

# Evaluation of Professional Ethics Indicators of Managers in Small and Medium Enterprises

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## ABSTRACT

**Objective:** The objective of this study is to evaluate the professional ethics indicators of managers in small and medium-sized enterprises (SMEs).

**Methods and Materials:** This research adopted a quantitative approach, with a sample of 380 active managers from SMEs in Tehran. A stratified random sampling method was used to select the sample. The data collection process included both library-based resources and field methods, such as the Delphi technique, to gather expert opinions on the questionnaire items. The data were analyzed using Partial Least Squares (PLS) software for structural equation modeling, due to the non-normality of the data as confirmed by the Kolmogorov-Smirnov test.

**Findings:** The study revealed that organizational justice was the most significant factor influencing professional ethics in SMEs, followed by leadership and management. Organizational culture was identified as an area that required further development, as it scored relatively lower in ethical adherence. The findings also indicated that the majority of managers in the sample were male, aged between 41-50 years, and held postgraduate degrees. The results from the factor loadings, convergent validity, and Fornell-Larcker test confirmed that the measurement model had adequate reliability and validity.

**Conclusion:** This study underscores the importance of professional ethics in enhancing organizational performance in SMEs. It highlights the need for stronger organizational culture and leadership that prioritizes fairness and transparency. Future research should focus on exploring strategies to improve ethical practices in SMEs, especially in regions with diverse business environments like Tehran.

**Keywords:** Professional Ethics, Small and Medium Enterprises (SMEs), Organizational Justice, Leadership, Tehran, Structural Equation Modeling, Delphi Method, Ethical Indicators.

## 1 Introduction

In the dynamic landscape of modern business, the significance of professional ethics in management cannot be overstated. Professional ethics, encompassing the principles and standards that guide behavior in the workplace, play a pivotal role in shaping organizational culture, fostering trust, and ensuring sustainable success (Ahmadian et al., 2022). In the context of small and medium-sized enterprises (SMEs), which constitute the backbone of many economies, the ethical conduct of managers is particularly crucial. SMEs often operate with limited resources, close-knit teams, and a high degree of interpersonal interaction, making the adherence to ethical standards essential for maintaining operational integrity and achieving long-term goals (Hoang & Bui, 2023).

Professional ethics in management involves a commitment to integrity, accountability, fairness, and respect within the organizational framework (Herzog, 2019). Managers in SMEs are not only responsible for strategic decision-making and operational oversight but also for cultivating an ethical environment that aligns with both organizational values and societal expectations (Shariat et al., 2021). The ethical behavior of managers directly influences employee morale, customer satisfaction, and the overall reputation of the enterprise (Hasani & Moghimi Khorasani, 2020). Consequently, understanding and evaluating the professional ethics indicators of managers in SMEs is imperative for enhancing organizational performance and fostering a culture of ethical excellence.

The relationship between professional ethics and organizational performance has been extensively explored across various sectors. For instance, Alizadegan, SamadiLargani, and Imeni (2022) examined the impact of personality types and professional ethics on auditors' ability to detect fraud, highlighting the mediating role of professional skepticism (Alizadegan et al., 2022). Similarly, Khoshbakht et al. (2022) investigated the interplay between religiosity, professional ethics of accountants, and financial reporting fraud, demonstrating that higher ethical standards significantly reduce fraudulent activities (Khoshbakht et al., 2022). These studies underscore the critical role that professional ethics play in enhancing organizational accountability and mitigating unethical practices.

In the healthcare sector, Bagherinia et al. (2022) explored the relationship between professional ethics and the observance of patients' rights among nurses and midwives. Their findings indicated that strong ethical standards are

essential for ensuring patient satisfaction and trust in healthcare services (Bagherinia et al., 2022). Foroughi, Zareiyan, and Sharififar (2019) further supported this notion by demonstrating that professional ethics programs, whether delivered in-person or through e-learning, positively influence nurses' performance and patient satisfaction in emergency departments (Foroughi et al., 2019). These insights emphasize the universal applicability of professional ethics across diverse industries and their profound impact on service quality and stakeholder trust.

Education is another domain where professional ethics significantly influences outcomes. Burakgazi, Can, and Coskun (2020) investigated pre-service teachers' perceptions of professional ethics, revealing that factors such as gender, major, and academic achievement shape ethical awareness and behavior in teaching (Burakgazi et al., 2020). Gholampour, Pourshafei, Farasatkah, and Ayati (2020) conducted a systematic review based on Wright's model, identifying key components of teachers' professional ethics and their implications for educational quality (Gholampour et al., 2020). Similarly, Jamali, Manshaee, and Nadi (2023) developed a model of professional ethics for teachers in higher education, underscoring the importance of ethical conduct in fostering academic integrity and effective teaching practices (Jamali et al., 2023). These studies highlight the critical role of professional ethics in shaping educational environments and enhancing the quality of education.

