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Designing and explaining a suitable model for enhancing employees' moral intelligence (Case study: Transportation and Traffic Organization of Tehran Municipality)

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Abstract

Currently, given the heavy traffic and chaotic transportation situation in the metropolitan area of Tehran, it's necessary to improve the moral intelligence of employees. This enhancement aims to increase employee productivity in delivering transportation services. One of the prominent characteristics of modern managers is their ability to foster ethics and elevate moral intelligence among employees. The present research was carried out with the aim of providing a model for improving the moral intelligence of the employees of the Transportation and Traffic Organization of Tehran Municipality. The present research is a combination and a mixed-method study. The participants, in the qualitative section conducted through the Delphi method, included 22 experts in the field until reaching theoretical saturation. In the quantitative section, employees of the headquarters of the Transportation and Traffic Organization of Tehran Municipality were involved, totalling 86 individuals. Using Cochran's formula and the convenience sampling method, 82 individuals were selected as the sample members. The validity of the qualitative section was confirmed through face and content validity, and reliability was validated by comparing it with the raw data. In the quantitative section, a Likert scale questionnaire was designed, and the content validity was obtained by the CVR index of 0.68. The reliability of the questionnaire was calculated by Cronbach's alpha equal to 0.97, which confirmed the validity and reliability of the questionnaire. SPSS and SmartPLS software were used to analyze the data. The findings indicated that in the process of formulating the model for enhancing the moral intelligence of employees in the Transportation and Traffic Organization of Tehran Municipality, there should be consideration for 11 dimensions and 65 components. The results indicated that among the dimensions of employees' moral intelligence, planning and workforce hold the highest significance compared to other dimensions. Among the identified components, public relations with a factor loading of 0.771, listening to employees with a factor loading of 0.792, voluntary coordination and intentional presence with a factor loading of 0.781, and seeking assistance from behavioral science consultants with a factor loading of 0.755 held the highest importance within each respective component.

Keywords: pattern, moral intelligence, transportation organization, traffic, Tehran municipality
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1 Introduction

In today's era, managers are concerned about the emergence of problems and complex issues that arise due to the disregard of moral principles by subordinates. In this regard, the most influential phenomenon that can support managers and pave the way for addressing issues and problems is moral intelligence [18]. According to numerous pieces of evidence, moral intelligence plays a significant role in the success of an organization [12]. When a leader consistently embodies sincerity and acts in accordance with ethical principles and values, it generally fosters high performance [15]. Organizations increasingly find themselves entangled in an issue they refer to as an ethical puzzle; a situation where the distinction between right and wrong actions needs to be redefined, as the line between what's right and wrong has become more blurred than ever. Hence, members of the organization witness individuals within and around the organization and commit wrongdoing. In such circumstances, a manager should create a healthy ethical atmosphere for employees within the organization so that they can work to their fullest potential and maximize productivity. Recently, organizational researchers have become interested in the term moral intelligence' as it can effectively delineate the boundary between altruism and egotism [7].

Moral intelligence means attention to human life and nature, economic and social well-being, open and sincere communications, and civic rights. In today's world, only leaders with high moral intelligence can establish trust and commitment within an organization, laying the foundation for extensive and righteous commerce [11]. The experiences of business managers in the United States, Japan, and many private institutions and entrepreneurial companies have shown that ethical behavior is not only the right way of doing things but also doing the right things. Furthermore, research conducted in over 122 companies has shown that ethical (moral) intelligence has a very strong impact on the financial performance of an organization [19]. Nowadays, dealing with ethical (moral) intelligence and moral values is one of the requirements. The external symbol of organizations is formed by their ethical values, which are the result of a combination of various ethical values that have emerged and developed within those organizations. Ethics in organizations is defined as a system of values and dos and don'ts, by which the organization's virtues and vices are determined, distinguishing between good and bad actions [11].

