Impact of Strategic Leadership, Entrepreneurial Orientation, and Organizational Innovation on Organizational Performance: Harnessing Data to Understand the Mediating Role of Knowledge Management: A Case Study of SMEs in Pakistan

Ayesha Malik*, Asbah Zia, Erum Fatima, Muhammad Naeem Shahid

**Abstract**

In the current era of competitiveness and digitization SME’s can play an important role in economic development of a country like Pakistan. The aim of this study is to investigate the impact of strategic leadership, Entrepreneurial orientation and organizational innovation on SME’s performance in Pakistan with the mediation role of knowledge management using big data concepts. A self-administered survey questionnaire is used to collect the data from targeted sample of 170 SME’s Managers and owners. Data is collected through convenient sampling technique and PLS (4.0) (SME) is used for analysis of data. The findings of the study reveal that there is a significant relationship between strategic leadership, Entrepreneurial orientation, organizational innovation and organizational performance. Moreover, results of the current study endorsed that Knowledge management has significant relationship with organizational performance. Statistical values showed that knowledge management fully mediate the relationship between, strategic leadership, Entrepreneurial orientation, organizational innovation and organizational performance. Finally, the impact of big data management along with knowledge management implementation is a unique contribution of current study to test this combination of variables in the context of SME’s sector of Pakistan. Furthermore, current study contributes in the conceptualization of big data and knowledge management framework in performance enhancement of SME’s. Current study will help the policy makers to develop the knowledge based effective policies for SMEs of Pakistan. Conclusively, current study is limited to Pakistan in future researchers may use this framework to other developing countries with the variation of sample size and industrial sector.

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Keywords: Entrepreneurial intention, organizational innovation, Big Data, strategic leadership.
of which is declining SME performance (Lakhan et al., 2021). Numerous factors make it difficult for Pakistani SMEs to maintain consistent growth (Wahga et al., 2015). These problems have a bad impact on organizational outcomes. A fall in SME firm outcomes also affects job chances for people who lack an entrepreneurial mindset. Because of this, it also assisted in the rise of dearth. A deterioration in the outcomes of SMEs in Pakistan is therefore more worrisome. Entrepreneurial mindset and organizational innovation can boost SME performance. Starting out, it is evident from the material above that entrepreneurial Orientation is one of the resources for getting excellent output (Herath & Mahmood, 2012).

Numerous entrepreneurial endeavors have a big impact on regional economic growth (Ayandibu & Houghton, 2017). Local economic development boosts productivity and creates job opportunities, which obviously speeds up global economic growth. Furthermore, organizational innovation has a big impact on how effectively SMEs function. Performance improves when a company innovates more (Tsai, 2001). The success of SME businesses depends greatly on innovation. Nevertheless, organizational innovations and a focus on entrepreneurship are impossible without effective knowledge management strategies. A number of pertinent ideas must be managed for an entrepreneurial activity to be carried out successfully. Both internal and external ideas, as well as effective idea management, are necessary for the growth of innovation (Chesbrough, 2006).

**Big Data and its benefit for SMEs**

Big Data has many advantages for small and medium-sized businesses (SMEs), despite the fact that it is generally associated with giant corporations. The capacity to obtain insights into client behaviour that would not be available with standard data analysis methods is one of the main advantages of big data. Large data sets can be swiftly analysed thanks to big data technologies, allowing for the discovery of patterns and trends that smaller data sets would be unable to reveal. SMEs can then apply this knowledge to enhance their goods and services and better serve their clientele. Big Data can also help SMEs target clients more precisely, improve marketing campaigns,
Impact of Strategic Leadership  

Malik, A et. al (2023)
and provide a more customised customer experience. Big Data can also help SMEs run more efficiently. Businesses can use big data, for instance, to enhance decision-making, find inefficiencies or waste, and optimise company operations. Big Data may also assist SMEs in having a deeper understanding of their clientele and the markets in which they compete. SMEs' competitiveness can be raised and business decisions made with greater knowledge can be implemented. All things considered, big data offers small and medium-sized firms a plethora of options to enhance their operations and more successfully compete in the modern economy. Big Data technologies can be easily understood and applied by SMEs, despite their initial intimidating appearance. Small and medium-sized enterprises (SMEs) can leverage the potential of Big Data to enhance their Performance. Therefore, SMEs in Pakistan need the sport of infrastructure and Innovative environment along with Knowledge economy support. A knowledge management system is necessary to assist SMEs in growing more inventive and enterprising. As a result, knowledge management has been recognized by the study as a mediating component. The success of small and medium-sized businesses depends heavily on innovation and an entrepreneurial mindset, and this tool is excellent for demonstrating this. Studies by Taheri, Bititci, Gannon, and Cordina (2019) and Soto-Acosta, Popa, and Palacios-Marqués (2016) have both been done in the past to examine entrepreneurship.

