competitive environment, knowledge management, market orientation, SMEs performance

## Introduction

Economic development and growth largely depend on small and medium enterprises (SMEs) (Hussain et al., [2012](#); Khan, [2015](#)). The economies of both the developed and developing countries rely on SMEs; however, SMEs in the developing countries have a much larger share to contribute to the economy, thereby indicating their significance in these countries. It was found that SMEs contribute 33% of the gross domestic product (GDP) and provide approximately 45% of employment in emerging economies (Hussain et al., [2012](#)). These statistics illustrate the crucial role that SMEs play in uplifting the economies of developing countries (Alibhai et al., [2017](#)). Additionally, SMEs rebuild these fledglings and

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struggling economies into robust ones through poverty alleviation, job creation, an increase in national income, and by creating opportunities for investment and export (Alibhai et al., [2017](#); Vashisht et al., [2016](#)). Since SMEs are significantly different from large firms; therefore, it is imperative to explore what factors contribute to their effective performance (Chong et al., [2019](#)). This paper uses existing literature and suggests a framework that is applicable for all economies, particularly emerging economies.

SMEs play a multipronged role in economic development and hence require special support from policymakers to help them flourish. In a country where SMEs starve for adequate resources, it potentially affects the overall performance of the country's economy (Khan, [2015](#)). Thus, identifying the major concerns and challenges faced by SMEs specifically in the context of emerging economies holds significance.

Prior studies have recognized some of the major challenges faced by SMEs in this regard. These include access to finance (Alibhai et al., [2017](#); Rogo et al., [2017](#); Aminu & Shariff, [2015](#)), deficiency in technological and non-technical innovation (Saunila, [2014](#); Weerawardena et al., [2006](#)), branding (Hirvonen et al., [2013](#)), competitive business environment, learning capabilities of an organization (Chiva et al., [2007](#)) and market orientation (Gaur et al., [2011](#), Jaworski & Kohli, [1993](#)).

The advent of globalization has brought along challenges that further added to the growing competition for businesses. These challenges include a shift in customer demands, rapid advancements in technology, compliance to the World Trade Organization (WTO), and growing quality standards. Amidst the evolving business environment, only those firms can remain competitive in the market which is better equipped to cope with the new challenges of the business environment (Prajogo & Oke, [2016](#); Gaur et al., [2011](#)). Thus, businesses require competitive resources and competencies to leverage opportunities and avoid threats in their immediate and macro environments. These resources and competencies include knowledge-based resources, financial and technological resources, and marketing and innovation competencies (Khalique et al., [2011](#); Haroon et al., [2012](#); Khalique et al., [2015](#); Prajogo & Oke, [2016](#)). Therefore, this study presents a conceptual framework that identifies the role of knowledge management and market orientation in raising the performance of SMEs. It also highlights the potential moderating effect of access to finance and a competitive environment, especially in emerging economies.

## Research Gap

The performance of SMEs is not a new concept. A large body of research has investigated this issue in the past; however, there is scant literature available on the role of knowledge management (Hock-Doepgen et al., [2020](#)). This provided an impetus for the current study to look into the role of knowledge management for SMEs. Ozer and Vogel ([2015](#)) are of the view that relevant knowledge and the ability to use that knowledge in creating value for the firm leads to developing competitive advantage. Similarly, market orientation also plays a vital role in SMEs performance (Sandvik & Sandvik, [2003](#)), which can further lead the SMEs to achieve competitive advantage (Bhattarai et al., [2019](#); Slater & Narver, [1994](#)).

Many researchers have identified the need to investigate the role of market orientation in diverse contexts, which can provide a better understanding of organizational performance (Martin & Javalgi; [2016](#)). Hence, this study proposes a theoretical model that simultaneously looks into the role knowledge management and market orientation play and also proposes to test the model in different industries and market contexts.

