Organizational Environment and Management Skills in Small and Medium-Sized Enterprises

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ABSTRACT

At present, managers need to acquire and master various management skills that contribute to a positive organizational environment. **The aim** of this study is to investigate the association between management skills and the organizational environment of small and medium-sized enterprises (SMEs) in Karachi, Pakistan. The primary **objective** is to determine how various management skills — negotiation, decision-making, leadership, communication, and teamwork — affect the organizational environment within SMEs. **Scientific methods** for research adopt a descriptive and quantitative approach, utilizing a questionnaire administered to managers of 253 SMEs. Data analysis was conducted using structural equation modeling (SEM) via the partial least squares (PLS) method, employing SmartPLS 4 software. **Findings** of the study reveal that the latent variables of negotiation and leadership significantly impact the organizational environment, with an R-square value of 0.854. The effect size (F-square) indicates a high impact of negotiation (F-square = 0.720) on the organizational environment, while leadership has a lower but still significant effect (F-square = 0.103). Other management skills, such as decision-making, communication, and teamwork, also show positive associations with the organizational environment, although to lower degrees. **Conclusions.** The study emphasizes the significance of management skills, particularly effective negotiation and leadership, in fostering a productive organizational environment in SMEs. Also, it suggests that training and development in these areas could significantly improve performance.
Keywords: organizational environment; management; management skills; SMEs; negotiation; leadership; SEM-PLS; Pakistan

Организационная среда и управленческие навыки на малых и средних предприятиях

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АННОТАЦИЯ

В настоящее время руководителям необходимо приобретать и совершенствовать различные управленческие навыки, которые способствуют созданию позитивной организационной среды. **Целью** данного исследования является изучение связи между управленческими навыками и организационной средой малых и средних предприятий (МСП) в Карачи, Пакистан. Основная задача состоит в том, чтобы определить, как различные управленческие навыки — ведение переговоров, принятие решений, лидерство, коммуникация и командная работа — влияют на организационную среду в малых и средних предприятиях. Научные **методы** исследования основаны на описательном и количественном подходе с использованием анкетирования, проведенного среди руководителей 253 малых и средних предприятий. Анализ данных проводился с использованием структурных уравнений (SEM) методом частичных наименьших квадратов (PLS) и применением программного обеспечения SmartPLS 4. **Результаты** исследования показывают, что

латентные переменные, такие как ведение переговоров и лидерство, оказывают значительное влияние на организационную среду с коэффициентом R-квадрат, равным 0,854. Размер эффекта (F-квадрат) указывает на высокое влияние переговоров (F-квадрат = 0,720) на организационную среду, в то время как лидерство оказывает меньшее, но все же значительное влияние (F-квадрат = 0,103). Другие управленческие навыки, такие как принятие решений, коммуникация и командная работа, также демонстрируют положительную связь с организационной средой, хотя и в меньшей степени. **Выводы:** в исследовании подчеркивается важность управленческих навыков, особенно эффективных переговоров и лидерства, для создания продуктивной организационной среды на малых и средних предприятиях. Также предполагается, что обучение и повышение квалификации в этих областях могут значительно повысить эффективность работы.
Ключевые слова: организационная среда; менеджмент; управленческие навыки; малые и средние предприятия; переговоры, лидерство; SEM-PLS; Пакистан

Introduction

The sustainability of small and medium-sized enterprises (SMEs) has been found to be influenced by a number of variables, including how managers and administrators use their newly acquired management abilities to establish productive work environments. Because of this, managers must figure out how to best utilize the particular skills held by their workforce. They must also emphasize the management role in making decisions by encouraging communication to create inspiring and motivating work environments. While it is true that the company wants to reap the greatest benefits, it also needs to consider how well managers are performing in terms of meeting corporate goals and maintaining positive organizational environments.

Different researchers have examined managers' skills and functions, which, while real, are similar. However, various studies have found evidence of a correlation between certain control skills and the prevalence of effective organizational environments. An employer should encourage the development of interpersonal relationships and work groups to foster synergy among coworkers within the organization. For this reason, they have a positive or negative correlation through their relationships that greatly affects how well they perform and achieve their goals.

Consequently, strong organizational environments may contribute to the company's high overall performance. This is particularly true in the current business environment, where organizations are undergoing rapid change and globalization, which calls for leaders with more advanced skills and attitudes who can effectively manage the administrative and operational procedures and processes that are essential to the business's profitability.

Some authors contend that because control skills promote management styles, knowledge, competencies, and decision-making abilities, they are essential for managers to develop as experts. It is crucial that people who lead businesses have the capabilities to fully follow client satisfaction and offer satisfactory careers. In Pakistan as of 2020, there was a wide variety of financial units totaling 6,487,061 of which 92.30% were microenterprises; 6.44% were small businesses; 0.99% were medium-sized groups; and 0.27% were large companies. It shows the vitality of management skills, especially recognizing that SMEs (451,628) make contributions of around 60% of the national GDP.

Studies conducted both domestically and internationally show that over 70% of business managers have developed a few control skills, such as communication, delegation of authority, cooperation, and leadership, which together create the optimal organizational environment.

The goal of this study is to investigate the relationship between managers' management competencies and the organizational environment of SMEs in Karachi, Sindh, Pakistan, using structural equation modeling (SEM) via the partial least squares (PLS) PLS-SEM method.

Literature review

Currently, the phenomenon of globalization drives and requires companies, including SMEs, to be extra green and powerful in achieving goals, with a purpose to meet the expectations of an increasingly stressful market [1]. There are numerous elements or variables, both endogenous and exogenous, that contribute to the success of economic gain for com-

panies. Among these, managers' managerial competencies stand out for their ability to sell perfect organizational environments [2]. It is pointed out that a supervisor's managerial skills must be global in nature [3]: organizational, which implies being green (minimizing costs) and effective (achieving amazing effects) [4]; assertive and improving relationships between staff and senior executives [5–6].