However, the majority of research neglected two important variables: organizational innovation and an entrepreneurial attitude. These two elements are essential for obtaining optimal performance when knowledge management is present. Therefore, creative and entrepreneurial knowledge management strategies need to be carefully examined. The mediating role of knowledge management through entrepreneurial orientation and innovation has been neglected in many prior academic research on the performance of SMEs (Ahmed, Halim, & Ahmad, 2018). The results of the study show that entrepreneurial creativity and entrepreneurial orientation are important factors in SMEs' performance. Implementing knowledge management practices can lead to better outcomes. According to Liu and Lee (2015), knowledge management and having an entrepreneurial attitude go hand. Entrepreneurship and innovation, according to Yan (2018), are inextricably interwoven. Therefore, effective knowledge management is necessary to improve SMEs' performance. In order to better understand how knowledge management, entrepreneurial innovation, and entrepreneurial orientation relate to Pakistan's SME sector, this study will look into these relationships.

**LITERATURE REVIEW**

**Organizational Performance**

In order to better comprehend the value of knowledge management, the author thinks it is important to define organizational performance before adding to the body of literature on the current subject. Organizational performance can be seen from a variety of perspectives, including short- and long-term, financial, non-financial, and relationship-building (Deshpande et al., 1993). Typically, organizational competitiveness is compared to industry performance standards to determine how well a company is performing (Herciu & Ogren, 2008). They continued by saying that competition is the most crucial essential component of any organization, regardless of size or industry. The overall efficacy of organizations has received a lot of attention in previous study. A corporation needs a competitive advantage if it wants to succeed. There is a substantial corpus of research that has a broad emphasis and
examines the numerous aspects, factors, and causes of organizational performance (Fernando & Bandara, 2020; Khan & Iqbal, 2020a). On the most effective technique to evaluate performance, academics are still divided (Posthuma, Campion, Masimova, & Campion, 2013). Usually, one of two approaches—financial or non-financial—is used to analyze it. According to Khan and Iqbal (2020a), non-financial or monetary performance metrics can boost a company’s reputation. The success and survival of SMEs depend on their capacity for performance. The sluggish economy, however, makes it difficult for SMEs to function at a level that is adequate (Wahga et al., 2015). According to the resource-based view (RBV), internal resources are necessary for a company to succeed. Successful firms have strong internal resources as their skeleton. Capabilities and assets are two different categories of internal resources (Umrani, 2016). Employee knowledge and capacities, together with talent and ability, are intangible elements (Khan & Iqbal, 2020a). According to the current study, an organization’s talents, creativity, and entrepreneurial orientation are additional strengths. One of the intangible assets that correlates with this idea of effective knowledge management is the ability to manage such competencies and distinctiveness within organizations through RBV. Organizational commitment has a significant influence as well because it ultimately results in improved organizational performance (Junaid, Bashir, Nasim, & Ahmad, 2021).

**Strategic Leadership, Knowledge Management and Organizational Performance**

Leaders offer solutions for knowledge management, as well as inspiration, guidance, equality of opportunity, compensation, and performance evaluation (Singh, 2008). To be experts in knowledge management methods in a company, employees must be given a leadership style that gives them the authority and responsibility to manage their lives at work (Singh, 2008). Because leaders set the example for others to follow, this is important. The leadership position is therefore believed to have an impact on how organizations approach the knowledge management process, methods, and execution. Leadership has proven essential for both individual effectiveness and organizational performance, despite the literature’s neglect of this relationship (Keller, 2006; McGrath and MacMillan, 2000; Judge and Piccolo, 2004). As a result, scholars have argued about the effectiveness of leadership style and behavior (see, for instance, Avery, 2004; Drath, 2001). These arguments are supported by the strategic leadership theory, which developed from the original upper echelons theory proposed by Hambrick and Mason in 1984. Strategic leadership theory emphasizes not only relational activity but also strategic and symbolic activity with the potential for technological and economic optimization (Hambrick, Finkelstein, & Mooney, 2005; Hambrick, 2007).