The banking and financial sectors have also recognized the importance of professional ethics in maintaining trust and integrity. Kalantari and Bassijeh (2021) measured the components of professional ethics among bank employees in Shiraz, finding that ethical behavior is closely linked to organizational transparency and customer trust (Kalantari & Bassijeh, 2021). Rahmani and Rajabdari (2016) explored the effect of professional ethics on organizational performance among industrial managers in Fars province, demonstrating that ethical conduct enhances both employee commitment and overall organizational effectiveness (Rahmani & Rajabdari, 2016). Additionally, Rahmdel, Samanian, and Kaffashpoor (2019) presented a model of professional ethics for banking managers, highlighting the interplay between ethical responsibilities, recognition, and incentives in fostering ethical behavior (Rahmdel et al., 2019). These findings illustrate the indispensable role of professional ethics in ensuring the stability and credibility of financial institutions.

In the realm of technology and innovation, Moghadam Nia, Toloei Ashlaghi, and Afshar Kazemi (2020) analyzed the role of technology transfer in employees' professional ethics, suggesting that ethical considerations are integral to the successful implementation of technological advancements (Moghadam Nia et al., 2020). Similarly, Khosravi, Ghorrooneh, and Ahanchian (2021) examined school principals' perceptions of professional ethics in high schools, revealing that ethical leadership is fundamental to creating a positive and productive educational environment (Khosravi et al., 2021). These studies collectively affirm that professional ethics are vital across various sectors, influencing not only individual behavior but also broader organizational outcomes.

The evaluation of professional ethics within organizations is further complicated by various facilitating and inhibitory factors. Jafarinahlashkanani et al. (2020) assessed the factors affecting the observance of professional ethics standards in nursing care, identifying both enablers and barriers that influence ethical behavior among nurses (Jafarinahlashkanani et al., 2020). Similarly, Kabirian (2024) conducted a grounded theory study on the development of professional ethics in midwifery students, highlighting the importance of educational interventions in fostering ethical awareness and behavior (Kabirian, 2024). These investigations reveal that while professional ethics are essential, their implementation is influenced by a complex interplay of individual, organizational, and environmental factors.

In the context of SMEs, the role of managerial attributes and organizational practices in shaping professional ethics is particularly pronounced. Kamel Nasab (2022) reviewed the concept of professional ethics and its role in inter-organizational relationships, emphasizing the importance of ethical conduct in fostering trust and collaboration among business partners (Kamel Nasab, 2022). Mohammadi, Sharifi, and Etemad Ahari (2024) developed and validated a professional ethics scale for faculty members, demonstrating the importance of reliable measurement tools in assessing ethical standards. Furthermore, Mohammadi and Vahidi (2022) examined the role of professional ethics in organizational performance, mediated by organizational citizenship behavior, highlighting the multifaceted impact of ethical behavior on organizational success (Mohammadi & Vahidi, 2022).

The strategic importance of professional ethics is also evident in studies exploring its relationship with social responsibility and environmental performance. Talebi and

Seifi Kamar Safli (2019) investigated the relationship between professional ethics, social responsibility, and organizational performance, finding that ethical behavior enhances both environmental and economic outcomes (Talebi & Seifi Kamar Safli, 2019). Vakili, Fani, and Fattahi (2022) designed a decision-making model that integrates professional ethics into buying behavior, underscoring the role of ethics in strategic business decisions (Vakili et al., 2022). These studies collectively illustrate that professional ethics are not only foundational to individual behavior but also critical to achieving broader organizational and societal objectives.

Despite the extensive research on professional ethics across various sectors, there remains a paucity of studies focusing specifically on the ethical indicators of managers within SMEs, particularly in the context of Tehran. SMEs face unique challenges, such as limited resources, high levels of competition, and the need for agile decision-making, which can influence the ethical behavior of their managers (Ochoa Jiménez et al., 2021). Moreover, the cultural and socio-economic context of Tehran adds an additional layer of complexity, necessitating a nuanced understanding of how professional ethics manifest and influence managerial behavior in this specific setting.

In conclusion, the present study addresses a critical gap in the literature by evaluation of the professional ethics indicators of managers in SMEs in Tehran. By integrating insights from a diverse range of studies across various sectors, this research offers a comprehensive and contextually relevant analysis of professional ethics in management. The findings of this study are expected to contribute to the development of targeted interventions and ethical frameworks that enhance managerial effectiveness and organizational performance in SMEs, ultimately fostering a culture of ethical excellence and sustainable growth.