Pakistani SMEs that evaluate their organizational environment are better able to plan how to make adjustments that will enhance the collaborators' patterns of behavior and attitude that make up the organizational form [7]. This is especially important for managers, as it allows them to leverage their managerial skills to establish a more effective, flexible, and adaptable company, allowing employees to choose goals and preferences that may be specific to the company. In this way, the workforce becomes more involved in the business endeavor and reaps some long-term, competitive advantages [9]. In Pakistan, there's a perception that SMEs start from the idea of family business [10]. However, many of them come from entrepreneurial endeavors that are no longer based on family ties [11]. SMEs in Pakistan have low decision-making and control capabilities, flat organizational structures, and insufficient financial and managerial expertise [12, 13]. They also need to improve their control skills.

Nowadays, several theoretical and empirical research have demonstrated interconnectedness by focusing on understanding control capacities and organizational environments and how they interact [14].

Several studies affirm that diverse control talents shape the organizational environment [15]. In this sense, entrepreneurs focus on observing human behavior due to its significant economic and social impact across various sectors [16]. Numerous authors have approached the development of management abilities and the organizational environment from specific points of view [17].

Within years of their creation, 60% of SMEs in Pakistan fail or close, entering what is known as the "valley of death," where the majority of start-ups fail and die [18]. They do, however, continue to represent a platform of opportunity for enhanced financial system [19]. The scenario as described may be caused by a variety of factors, including a lack of investment and innovation [21], organizational practices that affect proper governance of the commercial firm [20], and a lack of strategic

planning. As stated, because they are small entities, SMEs have more flexibility in the model, similar to facilitating communication approaches among the organizational structure and the managers, generating an advantageous effect on enterprise [22].

The overview of the literature allowed us to select variables that collectively determine the control capabilities for this examination. Every supervisor needs to develop, undertake, study, and perfect their managerial talents in communication, leadership, creativity, selection-making, time control, teamwork, and assertiveness, among others; as well as a sequence of attributes (attitudes, values, and talents) essential to effectively carry out control features.

Based on the above, the following are considered necessary management skills for this study: negotiation, decision-making, leadership, communication, and teamwork.

Negotiation

The process of negotiation involves two or more parties experiencing a common problem working together and trying to find a solution that will best serve their goals, aspirations, and desires while also using interpersonal communication techniques. In small and medium-sized companies, negotiation plays a crucial function in shaping the organizational environment. These companies often face specific demanding situations that require flexible negotiation strategies to secure assets, manage relationships with suppliers, and attract talented employees. Effective negotiation within these corporations can foster an organizational culture that is more collaborative and adaptable. Leaders who are skilled negotiators can foster an environment that helps innovation and responsiveness, which are critical for maintaining competitiveness and growth in a dynamic marketplace. Thus, studying the art of negotiation is not just about making deals — it is developing a thriving administrative center that could navigate and capitalize on the complexities of the business world. In this way, the capacity to influence a negotiation is a means of selling a solution to a conflict and improving the work environment for the employer. Under the preceding context, the abilities of the negotiator are vital so that the consequences are beneficial and not adverse to the company. This is how the primary hypothesis of the study is formulated:

H1. Negotiation is positively related to the organizational environment of the SME.

Decision-making

Decision-making is an essential technique in which the best option ought to be selected from several alternatives. In small and medium-sized companies (SMEs), decision-making processes are often exceptionally inspired by the organizational environment. These organizations generally benefit from more flexible decision-making structures as compared to large groups, bearing in mind faster responses to market changes and operationally demanding situations. Small and medium-sized enterprises typically have a close-knit organizational culture with brief and informal communication channels, which can enhance decision-making performance and flexibility. But this might also create difficult circumstances, such as limited resources for in-depth selection study and a dependence on the intuition and experience of a small number of individuals, which could undoubtedly result in biases or uncertain strategic routes. As a result, making decisions in SMEs effectively requires a balanced approach that takes use of their natural flexibility while also putting procedures in place to reduce the risks associated with limited oversight and assistance. The second study hypothesis is:

H2. Decision-making is positively related to the organizational environment of the SME.

Leadership (L)

Experts have determined that effective leadership plays a crucial role in creating optimal environments. Leadership within small and medium-sized enterprises performs a crucial role in shaping the organizational environment. In these corporations, leaders often wear multiple hats, influencing the corporation's culture, morale, and productivity. Effective management in SMEs commonly involves a high degree of adaptability, customized interactions with group contributors, and an emphasis on fostering a collaborative and innovative environment. Building strong, open relationships and ensuring that the business can quickly adapt to changes and obstacles are made possible by this close-knit control style, which is essential for the company's growth and sustainability in the competitive commercial enterprise landscape. The subsequent hypothesis is formulated:

H3. Leadership is positively associated with the organizational environment of the SME.

Communication (C)

Communication skills have become a necessary axis for any type of organization. Administrative communication is an effective bidirectional process of exchanging information with a specific purpose, improving the environment in the company, and achieving organizational objectives. Communication inside small and medium-sized corporations is critical for fostering a vibrant organizational environment. The close-knit character of those environments typically allows for more frequent and direct interactions between team members, which can enhance decision-making processes and promote transparency. Effective verbal exchange channels allow for the free float of thoughts, remarks, and facts, which is critical for innovation and hassle-fixing. Additionally, communication has a greater impact on smaller businesses due to its immediate influence on organizational culture, employee engagement, and the overall ability of the business to adapt to changing market conditions. These companies can cultivate a cooperative atmosphere that fosters development and employee satisfaction by placing a high value on candid and open communication. The fourth research hypothesis is the following:

H4. Communication is positively associated with the organizational environment of the SME.