Modern businesses must evolve quickly to stay competitive, and the complexity of business problems calls for innovative design and strategy approaches (Oltra & Vivas-Lopez, 2013). To increase their efficacy and efficiency, organizations are already embracing knowledge management (Yang & Chen, 2009). Since knowledge management refers to an organization’s capacity to develop, hold onto, and distribute knowledge resources for sustained competitive advantage, see Chuang (2004). According to Zheng, Yang, and McLean (2010), knowledge management is regarded to give firms a competitive edge and boost performance. Effective innovation, teamwork, and good decision-making are other goals of knowledge management (June, 2005). Thus, knowledge management is a strategic asset for the company with the ability to give it a competitive advantage in a changing
Impact of Strategic Leadership

Malik, A et. al. (2023)

environment, according to Jantunen (2005). By enabling individuals, teams, and organizations to continuously learn and develop in business operations, Watkins and Marsick (1996) advise that organizations put a strong emphasis on knowledge as a vital success component. The relationship between knowledge management and organizational performance was also discovered by Lee and Lee in 2007. In order to better understand how strategic knowledge management affects organizational competitiveness in Kenya’s commercial book publishing sector, see Kagiri (2008).

H1. Strategic Leadership has a relationship with Organizational Performance.
H2. Strategic Leadership has a relationship with Knowledge Management.

Entrepreneurial Orientation, Knowledge Management, and Organizational Performance

An entrepreneurial company is one that innovates its products and markets, takes calculated risks, and develops ‘proactive’ inventions first before its rivals. “Innovativeness,” “proactivity,” and “risk-taking” are the three components of entrepreneurship (Miller, 1983). Innovation can generate fresh concepts for creating products and services by utilizing technology (Lumpkin & Dess, 1996). Miller (1983) stated that ‘managers’ willingness to commit risky resources with a high likelihood of costly failure” is the concept of risk tolerance. Introducing unique products and procedures, eliminating stale or failing businesses, and searching for new opportunities that may or may not be related to the current line of business are all examples of being proactive.

Many research have demonstrated that highlighting entrepreneur orientation enhances business performance. Most of these studies view entrepreneurial orientation as a single concept. Numerous studies have discovered a link between an entrepreneurial approach to business and improved firm performance in a variety of circumstances. The hotel sector, manufacturing, and service companies are just a few of the many industries that profit from an entrepreneurial mindset and attitude. This effect can be felt by small businesses, manufacturing firms, and service organizations of all sizes (Su, Xie, & Li, 2011). The study’s meta-analysis revealed that the entrepreneurial mindset had a largely favorable impact on company success (Rosenbusch, Rauch, & Bausch, 2013). It has been discovered that entrepreneurial attitude is positively connected with and amplifies the impact on firm performance on numerous occasions.

According to Alegre and Chiva (2013) and Real, Roldán, and Leal (2014), it can serve as an independent variable, a mediator, or a moderator. According to Li, Huang, and Tsai (2009), entrepreneurial attitude increases knowledge generation capacities, which boosts organizational efficiency. According to Lumpkin and Dess (1996), the concept of entrepreneurial orientation is multidimensional, and there may be distinct correlations between various measures of corporate performance. To avoid creating unreliable normative and descriptive frameworks, it is essential to comprehend the nature of the relationship between entrepreneurial orientation and company performance. The researchers independently studied the effects of entrepreneurial orientation characteristics and identified two distinct clusters of results. The various facets of entrepreneurial orientation are the first things the researchers look at because they all have a positive impact on overall business performance. Therefore, we can infer that the dimensions can be taken into account when doing the analysis.

The second-largest body of literature (Hameed, Altaf, & Ahmed, 2019; Real et al., 2014) is devoted to a variety of aspects of entrepreneurial orientation and the various
implications of these characteristics. These studies demonstrate that taking risks hurts a company's success while being innovative and proactive helps. It follows logically from these findings that various aspects of entrepreneurial orientation ought to be handled separately. Given the aforementioned, research suggests that an organization's entrepreneurial mindset affects its performance. In order to succeed, a business needs both an efficient knowledge management system and an entrepreneurial spirit. A poor knowledge management system hinders the accomplishment of organizational objectives, which directly affects outcomes.

