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LEADERSHIP STYLES AND SUSTAINABLE COMPETITIVE PERFORMANCE IN PAKISTANI SMES: AN INDUSTRY 4.0 PERSPECTIVE

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ABSTRACT

Previous research has primarily concentrated on the technological and operational aspects of Industry 4.0 in SMEs, leaving a significant gap in our understanding of the leadership's role in this context. This article aforesaid gap by empirically investigating impact of entrepreneurial leadership, transformational leadership, transactional leadership, and ethical leadership on the sustainable competitive performance of Small and Medium-sized Enterprises (SMEs) in Pakistan within the context of Industry 4.0. The study adopts a quantitative approach and collects data from Pakistani SMEs sector, including manufacturing sports, and textiles, using purposive sampling. A total of 500 questionnaires were distributed. The study's findings reveal that entrepreneurial leadership and ethical leadership significantly influence organizational learning. Furthermore, a significant relationship is observed between organizational learning and sustainable competitive performance. However, the study does not find a significant relationship between transactional leadership and organizational learning. Moreover, the research highlights a significant mediating relationship between organizational learning and the impact of entrepreneurial leadership, ethical leadership, and transformational leadership on sustainable competitive performance. However, transactional leadership does not exhibit a significant mediating effect. The study's contributions to the existing literature on Industry 4.0 are valuable as they shed light on the role of leadership styles in the context of SMEs in Pakistan. In the era of Industry 4.0, where technological advancements are transforming industries, understanding the impact of leadership on sustainable competitive performance is crucial. This research offers insights into which leadership styles are most effective in this rapidly changing landscape.

KEYWORDS: Leadership, Industry 4.0, SMEs, Organizational Learning, Pakistan

1. INTRODUCTION

The landscape of manufacturing sector has undergone a profound transformation in recent years, driven by the adoption of innovation and development rooted in the context of the fourth industrial revolution (Matt and Rauch, 2020; Sahi, Gupta, and Cheng, 2020). Earlier in this decade, the term "Industries 4.0" was introduced by Acatech, a group of German scientists, to signify the emergence of the fourth industrial revolution (Rojas and Garcia, 2020). The historical context reveals that the first industrial revolution, which occurred by the end of the 18th century, was characterized by the integration of machinery into production processes. Subsequently, in 1870, the second industrial revolution brought about a significant increase in the use of electric energy. The third industrial revolution, often referred to as the digital revolution, commenced in the 20th century (Kagermann et al., 2014). The fourth industrial revolution, known as Industry 4.0, underscores the rapid advancements in production and manufacturing systems. Hence, Industry 4.0 focuses on integrating manufacturing processes with information communication systems (Matt and Rauch, 2020). The main objective of Industry 4.0 is to meet the individual customer's needs with having flexibility and adaptability in manufacturing and operational systems, improved decision-making, integrating information and communication technology (ICT) with Cyber-Physical Systems (CPS), the introduction of enhanced production technologies, and smart engineering principles (Moeuf et al., 2018).

The present study objective is to unveil importance of implementing Industry 4.0 in SMEs. We exclusively concentrate on SMEs for two key reasons: (1) SMEs are crucial as the backbone of many countries' national economies; (2) SMEs are anticipated to encounter greater challenges in embracing Industry 4.0 compared to larger companies due to limited knowledge and resources. However, SMEs can transition more swiftly into Industry 4.0 with the availability of a suitable roadmap.

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1.1. SMALL AND MEDIUM-SIZED ENTERPRISES (SMES)

The European Commission (EU) defines Small and Medium-sized Enterprises (SMEs) as companies with fewer than 250 employees, an annual turnover of less than €50 million, or a balance sheet total of up to €43 million (Rojas and Garcia, 2020). Consequently, in numerous other countries, particularly within the Organization for Economic Cooperation and Development (OECD) nations, SMEs hold a pivotal position in the economy and the broader corporate ecosystems. Within the OECD region, SMEs are the dominant form of business, constituting approximately 99 percent of all enterprises. They represent the primary source of employment, accounting for an average of 70% of the workforce. Additionally, SMEs play a vital role in fortifying and diversifying the economy, thereby contributing to its resilience (OECD, 2017).

SMEs serve as the main engines of growth and prosperity in both developing and developed countries, due to both economic and social factors. They provide support for larger companies and can accelerate the country's growth at the same time. They have an immense potential to change the economic status of any country by enhancing its economic growth rate and trade (Kumar and Rao, 2015). SMEs have proved to be more resilient than large and multi-national enterprises in terms of flexibility, entrepreneurship, and innovation abilities (Thornton and Martinez, 2018). SMEs' ability to bring a positive transformational change has drawn keen interest among scholars and academics in this field. SMEs have become an issue of great importance recently and many authors have discussed Industry 4.0 for SMEs in their scientific works (Thornton and Martinez, 2018; Bar, Hansen and Khalid, 2018; Türkeș et al., 2019).