Moral intelligence actually refers to the point that ethical principles are not inherited; instead, individuals learn how to be good. Many human behaviors have roots in ethical principles and values, and they are influenced by them. Individuals with moral intelligence always link their actions to ethical principles, which in turn increases commitment and responsibility in individuals, consequently improving individual and group efficiency [9]. This type of intelligence in today's modern world can serve as a compass for actions. Moral intelligence not only provides a strong and defensible framework for human activities but also has numerous applications in the real world. In fact, this type of intelligence guides all other types of human intelligence to perform valuable tasks [5]. On the other hand, human resources with ethics is one of the main indicators of the superiority of an organization compared to other organizations, and the more the organizations of a society have a higher level of ethics, the development of the society will be accompanied by a faster process. Employees who demonstrate ethical behavior tend to have higher commitment, satisfaction, and lower job pressures, likely leading to increased collaboration and participation. Moral intelligence involves learning, acquiring cognitive, physical skills, and adapting to the environment [5]. One of the concerns of the Transportation and Traffic Organization of Tehran Municipality is the ethical issues and problems in the work environment. Many people commit unethical acts in order to intensify the competition and achieve more profit. Manifestations such as absenteeism, demotivation, wasting time at work, low productivity, reduced working hours, clients' aimless wandering in visits to organizations and offices, sycophancy, bribery, false accusations, and deviant behaviors indicate ethical weaknesses in the organizational community. In public organizations, including the municipality's transportation department, investigating the issue of moral intelligence is highly important. This is because research findings suggest that ethical weaknesses lead to a diminished sense of responsibility within the organization, reduced productivity, increased organizational costs, and facilitate the proliferation of unethical behavior within the organization. One aspect of achieving moral intelligence is the organization's possession of employees with ethical values, whose ethical behavior becomes the cornerstone of their organizational actions.

Therefore, in today's era, the concern of today's managers is the emergence of complex problems and issues that occur through the failure of subordinates to follow ethical principles. In this regard, the most effective phenomenon that can help managers solve issues and problems of Tehran Municipality Traffic and Transportation Organization is the improvement of ethical (moral) intelligence. To enhance the moral intelligence of the employees in the Transportation and Traffic Organization of Tehran Municipality, it is necessary for mechanisms to be implemented by managers, employees, and consultants in order to increase moral intelligence through these means. If moral intelligence doesn't improve in employees, ethical advancements among them decrease, leading to a decline in employee motivation, decreased workforce efficiency, and productivity. Given the importance of moral intelligence in organizations, the current research aims to present a model for enhancing the moral intelligence of employees in the Transportation

and Traffic Organization of Tehran Municipality. In essence, the purpose of this research is to address the following question:

What is the model for enhancing the ethical intelligence of employees in the Transportation and Traffic Organization of Tehran Municipality?