## 2 Methods and Materials

The present study was designed as a quantitative research endeavor targeting the entire population of active managers within small and medium-sized enterprises (SMEs) in Tehran, comprising 38,371 individuals. Given the extensive population size, a non-probabilistic sampling approach was employed for the qualitative segment of the research, adhering to purposive sampling techniques until theoretical saturation was achieved. For the quantitative phase, the sample size was determined using the Krejcie and Morgan

table, resulting in a stratified random sample of 380 managers to ensure representativeness and reliability of the findings.

Data collection for this study utilized a combination of library-based resources and field methods. Comprehensive information was gathered from existing literature, including books, academic journals, publications, and online sources to inform the development of the research model. To construct and present the research framework, field methods were extensively applied. The Delphi method was employed to solicit expert opinions and achieve consensus on the questionnaire items. Initially, interviews with experts were conducted, and the resulting data were analyzed using thematic analysis to categorize and refine the concepts. These preliminary components were then structured into a Likert-scale questionnaire and distributed to experts for evaluation. Throughout this iterative process, experts were encouraged to identify any additional variables not initially included and to suggest modifications or deletions of existing items to enhance the model's comprehensiveness. This process was repeated over three rounds to ensure the validity and consensus of the proposed indicators.

For data analysis, the collected responses were subjected to rigorous statistical evaluation to ensure both validity and reliability. Confirmatory factor analysis (CFA) was

conducted using SPSS version 25 and Partial Least Squares (PLS) version 3 software to assess the construct validity, including convergent and discriminant validity. Reliability was measured using Cronbach's alpha and composite reliability coefficients to evaluate the internal consistency of the survey instruments.

### 3 Findings and Results

The study included a sample of 380 active managers from small and medium-sized enterprises (SMEs) in Tehran. Among the participants, 75% were male and 25% were female. The majority of the managers, constituting 49.5%, were aged between 41 and 50 years, while 5.5% were under 30 years old and 8.21% were over 51 years of age. In terms of educational attainment, a significant portion of the respondents held advanced degrees, with 70.5% possessing a master's degree or higher. Only 11.1% of the managers had diplomas or associate degrees, and 4.18% held bachelor's degrees. Regarding professional experience, 36.3% of the managers had between 16 to 20 years of work experience, 27.6% had 11 to 15 years, and 7.78% had less than 20 years of experience in their respective fields.

The descriptive statistics for the various factors and their dimensions are consolidated in [Table 1](#):

**Table 1**

#### *Descriptive Statistics*

Factor	Dimension	Mean	Standard Deviation (SD)	Variance
Organizational Factors	Professional Ethics of Managers in SMEs	3.97	0.589	0.348
	Organizational Self-Management	4.90	0.694	0.482
	Organizational Culture	3.74	0.624	0.039
	Organizational Justice	1.84	0.758	0.576
Environmental Factors	Environmental Factors	3.34	0.701	0.491
	Policies and Procedures	3.24	0.735	0.542
	Physical, Psychological, Economic, and Social Environment	2.84	0.788	0.622
	Leadership and Management	4.24	0.767	0.059
Contextual Factors	Contextual Factors	4.20	0.708	0.502
	Social and Political Environment Involving the Organization	1.34	0.903	0.817
	Customer Orientation	2.54	0.812	0.661
	Employee Beliefs and Training	4.80	0.888	0.789
	Organizational Ethics	3.74	0.784	0.615
Structural Factors	Alignment with Organizational Principles and Vision	2.24	0.819	0.672
	Structural Factors	1.74	0.659	0.435
	Building Trust in Interpersonal Relationships	4.40	0.803	0.646
	Management Style	2.34	0.762	0.581
	Culture Building and Process Improvement	7.83	0.722	0.523
Individual Factors	Individual Factors	4.40	0.736	0.542
	Personal Culture and Inner Traits of Individuals	4.44	0.819	0.672
	Professional Performance and Appropriate Leadership	3.54	0.819	0.671
	Commitment to Ethical Principles	4.24	0.811	0.658
	Creating Job Satisfaction	4.64	0.769	0.592

Motivation and Commitment

3.44

0.784

0.615

The normality of the research variables was assessed using the Kolmogorov-Smirnov test. The results are summarized in the table below:

**Table 2***Normality Test*

Variables	Z Statistic	Significance Level
Organizational Factors	0.147	0.001
Environmental Factors	0.173	0.001
Contextual Factors	0.131	0.001
Structural Factors	0.121	0.001
Individual Factors	0.208	0.001

As illustrated in Table 2, all research variables exhibited significance levels below the 0.05 threshold, with Z statistics ranging from 0.121 to 0.208 and corresponding p-values of 0.001. This indicates that none of the variables conform to a normal distribution. Consequently, due to the non-normality of all examined variables, Partial Least Squares (PLS) software was utilized for structural equation modeling. The decision to use PLS was further supported by its suitability for handling data that do not meet normal distribution assumptions, ensuring the robustness and reliability of the analytical results.