Teamwork (T)

In companies, collaborative work can help people in the structure have an effective organizational environment that also meets the needs of the client. In SMEs, teamwork is essential to creating a vibrant and productive work environment. In SMEs, the near-knit structure allows for easier collaboration and communication among group members, resulting in quick decision-making techniques and extra flexibility in responding to market changes. This environment encourages personnel to put on multiple hats and often go into purposeful roles, enhancing their talents and boosting universal job satisfaction. Furthermore, the sense of network and shared desires in such setups strengthens employee engagement and loyalty, which are critical for using innovation and achieving sustainable growth in smaller businesses. Teamwork in a multidisciplinary environment promotes the improvement of general managerial capabilities,

which include interpersonal verbal exchange, moral experience. The fifth study hypothesis is:

H5. Teamwork is positively related to the organizational environment of the SME.

The organizational environment (O)

The authors propose that the organizational environment serves as a temporary substitute for human attitudes, while also acknowledging its connection to employees' perceptions of their work environment, which they can influence. Management skills in small and medium-sized companies are critical for navigating the specific challenges and opportunities these corporations face. Effective managers in these settings should excel in strategic planning and decision-making to optimize overall performance and growth. They frequently wear many hats, balancing operational responsibilities with leadership ones. The organizational environment in smaller corporations typically demands flexibility, adaptability, and a strong ability for alternate control. This environment frequently fosters a near-knit team environment, where conversation and collaboration are pivotal. Managers in these contexts have to cultivate a supportive subculture that

encourages innovation and continuous improvement, essential for staying aggressive in dynamic markets. Change is contingent upon the relationships that take place.

Organizational culture

As a system of core values and codes of conduct within an enterprise, organizational culture is essential for building a positive and healthy working environment. Organizational culture has a direct impact on the competitiveness and long-term growth of SMEs, in addition to influencing the work attitudes and behavior patterns of employees. A positive organizational culture encourages open communication, teamwork and continuous innovation, so that employees can feel a sense of belonging and value recognition. By establishing common goals and values, organizational culture can stimulate the enthusiasm and creativity of employees and promote a good collaborative atmosphere within the enterprise, thereby bringing stronger market competitiveness and higher performance to the enterprise. Therefore, building and maintaining a positive organizational culture is an important task that every business manager cannot ignore.
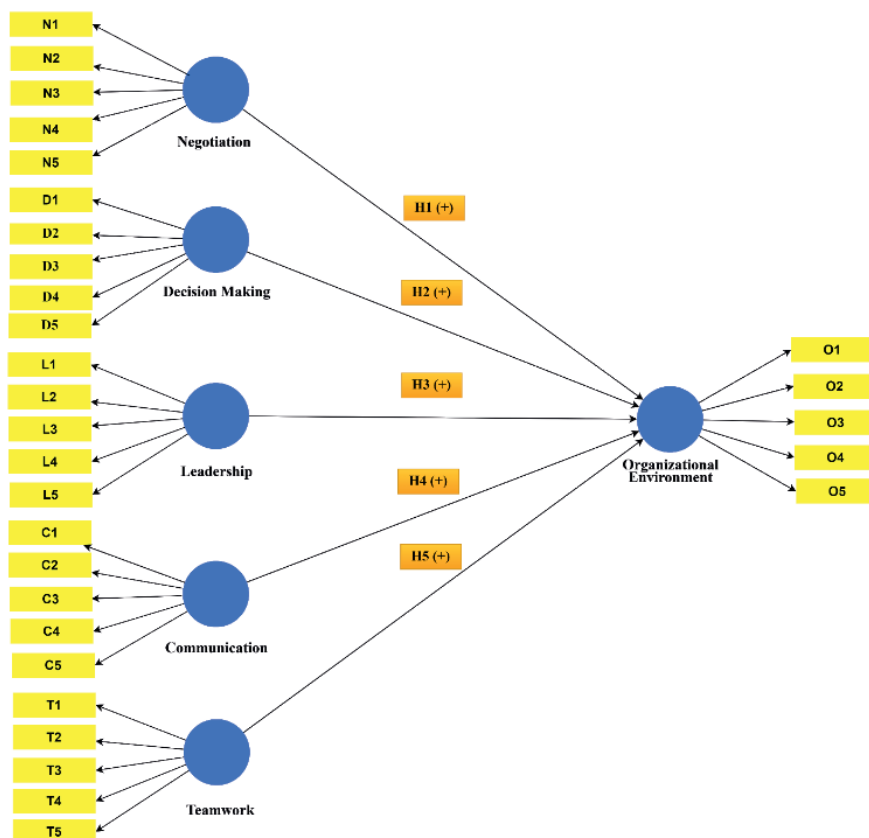

Fig. 1. **Proposed measurement model**

Source: Developed by the authors.

Table 1
Model description

Latent variable	Item	Statement
Organizational Environment (O)	Ítem1_(O_1)	The organizational tradition encourages open communication and collaboration among personnel
	Ítem2_(O_2)	The management team efficaciously communicates the corporation's imaginative prescient and strategic direction
	Ítem3_(O_3)	The organizational structure and methods help efficient decision-making and workflow
	Ítem4_(O_4)	The company actively adapts to adjustments in the external environment, along with marketplace trends and technological advancements
	Ítem5_(O_5)	The enterprise prioritizes employee improvement and provides possibilities for expert growth
Negotiation (N)	Ítem1_(N_1)	I am very well-prepared by gathering applicable statistics and figuring out my goals before entering into a negotiation
	Ítem2_(N_2)	I am inclined to compromise and discover innovative answers that deal with the pastimes of all parties involved
	Ítem3_(N_3)	During negotiations, I actively listen to the other party's issues and try and apprehend their angle
	Ítem4_(N_4)	I comply with agreements and commitments made through negotiations to ensure they are nicely applied
	Ítem5_(N_5)	I continue to be calm and expert, even when confronted with difficult or contentious situations at some stage in negotiations
Decision Making (D)	Ítem1_(D_1)	I carefully bear in mind all to be had records before making crucial decisions
	Ítem2_(D_2)	I generally tend to weigh the capability risks and advantages of each alternative before selecting a course of action
	Ítem3_(D_3)	When confronted with a tough decision, I am trying to find inputs from others who may have valuable perspectives
	Ítem4_(D_4)	I am snug in making decisions even if there may be some uncertainty or ambiguity
	Ítem5_(D_5)	I have an established method of decision-making that involves defining the problem, producing alternatives, and evaluating them against specific criteria
Leadership (L)	Ítem1_(L_1)	Leader/supervisor virtually communicates expectations
	Ítem2_(L_2)	Chief/manager demonstrates integrity and leads by example
	Ítem3_(L_3)	The chief/manager supports and facilitates the growth and success of my expertise
	Ítem4_(L_4)	Chief/manager efficiently manages conflicts and fosters a positive group environment
	Ítem5_(L_5)	The chief/supervisor is open to comments and suggestions from group participants
Communication (C)	Ítem1_(C_1)	I feel happy to express my ideas and opinions in conferences or group discussions
	Ítem2_(C_2)	The employer offers clear and well-timed conversations with vital updates or changes
	Ítem3_(C_3)	My colleagues actively listen and show respect for distinctive viewpoints during conversations
	Ítem4_(C_4)	There are efficient communication channels (such as email, messaging apps, and conferencing) available to make information exchange within the company easier
	Ítem5_(C_5)	Every day, I receive encouraging remarks from my manager or supervisor