**H3.** Entrepreneurial orientation has a relationship with organizational performance.  
**H4.** Entrepreneurial orientation has a relationship with knowledge management.

**Organizational Innovation, Knowledge Management, and Organizational Performance**

Entrepreneurial innovation was defined by Lumpkin and Dess (1996) as a firm's propensity to support and engage in fresh ideas, experimentation, and creative processes that may result in the development of new goods or services. To put it another way, knowledge management directly impacts company success and innovation has an impact on both (Prange & Pinho, 2017). Organizational effectiveness and innovation are inextricably linked. Performance and entrepreneur innovation are related, according to research (Zhu, Zou, & Zhang, 2019). However, these older studies do not acknowledge the value of efficient knowledge management. A business will use a range of resources to keep ahead of the competition if it has true knowledge management capabilities (Rezaei & Ortt, 2018). SMEs who adopt a 200-innovation approach advance more quickly. Innovation is also a big hope for the growth of many innovative organizations. Innovation is a prerequisite for entrepreneurship, according to Naranjo-Valencia, Calderón-Hernández, Jiménez-Jiménez, and Sanz-Valle (2018). However, innovation requires information from a variety of staff members, clients, and suppliers. Because it encourages innovation, knowledge management is crucial for SMEs’ success. Entrepreneurial innovation has an effect on how well SMEs perform. Innovation is the application of an idea, invention, technology, or technique to a product, service, or process that meets a specific need and can be repeated at a lower cost (Iqbal & Hameed, 2020). As a result, this idea is focused on knowledge management from the company's customers, suppliers, and other external parties. As there is a substantial amount of knowledge involved in that process, knowledge management is essential. Knowledge management and innovation in SMEs are now inextricably linked, and this has a positive impact on SMEs’ performance. As a result, it is hypothesized that

**H5.** Organizational Innovation has a relationship with organizational Performance.  
**H6.** Organizational Innovation has a relationship with Knowledge Management.

**Knowledge Management and Organizational Performance**

According to Serenko et al. (2007), knowledge management in large organizations can be more successfully executed through social networking in teams by connecting them intra-organizationally. Cantner et al. (2009) argued that knowledge management must be applied and implemented by all organizations in order to maintain a long-term competitive advantage. Knowledge management needs to be practiced and completely implemented if businesses are to survive the fast-paced climate of today. Because knowledge is a quality connected to people and
organizations are the structured environments in which they work, knowledge management organizational performance is highly related. As was previously said, the core of this replica is the connection between knowledge management and organizational performance. Business literature claims that knowledge management yields strategic outcomes in terms of increasing capacity, making wise decisions, being competitive, and being profitable (Oluikpe, 2012). Company processes should be the main focus of a knowledge management strategy, according to Osborne (2004), because company strategy and business processes are intertwined. The significance of knowledge management for long-term organizational success was stressed by Donate and Canales (2011), Ferraresi et al. (2012), Schiuma (2012), and Schiumma et al. (2012). Exchange of employee knowledge is essential for corporate effectiveness in today knowledge-based economy. Furthermore, Carrillo et al. (2003) found a correlation between organizational performance and knowledge management, providing justification for organizations to employ knowledge management strategies. As a result, the strategic value of knowledge management is critical to an organization’s competitiveness (Whelan & Carcary, 2011). They continued by stating that improved organizational performance requires effective management of top-performing knowledge workers, as well as their insights and experiences being ingrained in people’s knowledge and behaviors. Improved organizational performance is reliant on efficient knowledge management in addition to other organizational resources or tangible assets given the rising opportunities (Lee & Sukoco, 2007).

H7. Knowledge Management has a relationship with organizational performance.

**Knowledge Management as mediator between Strategic Leadership, Entrepreneurial Orientation, Organizational Innovation and organizational Performance.**

Using the previous definition as a foundation, knowledge management is referred to as business. That focuses on how to increase an organization's intangible asset's production, or human capital, for better organizational performance. In order to establish and improve knowledge competence through efficient information flow and knowledge management, businesses invest in knowledge management, according to Mills and Smith (2011). Knowledge management primarily focuses on how organizational human resources may be turned into strategic resources in order to collaborate effectively and efficiently in order to accomplish common goals and objectives. In addition, applying organizational knowledge to boost the effectiveness of corporate procedures and methods is known as knowledge management. Thus, two key concepts—people and knowledge—are at the center of the precedence given to knowledge management.