In the content validity assessment, a comprehensive set of 358 closed-ended questions derived from existing literature and previous research, along with one open-ended question aimed at capturing additional explanations, were distributed to 33 experts through the Content Validity Ratio (CVR)

validation form. The purpose was to evaluate the usefulness and relevance of each questionnaire item. Following the analysis of the CVR values, questions that met or exceeded the minimum acceptable CVR threshold of 0.318 (determined based on the sample size of 33 experts) were retained. As a result, 174 questions were accepted and incorporated into the first stage of the Delphi technique. This meticulous validation process ensured that the questionnaire was both comprehensive and pertinent, thereby enhancing the overall validity and effectiveness of the research instrument.

The measurement model's validity was further examined through factor loadings, convergent validity, and discriminant validity. Table 3 presents the factor loadings for each questionnaire item within the measurement model:

**Table 3***Factor Loadings of Questionnaire Items in the Measurement Model*

Index	Dimension	Question	Factor Loading	Result
1	Organizational Self-Management	1	0.808	Confirmed
2	Organizational Self-Management	2	0.774	Confirmed
3	Organizational Self-Management	3	0.659	Confirmed
4	Organizational Culture	4	0.412	Confirmed
5	Organizational Culture	5	0.836	Confirmed
6	Organizational Culture	6	0.717	Confirmed
7	Organizational Culture	7	0.834	Confirmed
8	Organizational Culture	8	0.427	Confirmed
9	Organizational Justice	9	0.764	Confirmed
10	Organizational Justice	10	0.778	Confirmed
11	Organizational Justice	11	0.781	Confirmed
12	Organizational Justice	12	0.869	Confirmed
13	Policies and Procedures	13	0.823	Confirmed
14	Policies and Procedures	14	0.841	Confirmed
15	Policies and Procedures	15	0.744	Confirmed
16	Policies and Procedures	16	0.705	Confirmed



17	Policies and Procedures	17	0.854	Confirmed
18	Physical, Psychological, Economic, Social	18	0.822	Confirmed
19	Physical, Psychological, Economic, Social	19	0.879	Confirmed
20	Physical, Psychological, Economic, Social	20	0.923	Confirmed
21	Leadership and Management	21	0.882	Confirmed
22	Leadership and Management	22	0.820	Confirmed
23	Leadership and Management	23	0.876	Confirmed
...	...	...	...	...
66	Motivation and Commitment	66	0.811	Confirmed

Table 3 demonstrates that all questionnaire items have factor loadings exceeding the threshold of 0.4, confirming their suitability for inclusion in the measurement model. Consequently, none of the items were excluded from the

final measurement model, ensuring that all dimensions are adequately represented for subsequent hypothesis testing.

Convergent validity was assessed using the Average Variance Extracted (AVE) and composite reliability metrics, as presented in Table 4:

**Table 4**

*Convergent Validity Assessment (Average Variance Extracted)*

Variable	Average Variance Extracted (AVE)
Professional Ethics of Managers in SMEs	0.680
Organizational Ethics	0.685
Building Trust in Interpersonal Relationships	0.715
Motivation and Commitment	0.743
Creating Job Satisfaction	0.760
Commitment to Ethical Values	0.739
Alignment with Organizational Principles and Vision	0.714
Leadership and Management	0.739
Management Style	0.705
Policies and Procedures	0.633
Organizational Justice	0.638
Employee Beliefs and Training	0.695
Professional Performance and Appropriate Leadership	0.730
Contextual Factors	0.513
Structural Factors	0.541
Organizational Factors	0.613
Individual Factors	0.636
Environmental Factors	0.594
Organizational Culture	0.519
Culture Building and Process Improvement	0.511
Personal Culture and Inner Traits of Individuals	0.798
Social and Political Environment Involving Organization	0.789
Physical, Psychological, Economic, Social Environment	0.767
Customer Orientation	0.705
Organizational Self-Management	0.562

As presented in Table 4, all variables and their respective dimensions achieved AVE values above the acceptable threshold of 0.5, indicating satisfactory convergent validity. This suggests that the items within each construct are well-correlated and effectively measure their intended constructs.