2 Background and theoretical foundations of research

Afshani and Abooei [1] conducted research predicting lifestyle based on ethical and spiritual intelligence among students. The findings of this study indicated that variables of spiritual and moral intelligence have a significant and positive impact on lifestyle. The influence of moral intelligence on lifestyle was stronger than that of spiritual intelligence. Together, moral and spiritual intelligence variables explained 35% of the variance in lifestyle. Maleki et al. [14] conducted a study titled 'The role of moral intelligence in organizational trust management.' The findings indicate that moral intelligence in financial and credit institutions in Khorasan Razavi is comprised of seven components. Furthermore, moral intelligence plays a role of 97% in explaining the variance of organizational trust management. The conclusion drawn is that one of the influential factors on managers' trust-building is their moral intelligence. Azarbarahman et al. [4] conducted research titled 'Discriminant analysis of adaptive behavior and authorized behavior based on ethical identity and ethical intelligence.' The findings indicate that individuals with higher ethical identity and intelligence feel remorseful after engaging in unethical behavior and tend to cease or limit their subsequent unethical behaviors. The conclusion is that ethical identity and intelligence play a role in the occurrence of compatible or ethical behavior. Organizations can utilize personality traits in the selection of their workforce, especially in sensitive financial and supervisory positions. Golmohammadian et al. [10] conducted research titled 'Moral intelligence, its nature, and necessity.' This article provides an overview of moral intelligence and its significance in everyday life, discussing its dimensions. Components of moral intelligence include righteousness, kindness, responsibility, forgiveness, service, respect, appreciation, tranquility, and peace. Previous studies indicate that addressing the components of moral intelligence at various levels of personal and social life is an undeniable necessity. The quality of moral intelligence dimensions can serve as a fundamental and influential element in strengthening the desired healthy and ethical society. Manteghi et al. [16] conducted research titled 'Moral intelligence and investigating its functions in the organization from the perspective of Islam.' By studying the Islamic viewpoint on the functions of moral intelligence in organizations, using descriptive methods in terms of nature and approach and reviewing literature regarding strategies and types of executive activities, it was concluded that firstly, moral intelligence can lead to better regulation of relationships through fostering ethical virtues, consequently leading to improved organizational performance. Secondly, significant functions of moral intelligence in organizations include trustworthiness, accountability, kindness, compassion, good conduct, patience, generosity, and forgiveness. Pourteimour et al. [17] conducted research titled 'Moral intelligence, clinical placement experience, and professional behaviors among Iranian bachelor of nursing students: a descriptive-correlational study.' According to their findings, proactive and mediating efforts for nursing students could significantly enhance their behavioral skills, reducing perceived bullying and enhancing targeted ethical improvement. Consequently, based on the understanding of clinical affiliation and moral intelligence, an optimal program should be designed to enhance the quality of professional training courses for students. Al-Adamat et al. [2] conducted research titled 'The impact of moral intelligence on green purchase intention.' This article explores the influence of moral intelligence on green purchasing intentions in Jordan based on three ethical theories (utilitarianism, deontology, virtue ethics) and the theory of planned behavior. Additionally, it discusses four primary dimensions of moral intelligence (compassion, forgiveness, responsibility, and honesty). The results indicated that these dimensions of moral intelligence positively influence green purchasing intentions. This research holds practical significance in green marketing and moral intelligence, especially concerning the dimensions of compassion, forgiveness, responsibility, and honesty. Consequently, these dimensions could serve as a guide for improving customers' intentions for green purchases in the future. Moreover, this study is important for investigating individual and corporate environmental sustainability. Lennick [13] stated in their research that four underlying principles of moral intelligence are essential for sustained organizational and personal success: integrity, accountability, empathy, and forgiveness. Darkenwald and Merriam [8], in the book 'Adult education: foundations of practice,' explains that the five-stage categorization in the professional realm involving moral intelligence comprises recognizing issues, setting objectives, deciding on ethical work, taking action, and perseverance. Justice serves as a driving principle and guide in the development and utilization of willpower.

Although someone may possess knowledge and a sense of ethical behavior, ultimately, they must operationalize these capacities using latent operational abilities. According to a review of previous studies, research conducted in the field of moral intelligence did not pay much attention to its enhancement among employees. Therefore, this research represents innovation compared to previous inquiries. This research also examines the enhancement of employees'

moral intelligence through both qualitative and quantitative approaches, indicating another aspect of innovation among previous research studies.

Intelligence and Ethics: Among the variables that psychologists have focused on in recent decades are intelligence and its dimensions. Undoubtedly, intelligence plays an important and undeniable role in all aspects of life. Overall, researchers define intelligence as the capacity to acquire knowledge, the power of abstract reasoning, and problem-solving ability. Ethics' is derived from the plural of 'Ethic,' which in language signifies traits. The science of ethics or moral refinement is one of the branches of practical wisdom. It pertains to the knowledge of good and bad traits, the prudence of an individual for their own soul or a specific person. This term also refers to a psychological attribute or a firmly established disposition that forms within an individual and manifests in various behaviors and reactions in personal, social encounters, and diverse situations [3]. Rosenborck defines ethics as: 'The principles of individual and collective behavior that are considered good or bad, right or wrong, acceptable or unacceptable. Velascoez believes that ethics is the process of examining the moral and conscientious standards of an individual or society. In a general sense, ethics can be said to be the set of ideals or societal aspirations. In this view, 'ethical decision-making' is influenced on one hand by personal characteristics and on the other hand by environmental conditions such as group pressures and organizational issues like ethical regulations [6].