1.2. INDUSTRY 4.0 AND SMES

Innovation is a significant propeller of economic growth for large enterprises as well as for SMEs. The focus of Industry 4.0 is driven by an innovative direction that includes mechanization, industry automation, and digitalization. Research shows that Industry 4.0 creates up to one-third of opportunities in industrial production for sustainability and productivity. Industry 4.0 in large organizations is fairly advanced and considered important until now. On the contrary, in SMEs, Industry 4.0 has not been introduced significantly (Vrchota, Volek and Novotná, 2019).

SMEs are usually not only adaptive and creative about their products but also concerning their production methods. In recognition of ongoing increased competition, SMEs have become more actively involved in improving their business performances (Boughton & Arokiam, 2000) which is a good start to establish Industry 4.0. So far, successful implementation of Industry 4.0 has been seen in large enterprises but the same is needed to be adopted in SMEs (Mittal et al., 2018). Industry 4.0 grant SMEs great options to advance its performance. The numbers of SMEs are now relying on digitalized items to stand out in the market (Muller and voigt, 2018). The adaptation of ICT and Industry 4.0 would benefit SMEs from significant economic impact by transforming today's SMEs practices into a smarter way of working (Matt and Rauch, 2020; Rojas and Garcia, 2020).

Industry 4.0 poses a specific challenge for companies in general, especially SMEs. There is a great chance that smaller SMEs will not benefit from this revolution. This stretches the need for advanced research and action plans for the technological and organizational planning of SMEs (Sommer, 2015). Industry 4.0 will only be procured in SMEs by adopting SME-customized implementation approaches and understanding SME-adapted beliefs and technological solutions. Several issues are surrounding Industry 4.0 including lack of skills and an aging workforce, enterprise willingness to re-engineer, and restructure the traditional ongoing processes, financial and intellectual support. Besides, shorter product life cycles, dynamic value chains, changing trends, and market also have the pressure of cost reduction at the same time (Saqib et al., 2016).

The current research, therefore, highlights the need for skilled management that can play a role in diverse functioning and successful learning. This would only be possible if the organization's people actively contribute to organizational learning and play their part in developing an innovative business process. In addition, Industry 4.0 also offers a set of new prospects about business models, production methods, employment generation, working practices, and business processes. Industry 4.0 will then bring about significant improvements in the economy, the job atmosphere, and skills growth. Industry 4.0 sets new concepts for the industrial management of SMEs. This concept, supported by an increasing number of new technologies, seems more adaptable and less cost-effective than traditional enterprise resource planning (Maresova et al., 2018). Overall, these findings are in accordance with findings reported by studies conducted somewhere (Haseeb et al., 2019). Moreover, Industry 4.0 would contribute to greater job automation, ensuring staff will be prepared to perform new tasks. The same applies to engineering education, which has great potential for training future professionals and for making them aware of modern technological trends and challenges. Also, the management style should be adapted to new market requirements (Erol et al., 2016). Matt, (2020) have highlighted the importance of leadership and narrated that firm growth is the result of management activities and leadership behaviour, through the output of communication and complementarities among people, the structure of a business, and processes, which is yet to be examined with industry 4.0 demands (Figure 1).

Source: Authors: Figure 1. Leadership styles for Industry 4.

The focus of this paper is to discuss how manufacturing SMEs can enhance their learning capacities to meet the demand of industry 4.0. This is supported by previous literature, that Industry 4.0 faces many economic, social, and technological challenges, that require a dynamic and innovative workforce for companies. Thereafter, this paper aims to conceptualize and integrate the literature with logical beliefs as follows.

- To investigate the role and influence of leaders (i.e. business owners, top management of SMEs) in transforming the SMEs into industry 4.0 requirements.
- To investigate the mediating role of organization learning between different leadership styles and Sustainable Competitive Performance in Industry 4.0 in Pakistani SMEs.

2. LITERATURE REVIEW

2.1. LEADERSHIP STYLES AND ORGANIZATIONAL LEARNING

Nasution and Sarkum, (2019) describe leadership as the process of influencing others to understand and decide what needs to be achieved, how it can be effective and promote individual and collaborative efforts to achieve a common goal. According to path-goal theory (Mariappanadar, 2018), it is the leaders who accomplish their fellows' desired goals by acquiring an appropriate leadership style according to any given situation. In other words, leadership is the ability to influence, inspire, motivate, and direct the activities to achieve the organization's objectives. For instance, the organisational success of companies like Apple and Microsoft is not fully based on the technological advancement, but rather to its companies' leadership style that is being practiced (Shah and Mulla, 2013). Mittal and Dhar, (2016) outlined different leadership styles that encourage businesses to operate in an environmentally sustainable manner. Therefore, tailored leadership is needed to improve the innovation and learning process in the deployment of Industry 4.0. Various leadership styles have been discussed in the literature; namely, ethical, entrepreneurial, transactional and transformational, but transformational leadership style especially focuses on innovation and learning process (Aishah, Ahmad and Thurasamy, 2020; Velt, Torkkeli and Saarenketo, 2020).