Table 1 *(continued)*

Latent variable	Item	Statement
Teamwork (T)	Ítem1_(T_1)	I believe that my group contributors respect and cherish the contributions I make
	Ítem2_(T_2)	Team members share knowledge and understanding to help achieve shared objectives
	Ítem3_(T_3)	There is a strong sense of support and cooperation among group members
	Ítem4_(T_4)	On my team, we recognize and honor individual accomplishments as well as teamwork and character
	Ítem5_(T_5)	Conflicts or disagreements inside the team are addressed in a positive and respectful way

Source: Developed by the authors.

Theoretical model

The theoretical model arises from the review of the literature and is shown in *Fig. 1*, which proposes that the dimension version be contrasted. The model has 5 constructs or variables (diagram paths), where the hypotheses and objects for each of them can be seen.

The model includes the following constructs: negotiation, decision-making, leadership, communication, and teamwork are the independent variables (exogenous latent variables) and the organizational environment is a based variable (endogenous latent variable). The variables are presented in *Table 1*.

Research method

The research design was descriptive with a quantitative approach. Using the data gathered, analysis was done with an emphasis on immediately observable, quantitative, and measurable characteristics. The data were based on the perception of the managers. The SEM model was built using the partial least squares technique with the help of the SmartPLS software 4. The estimation of the model parameters was done using the PLS algorithm and the bootstrapping procedure to minimize standard errors. The model was estimated by applying the partial least squares procedure.

The research was conducted on SMEs working in the commerce sector of the municipal capital of Karachi, Sindh, Pakistan. Executive and managerial positions were included. The authors used the National Statistical Directory of Economic Units (DENUE) of the National Institute of Statistics and Geography, from which a population of 261 SMEs in the commerce sector was obtained. To calculate the sample size, the number and characteristics of the population were considered. The total sample for this study

Table 2
Scientific notations and their meanings

n =	Sample size
N =	Population
$Z^2 \propto =$	Desired confidence level
$e^2 =$	Allowable error level
p =	The percentage of the population with the desired characteristic (success)
q =	Percentage of the population that fails to exhibit the desired trait

Source: Developed by the authors.

included 253 directors or managers of SMEs. The calculation was carried out for finite populations and non-probabilistic samples with a maximum acceptable sampling error of 5% and a confidence level of 95%. *Table 2* shows scientific notations used in the paper.

This study's analytical tool was the partial least squares approach, which has flexible assumption requirements and may be applied to any kind of data scale (nominal, ordinal, interval, and ratio). The internal or structural model used to measure the latent and observable variables was reflective since the indicators that cause the latent variable are not interchangeable.

For this study, the variables used are Negotiation (N), Decision Making (D), Leadership (L), Communication (C), and Teamwork (T), which are independent variables, while Organizational

Table 3
Detailed explanation of the research variables

Variable type	Name (symbol) and definition	Indicator
Independent or exogenous	Negotiation (N) is a method by which two or more parties with a shared issue try to find a solution that works for everyone by using interpersonal communication strategies	N_1, N_2, N_3, N_4, and N_5 Measured with Likert scale
	Decision Making (D) is thought of as the process of choosing between two or more options that may be somewhat significant in the advancement of the working life, with managers bearing a larger degree of responsibility in this regard	D_1, D_2, D_4, and D_5 Measured with Likert stale
	Leadership (L) is the capacity to impart knowledge, lead a group or institution in a certain manner, and contribute to the achievement of desired outcomes	L_1, L_2, L_3, L_4, and L_5 Measured with Likert stale
	Communication (C) is the emotional and intellectual aspect that results from man's yearning to connect with others and exchange ideas that take on importance or meaning based on shared experiences	C_1, C_2, C_3, C_4, and C_5 Measured with Likert stale
	Teamwork (T) is the assurance that the members' expertise, knowledge, skills, talents, and competencies will enable them to accomplish the suggested aims and goals	T_1, T_2, T_3, T_4, and T_5 Measured with Likert stale
Dependent or endogenous	Organizational environment (O) refers to the features of the workplace environment that its employees inhabit	O_1, O_2, O_3, and O_5 Measured with Likert scale

Source: Developed by the authors.

Environment (O) is the dependent variable. To explain and define the indicators used in the research, *Table 3* shows the concepts that have been operationalized as follows.

Using a Likert scale as a measure (from absolutely disagree to completely agree), a questionnaire coded for field work was applied as part of the inquiry technique to acquire the information. The multi-item Likert scale is used to gauge an individual's or group's attitudes, beliefs, and comprehension of social phenomena. Respondents' evaluation of the response attributes in this study was graded according to *Table 4*.