Ethical Intelligence: The term moral intelligence' was introduced into psychology by Borba. He defines moral intelligence as the capacity and ability to have a correct understanding of opposites, possessing strong moral beliefs, acting upon them, and behaving in the right and proper direction. Moral intelligence means attention to human life and nature, economic and social well-being, open and sincere communication, and civic rights. The next section of this research comprehensively addresses moral intelligence: its definitions, theories, and concepts [6]. Moral intelligence is not only important for effective leadership. It is the 'vital intelligence' for all humans. Because moral intelligence guides other forms of intelligence toward performing valuable actions. Moral intelligence gives purpose to our lives. Without moral intelligence, we are capable of experiencing events and carrying out tasks, but they lack meaning.

Without moral intelligence, we don't know what we do, why we do it, or even what distinguishes our existence in the system of creation from certain issues. Moral intelligence reinforces appropriate behavior and is capable of providing social life sustainability over time. To the extent that moral intelligence increases the chance of survival, it even aids in extending people's lifespans. Lennick [13] considers moral intelligence as the ability to discern right from wrong, aligned with universal principles. They believe that the following four principles of moral intelligence are essential for continuous organizational and personal success:

1. Integrity: It means aligning what we believe in with what we do. Doing what we know as right and speaking the truth at all times. Someone with high moral intelligence acts in a manner that is consistent with their principles and beliefs.
2. Responsibility: Someone with high moral intelligence takes responsibility for their actions and their consequences, as well as their mistakes and failures.
3. Compassion: Paying attention to others in a mutually influential way. If we are kind and compassionate towards others, they, in turn, sympathize with us in times of need.
4. Forgiveness: Being aware of our own faults and tolerating the mistakes of others [6].

Research shows that moral intelligence affects the performance and success of the organization in these cases:

1. Reducing costs due to control
2. Improving relationships, increasing understanding and reducing conflicts
3. Increasing the commitment and responsibility of employees
4. Increasing the legitimacy of the organization

Components of moral intelligence: Borba [7] has presented the concept of moral intelligence in the framework of fostering seven virtues by collecting evidence, research, and practical examples. These virtues include empathy, conscience, self-control, respect, kindness, patience, and fairness.

1. Empathy: Empathy is a fundamental moral feeling that enables people to understand the feelings of others.
2. Conscience: It's a strong inner voice that assists an individual in decision-making between right and wrong, encouraging them to stay on an ethical path. It guides one to feel guilty if deviating from it. This characteristic is foundational for reinforcing fundamental virtues like honesty, accountability, and trustworthiness.
3. Self-control: It assists an individual in restraining their psychological desires and prompts them to consider their actions before initiating them. Consequently, it encourages a more thoughtful behavior, reducing the likelihood of

impulsive decisions leading to hazardous outcomes. This virtue fosters self-reliance by knowing one's capability to control their actions. Additionally, it encourages generosity and kindness by helping set aside immediate gratification in favor of using one's conscience to aid others.

4. Respect: Encourages an individual to behave thoughtfully towards others due to valuing respect for them. This attribute compels an individual to interact with others in a manner they themselves would appreciate, forming the basis for preventing violence, injustice, and animosity.
5. Kindness: Draws an individual's attention to the well-being and feelings of others. By cultivating this virtue, an individual becomes less self-centered, more compassionate, and empathetic, realizing that being kind to others is one of the simplest deeds. As a result, they think more about the needs of others, show attention, assist those in need, and defend those who are vulnerable and facing difficulties.
6. Patience: Helps an individual understand the characteristics of others and be ready to accept new perspectives and beliefs. It enables one to respect others regardless of gender, race, appearance, culture, beliefs, abilities, or sexual orientation.
7. Justice: Encourages an individual to behave fairly, justly, and impartially with others. By observing the law, sharing turns, and participating, it promotes interaction with others. It urges one to evaluate all aspects thoroughly before passing judgment. This virtue gives the courage to support those who have been treated unfairly and advocate for equality among all people (regardless of race, culture, economic status, abilities, or beliefs).