Thanh and Quang, (2019) Nevertheless, Industry 4.0 requires more than transformational leadership that must solely focus on the learning and innovation process, as it is limited to inspirational encouragement, intellectual challenge, and providing vision. (Imran et al., 2019) explained that the development and success of Industry 4.0 are largely dependent on innovation capability within the firm. This is also supported by Aishah, Ahmad and Thurasamy (2020), who suggested leadership style can predict the performance of an organization, which is one of the most important aspects that influence the development of organizational and employee performance. Therefore, Industry 4.0 must focus on innovation, learning, and knowledge altogether. This, we believe can be achieved by incorporating ethical and entrepreneurial leadership together with transactional and transformational styles.

2.2. TRANSFORMATIONAL LEADERSHIP AND ORGANIZATIONAL LEARNING

Transformation leadership has been recognized as one of the most studied topics of leadership in the last few decades. Transformational leadership motivates employees to go beyond what is expected, identify the higher-order vision and objectives, provide new ways of training leaders, and recognize the importance of processes of interaction between leaders and followers (Shafi et al.2020). Consequently, transformational leader sparks their employees with inspiration that can work with or without the resulting reward (Gu et al., 2020). Research shows that many top-notched companies have adopted the transformational leadership style in cultivating the innovative learning environment in organizations (Birasnav, 2014). According to Podsakoff et al. (1990), the transformational leadership style consists of six dimensions including vision articulation, intellectual stimulus, high-performance aspirations, teamwork nurturing, providing a suitable role model, and individual support (Haseeb et al., 2019). Casimir, and Waldman, (2007) leaders are more inclined to adopt persuasive or transformational behaviors than to mobilize more inviting leadership attitudes underscores the need. Leadership is a core factor for favorable organizational outcomes (García-Morales et al.,2012). Therefore, this study hypothesized that transformational leaders and organizational learning:

H1(a): There is significant positive relationship between transformational leadership style and organizational Learning

H1(b): Organizational learning mediates the relationship between transformational leadership style and organizational Learning Sustainable Competitive Performance

2.2. ENTREPRENEURIAL LEADERSHIP STYLE (ELS) AND ORGANIZATIONAL LEARNING

Entrepreneurial leadership refers to those leaders who go beyond conventional employment structures to create new opportunities to exercise their specific skills. ELS is a newly emerging concept which comprises of both leadership and entrepreneurship skills. This type of leadership style helps create new products, processes, and expansion in business operations, which are directly required in industry 4.0. Tarabishy et al., (2005) suggested ELS can be helpful in the implementation and creation of new entrepreneurial strategies by organizations that show a combination of proactiveness, innovativeness, and risk-taking (Aishah, Ahmad and Thurasamy, 2020). This innovative quality of entrepreneurial leadership gives a clear path for the need of such leadership style in Industry 4.0 for successful and innovative business operations.

Though other leadership styles like transformational and transactional are necessary, the entrepreneurial leadership style cannot be ignored in the context of Industry 4.0. ELS is the blend of leadership potentials and entrepreneurship spirit that has a positive impact on business practices. In addition, entrepreneurial leadership style directly affects the performance of employees which is needed for organisational success and for exploring new horizons of business opportunities. This can be elaborated that ELS is the best source of business survival in the Industry 4.0 revolution as it helps to identify new opportunities in existing businesses (Greenberg, Mckone-Sweet and Wilson, 2011). ELS compatibility to adopt Industry 4.0 guidelines are encouraging in the context of SMEs. For instance; ELS has a remarkable positive influence on employee performance in high-tech SMEs, which ultimately has significant positive effects on SMEs' performance (Zainol et al., 2018).

H2(a): There is significant positive relationship between entrepreneurial leadership style and organizational Learning

H2(b): Organizational learning mediates the relationship between entrepreneurial leadership style and organizational Learning Sustainable Competitive Performance

2.3. ETHICAL LEADERSHIP AND ORGANIZATIONAL LEARNING

Brown et al., (2005) defined ethical leadership as "the demonstration of normatively appropriate conduct through personal actions and interpersonal relationships, and the promotion of such conduct to followers through two-way communication, reinforcement, and decision-making". Similar to the transformational leadership style, ethical leadership has positive effects on employee's outcomes (Brown et al., 2005). Ethical leadership focuses on the "normative appropriate" conducted through the leader's own personal and actions and their interpersonal relationships across the board. Furthermore, these leaders believe in the ethical transformation to the followers by two-way communication, reinforcement, and mutual decision making (Brown and Treviño, 2006). In doing so, this leadership style promotes ethical principals in every business operation (Mayer et al., 2012). Similarly, Brown et al., (2005) explained ethical leadership as the person who stresses the "leader- follower interaction". Eisenbeiss (2012) has apprehended various aspects of ethical leadership, which include justice, well-being, moderation, humane, and sustainability orientation. These aspects are linked with follower's needs, diversity, fair treatment, and important environmental welfares.