Discriminant validity was evaluated using the Fornell-Larcker criterion, as shown in below tables. The results confirmed that each construct's square root of AVE (diagonal values) is greater than the inter-construct correlations (off-diagonal values), thereby validating the discriminant validity of the measurement model.

**Table 5***Fornell-Larcker Criterion (Part 1)*

Variables	Professional Ethics of Managers in SMEs	Organizational Ethics	Building Trust in Interpersonal Relationships	Motivation and Commitment	Creating Job Satisfaction	Commitment to Ethical Values	Alignment with Organizational Principles and Vision	Leadership and Management	Management Style	Policies and Procedures	Organizational Justice	Employee Beliefs and Training
Professional Ethics of Managers in SMEs	0.825											
Organizational Ethics	0.774	0.828										
Building Trust in Interpersonal Relationships	0.801	0.818	0.845									
Motivation and Commitment	0.854	0.718	0.764	0.862								
Creating Job Satisfaction	0.780	0.750	0.802	0.850	0.872							
Commitment to Ethical Values	0.777	0.785	0.789	0.749	0.801	0.859						
Alignment with Organizational Principles and Vision	0.828	0.777	0.777	0.686	0.695	0.762	0.845					
Leadership and Management	0.762	0.755	0.752	0.686	0.736	0.726	0.672	0.860				
Management Style	0.744	0.714	0.767	0.725	0.699	0.697	0.761	0.685	0.840			
Policies and Procedures	0.703	0.779	0.768	0.719	0.759	0.776	0.734	0.797	0.692	0.796		
Organizational Justice	0.724	0.699	0.676	0.677	0.691	0.654	0.703	0.700	0.678	0.725	0.799	
Employee Beliefs and Training	0.777	0.592	0.669	0.687	0.668	0.584	0.612	0.658	0.721	0.649	0.625	0.834

**Table 6***Fornell-Larcker Criterion (Part 2)*

Variables	Professional Performance and Appropriate Leadership	Contextual Factors	Structural Factors	Organizational Factors	Individual Factors	Environmental Factors	Organizational Culture	Culture Building and Process Improvement	Personal Culture and Inner Traits of Individuals	Social and Political Environment Involving Organization	Physical, Psychological, Economic, Social Environment	Customer Orientation	Organizational Self-Management
Professional Performance and Appropriate Leadership	0.855												

Leadership													
Contextual Factors	0.710	0.716											
Structural Factors	0.655	0.698	0.735										
Organizational Factors	0.698	0.765	0.752	0.783									
Individual Factors	0.753	0.759	0.784	0.779	0.798								
Environmental Factors	0.707	0.769	0.739	0.740	0.754	0.770							
Organizational Culture	0.634	0.705	0.700	0.700	0.707	0.638	0.720						
Culture Building and Process Improvement	0.617	0.673	0.657	0.688	0.669	0.627	0.608	0.715					
Personal Culture and Inner Traits of Individuals	0.837	0.773	0.833	0.720	0.804	0.785	0.651	0.737	0.893				
Social and Political Environment Involving Organization	0.560	0.830	0.686	0.659	0.625	0.696	0.601	0.650	0.585	0.888			
Physical, Psychological, Economic, Social Environment	0.695	0.758	0.729	0.715	0.725	0.798	0.637	0.610	0.645	0.603	0.876		
Customer Orientation	0.716	0.745	0.732	0.616	0.724	0.744	0.539	0.599	0.638	0.591	0.655	0.839	
Organizational Self-Management	0.540	0.596	0.620	0.745	0.610	0.635	0.710	0.592	0.579	0.480	0.542	0.449	0.749

Based on above findings, the diagonal values, representing the square roots of the Average Variance Extracted (AVE) for each construct, are greater than the off-diagonal values in their respective rows and columns. This indicates that each construct shares more variance with its indicators than with other constructs, thereby confirming discriminant validity. In other words, the constructs are

distinct and not highly correlated with one another, ensuring that each construct measures a unique concept within the model.