3 Research methodology

This study was applied in terms of purpose and mixed in terms of method. The participants in the qualitative part, which was based on the Delphi method, included 22 experts. Because the Delphi method involves the participation of individuals knowledgeable about the research topic, the selection of qualified members for the intended group, referred to as the Delphi panel, consisted of university and professional experts. They were chosen based on their level of education, familiarity with research methodology, research background, and experience in managerial positions (teaching, professional work, or both). The quantitative section's population included staff members of the Traffic and Transportation Organization affiliated with the Municipality of Tehran, totaling 86 individuals. Using the Cochran formula (3.1) and convenience sampling method, 82 individuals were selected as the sample members. The qualitative section utilized semi-structured interviews and document analysis, while the quantitative segment used a researcher-made questionnaire based on the components obtained from the qualitative section. Initially, through a review of research literature and conducted interviews, the components for enhancing employees' moral intelligence were identified. Then, the Delphi questionnaire was used to validate the identified components by experts, leading to the final determination of the components for enhancing employees' moral intelligence. The validity and reliability of the qualitative section's results were confirmed through face validity, content validity, and comparison with raw data. In the quantitative section, a Likert scale questionnaire was designed. After the questionnaire design, the content validity was obtained using the CVR index (3.2), which equaled 2.68, exceeding the minimum CVR calculated based on 22 experts (2.52). Subsequently, the reliability of the questionnaire was calculated using Cronbach's alpha (3.3), resulting in 0.97. Therefore, the validity and reliability of the questionnaire were confirmed. For the purpose of analyzing and checking the normality of the data, the Kolmogorov-Smirnov one-dimensional test (3.4) was used, and for measuring moral intelligence, descriptive statistics (mean, standard deviation, etc.) were employed. Statistical data in this section were processed using the SPSS software environment. Confirmatory factor analysis was also performed using the SmartPLS software.

$$n = \frac{Z^2 \times p \times (1-p)}{E^2} \tag{3.1}$$

where, n = required sample size, Z = Z-score corresponding to the desired confidence level (e.g., for a 95% confidence level, Z might be 1.96), p = estimated proportion or probability of success (or the proportion being studied), and E = desired margin of error.

Content Validity Ratio (CVR): This method involves a panel of experts evaluating each item and indicating whether it is essential for measuring the construct. The CVR formula is:

$$CVR = \frac{\left(N_e - \frac{N}{2}\right)}{\frac{N}{2}} \tag{3.2}$$

where, N_e = Number of experts indicating an item is essential, and N = Total number of experts. Items with higher CVR values are considered more essential for content validity.

Cronbach's alpha:

$$\alpha = \frac{k}{k-1}\left(1 - \frac{\sum_{i=1}^{k}\sigma_i^2}{\sigma_T^2}\right) \tag{3.3}$$

where, α = Cronbach's alpha coefficient, k = Number of items in the scale, σ_i^2 = Variance of the scores on the ith item, σ_T^2 = Variance of the total scores across all items. Cronbach's alpha ranges between 0 and 1. Higher values of alpha indicate higher internal consistency among the items, suggesting that the items are reliably measuring the same underlying construct.

One-sample Kolmogorov-Smirnov Test:

- Null Hypothesis (H0): The sample comes from a specified distribution.
- Alternative Hypothesis (H1): The sample does not come from the specified distribution.

The formula for the one-sample Kolmogorov-Smirnov test statistic (D) is:

$$D = \max(|F(x) - F_0(x)|) \tag{3.4}$$

where, $F(x)$ = Empirical cumulative distribution function (ECDF) of the sample, $F_0(x)$ = Cumulative distribution function (CDF) of the specified theoretical distribution, $|F(x) - F_0(x)|$ = Absolute difference between the empirical and theoretical CDFs, and max = Maximum value of the absolute differences.