## SMEs Performance

Regardless of the size and type of the firm's performance remains their vital concern, making it crucial for business owners and managers to determine the elements that lead firms to competitiveness and profitability (Vrande et al., [2009](#)). For the conceptualization and measurement of performance, numerous definitions were proposed in the past (Barney et al., [2011](#); Subramony et al., [2018](#)). For instance, Gupta et al. ([2013](#)) expressed the need for a more precise approach to define and measure the concept of performance. Some researchers viewed performance interchangeably with productivity, even though these are two distinct concepts (Babajide, [2012](#)). Productivity explains the bulk of activity performed within a specified time, while performance has a broader focus that subsumes quality, productivity and consistency (Leithner & Guldenberg, [2010](#); Rodrigues et al., [2021](#)).

Performance can be better defined as the ability and capacity of firms to accomplish their objectives by leveraging their resources efficiently and effectively. In the same vein, Subrahmanya ([2011](#)) expressed performance as the competence of firms to attain their defined goals and objectives. Nonetheless, performance and its related conceptualization remain open for discussion which highlights the absence of a universal definition of performance in the context of businesses (Jaaffar et al., [2017](#)).

Furthermore, the performance of firms is a major concern that makes it possible to measure the attainment of their objectives and hence determine their subsequent success. Numerous studies in the past probed the factors that potentially influence firm performance and viewed it as the ultimate goal for businesses which directly translates into profits (Davidsson, [2004](#)). Likewise, performance was widely explained as a dependent variable in previous researches (Jasra et al., [2011](#)). Moreover, a large number of SMEs-related studies also employed performance as the dependent variable that measures the success of firms (Budiarto et al., [2015](#); Abor & Quartey, [2010](#)). The concept of performance encompasses the philosophy of continuous enhancement to stay ahead of competitors and other competitive forces.

### **Knowledge Management**

A major contribution to the conceptualization of knowledge was made by Nonaka and Takeuchi ([1995](#)). They established the significance of creativity and the experience of employees in fulfilling the prerequisites of competitive advantage. They divided knowledge into two parts: tacit and explicit knowledge. Explicit knowledge constitutes numbers, codes, and words that are easily communicated and shared with others. Comparatively, tacit knowledge is found in personal experiences stored in the mind and it often remains accessible only to the individual who holds it. Nonaka and Takeuchi ([1995](#)) proposed that when tacit and explicit knowledge interact or are merged together, they take the form of organizational knowledge that can be utilized by firms. Hence, the dynamic process of the interaction of personal and explicit knowledge eventually becomes the process of knowledge creation which needs to be managed and it is also known as knowledge management.

Fundamentally, knowledge management involves creating, processing, and using the information that individuals hold in their mind which establishes the role of the human mind in transforming that information into knowledge.

A more transformative approach to knowledge management and creation includes what, why, where, who, and when that eventually helps to understand and develop a pattern in this context. Thus knowledge management is defined as the systematic arrangement, planning, evaluation, and application of knowledge, ensuring the accomplishment of its objectives (Bali, [2005](#)).

### **Knowledge Management and Firm Performance**

Previous literature on SMEs examined the relationship between knowledge management and firm performance. For example, Gold et al. ([2001](#)) validated that

the implementation of knowledge management practices in firms is likely to raise firm performance. Another study that sampled 29 firms through a survey questionnaire identified that the influence of innovation and access to unique products ultimately results in better performance (Sarin & McDermott, 2003).

Kalling (2003) argued that literature involving knowledge management fails to appreciate its association with the performance of firms. He emphasized the three aspects of knowledge management: development, utilization, and capitalization. He further identified that while knowledge development has earned substantial attention from firms, its implementation and utilization is an area that still needs exploration. Endorsing the same, Leea et al. (2005) used the qualitative and quantitative methods to evaluate how knowledge management and its performance pointers are related to the overall performance of firms, thereby reporting a positive association between these two.

Moreover, Egbu et al. (2005) undertook a study to evaluate whether knowledge management has a positive role in enhancing the sustainable competitiveness of SMEs. Based on the findings of the study, it was highlighted that knowledge management functions as a key asset in enhancing the performance of SMEs that operate in a complex yet well-integrated environment. The findings also emphasized the need for efficient and effective knowledge management practices advantageous for SMEs in achieving sustainable competitiveness.