Reliability of the measurement model was assessed using Cronbach's Alpha, Spearman's Correlation, and Composite Reliability, as detailed in [Table 7](#):

**Table 7**

*Reliability Assessment of the Measurement Model*

Variable	Cronbach's Alpha	Spearman's Correlation	Composite Reliability
Professional Ethics of Managers in SMEs	0.982	0.985	0.983
Organizational Ethics	0.771	0.773	0.867
Building Trust in Interpersonal Relationships	0.867	0.868	0.909
Motivation and Commitment	0.826	0.832	0.896
Creating Job Satisfaction	0.842	0.844	0.905



Commitment to Ethical Values	0.823	0.837	0.894
Alignment with Organizational Principles and Vision	0.800	0.801	0.882
Leadership and Management	0.823	0.825	0.895
Management Style	0.787	0.798	0.877
Policies and Procedures	0.853	0.860	0.896
Organizational Justice	0.810	0.816	0.876
Employee Beliefs and Training	0.851	0.856	0.900
Professional Performance and Appropriate Leadership	0.907	0.913	0.931
Contextual Factors	0.936	0.938	0.944
Structural Factors	0.886	0.918	0.913
Organizational Factors	0.853	0.887	0.884
Individual Factors	0.964	0.965	0.967
Environmental Factors	0.931	0.933	0.941
Organizational Culture	0.795	0.754	0.747
Culture Building and Process Improvement	0.718	0.794	0.780
Personal Culture and Inner Traits of Individuals	0.873	0.875	0.922
Social and Political Environment Involving Organization	0.866	0.869	0.918
Physical, Psychological, Economic, Social Environment	0.847	0.848	0.908
Customer Orientation	0.789	0.797	0.877
Organizational Self-Management	0.807	0.719	0.792

Table 7 indicates that all constructs achieved Cronbach's Alpha values above the acceptable threshold of 0.7, demonstrating high internal consistency. The Spearman's Correlation coefficients further support the reliability of the constructs, as all values exceed 0.7, signifying strong correlations between items within each construct. Additionally, the Composite Reliability scores are all above 0.7, confirming the constructs' reliability and the robustness of the measurement model. Collectively, these results affirm that the measurement instruments used in this study are both reliable and valid, providing a solid foundation for subsequent structural analysis and hypothesis testing.

#### 4 Discussion and Conclusion

The present study aimed to evaluate the professional ethics indicators of managers in small and medium-sized enterprises (SMEs) within Tehran, focusing on various organizational, environmental, contextual, structural, and individual factors. The findings offer a comprehensive understanding of the ethical landscape in Tehran's SMEs, revealing significant insights that align with and expand upon existing literature in the field.

One of the prominent findings of this study is the high mean score for organizational justice among the organizational factors, suggesting that fairness and equitable treatment are highly prioritized by managers in SMEs. This aligns with Herzog's (2019) assertion that professional ethics in banking and financial sectors are closely linked to organizational justice, which fosters trust and integrity within the organization. Similarly, Hasani and Moghimi Khorasani (2020) highlighted the positive relationship

between professional ethics and organizational commitment, emphasizing that perceived fairness enhances employee loyalty and performance (Hasani & Moghimi Khorasani, 2020). The emphasis on organizational justice in SMEs underscores its role as a cornerstone of ethical management practices, contributing to a positive organizational climate and reducing instances of unethical behavior.

Conversely, the relatively lower mean score for organizational culture indicates potential areas for improvement. This finding is consistent with the work of Gholampour et al. (2020), who identified organizational culture as a critical component of professional ethics in teaching, influencing ethical awareness and behavior among educators. In the context of SMEs, a robust organizational culture can serve as a guiding framework for ethical decision-making, ensuring that managerial actions align with the organization's values and ethical standards (Gholampour et al., 2020). The lower score suggests that SMEs in Tehran may need to invest more in cultivating a strong ethical culture to reinforce ethical practices and enhance overall organizational performance.

The study also revealed that leadership and management are the most influential dimensions within the environmental factors. This finding resonates with Ahmadian et al. (2022), who emphasized the mediating role of professional ethics in the relationship between quantum leadership and organizational health (Ahmadian et al., 2022). Effective leadership is instrumental in setting ethical standards, modeling ethical behavior, and fostering an environment where ethical practices are valued and rewarded. Burakgazi, Can, and Coskun (2020) similarly found that pre-service

teachers' perceptions of professional ethics are significantly influenced by their leadership experiences, highlighting the importance of ethical leadership in shaping ethical behavior (Burakgazi et al., 2020).

In terms of contextual factors, customer orientation emerged as the highest-scoring dimension, reflecting a strong focus on ethical interactions with customers. This aligns with the findings of Shariat et al. (2021), who identified customer-oriented ethical practices as vital for enhancing service quality and customer satisfaction in technology incubators (Shariat et al., 2021). Customer orientation not only enhances trust and loyalty but also serves as a competitive advantage for SMEs, as ethical treatment of customers can differentiate an enterprise in a crowded marketplace. However, the low score for employee beliefs and training indicates a need for improved ethical training programs, echoing the concerns raised by Jafarinahlashkanani et al. (2020) regarding the facilitators and inhibitors of professional ethics standards in nursing care (Jafarinahlashkanani et al., 2020).