Findings

According to *Table 5,* the respondents included: 67% were men and 33% were women, with the age group of 25 to 45 years old being the most represented at 75%. Regarding to the duration of employment, 43% of the respondents indicated they had been employed by the firm for over 12 years,

indicating a feeling of identification and affiliation with the organization, while 51% had been there for five to ten years. The respondent's highest level of education was a bachelor's degree (25%), followed by a postgraduate degree (21%). This indicates a high level of study and competency for the management positions within the firms. And industries were manufacturing 35.57%, services 28.85%, tech-

Table 4
Likert scale components

No.	Answer	Worth
1	Totally disagree	1
2	In disagreement	2
3	Partially disagree	3
4	Partially agree	4
5	OK	5
6	Totally agree	6

Source: Developed by the authors.

nology 15.8%, medical insurance 11.85%, and the other 7.9%. Lastly, medium-sized businesses accounted for 83% of the total, compared to 17% for small businesses, and company position manager 55.7% and director 44.3%.

Based on each of their latent variables (constructs), the measurement model examines the factor loadings in the variables that are observable (indicators). The validity and dependability of the suggested theoretical model are assessed using this framework. Cronbach's alpha (α) was employed as a reliability measure for this investigation, and all of the indicators had values greater than 0.80, which indicates a good level of reliability in the constructs, including the dependent variable, as is shown in *Table 6.*

The composite reliability (ρc) values are higher than 0.80, which indicates that the data are appropriate for confirmatory investigation. It displays the computation for the composite dependability (pc), which is more suited for the PLS approach than Cronbach's alpha since it does not imply uniform weighting for every indication. It also benefits from not being impacted by the quantity of objects on a scale. Both indices, however, have a fairly similar interpretation: values above 0.7 are regarded as "modest," whereas values above 0.8 indicate more robust levels of dependability.

Convergent and divergent validity may be assessed using the average variance extracted (AVE). The value in a reflecting model displays the aver-

Table 5
Descriptive statistics of respondents

Demographic Variable	Category	Frequency	Percentage, %
Gender	Male	170	67
	Female	83	33
Age	25–45	190	75
	46–60	63	25
Years of Employment	1–4 years	15	6
	5–10 years	129	51
	11–12 years	0	0
	Over 12 years	109	43
Education Level	High School	54	21
	Bachelor's Degree	63	25
	Master's Degree	0	0
	Postgraduate Degree	54	21
Organization Size	Small (1–50 employees)	43	17
	Medium (51–250 employees)	210	83
Industry	Manufacturing	90	35.57
	Services	73	28.85
	Technology (or technology industry)	40	15.8
	Medical insurance	30	11.85
	Other	20	7.9
Position	Manager	141	55.7
	Director	112	44.3

Source: Developed by the authors.

Table 6
Measurement model. Construct reliability

Construct/Indicator	Cronbach's alpha (α)	rho_A	Composite Reliability(ρc)	Extracted Variance Analysis (AVE)	Result
Negotiation (N)	0.856	0.876	0.935	0.683	Valid
Decision making (D)	0.889	0.924	0.903	0.667	Valid
Leadership (L)	0.936	0.938	0.907	0.718	Valid
Communication (C)	0.837	0.835	0.872	0.639	Valid
Teamwork (T)	0.913	0.903	0.906	0.785	Valid
Organizational Environment (O)	0.826	0.827	0.867	0.626	Valid

Source: Developed by the authors.

age communality for each of the components. The numbers displayed in *Table 4* are consistent with the premise that each component must account for more than half of the variation of its corresponding indicator, meaning that the AVE value must be more than 0.50. The factor's pathways toward its indicators indicate the loadings of the external models in the reflective model. The loads in the reflective models have to be greater than the calculated value of 0.707. At this level, the factor (community = $\lambda 2$) accounts for half of the indicator's variation. If an indicator's loading falls between 0.40 and 0.70, it is advised to remove the indicator in order to increase composite dependability. The individual reliability of the causal

model's indicators — which is the basis for the current study — is displayed in *Table 7.*

Similarly, and in line with *Table 7*, each indicator's factor loading is displayed via the structural diagram of the first suggested model, and the final model's structural diagram, which is generated using the PLS algorithm, displays the significant factor loading for the final indicators.

Discussion

The degree to which a construct differed from others was established by the discriminant validity study. Three steps were included in this analysis: The Fornell-Larcker criterion, cross-loadings between latent variables and indica-

Table 7
Individual reliability of the indicators of the proposed causal model

Build Indicator	Factor loading (λ)
Negotiation (N)	
N_1, N_2, N_3, N_4 and N_5	0.751; 0.839; 0.810; 0.722; 0.782
Decision making (D)	
D_1, D_2, D_3, D_4 and D_5	0.780; 0.742; 0.739; 0.725; 0.762
Leadership (L)	
L_1, L_2, L_3, L_4 and L_5	0.772; 0.741; 0.802; 0.736; 0.725
Communication (C)	
C_1, C_2, C_3, C_4 and C_5	0.766; 0.776; 0.753; 0.782; 0.722
Teamwork (T)	
T_1, T_2, T_3, T_4 and T_5	0.794; 0.755; 0.817; 0.815; 0.843
Organizational Environment (O)	
O_1, O_2, O_3, O_4 and O_5	0.770; 0.754; 0.779; 0.742; 0.720

Source: Developed by the authors.

Table 8
Discriminant validity (Fornell-Larcker criterion)

Construct	Organizational environment	Communication	Leadership	Negotiation	Decision making	Teamwork
Organizational Environment (O)	0.799					
Communication (C)	0.722	0.822				
Leadership (L)	0.729	0.756	0.825			
Negotiation (N)	0.708	0.684	0.653	0.821		
Decision Making (D)	0.742	0.719	0.739	0.712	0.799	
Teamwork (T)	0.759	0.760	0.770	0.510	0.716	0.854

Source: Developed by the authors.

tors, and the heterotrait-monotrail ratio of correlations (HTMT) are the first three criteria. The discriminant validity under the Fornell-Larcker criterion is displayed in *Table 8,* where the indicator loading value is greater than the correlations between the constructs.