A leader's actions are vital in the context of Industry 4.0 which ensures the commitment towards long-term environmental sustainability as the lead example which then further transforms the values across the board. Moreover, the teaching and sharing of ethical values are different than the attainment of the financial objectives. Therefore, without sharing the ethical climate and values, it is not possible to incline them to operate in an environmentally friendly way (Otuya, 2019). Moreover, an organisation's innovative culture can direct employees and the team towards successful and achievable goals. This can be accomplished by the metamorphosis of the ethical and moral grounds to cater for diverse human capital. Individual abilities and good actions will be maintained if the company employs a variety of skills fairly.

H3(a): There is significant positive relationship between ethical leadership style and organizational Learning

H3(b): Organizational learning mediates the relationship between ethical leadership style and organizational Learning Sustainable Competitive Performance

2.4. TRANSACTIONAL LEADERSHIP AND ORGANIZATIONAL LEARNING

The second significant style found in the literature is transactional leadership. This leadership style refers to the relationship of exchange between the leader and subordinates to respond to their interests (i.e., "If you give me this, I will give you that") (Nasution and Sarkum, 2019). In other words, transactional leadership is task-oriented command and control approach of leadership whereby the focus is on what needs to be done and how to do it. On contrary, the transformational leadership style focuses on why it needs to be done (i.e. "if you give me that, I will give you this").

In the context of Industry 4.0, the transactional leader serves as the role model for the followers who appreciate the environmental performance of the employee by compensating them. In addition, transactional leadership focuses on day-to-day tasks which facilitated the true sharing of values across the organization.

H4(a): There is significant positive relationship between transactional leadership style and organizational Learning

H4(b): Organizational learning mediates the relationship between transactional leadership style and organizational Learning Sustainable Competitive Performance

2.5. ORGANIZATIONAL LEARNING AND SUSTAINABLE COMPETITIVE PERFORMANCE

Organizational learning plays a pivotal role in enhancing sustainable competitive performance. Several studies have highlighted the significance of this relationship. geravan (1997) emphasized the concept of a "learning organization," where organizations continuously improve and adapt. In the context of Industry 4.0, organizations must actively acquire and apply knowledge to thrive (Guta, 2012). Empirical evidence supports the idea that organizational learning positively influences competitive performance. Bolisani (2018) demonstrated that companies that invest in learning mechanisms and knowledge-sharing practices tend to achieve higher levels of innovation and competitiveness. Additionally, the works of Zhang et al. (2023) underscored how organizational learning fosters agility and adaptability, key factors for sustained competitive advantage. Furthermore, the dynamic nature of Industry 4.0 technologies underscores the need for continuous learning. Organizations that actively learn and adjust to technological advancements are better positioned for long-term competitiveness (Liao et al.2017) .In the context of small and medium-sized enterprises (SMEs), research by Raza et al. (2018) highlighted that SMEs with strong learning orientations are more resilient in highly competitive environments. SMEs that embrace Industry 4.0 technologies and foster a culture of learning gain the ability to innovate and adapt swiftly, ensuring their competitiveness in rapidly evolving markets. In conclusion, the literature consistently supports the hypothesis that organizational learning positively influences sustainable competitive performance, particularly in the context of Industry 4.0. Organizations that prioritize learning, adaptability, and knowledge-sharing are better equipped to navigate the challenges and opportunities presented by the fourth industrial revolution. Thus, this study hypothesized that organizational learning has an influence on sustainable competitive performance

H5: There is significant relationship between organizational and sustainable competitive performance:

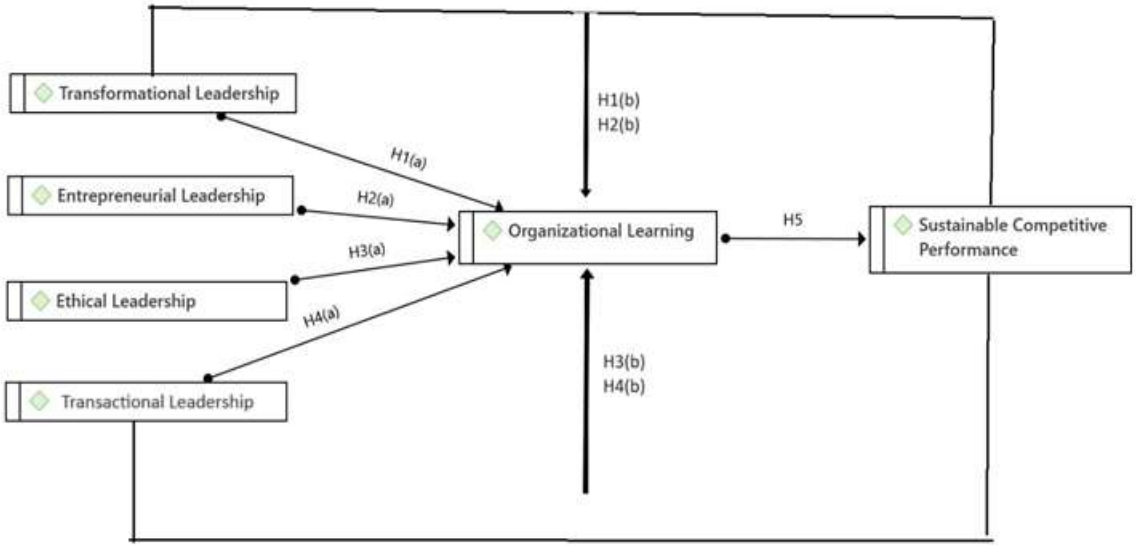

Figure 2: Research Framework

3. METHODS AND MATERIALS

This study aims to investigate the impact of different leadership styles on enhancing sustainable business performance within small and medium-sized enterprises (SMEs) in Pakistan. Additionally, the research considers organizational learning as mediator to predict sustainable competitive performance.

In doing so, cross-sectional research design was adopted. The study primarily targets the sports and textile production sectors. These sectors were chosen due to their shared challenges, including their substantial contributions to national exports (accounting for 70% to 50%) while having a limited global trade share (less than 2%). Other challenges include the selection of appropriate distribution channels, limited government support in terms of export-related tax incentives and infrastructure development, and a lack of technological advancements. Despite their distinct characteristics, both sectors exhibit similar trends and variations. Data were gathered from operational managers in the textile and logistics industry who are directly engaged in Industry 4.0 initiatives. The data collection was conducted through a Self-administer survey questionnaire using purposive sampling technique due to absence of proper sampling frame. Figure 3 details the flow of research design followed in this study.

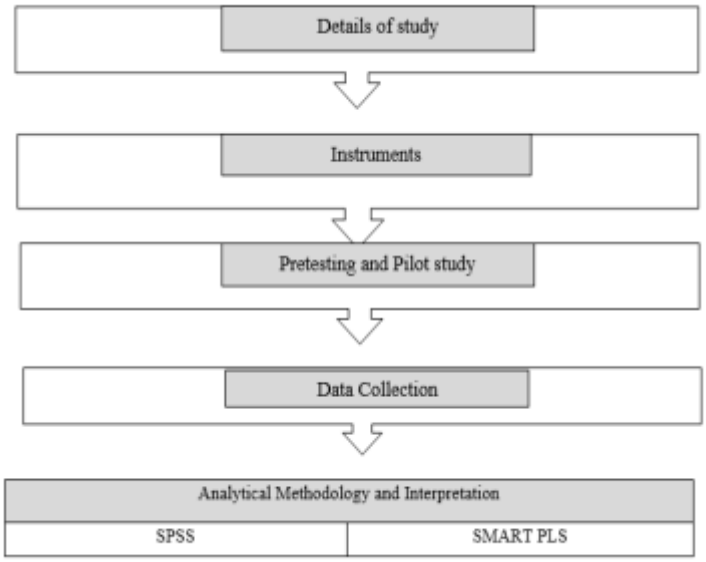

Figure 3: Flow Chart for Quantitative Research Design. Source: Sekaran and Bougie (2010, p. 68).

This study utilized Partial Least Squares (PLS) for data analysis. Prior to the analysis, a preliminary assessment was conducted to examine missing values, outliers, statistical indicators such as mean, median, standard deviation, and the distribution of data, whether it followed a normal or non-normal pattern. Adhering to the study's cross-sectional design, a survey was conducted. Initially, a pilot study was carried out, collecting 70 responses. Findings from the pilot study confirmed that the questionnaire displayed acceptable levels of reliability and validity. Subsequently, 500 questionnaires were distributed to managerial staff in small and medium-sized enterprises (SMEs) located in Pakistan. The survey employed a 7-point Likert scale for data collection. The questionnaire was divided into two main sections. The first section focused on gathering demographic information from respondents, including age, income, gender, education, and marital status. The second section consisted of essential scale items related to the various variables under investigation. The study specifically targeted SMEs in the textile and clothing sector for data collection. SMEs Owners and managers were chosen to collect the data within these SMEs. Out of the 500 questionnaires distributed, 280 were returned, while 10 were incomplete and excluded from analysis. This resulted in a response rate of 56%, with 270 valid responses available for analysis, representing a valid response rate of 54%. Data collection occurred between October 2022 and July 2023. All measurement metrics used in the study were adapted from existing research.