On the contrary, Darroch (2005) probed the significance of knowledge management as a coordinating mechanism that may amplify innovation and firm performance. Like earlier studies, it concluded that knowledge-intensive firms are more likely to be innovative. Even though the findings of the study did not establish a positive link between knowledge management and firm performance; however, the literature provides substantial evidence to support the proposition that knowledge management has a positive influence on firm performance.

*Proposition 1: Knowledge management has a positive association with SME performance.*

## **Market Orientation**

Though market orientation is not a new concept in marketing, its significance in raising the performance of firms through various strategies applies to date (Mokhtar et al., 2014). Market orientation not only makes a significant contribution to firm performance (Jaworski & Kohli, 1993; Langerak, 2003; Narver & Slater, 1990; Sandvik & Sandvik, 2003), it also leads firms towards securing competitive advantage (Slater & Narver, 1994). Two perspectives of market orientation have

been widely discussed in the literature. Narver and Slater (1990) viewed knowledge management as an organizational culture premised on offering a better value to the customers (Fang et al., 2014). Others viewed the concept of market orientation as subsuming three components: customer orientation, competitor orientation, and inter-functional coordination. However, the operationalization of knowledge management remains uni-dimensional (Kumar et al., 1998; Narver & Slater, 1990).

### **Market Orientation and Firm Performance**

The concept of marketing has been practiced and discussed over the years in the context of its close relationship with firm performance (Modi & Mishra, 2010). Despite the acknowledgment of marketing as a critical practice to draw higher business performance through market orientation, marketing scholars face the challenge to examine the tendency of its effectiveness in various business environments and organizations (Chao & Spillan, 2010).

Jaworski and Kohli (1996) categorized the outcomes of market orientation into various types such as customer, organization, innovation, and employee outcomes. Market orientation provides firms with the opportunities that help them focus on customer satisfaction and relationship which ultimately enhances their performance (Jyoti & Sharma, 2012).

Generally, performance is measured through profit, revenue, sales volume, and marketing share. Despite this, subjective measures to assess performance have also gained popularity as they provide how managers and owners of firms compare their firms' performance with previous years (Kohli & Jaworski, 1990).

Serious efforts to implement market-oriented strategies pave the path for firms to prioritize the attainment of higher brand equity and customer value (Kohli & Jaworski, 1990). Moreover, market-oriented firms tend to extend exhaustive efforts towards the satisfaction of current and potential customers who, in turn, increase their loyalty and faithful behavior in the long run (Narver & Slater, 1990).

Ghani and Mahmood (2011) viewed customer orientation as an organizational strategy that firms employ to acquire and enhance their customer's information to more effectively satisfy the needs of their customers and to adopt a proactive approach towards them. Customer orientation denotes an organizational culture that prioritizes customer needs and preferences in day-to-day operations (Narver & Slater, 1990), demonstrating the central role customers hold in market-oriented strategies (Dauda & Akingbade, 2010). Likewise, competitor orientation signifies an organizations' strategy to sense and translate the information of competitors and

their moves, into usable information (Cruz-Ros et al., 2010; Webster et al., 2014). The third component of market orientation, that is, inter-functional coordination requires organizations to build a well-integrated network of organizational activities across various functional departments to ensure the delivery of added value in the form of products and services to the customers (Narver & Slater, 1990).

Market orientation is the firm's capacity that is significantly valuable and unique to be replicated by competitors and in which customers are at the helm of the organizational plans (Chelagat & Ruto, 2014). There is a plethora of empirical evidence of market orientation having a significantly positive role in the performance of firms. For instance, Arshad et al. (2012) investigated if market orientation has any influence on firm performance in the presence of the mediating role of corporate social responsibility (CSR). The study employed the content analysis of around 224 Malaysian firms and established that market orientation practices had a significant direct impact on their performance. However, the role of CSR as a mediator appeared insignificant. Similarly, another study investigated the influence of marketing practices on SME's performance through sampling 545 Nigerian SMEs and reported a significant relationship between marketing orientation and firm performance. Many other studies also reported this relationship as significant. Nonetheless, some studies have also cited a negative relationship between market orientation and firm performance, such as the studies conducted by (Shehu & Mahmood, 2014; Demirbag et al., 2006). Thus, studies on a firm performance about knowledge management appear to be inconsistent and demand further research to determine the conclusiveness of the relationship between these two important concepts.