Conversely, *Table 9* displays the cross-factor loadings of the indicators for a latent variable. Here, each item loads with its corresponding construct, providing a proof of the discriminant validity of the model across all of its components.

The validation of the structural model was carried out by analyzing the causal relationships of the variance explained by the coefficient of determination R^2 between the independent variables (exogenous) and the dependent variable (endogenous). From this statistical test, the organizational environment with $R^2 = 0.854$ has a very acceptable predictive power. In that sense, it is considered that an R^2 can have values of 0.75 (substantial), 0.50 (moderate), and 0.25 (weak). The result of R^2 for the proposed structural model indicates a very good value, which implies that 80.4% of the variance of the organizational environment variable in SMEs in the community of Karachi, Sindh, is explained by the variables: negotiation and leadership. *Table 10* shows the amount of variance of the dependent variable, which is explained by the predictor variables of the endogenous construct.

Regarding R^2 as a predictive criterion, they recommend evaluating the Stone-Geisser test as a Q^2 (cross-validated redundancy) criterion; In that sense, the value of $Q^2 = 0.689$ indicates a value above zero, which indicates a strong and satisfactory

prediction for the proposed model. The F-Square is used to evaluate the contribution to R^2 of the independent variables that have been omitted from the model. For this case, the F-Square effect in the relationship between organizational environment and negotiation is high (F-Square = 0.720); while, in the case of the relationship between organizational environment and leadership, the effect is low (F-Square = 0.103), as shown in *Table 11.*

Table 12 shows the results of the PLS analysis of the structural model. Standardized regression coefficients indicate the relationships of the research model hypotheses. The beta coefficients (β) must reach or exceed a value of 0.2 to be considered significant.

In this sense, the causal relationships that have been proposed as research hypotheses meet the acceptance criterion. N → O is strong (0.677), the relationship between the constructs L → O is moderate (0.416), while the relationship between the constructs D → O; C → O; T → O, turned out to be non-significant.

Fig. 2 shows the path coefficients and p values of the structural model that were obtained from the Path-PLS algorithm as a prediction of causal hypotheses. It can be seen that the negotiation variable has the greatest effect on the organizational environment (0.677), while leadership (0.416) has less impact, but is still significant.

Practical significance
The results of this study have far-reaching significance for the management practice and education of small and medium-sized enterprises. First, for SME managers, the study emphasizes

Table 9
Cross-loadings of the constructs

Construct Indicator	Organizational environment	Negotiation	Decision making	Leadership	Communication	Teamwork
O_1	0.770	0.657	0.466	0.577	0.562	0.555
O_2	0.754	0.709	0.604	0.603	0.623	0.510
O_3	0.779	0.625	0.591	0.537	0.524	0.509
O_4	0.742	0.692	0.692	0.687	0.562	0.473
O_5	0.720	0.574	0.571	0.596	0.638	0.612
N_1	0.711	0.751	0.661	0.646	0.745	0.702
N_2	0.449	0.839	0.471	0.444	0.466	0.352
N_3	0.657	0.810	0.467	0.476	0.521	0.302
N_4	0.722	0.722	0.624	0.751	0.539	0.456
N_5	0.767	0.782	0.650	0.533	0.510	0.449
D_1	0.639	0.545	0.780	0.725	0.653	0.722
D_2	0.493	0.468	0.742	0.601	0.471	0.420
D_3	0.535	0.520	0.739	0.511	0.453	0.345
D_4	0.528	0.548	0.725	0.624	0.639	0.637
D_5	0.722	0.620	0.762	0.774	0.759	0.791
L_1	0.546	0.529	0.664	0.772	0.631	0.702
L_2	0.595	0.519	0.648	0.741	0.659	0.766
L_3	0.618	0.543	0.770	0.802	0.616	0.766
L_4	0.611	0.520	0.762	0.736	0.649	0.629
L_5	0.649	0.570	0.787	0.725	0.650	0.578
C_1	0.702	0.667	0.534	0.649	0.766	0.645
C_2	0.607	0.497	0.570	0.630	0.776	0.697
C_3	0.449	0.398	0.474	0.497	0.753	0.647
C_4	0.523	0.496	0.709	0.743	0.782	0.695
C_5	0.571	0.458	0.552	0.569	0.722	0.525
T_1	0.496	0.483	0.548	0.536	0.534	0.794
T_2	0.639	0.534	0.694	0.782	0.652	0.877
T_3	0.742	0.505	0.685	0.755	0.694	0.817
T_4	0.450	0.372	0.599	0.573	0.686	0.815
T_5	0.585	0.521	0.596	0.658	0.698	0.843

Source: Developed by the authors.

Table 10
Validation of the structural model

Dependent variable	R^2	R^2 adjusted	RMSE	MAE	Q^2 predict
Organizational environment	0.854	0.798	0.588	0.435	0.689

Source: Developed by the authors.

Table 11
Effect size of F-Square in the model

Construct	Organizational environment
Negotiation (N)	0.720
Decision Making (D)	0.002
Leadership (L)	0.103
Communication (C)	0.008
Teamwork (T)	0.004

Source: Developed by the authors.

Table 12
Results of the PLS analysis structural model

Hypothesis	Standardized path coefficient (β)	t value (Bootstrap)	P(value)
H1: Negotiation (N) → Organizational Environment (O)	0.677	4.483*	0.000
H2: Decision making (D) → Organizational Environment (O)	−0.023	0.151ns	0.442
H3: Leadership (L) → Organizational Environment (O)	0.416	1.762*	0.037
H4: Communication (C) → Organizational Environment (O)	0.079	0.467ns	0.316
H5: Teamwork (T) → Organizational Environment (O)	0.065	0.353ns	0.357

Note: * *t* value > 1.6766 ($p < 0.05$), ns = not significant.