The structural factors revealed that building trust in interpersonal relationships is exceptionally high, underscoring the importance of trust as a fundamental ethical indicator. This finding is supported by Kalantari and Bassijeh (2021), who demonstrated that trust-building in banking enhances organizational transparency and employee commitment (Kalantari & Bassijeh, 2021). Trust within managerial relationships fosters a collaborative and supportive work environment, which is essential for the ethical functioning of SMEs. Additionally, the effective management style (mean score of 23.4) highlights the role of managerial approaches in promoting ethical behavior, aligning with the insights of Mohammadi and Vahidi (2022), who found that professional ethics significantly influence organizational performance through managerial practices (Mohammadi & Vahidi, 2022).

Individual factors, particularly job satisfaction were identified as critical ethical indicators, suggesting that satisfied employees are more likely to engage in ethical behavior. This is consistent with the study by Talebi and Seifi Kamar Safli (2019), which found that professional ethics and social responsibility positively impact organizational performance through environmental performance. Job satisfaction not only enhances employee morale but also reduces turnover rates and fosters a commitment to ethical standards (Talebi & Seifi Kamar Safli, 2019). However, the lower score for motivation and commitment (34.4) indicates that there may be underlying

issues related to employee motivation that need to be addressed to fully leverage the benefits of ethical management.

The high mean score for professional ethics of managers in SMEs indicates a strong overall commitment to ethical standards among managers. This finding is in line with the research by Rahmani and Rajabddori (2016), who demonstrated that professional ethics significantly enhance organizational performance by fostering a culture of integrity and accountability (Rahmani & Rajabddori, 2016). The comprehensive evaluation of professional ethics in this study reflects the multifaceted nature of ethical behavior, encompassing organizational justice, culture, leadership, and individual attributes.

The non-normality of the research variables, as indicated by the Kolmogorov-Smirnov test, justified the use of Partial Least Squares (PLS) for structural equation modeling. This methodological choice aligns with the recommendations of Kalantari and Bassijeh (2021), who advocate for PLS in situations where data do not meet normal distribution assumptions (Kalantari & Bassijeh, 2021). The robust analytical approach ensured the reliability and validity of the findings, providing a solid foundation for interpreting the complex relationships between ethical indicators and organizational performance.

The factor loadings, all exceeding the threshold of 0.4, confirm the validity of the measurement model, ensuring that each questionnaire item effectively measures its intended construct. This methodological rigor is essential for establishing the credibility of the study's findings and aligns with the systematic approach recommended by Jamali, Manshaee, and Nadi (2023) in developing and validating ethical measurement tools (Jamali et al., 2023). The satisfactory convergent and discriminant validity further reinforce the robustness of the measurement model, ensuring that the constructs are both well-defined and distinct from one another.

The findings regarding the importance of organizational justice and leadership in promoting ethical behavior are well-supported by existing literature. For example, Alizadegan, SamadiLargani, and Imeni (2022) found that professional ethics, influenced by personality types and skepticism, play a crucial role in auditors' ability to detect fraud (Alizadegan et al., 2022). Similarly, Khoshbakht et al. (2022) highlighted the mitigating effect of professional ethics on financial reporting fraud, underscoring the role of ethical standards in enhancing accountability and transparency (Khoshbakht et al., 2022).

In the educational sector, Burakgazi, Can, and Coskun (2020) demonstrated that professional ethics are significantly influenced by gender, major, and academic achievement, suggesting that tailored ethical training programs could enhance ethical awareness and behavior among educators. Gholampour et al. (2020) further emphasized the importance of a strong ethical foundation in teaching, aligning with the present study's findings on the critical role of organizational culture in fostering ethical behavior (Gholampour et al., 2020).

The healthcare sector also underscores the universal applicability of professional ethics, with Bagherinia et al. (2022) and Foroughi, Zareiyan, and Sharififar (2019) demonstrating that ethical practices significantly impact patient satisfaction and care quality (Bagherinia et al., 2022; Foroughi et al., 2019). These studies support the current study's emphasis on the importance of professional ethics in enhancing organizational performance and stakeholder trust across various sectors.

Moreover, studies in the banking and financial sectors by Kalantari and Bassijeh (2021), Rahmani and Rajabdori (2016), and Rahmdel, Samanian, and Kaffashpoor (2019) corroborate the finding that professional ethics are integral to maintaining organizational transparency, trust, and performance (Kalantari & Bassijeh, 2021; Rahmani & Rajabdori, 2016; Rahmdel et al., 2019). These studies highlight the interplay between ethical standards, leadership practices, and organizational outcomes, reinforcing the current study's findings on the importance of ethical leadership and organizational justice.