3.1. Research Instruments

Transformational Leadership: This study employed measurement scales that have been widely accepted and embraced by various management scholars. Specifically, a concise version of the seven-item measurement scale introduced by Carless et al. (2000) was utilized to assess transformational leadership.

Transactional Leadership: The evaluation of transactional leadership style was conducted using six items that were adapted from the work of MacKenzie et al. (2001). MacKenzie et al.'s (2001) measurement of transactional leadership encompasses two dimensions: contingent reward and contingent punishment.

Ethical Leadership: In this research, ethical leadership was gauged using Brown et al.'s (2005) ten-item scale. Participants were requested to rate their immediate superiors, including managers, leaders, supervisors, and those in charge.

Entrepreneurial Leadership: The assessment of entrepreneurial leadership employed a scale consisting of eight items, with responses solicited from immediate managers. This scale was developed and validated using various samples in accordance with established best practices in the field (Hinkins, 1995).

Organizational Learning: Organizational learning in this study was measured through a five-item scale drawn from the work of Zhao et al. (2011). Respondents were asked to indicate their level of agreement with a series of statements.

Sustainable Competitive Performance: The measurement of sustainable competitive performance encompassed various dimensions explored in prior research. However, our study relied on the comprehensive measures established by Mikalef and Pateli (2011), utilizing a ten-item scale to assess competitive performance.

Scale: In this research endeavor, 5-point Likert scales were utilized for all independent variables, ranging from strongly disagree (1) to strongly agree (5). Likewise, for Sustainable Competitive Performance (SCP), we employed 5-point Likert scales, ranging from extremely declined (1) to extremely improved (5).

4. RESULTS AND ANALYSIS

4.1. EVALUATING THE MEASUREMENT MODEL

Table 1: Standardized factor loading, validity, and reliability

Latent Variables	Loadings	CR	AVE	
Transformational Leadership				
TF1	0.598	0.896	0.554	
TF2	0.742			
TF3	0.797			
TF4	0.786			
TF5	0.755			
TF6	0.738			
TF7	0.777			
Transactional Leadership				
TS1	0.7	0.883	0.56	
TS2	0.634			
TS3	0.808			
TS4	0.857			
TS5	0.688			
TS6	0.78			
Ethical Leadership				
EL1	0.739	0.931	0.577	
EL10	0.713			
EL2	0.757			
EL3	0.808			
EL4	0.753			
EL5	0.76			
EL6	0.746			
EL7	0.736			
EL8	0.827			
EL9	0.747			
Entrepreneurial leadership				
ENT2	0.547	0.878	0.509	
ENT3	0.723			
ENT4	0.734			
ENT5	0.651			
ENT6	0.729			
				To be Continue
ENT7	0.794			
ENT8	0.787			
Organizational Learning				
OL1	0.783	0.901	0.647	
OL2	0.834			
OL3	0.858			
OL4	0.828			
OL5	0.709			
Sustainable Competitive Performance				
SCP1	0.828	0.859	0.507	
SCP2	0.793			
SCP4	0.634			
SCP5	0.653			
SCP6	0.656			
SCP7	0.688			

ENT1 & SCP3, SCP8, SCP9, SCP10 are deleted due to low factor loading.