Source: Developed by the authors.

the core role of negotiation and leadership skills in shaping a positive organizational environment. This provides a clear direction for enterprises to improve their internal management capabilities, prompting managers to pay attention to and strengthen the training and development of these key skills. Secondly, in the field of management education, the results of this study can guide educational institutions to design more targeted courses, especially for the needs of SME managers, and integrate the cultivation of negotiation and leadership skills into daily teaching, thereby improving the comprehensive quality and practical ability of future managers. Finally, through the practical application of this study, it can not only help SMEs stand out in the fiercely competitive market environment but also promote the optimization and improvement of the management education system, laying a solid

foundation for the sustainable development of enterprises.

Conclusion

It is concluded that the management skills of negotiation (N) and leadership (L) turned out to have a positive and significant association with the organizational environment (O) in the internal (structural) model, which confirms what was found in the diverse literature that addresses the central topic of this study, especially the model. This conclusion is based on the problem statement, the stated objective, the theoretical basis, and the obtained findings. It was determined that 80.4% of the variability of the organizational environment variable (O) can be explained by the variables negotiation (N) and leadership (L). Nevertheless, given that the other variables (decision-making (D), communication (C), and
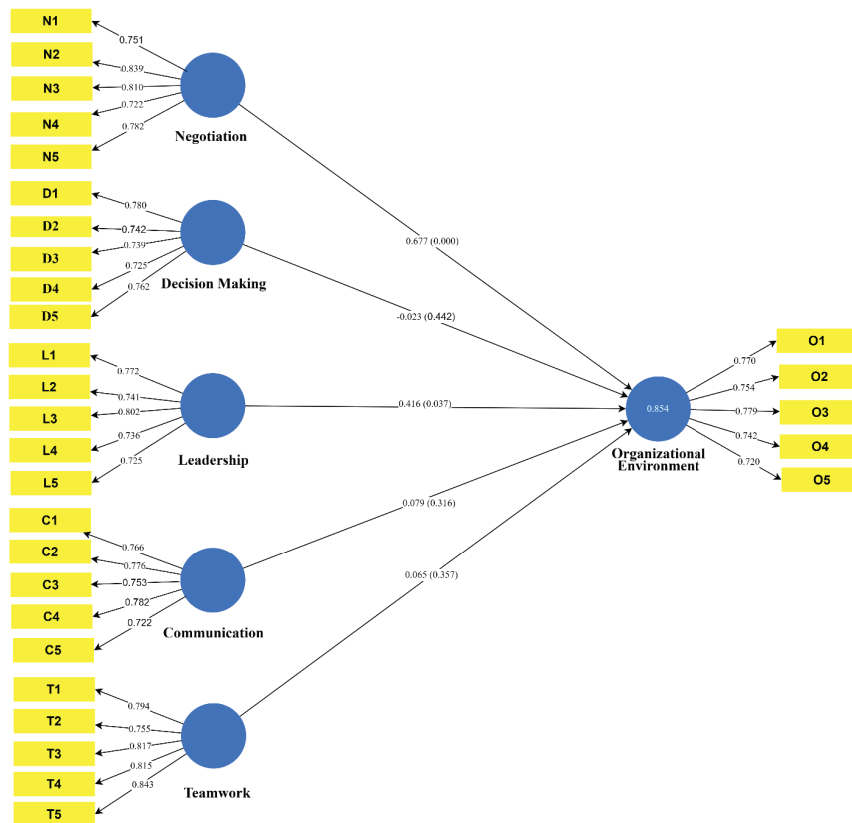
Fig. 2. **Path coefficients and p values of the structural model**

Source: Developed by the authors.

teamwork (T)) added to the measurement model did not seem to be significant, the suggested hypotheses can only be partially supported. The variable that has the most impact on the organizational environment is the negotiation variable (N, F-Square = 0.720), which determines the F-Square effects. The variable that has the least impact on the model is the leadership variable (L, F-Square = 0.103). After conducting a thorough examination of the literature, we were able to identify a number of characteristics that, when viewed through the lens of management abilities, might affect the organizational environment, particularly in SMEs located in Karachi, Sindh.

The current study adds to the body of knowledge in a number of ways. For instance, it uses the PLS-SEM approach to identify factors that were important for the measurement model and are associated with previous empirical studies that have been conducted.

First, it can be said that the ability to negotiate is necessary to get a commitment from all parties engaged in the business, which is what propels the accomplishment of corporate goals and objectives. The findings show that managers at a medium level have this ability, and further development is necessary to maintain good stability in the or-

ganizational environment. This is the basis for the positive association with the organizational environment (β = 0.677, t = 4.483, $p < 0.05$).

Second, research suggests that leadership is a management skill that promotes creating a positive organizational environment in businesses. This is supported by findings that leadership can be satisfying and motivating in the clear commitment to achieving the objectives and goals, and it has a positive association with the organizational environment (β = 0.416, t = 0.037, p = 0.05). This study provides empirical evidence for management practices in SMEs, highlighting the importance of negotiation and leadership skills in building a positive corporate environment. It can guide training programs and management education institutions to develop targeted courses for SMEs, promoting success in a competitive market.

Statement of relevance of research topic in the context of rapid changes and increasingly fierce competition in the global economy: small and medium-sized enterprises are an important part of the national economy, and their development status is directly related to the vitality and competitiveness of the national economy.