However, as was shown in the section above, innovative organizational practices, entrepreneurial mindsets, and strategic leadership all enhance knowledge management and organizational success. The effectiveness of knowledge management can enhance an organization's operational efficiency. Knowledge management can be utilized to close the gap since there is a connection between organizational performance and strategic leadership, entrepreneurial attitude and organizational performance, as well as organizational innovation and performance. As previously stated, the mediating role of knowledge management is highly accepted because it has been used as a mediating variable in other studies (Li et al., 2009; Madhoushi, Sadati, Delavari, Mehdivand, & Mihandost, 2011). As a result, the following options are suggested:
H8. Knowledge management mediates the relationship between strategic leadership and organizational performance.
H10. Knowledge management mediates the relationship between organizational innovation and organizational performance.

RESEARCH MODEL

The following research model is developed based on extensive literature review discussed above. The independent variables are strategic leadership, Entrepreneurial orientation and organizational innovation that has an impact on organizational performance (a dependent variable), and the link is mediated by knowledge management.

Figure 2.
Research framework
RESEARCH METHODOLOGY

It is crucial to pick the right method when conducting research. Therefore, a cross-sectional research design and a quantitative research strategy were adopted in the current study. However, information was acquired from staff members of several Pakistani SMEs engaged in the management of tourism and hospitality. Employees in managerial positions are individuals who work for the company. However, only the selected managers have a direct tie to entrepreneurial endeavors. These managers ranged in age from males to ladies. A Likert scale with five points was used to determine the outcomes. Copies of the questionnaire were emailed to respondents using area cluster sampling.

The study design, which is dictated by the model's route, determines the sampling approach. In the current investigation, it was determined that the non-probability sampling technique was best suited for this kind of research design. Because the study's goal is to better understand the role that organizational innovation, knowledge management, and entrepreneurial orientation play in the success and performance of SMEs. As a result, employees who directly or indirectly affect the achievement of organizational policy goals for both themselves and their ordinates and subordinates are chosen. The target population received 200 questionnaires in total, and the frequency distribution table includes the demographics of those who responded. The study found 144 completely finished research questionnaires with a 72% response rate. For the best results, respondents were contacted both by phone and in person.

MEASUREMENTS

Dependent Variable (Organizational Performance)

Organizational performance is the study's dependent variable, and the instrument used to measure it consists of six questions that are rated on a 5-point Likert scale (1 for strongly agreeing and 5 for strongly disagreeing).

Independent Variable

The goal of the current study is to determine how improved organizational performance is impacted by knowledge management and knowledge infrastructure capability. Therefore, organizational innovation, entrepreneurial orientation, and strategic leadership serve as the study's independent variables. The creation of hypotheses was aided by the literature review, and the research instrument was modified in accordance with the native culture of the Pakistani industrial environment based on the hypotheses.

Strategic Leadership

Pisapia, Reyes-Guerra, and Coukos-Semmel (2005) employed seven items from each category of the Pisapia's Strategic Leadership Questionnaire (PSLQ), which has a 21-item scale.

- Entrepreneurial Orientation

The six-item measures of entrepreneurial orientation were modified from Covin and Slevin's (1989) research.
Organization’s ability to innovate
An organization’s ability to innovate scale is consist of 5 items adapted from study of Rochemont (2010).

knowledge Management
From the study of Lee, Lee, and Kang (2005), a five-item scale was modified to assess the mediating effect of KM. A second 5-point Likert scale is utilized, with 1 representing strongly agree and 5 representing strongly disagree.

DATA ANALYSIS
Measurement Model Assessment
The Smart-PLS 4 was used in this study to evaluate the measurement model. AVE, factor loading, composite reliability (CR), and Cronbach’s alpha were used to test this approach (Ringle, Da Silva, & Bido, 2015). According to Hair, Hollingsworth, Randolph, and Chong (2017), Alpha, CR, and AVE should all be more than or equal to 0.7. Table 1 demonstrates that all values are greater than a predetermined cutoff point. In the current investigation, the AVE for each component is greater than 0.8.