Despite the comprehensive nature of this study, several limitations must be acknowledged. First, the study was conducted exclusively within Tehran's SMEs, which may limit the generalizability of the findings to SMEs in other regions or countries. Cultural, economic, and regulatory differences could influence the ethical landscape, necessitating caution when extrapolating these results to different contexts. Future research should consider a broader geographical scope to enhance the external validity of the findings.

Second, the study employed a cross-sectional design, capturing data at a single point in time. This approach precludes the ability to infer causality between professional ethics indicators and organizational performance. Longitudinal studies are recommended to examine how ethical practices evolve over time and their long-term impact on organizational outcomes.

Third, the reliance on self-reported data may introduce biases such as social desirability and common method bias, potentially skewing the results. Although measures were taken to ensure anonymity and confidentiality, future studies could incorporate multi-source data, including objective performance metrics and third-party evaluations, to mitigate these biases and enhance the reliability of the findings.

Finally, while the study focused on key ethical indicators, there may be other relevant factors that were not included in the model. For instance, external environmental factors such as regulatory changes and market dynamics could also influence ethical behavior. Future research should explore additional variables to provide a more holistic understanding of the determinants of professional ethics in SMEs.

Building on the findings of this study, future research should explore the interplay between professional ethics and other organizational variables such as innovation, employee engagement, and competitive advantage. Investigating how ethical practices influence these dimensions can provide a more nuanced understanding of the strategic importance of ethics in SMEs.

Additionally, qualitative studies could complement the quantitative findings by providing deeper insights into the contextual and cultural factors that shape ethical behavior. Interviews and focus groups with managers and employees can uncover the underlying motivations, challenges, and perceptions related to professional ethics, offering rich, contextualized data that enhance the interpretative depth of the research.

Moreover, future studies should consider the role of technological advancements in shaping professional ethics. As digital transformation accelerates, ethical considerations related to data privacy, cybersecurity, and artificial intelligence become increasingly pertinent. Exploring how SMEs navigate these emerging ethical challenges can provide valuable guidance for developing comprehensive ethical frameworks that address both traditional and modern ethical dilemmas.

Finally, comparative studies across different sectors or regions can highlight the contextual variations in ethical practices and their impact on organizational performance. Such research can identify best practices and sector-specific strategies for fostering ethical behavior, contributing to the broader literature on professional ethics in diverse organizational settings.

The findings of this study offer several practical implications for managers and leaders within SMEs. First, the high emphasis on organizational justice underscores the

importance of implementing fair policies and transparent decision-making processes. Managers should ensure that all employees perceive the workplace as equitable and just, as this not only enhances trust but also fosters a positive organizational culture conducive to ethical behavior.

Second, the significant role of leadership and management in promoting ethical standards highlights the need for ethical leadership development programs. Managers should be trained to model ethical behavior, communicate ethical standards clearly, and create an environment where ethical practices are recognized and rewarded. By prioritizing ethical leadership, SMEs can cultivate a culture of integrity that permeates all levels of the organization.

Third, the strong association between job satisfaction and ethical behavior suggests that enhancing employee satisfaction should be a strategic priority for SMEs. Managers should focus on creating a supportive work environment, offering opportunities for professional growth, and recognizing employee contributions. Satisfied employees are more likely to engage in ethical behavior, thereby contributing to the overall ethical climate of the organization.

Furthermore, the low score for employee beliefs and training indicates a need for comprehensive ethical training programs. SMEs should invest in regular training sessions that educate employees about ethical standards, decision-making frameworks, and the importance of ethical behavior in achieving organizational goals. Such training can equip employees with the knowledge and skills necessary to navigate ethical dilemmas effectively.

Lastly, fostering a strong organizational culture that aligns with ethical principles is essential. Managers should work towards embedding ethical values into the core of the organization's mission and vision, ensuring that these values are reflected in everyday practices and strategic initiatives. By reinforcing a culture of ethics, SMEs can enhance their reputation, build stronger relationships with stakeholders, and achieve sustainable growth.

### Authors' Contributions

All authors have contributed significantly to the research process and the development of the manuscript.

### Declaration

In order to correct and improve the academic writing of our paper, we have used the language model ChatGPT.

### Transparency Statement

Data are available for research purposes upon reasonable request to the corresponding author.

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### Declaration of Interest

The authors report no conflict of interest.

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### Ethical Considerations

In this research, ethical standards including obtaining informed consent, ensuring privacy and confidentiality were observed.

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