REFERENCES

1. Al-Janabi A. A. A., Abduljabbar G. R. The impact of SME business environments, technology adoption, and organizational capacity on innovation and growth. *AIP Conference Proceedings*. 2024;3009(1):030030. URL: https://doi.org/10.1063/5.0197952

2. Audretsch D. B., Belitski M. Knowledge complexity and firm performance: evidence from the European SMEs. *Journal of Knowledge Management.* 2021;25(4):693–713. URL: https://doi.org/10.1108/jkm-03–2020–0178

3. Banks G. P. Exploring Small-Business Change and Strategic Adaptation in an Evolving Economic Paradigm. 2013. URL: https://www.proquest.com/openview/0d61ba6bd51e50d25b707d8cb41866a6/1?pq-origsite=gscholar&cbl=18750

4. Ji L., Huang J., Liu Z., Zhu H., Cai Z. The effects of employee training on the relationship between environmental attitude and firms' performance in sustainable development. *The International Journal of Human Resource Management*. 2012 Jul 1;23(14):2995–3008. URL: https://doi.org/10.1080/09585192.2011.637072

5. Ciemleja G., Lace N. The Model of Sustainable Performance of Small and Medium-sized Enterprise. *Inzinerine Ekonomika-Engineering Economics* 2011;22(5):501–509. URL: https://doi.org/10.5755/j01.ee.22.5.968

6. Clohessy T., Acton T. Investigating the influence of organizational factors on blockchain adoption An innovation theory perspective. *Industrial Management and Data Systems*. 2019;119(7):1457–1491. URL: https://doi.org/10.1108/imds-08–2018–0365

7. Diamantidis A. D., Chatzoglou P. Factors affecting employee performance: an empirical approach. *International Journal of Productivity and Performance Management*. 2019;68(1):171–193. URL: https://doi.org/10.1108/ijppm-01–2018–0012

8. Dolz C., Iborra M., Safon V. Family-owned company, management teams, diversity, and ambidexterity in small and medium-sized enterprises. *Rae-Revista De Administracao De Empresas.* 2015;55(6):673–687. URL: https://doi.org/10.1590/s0034–759020150606

9. Dulange S. R., Pundir A. K., Ganapathy L. Prioritization of factors impacting on performance of power looms using AHP. *Journal of Industrial Engineering International*, 2014;10(4):217–227. URL: https://doi.org/10.1007/s40092–014–0080–8

10. Dyerson R., Spinelli R., Harindranath G. Revisiting IT readiness: an approach for small firms. *Industrial Management and Data Systems*. 2016;116(3):546–563. URL: https://doi.org/10.1108/imds-05–2015–0204

11. Elshaer I. A., Saad S. K. Entrepreneurial resilience and business continuity in the tourism and hospitality industry: the role of adaptive performance and institutional orientation. *Tourism Review.* 2022;77(5):1365–1384. URL: https://doi.org/10.1108/tr-04–2021–0171

12. Fannoun S. Towards Effective Project Management and Knowledge Transfer Enhancement: a Novel System Capturing and Modelling Knowledge Acquired in a Software Development Practice. 2021. URL: https://chesterrep.openrepository.com/handle/10034/626721

13. Fitzgerald R., Dyerson R., Mishimagi T. Strategic Transformation in Japan's SMEs, 1990–2008: Flexible Specialization, Industrial Restructuring, and Technological Change. *Enterprise and Society*. 2023;24(2):319–354. URL: https://doi.org/10.1017/eso.2021.30

14. Jia J., Xu Y., Li W. A study on the strategic momentum of SMEs' digital transformation: Evidence from China. *Technological Forecasting and Social Change.* 2024; Mar;200:123038. URL: http://dx.doi.org/10.1016/j.techfore.2023.123038

15. Ghallab A., Almuzaiqer A., Al-Hashedi A., et al. Factors Affecting Intention to Adopt Open Source ERP Systems by SMEs in Yemen. In 2021 International Conference on Intelligent Technology, System and Service for Internet of Everything (ITSS-IoE). 2021. p. 7. URL: https://doi.org/10.1109/itss-ioe53029.2021.9615254

16. Govuzela S. The Contributions of Organisational Agility Towards Business Performance Within Small and Medium Scale Enterprises in Gauteng Province. 2018. URL: http://digiresearch.vut.ac.za/bitstream/handle/10352/427/Govuzela%20for%20Printing%20June%202018.pdf?sequence=1

17. Heenkenda H. M., Xu F., Kulathunga K. M., Senevirathne W. A. The Role of Innovation Capability in Enhancing Sustainability in SMEs: An Emerging Economy Perspective. *Sustainability.* 2022;14(17):10832. URL: https://doi.org/10.3390/su141710832

18. Heffner M. C. Knowledge management for technological innovation in organizations: The fusion process for creating intellectual capital. 2006. URL: https://www.proquest.com/openview/05286050949422d987d9b9b15bce8ffa/1?pq-origsite=gscholar&cbl=18750&diss=y

19.   Honig B. Human capital and structural upheaval: A study of manufacturing firms in the West Bank. *Journal of Business Venturing.* 2001;16(6):575–594. URL: https://doi.org/10.1016/s0883–9026(99)00060–9
20.   John R. Internal Relations between Parent Headquarters — Subsidiaries of Multinational Companies. 2017. URL: https://www.proquest.com/openview/9cd77a9854aed2fa49078ffe1319588e/1?pq-origsite=gscholar&cbl=2026366&diss=y
21.   Kim K., Seo E.H. Analysis of Design Management Status of Domestic SMEs: Focused on CEO Design Leadership and Design Management Capabilities. *Korean Journal of Business Administration*. 2021.34(6):951–975. URL: https://doi.org/10.18032/kaaba.2021.34.6.951
22.   Wagan S.M. Export boost of Textile Industry of Pakistan by availing EU's GSP Plus. *Journal of Economics library*. 2015;1(1):18–27. URL: https://doi.org/10.20534/ejems-15–2–11–14

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Sidra Sidra — conducted literature analysis and data statistics; proposed a solid theoretical foundation for the study; developed specific measurement criteria and indicators for different management; wrote the introduction, purpose and importance of the study; developed charts and tables to visualize the research results; drew the conclusions.
Mohammad Mesba Ul Hoque — identified the core question of the study; developed the overall concept of the article, constructed the theoretical model of the study, and identified the main variables and hypotheses; wrote the summary section of the study; was responsible for preparing the list of materials and list of references.

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