Table 1. Construct & Convergent Validity

<table>
<thead>
<tr>
<th>Construct</th>
<th>Items</th>
<th>Factor Loading</th>
<th>Cronbach’s Alpha</th>
<th>Composite Reliability</th>
<th>AVE</th>
</tr>
</thead>
<tbody>
<tr>
<td>Entrepreneurial Orientation</td>
<td>EO 1</td>
<td>0.895</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>EO 2</td>
<td>0.930</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>EO 3</td>
<td>0.951</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>EO 4</td>
<td>0.942</td>
<td>0.904</td>
<td>0.943</td>
<td>0.811</td>
</tr>
<tr>
<td></td>
<td>EO 5</td>
<td>0.948</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>EO6</td>
<td>0.800</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Organizational Innovation (OI)</td>
<td>OI 1</td>
<td>0.941</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>OI 2</td>
<td>0.921</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>OI 3</td>
<td>0.944</td>
<td>0.937</td>
<td>0.950</td>
<td>0.818</td>
</tr>
<tr>
<td></td>
<td>OI 4</td>
<td>0.914</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>OI 5</td>
<td>0.820</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Knowledge Management (KM)</td>
<td>KM1</td>
<td>0.897</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>KM 2</td>
<td>0.900</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>KM 3</td>
<td>0.930</td>
<td>0.907</td>
<td>0.938</td>
<td>0.812</td>
</tr>
<tr>
<td></td>
<td>KM 4</td>
<td>0.902</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>KM 5</td>
<td>0.895</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Impact of Strategic Leadership

Malik, A et. al. (2023)

Organizational Performance (OP)

1. OP 1 0.891
2. OP 2 0.892
3. OP 3 0.942
4. OP 4 0.896 0.901 0.910 0.83
5. OP 5 0.949
6. OP 6 0.888
7. OP 7 0.911

Strategic Leadership

1. SL 1 0.895
2. SL 2 0.930
3. SL 3 0.951
4. SL 4 0.942
5. SL 5 0.948
6. SL 6 0.800
7. SL 7 0.891
8. SL 8 0.892
9. SL 9 0.942
10. SL 10 0.896
11. SL 11 0.949 0.910 0.902 0.89
12. SL 12 0.888
13. SL 13 0.911
14. SL 14 0.897
15. SL 15 0.900
16. SL 16 0.930
17. SL 17 0.902
18. SL 18 0.895
19. SL 19 0.930
20. SL 20 0.951
21. SL 21 0.942

Discriminant Validity: Heterotrait-Monotrait (HTMT) Criterion

Fornell and Larcker criterion is applied to measure the discriminant validity of the collected data. According to Fornell and Larcker, if the Average Variance Explained (showed in the diagonal matrix) surpasses the squared correlation of latent variables, then the assumption of discriminant validity is supported.

Table 2. Discriminant Validity

<table>
<thead>
<tr>
<th>Variables</th>
<th>EO</th>
<th>KM</th>
<th>OI</th>
<th>OP</th>
<th>SL</th>
</tr>
</thead>
<tbody>
<tr>
<td>EO</td>
<td>0.854</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>KM</td>
<td>0.786</td>
<td>0.906</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>OI</td>
<td>0.844</td>
<td>0.824</td>
<td>0.904</td>
<td></td>
<td></td>
</tr>
<tr>
<td>OP</td>
<td>0.753</td>
<td>0.774</td>
<td>0.754</td>
<td>0.904</td>
<td></td>
</tr>
<tr>
<td>SL</td>
<td>0.836</td>
<td>0.786</td>
<td>0.766</td>
<td>0.901</td>
<td>0.909</td>
</tr>
</tbody>
</table>

Structural Model Assessment/Direct Effect

The structural model was constructed using Smart PLS Bootstrapping. The direct influence, which is very significant, is seen in Table 4. These links are all characterized by t-values greater or equal to 1.96. The positive beta value of the link between organizational innovation and performance is 2.843, whereas the t-value of the relationship between entrepreneurial mentality and organizational performance is 2.257. As a result, it is possible to conclude that each direct hypothesis is valid.
Table 3. Structural Model Assessment (Direct Effect)