Composite Reliability:

$$CR = \frac{(\sum_{i=1}^{p}\lambda_i)^2}{(\sum_{i=1}^{p}\lambda_i)^2 + (\sum_{i=1}^{p}V(\delta))} \tag{3.5}$$

where, λ_i = fully standardized loading for the ith index, $V(\delta)$ = variance of the error term for the ith index, and p = number of indicators.

Average variance extracted (AVE):

$$AVE = \frac{\sum_{i=1}^{k}\lambda_i^2}{\sum_{i=1}^{k}\lambda_i^2 + \sum_{i=1}^{k}Var(e_i)} \tag{3.6}$$

where, k is the number of items, λ_i the factor loading of item i and $Var(e_i)$ the variance of the error of item i. The mathematical formula that relates factor loading or lambda (λ) to the correlation between latent variables (factors) and manifest variables in a measurement model involves the calculation of the covariance between the latent variable and the observed variable, divided by the variance of the observed variable. The formula for factor loading (λ) is typically represented as:

$$\lambda = \frac{Cov(X, F)}{Var(X)} \tag{3.7}$$

where, X represents the observed variable, λ represents the factor loading, F represents the latent variable (factor), $Cov(X, F)$ represents the covariance between X and F, and $Var(X)$ represents the variance of X.

The t-value associated with a factor loading or lambda (λ) in the context of factor analysis or structural equation modeling is often used to determine the significance of that loading. The formula to calculate the t-value for a factor loading is:

$$t = \frac{\lambda}{SE(\lambda)} \tag{3.8}$$

where $SE(\lambda)$ is the standard error of the factor loading estimate. Latent variable correlations are used in structural equation modeling (SEM) to estimate relationships between unobserved (latent) constructs. In SEM, latent variables are not directly measured but are inferred from multiple observed (manifest) variables.

The formula for estimating latent variable correlations involves using path coefficients from the SEM model. Let's consider a simple example with two latent variables, η_1 and η_2, measured by multiple observed variables x_1, x_2, x_3 for η_1 and y_1, y_2, y_3 for η_2. The latent variable correlation between η_1 and η_2 can be calculated as the square root of the product of the paths connecting the latent variables divided by the product of their variances. For example, if the structural model of the SEM is:

$$\eta_1 = \lambda_{11}x_1 + \lambda_{12}x_2 + \lambda_{13}x_3 + \epsilon_1$$

$$\eta_2 = \lambda_{21} y_1 + \lambda_{22} y_2 + \lambda_{23} y_3 + \epsilon_2$$

and if β represents the path coefficients connecting the latent variables:

$$\eta_1 \to \eta_2 : \beta.$$

Then, the formula to calculate the latent variable correlation between η_1 and η_2 would be:

$$\text{Latent Variable Correlation} = \sqrt{\frac{\beta^2}{\sigma^2_{\eta_1} \times \sigma^2_{\eta_2}}} \tag{3.9}$$

where, β = Path coefficient linking η_1 and η_2, $\sigma^2_{\eta_1}$ = Variance of η_1, and $\sigma^2_{\eta_2}$ = Variance of η_2.

4 Research findings

4.1 Descriptive findings

In the qualitative section, among the studied experts, there were 5 women and 18 men. Six of them had doctoral degrees, 12 had master's degrees, and all had experience of over 6 years in their field. In the quantitative section, 26% were women, and 96% were men. In terms of age, 12% were between 22 to 32 years old, 82% were between 31 to 52 years old, 19% were between 51 to 62 years old, and 13% were over 62 years old. Regarding educational levels, 6% had diplomas and post-diploma qualifications, 89% had bachelor's degrees, and 26% had master's and doctoral degrees. Moreover, in terms of work experience, 22% had less than 6 years, 36% had 8 to 12 years, 22% had 11 to 16 years, and 16% had over 16 years of experience.