Therefore, this study proposes that market orientation has a positive association with firm performance.

*Proposition 2: Market orientation has a positive association with SME performance.*

### **Strengthening Firm Performance through Moderators**

The inconsistencies found in the performance related literature highlight the need to research and assess the possible existence of the moderating effects that potentially better explain how knowledge management and market orientation are related to firm performance. The extant literature indicates the interacting effect in the form of 'competitive environment' and 'access to finance'.

### **Competitive Environment**



Extant literature identifies the significant role the business environment has in determining a firm's strategic capabilities or choices to operate in the market (Hambrick, [1982](#); Miller & Friesen, [1982](#); Barney, [2011](#); Ketokivi, [2006](#); Sousa & Voss, [2009](#)). Many previous researchers postulated that the competence of a firm relies on the fit between the firm and the environment it operates in (Eisenhardt & Martin, [2000](#)). Thus, firm performance needs to be recognized not just as the direct outcome of internal and external factors such as marketing orientation and knowledge management but also needs to be recognized as the result of the alignment of external and internal factors with the business environment.

The essential impact of the business environment has been well advocated in the literature (Dess & Beard, [1984](#)). The external environment also poses threats to a firm and requires strategic actions to be aligned with it (Dess & Beard, [1984](#)). Amidst the competitive and complex environment that surrounds commercial firms, they must show a high alertness for emerging challenges. Facing the increasing challenges posed by the competitive environment largely depends on the internal ability and resources of SMEs (Bamford et al., [2000](#)). Moreover, it is the competitive environment that adds to the significance of the market-oriented strategy of businesses which allows them to better compete in today's dynamic and competitive business environment (Subramanian & Gopalakrishna, [2001](#)).

Various studies in the past explored the role of the competitive environment in firm performance. For instance, a study by Gaur et al. ([2011](#)) identified the moderating effect of competitive environment on the relationship between market orientation and firm performance. The researchers suggested that a competitive environment has a positive moderating impact on firm performance. Similarly, the moderating effect of the external environment was found to be positive between total quality management, market orientation, and the performance of hotels (Wang et al., [2012](#)). The study conducted by Tang and Hull ([2012](#)) involving Chinese SMEs also found that market strategies have a positive influence on the performance of SMEs which operate in the intense industry competition. Hence, the current study proposes the moderating effect of the competitive environment on the relationship between market orientation, knowledge management, and the performance of SMEs.

*Proposition 3: Competitive environment has a moderating effect on the relationship between market orientation, knowledge management, and SME performance.*

## Access to Finance

Often SMEs face the constraint of limited access to financial resources which are invariably required for growth and expansion (United Nations Industrial Development Organization, [2007](#)). Accordingly, SMEs also suffer from a lack of financial resources in attaining their potential size and growth. Dobbs and Hamilton ([2007](#)) argued that lenders struggle to measure the risk of investing in SMEs due to the uncertainty associated with them. Insufficient or inadequate financing has been attributed as one of the major obstacles for SMEs in reaching their true potential (Beck & Demirguc-Kunt, [2006](#)). These arguments add weight to the discussion that SMEs often show an average or below-average performance due to inadequate financing and investment in the growth opportunities (Bouri et al., [2011](#)).