<table>
<thead>
<tr>
<th></th>
<th>Original Sample (O)</th>
<th>Sample Mean (M)</th>
<th>Standard Deviation (STDEV)</th>
<th>T Statistics (O/STDEV)</th>
<th>P Values</th>
<th>Effect Size (f²)</th>
</tr>
</thead>
<tbody>
<tr>
<td>EO -&gt; KM</td>
<td>0.194</td>
<td>0.194</td>
<td>0.086</td>
<td>2.363</td>
<td>0.022</td>
<td>0.082</td>
</tr>
<tr>
<td>EO -&gt; OP</td>
<td>0.165</td>
<td>0.165</td>
<td>0.074</td>
<td>2.355</td>
<td>0.024</td>
<td>0.049</td>
</tr>
<tr>
<td>KM -&gt; OP</td>
<td>0.324</td>
<td>0.324</td>
<td>0.145</td>
<td>2.227</td>
<td>0.028</td>
<td>0.138</td>
</tr>
<tr>
<td>OI -&gt; KM</td>
<td>0.675</td>
<td>0.674</td>
<td>0.125</td>
<td>5.528</td>
<td>0.001</td>
<td>0.347</td>
</tr>
<tr>
<td>OI -&gt; OP</td>
<td>0.325</td>
<td>0.323</td>
<td>0.116</td>
<td>2.842</td>
<td>0.008</td>
<td>0.053</td>
</tr>
<tr>
<td>SL -&gt; KM</td>
<td>0.189</td>
<td>0.193</td>
<td>0.086</td>
<td>2.212</td>
<td>0.000</td>
<td>0.082</td>
</tr>
<tr>
<td>SL -&gt; OP</td>
<td>0.316</td>
<td>0.312</td>
<td>0.114</td>
<td>2.820</td>
<td>0.008</td>
<td>0.049</td>
</tr>
</tbody>
</table>

Also highlighted in Table 4 is the effect degree (f²). Strong was characterized by Cohen (1988) as f² values greater than 0.35. 0.02 is a negligible value, whereas 0.15 is a large one. In the current investigation, all factors had a modest impact size (f²). In Table 5, the R² value is 0.589%. It is suggested that three sets of exogenous latent variables may explain 58.9% of the variation in organizational performance. This R² score is considered moderate (Chin, 1998).

Table 5. R-Square (R²) Value

<table>
<thead>
<tr>
<th>LV</th>
<th>V E (R²)</th>
</tr>
</thead>
<tbody>
<tr>
<td>OP</td>
<td>57.8%</td>
</tr>
<tr>
<td>KM</td>
<td>72.9%</td>
</tr>
</tbody>
</table>

Indirect effect

The resampling mediation-approach, which was used in this study and is also advised by Hayes (2009), is a legitimate technique for analyzing the mediation effect. The mediation results (indirect effect) are summarized in the table below. The t-values for each instance indicate that mediation is significant: 2.097, 3.992, and 3.112. As a result, knowledge management connects the entrepreneurial spirit, OI, and OP. In addition, KM act as a link between SL and OP. Therefore, H6, H7, and H8 are approved.

Table 6. Structural Model Assessment (In-Direct Effect)

|                  | Original Sample (O) | Sample Mean (M) | Standard Deviation (STDEV) | T Statistics (|O/STDEV|) | P Values | Decision |
|------------------|---------------------|-----------------|----------------------------|-----------------|----------|----------|
| EO -> KM -> OP   | 0.212               | 0.212           | 0.102                      | 2.083           | 0.038    | Mediation|
| OI -> KM -> OP   | 0.452               | 0.441           | 0.113                      | 3.953           | 0.001    | Mediation|
| SL -> KM -> OP   | 0.343               | 0.391           | 0.114                      | 3.592           | 0.008    | Mediation|

DISCUSSION AND CONCLUSION

Analysis data have shown that EO and OP have a substantial link, according to the current study. The p-value and beta value showed that an increase in a firm’s entrepreneurial attitude results in good performance for the organization. However, earlier studies indicated that a decline in EO intention causes a decline in organizational performance. Similar findings have been found by earlier investigations (Khan & Iqbal, 2020b; Rezaei & Ort, 2018; Taheri et al., 2019). This research showed a strong correlation
between entrepreneurship and financial success. Additionally, several research have indicated a negligible or nonexistent association between EO and OP. According to recent study, the ineffectiveness of knowledge management systems is to blame for this insignificant or poor impact. It is clear that the majority of SME's lack effective KM systems. With a P-value of 0.021 and a beta value of 0.195, the current study also identifies a significant association between EO and KM. The current study found that KM and SME Performance had a positive link, with a p-value of 0.29 and a beta value of 0.322. The link between EO and OP is also mediated by knowledge management, which has a t-value of 2.089 and a beta-value of 0.211. On the basis of the findings of the current study, it is stated that a robust KM infrastructure is required to promote the EO in SME’s of Pakistan.