4.2 Inferential findings

Qualitative Section: Initially, the overall content of all gathered articles and conducted interviews was examined. Eventually, 83 components and 11 dimensions were identified through interviews as mechanisms for enhancing employees' moral intelligence. The mechanisms identified through interviews align with Table 1.

As observed in the table above, 83 components and 11 dimensions were identified through interviews as mechanisms to enhance employees' moral intelligence. In the following section, the components identified through the three stages of the Delphi method have been validated and filtered. In this section, the components identified for mechanisms to enhance employees' moral intelligence were provided to experts through the Delphi questionnaire. In each stage of the Delphi process, any component with an average below 3.6 was excluded from further research. Additionally, Kendall's coefficient (4.1) of concordance was calculated at each stage. Therefore, in the three Delphi stages, after expert consensus and eliminating 7 components, the final components, totaling 65, were identified to enter the quantitative section. Hence, all the indicators that entered the third Delphi stage were appropriately evaluated by the experts, and consequently, these indicators were included in the quantitative research phase. These indicators consist of 11 dimensions and 65 components, presented with validity and reliability as follows.

$$\tau = \frac{n_c - n_d}{\frac{1}{2} n(n-1)} \tag{4.1}$$

where, n_c = Number of concordant pairs (pairs where the order of observations is the same for both variables), n_d = Number of discordant pairs (pairs where the order of observations differs for the variables), and n = Total number of paired observations.

Based on the results of the above table, since the CVR value is above 0.5 and the Cronbach's alpha value is above 0.9; Therefore, the validity and reliability of the obtained dimensions and components were confirmed. Quantitative section: Initially, based on the results of the qualitative section, a questionnaire was prepared and provided to the quantitative sample (82 individuals). In the subsequent stage, goodness-of-fit tests were performed, followed by structural equation modeling using the partial least squares approach. First, the measurement model was checked to obtain the goodness of fit indices according to Table 3.

The Cronbach's alpha and the rho coefficient of Dillon-Goldstein indicate the questionnaire's reliability. Given that the CR value is higher than 0.9 and AVE is higher than 0.6, there is convergent validity. In the next step, discriminant validity of latent variables was also determined by the correlation values between latent variables obtained. These values were presented in Table 4.

Table 1: Mechanisms for improving the moral intelligence of employees

Dimensions	**Components**
Emulating from successful countries and transformation	Emulating the experience of success and failure of foreign companies
	Modernization
	Dynamism and Flexibility
Workforce	Employment of human capital
	Utilization of experienced workforce
	Increasing labor wages
	Division of labor
	Utilizing incentives for the workforce
	Employee training
Planning	Management programs for the workforce
	Planning to increase spirituality in the organization
	Psychological planning
Empowerment	Empowering management for moral intelligence implementation
	Employee empowerment to enhance moral intelligence
	Enhancing the mental and psychological capacity of employees
	Enhancing the mental and psychological capacity of managers
Shared responsibility	Coordination between units
	Empathy and compassion
	A sense of belonging to the organization
	Strengthening the spirit of colleagues
	A sense of mutual responsibility
	Voluntary coordination and voluntary attendance of people
	Conformity with order
	Friendly atmosphere among individuals and working groups for meaningful participation
The sense of teamwork	Attention to coordination and cooperation between different units
	Development of team culture
	Emphasis on the suggestion system
	Emphasis on the development of quality improvement groups
	Compatibility with each other's performance
	Correct understanding of treatment needs
	The ability to predict the priorities of others and adapt to changes in the environment
	Correct understanding of work duties
	The existence of flexibility in the organizational structure
	People's adherence to group ethics
Optimal communication pattern	Ability to establish interpersonal relationships
	Coherence of employees in the care environment
	Public communication
	Effective listening
	Holding effective meetings
Implementation of ethical principles	Responsibility
	Work ethics
	Increasing self-confidence
	Kindness towards each other
	Trust in one another
	Observing justice
	Preventing discrimination
Using the suggestion system	Getting help from behavioral science consultants
	Consultation with employees
	Consultation with other managers
	Obtaining employees' opinions on how to improve activities
Cooperation	Creating a sense of cooperation and empathy among employees
	Avoid direct confrontation
	Listening to employees
	Attention to the emotions of conflicting parties
	Acknowledgment and acceptance of differences
	Resolve disputes informally
Flexibility and compromise	Using friendly and supportive language
	Peaceful coexistence and compatibility
	Letting go of personal desires
	Valuing the satisfaction of both parties
	Creating a calm atmosphere
	Avoiding complaining or dissatisfaction in front of employees
	Avoiding threatening behavior