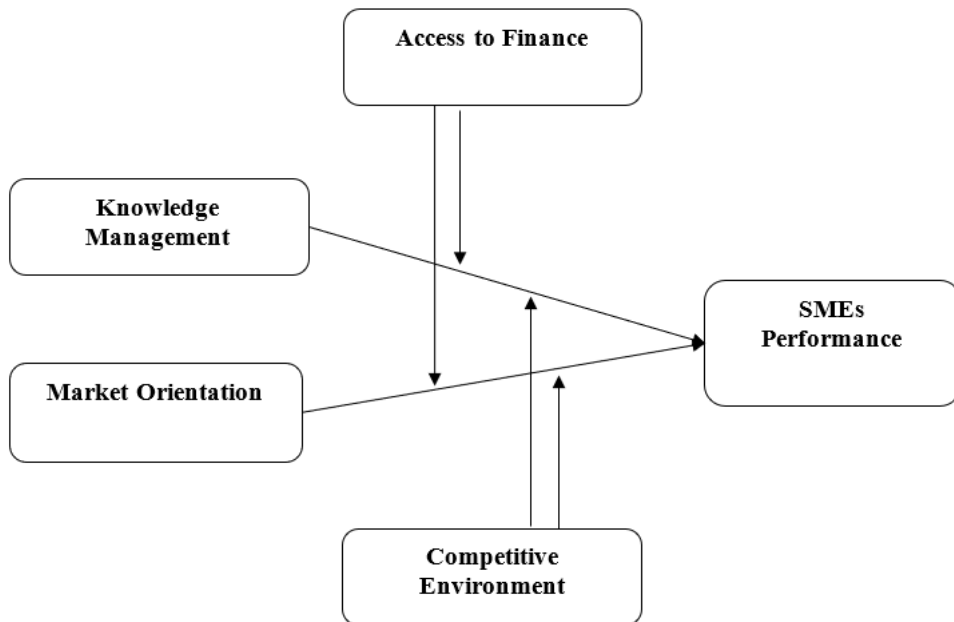
Several prior studies established the moderating role of access to finance and also identified a positive relationship between various factors and the resulting firm performance. For instance, Frank et al. ([2010](#)) examined the relationship between entrepreneurial orientation and business performance and if access to finance has a positive impact as a moderator on this relationship. The findings of the study validated the moderating role of access to finance in determining firm performance. Similar results were reported by another study conducted earlier that identified the important role access to finance plays in affecting the overall performance of SMEs (Wiklund & Shepherd, [2005](#)). Looking for a similar relationship, Mazanai and Fatoki ([2012](#)) also identified a direct positive impact of access to finance on SME's performance.

Moreover, it is argued that the absence of finances will ultimately hinder the growth of SMEs which are a major economic contributor to the world's economy. This has been endorsed by other scholars as well such as Rahaman ([2011](#)), who not only identified the essential role of access to finance for SMEs growth but also observed that SMEs, when faced with the lack of finances, rely on internal resources. He also reported that the sooner SMEs have access to external funds, they tend to look less for internal funding sources. Moreover, certain factors affecting firms such as age, industry, size, and location also account for the degree of access SMEs have to financial resources. Therefore, this study proposes the moderating role of access to finance on the relationship between knowledge management, market orientation, and SME performance.

*Proposition 4: Access to finance moderates the relationship between knowledge management, market orientation, and SMEs performance.*

**Figure 1**

*Proposed Framework*



### **Conclusion and Discussion**

The business world has witnessed remarkable growth and advancements during the last two decades. Growth has come along with several challenges that today's businesses are faced with. SMEs are also facing many challenges to sustain the fast-paced competitive environment. While performance has always been a challenge for SMEs, with the emergence of communication technologies such as the internet and social media, they have become even more vulnerable to the intense competition which warrants a review of the strategy SMEs employ to stay in business and operate effectively.

This study proposed a research framework based on the emerging challenges for SMEs. Employing a market-orientated strategy potentially holds the bail-out impact for many small and medium-sized firms that previously viewed marketing practices to be exclusive to large corporations. SMEs also need to be vigilant of their immediate and macro competitive environment which often poses a major threat to small firms that lack the resources to compete effectively, especially with

large organizations that have the luxury of having virtually bottomless financial coffers. Another factor that has become even more important for SMEs in the intensely competitive environment is employing and maintaining the knowledge base that resides in the workforce. Effective knowledge management provides an even playing field for both SMEs and their larger competitors to compete and earn profits in spite and of a competitive business environment. Future studies should also examine how managing human resource may have a definitive impact and may prove to be more advantageous for SMEs against large firms.

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