Previous research have established a strong link between organizational innovation and the success of SMEs. The research by Ahmed et al. (2018) and Hameed et al. (2019) support the conclusions of the current study's beta- (0.326) and p-value (0.009). But with efficient knowledge management, internal creativity can be increased. Researchers investigate a strong correlation between OI and KM with a p-value of 0.000 and a r = 0.677. Innovation requires the fusion of internal and external knowledge, which necessitates knowledge management. Additionally, KM mediates the association between organizational innovation and SME performance, as demonstrated by the t-value (3.951) and -value (0.451). The current study also discovers a strong association between OP and strategic leadership. The hypothesis is represented by the values t=2.820 and p=0.009. Additionally, analysis and statistical results with the values t=3.591 and p=0.008 show that KM mediates the link between SL and OP with the values listed in the preceding tables. These findings lend credence to the claim that visionary and strategic leadership will result in high performance for SMEs.

**CONCLUSION**

The findings of the present study demonstrated a substantial association between SMEs' in general OP and their EO. The performance of SMEs is improved by increased entrepreneurial focus and innovation. Small and medium-sized businesses (SMEs) perform poorly when they lack an entrepreneurial mindset and innovation. However, SMEs encounter considerable challenges in fostering an entrepreneurial mentality and restructuring their businesses. Small and medium-sized firms (SMEs) are unable to fully utilize their innovative and entrepreneurial endeavors. As a result of the positive beta value of the relationship between organizational innovation and performance and the t-value of the relationship between entrepreneurial spirit and organizational performance being 2.257, it is possible to conclude that each direct hypothesis is valid. It is advised that SMEs enhance organizational and entrepreneurial innovation activity using persuading knowledge management techniques. These businesses ought to foster a creative culture.

Employees should have an entrepreneurial mindset because doing so will inevitably improve performance. Additionally, the organization should need knowledge management initiatives. The government ought to focus on a number of knowledge management-related projects. Government initiatives on the subject of “how to manage knowledge” is crucial.
LIMITATIONS

The outcomes of the current investigation could be impacted by a number of limitations. Control variables were not taken into account for this investigation. Age, R&D expenditures, business size (some SMEs may be quite large), and industry technical orientation (high-tech versus low-tech firms) are all examples of control variables that can have a significant impact on an organization’s success. The study’s tiny sample size could have an impact on the results. The current study also employs a quantitative research methodology. To acquire accurate results, nevertheless, using a blended methodology (quantitative and qualitative) may be helpful.

FUTURE DIRECTIONS

Upcoming research on KM techniques like personalization and codification is strongly advised. These new knowledge management techniques can boost the performance of SMEs. More investigation is required to understand how personalization and codification impact the success of SMEs. Actual entrepreneurial knowledge is significantly influenced by different knowledge management techniques, which can have an impact on corporate performance. However, factors like R&D expenses and the scale of the business should be considered. Last but not least, future research should use a large sample size.

THEORETICAL IMPLICATIONS

Our research greatly adds to the body of information regarding the interconnection between entrepreneurial orientation and performance. To comprehend the relationship between entrepreneur orientation and firm performance, we must first examine the basic characteristics of businesses (Wales, 2016). According to one study (Engelen, Gupta, Strenger, & Brettel, 2015) that investigated the role of specific internal firm characteristics in mediating or moderating the relationship between entrepreneur orientation and performance, EO, innovativeness, proactive nature, and risk-taking all have distinct relationships with a company’s core functions. The study’s findings provided a contribution by taking into account different entrepreneur role characteristics (such as entrepreneur innovation) that had previously been overlooked (Rezaei & Ortt, 2018).

PRACTICAL IMPLICATIONS

The current study provides practitioners with extremely significant insights into how to increase organizational performance through entrepreneurial orientation and organizational innovation. This paper provides essential indications for managers to consider while building plans to improve organizational performance in Pakistani SMEs. Given that SMEs’ performance is dropping, this study demonstrates that SMEs can enhance performance through effective knowledge management, which is backed by organizational innovation and an emphasis on entrepreneurship. The new research is therefore considerably more beneficial for Pakistani SMEs.

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Consent to Participate: Yes

Consent for publication and Ethical approval: Because this study does not include human or animal data, ethical approval is not required for publication. All authors have given their consent.

REFERENCES


Impact of Strategic Leadership