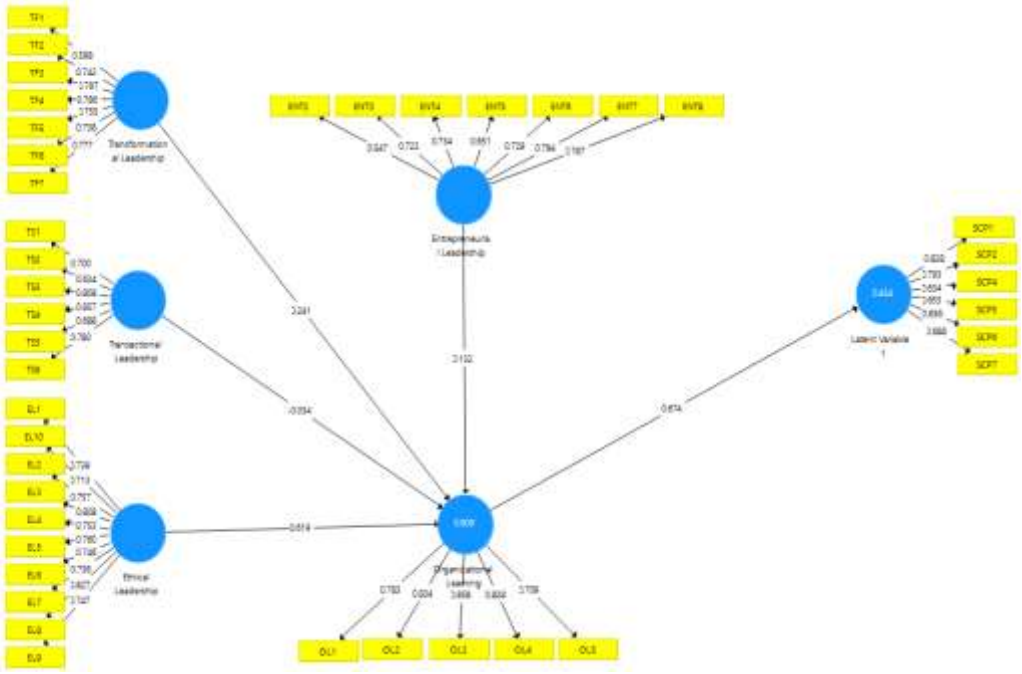

Figure 1 Measurement Model

Table 2 Heterotrait-Monotrait Ratio of Correlations (HTMT)

		1	2	3	4	5	6
Entrepreneurial Leadership		------					
Ethical Leadership		0.1	------				
Sustainable Competitive Performance		0.395	0.474	------			
Organizational Learning		0.159	0.829	0.743	------		
Transactional Leadership	0.097	0.853	0.438	0.741	-------		
Transformational Leadership		0.151	0.704	0.536	0.722	0.766	-------

Table 3: Evaluating Structural Model

	Direct Relationships						
	Relationships	Proposed Effect	beta-value	t-value	C.I 5%	C.I 95%	Results
H1(a)	ENTL -> OL	+ve	0.132	3.158	0.054	0.185	Supported
H2(a)	EL -> OL	+ve	0.619	8.511	0.497	0.736	Supported
H3(a)	OL -> SCP	+ve	0.674	21.551	0.612	0.719	Supported
H4(a)	TSF -> OL	+ve	-0.034	0.506	-0.148	0.074	Not Supported
H5	TFL -> OL	+ve	0.241	3.414	0.118	0.349	Supported
	Indirect Relationships						
H1(b)	ENTL -> OL -> SCP	+ve	0.089	3.022	0.033	0.127	Supported
H2(b)	EL-> OL -> SCP	+ve	0.417	8.517	0.336	0.498	Supported
H3(b)	TSF-> OL -> SCP	+ve	-0.023	0.502	-0.101	0.051	Not Supported
H4(b)	TFL -> OL-> SCP	+ve	0.163	3.253	0.078	0.241	Supported

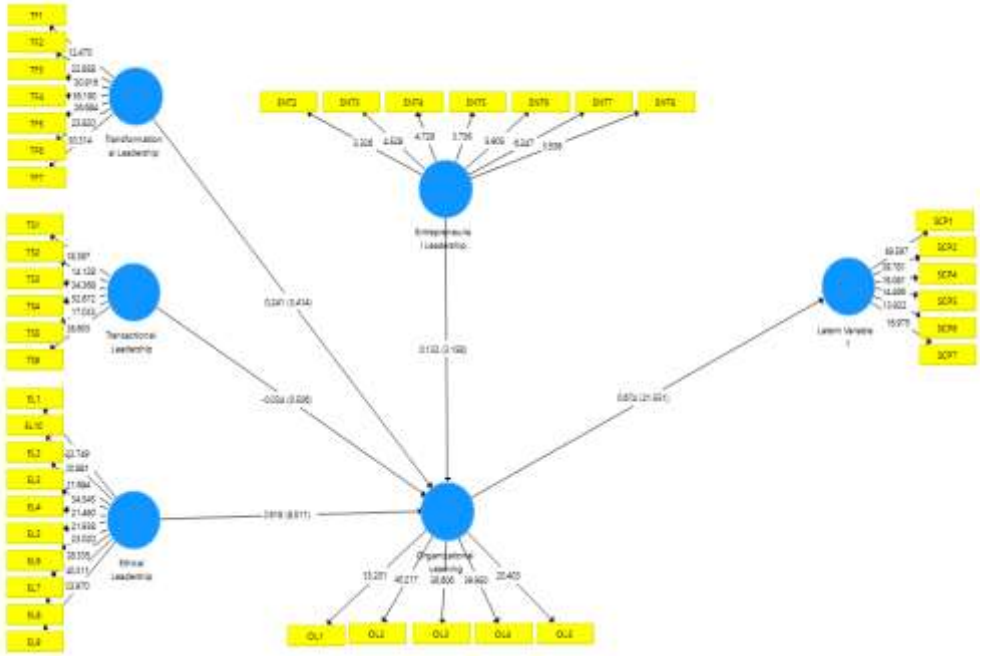

Figure 2 Structural Model

5. DISCUSSION

This study sheds light on the intricate relationships between leadership styles, organizational learning, and sustainable competitive performance (SCP) within the context of Pakistani SMEs operating in the sports and textile industries.

Its findings resonate with previous research, particularly in the case of EL and its impact on organizational learning. EL has consistently demonstrated its positive influence on fostering a culture of learning. This aligns with studies such as Brown et al. (2005), which emphasize the significance of ethical leaders in promoting normatively appropriate conduct and ethical principles, ultimately cultivating organizational learning. Similarly, our study's observation that EL significantly enhances organizational learning is corroborated by prior research. The entrepreneurial leadership style's emphasis on proactiveness, innovativeness, and risk-taking has been linked to a culture of creativity and learning (Aishah, Ahmad, & Thurasamy, 2020). This echoes the findings of scholars like Tarabishy et al. (2005) and Renko et al., (2015), who stress the importance of entrepreneurial leadership in driving innovation and knowledge acquisition within organizations.

Transactional Leadership, in contrast, does not exhibit a significant impact on organizational learning in this study, aligning with existing literature. Scholars such as MacKenzie et al. (2001) have noted that transactional leadership, centered on task-oriented approaches and contingent rewards or punishments, may not be as conducive to fostering a culture of continuous learning as other leadership styles.

The present study also reinforces the established positive relationship between organizational learning (OL) and sustainable competitive performance (SCP), a finding consistent with numerous prior studies. Notably, this correlation underscores the vital role played by learning organizations in maintaining a competitive edge (Mikalef & Pateli, 2011). These insights are in line with the research of Anand et al. (2023) highlighting that organizations equipped with the ability to continuously learn and adapt are better positioned for strategic change and practice, ultimately contributing to SCP.

In addition, the result validate indirect relationships, indicating that both ethical and entrepreneurial leadership styles positively influence organizational learning, subsequently enhancing sustainable competitive performance. These findings harmonize with the broader literature emphasizing the pivotal role of leadership in shaping organizational outcomes (Bass & Riggio, 2006). However, it is noteworthy that Transactional Leadership (TSF) does not significantly impact organizational learning or exert an indirect influence on SCP through organizational learning. This is consistent with earlier research indicating that transactional leadership may not be as effective in promoting learning and adaptability as other leadership styles (Bass & Riggio, 2006).

In this context, the positive influence of Transformational Leadership (TFL) on organizational learning aligns seamlessly with prior research. Transformational leaders' ability to inspire, motivate, and challenge employees has consistently been associated with innovation and knowledge acquisition (Bass & Riggio, 2006). This concurrence with

existing literature underscores the enduring significance of transformational leadership in fostering learning within organizations.

5.1. PRACTICAL IMPLICATIONS

For leaders and managers in Pakistani SMEs within the sports and textile industries, this study's findings offer actionable insights. Prioritizing ethical and entrepreneurial leadership styles is crucial for fostering organizational learning and improving sustainable competitive performance, a sentiment shared by Brown et al. (2005) and Nor-Aishah et al. (2020). Encouraging ethical behavior and cultivating entrepreneurial spirit can serve as catalysts for learning, innovation, and adaptability.

Transformational leadership practices can also contribute positively to organizational learning, aligning with the leadership principles advocated by Bass and Riggio (2006). Leaders must focus on inspiring and motivating their teams, especially in the context of Industry 4.0, where innovation and continuous learning are paramount.

5.2. LIMITATIONS AND FUTURE RESEARCH

Acknowledging the limitations of our study, we recognize the cross-sectional nature of this research design, limiting the ability to establish definitive causality. Future research employing longitudinal designs, as suggested by Brown et al. (2005), can offer insights into the evolving dynamics of leadership styles, organizational learning, and their enduring impact on SCP.

Additionally, current study's industry-specific focus (sports and textiles) and Pakistani context warrant caution regarding generalizability. Exploring variations across industries and regions, as recommended by Anand et al. (2023), can enrich our understanding of these relationships in diverse contexts.

6. CONCLUSION

In conclusion, our study highlights the fundamental roles of leadership styles, organizational learning, and their collective impact on sustainable competitive performance in Pakistani SMEs within the sports and textile sectors. By grounding their practices in ethical, entrepreneurial, and transformational leadership, organizations can effectively navigate the challenges posed by Industry 4.0. These leadership approaches foster cultures of innovation, adaptability, and sustained competitiveness, reinforcing the enduring relevance of leadership in contemporary business environments.

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