As observed, the main diagonal values of correlation with other constructs are higher. Hence, the discriminant validity of latent variables is confirmed. Therefore, the model is deemed appropriate in terms of the specified fit

Table 2: Final dimensions and components and their validity and reliability

Dimensions	Components	Validity (CVR index)	Reliability (Cronbach's alpha)
Emulating from successful countries and transformation (A)	Emulating the experience of success and failure of foreign companies (A1)	0.81	0.99
	Modernization (A2)		
	Dynamism and Flexibility (A3)		
Workforce (B)	Employment of human capital (B1)	0.81	0.96
	Utilization of experienced workforce (B2)		
	Increasing labor wages (B3)		
	Division of labor (B4)		
	Utilizing incentives for the workforce (B5)		
	Employee training (B6)		
Planning (C)	Management programs for the workforce (C1)	0.82	0.96
	Planning to increase spirituality in the organization (C2)		
	Psychological planning (C3)		
Empowerment (D)	Empowering management for moral intelligence implementation (D1)	0.66	0.92
	Employee empowerment to enhance moral intelligence (D2)		
	Enhancing the mental and psychological capacity of employees (D3)		
	Enhancing the mental and psychological capacity of managers (D4)		
Shared responsibility (E)	Coordination between units (E1)	0.82	0.62
	Empathy and compassion (E2)		
	A sense of belonging to the organization (E3)		
	Strengthening the spirit of colleagues (E4)		
	A sense of mutual responsibility (E5)		
	Voluntary coordination and voluntary attendance of people (E6)		
	Conformity with order (E7)		
	Friendly atmosphere among individuals and working groups for meaningful participation (E8)		
The sense of teamwork (F)	Attention to coordination and cooperation between different units (F1)	0.68	0.95
	Development of team culture (F2)		
	Emphasis on the suggestion system (F3)		
	Emphasis on the development of quality improvement groups (F4)		
	Compatibility with each other's performance (F5)		
	The ability to predict the priorities of others and adapt to changes in the environment (F6)		
	Correct understanding of work duties (F7)		
	The existence of flexibility in the organizational structure (F8)		
	People's adherence to group ethics (F9)		
Optimal communication pattern (G)	Ability to establish interpersonal relationships (G1)	0.68	0.96
	Coherence of employees in the care environment (G2)		
	Public communication (G3)		
	Effective listening (G4)		
Implementation of ethical principles (H)	Responsibility (H1)	0.68	0.96
	Work ethics (H2)		
	Observing justice (H3)		
Using the suggestion system (I)	Getting help from behavioral science consultants (I1)	0.66	0.96
	Consultation with other managers (I2)		
Cooperation (J)	Creating a sense of cooperation and empathy among employees (J1)	0.67	0.61
	Avoid direct confrontation (J2)		
	Listening to employees (J3)		
	Attention to the emotions of conflicting parties (J4)		

	Resolve disputes informally (J5)		
Flexibility and compromise (K)	Using friendly and supportive language (K1) Peaceful coexistence and compatibility (K2) Letting go of personal desires (K3) Valuing the satisfaction of both parties (K4) Creating a calm atmosphere (K5) Avoiding complaining or dissatisfaction in front of employees (K6) Avoiding threatening behavior (K7)	0.82	0.61

Table 3: Goodness of fit assessment

Latent variables	**Cronbach's alpha**	ρ_A	**CR**	**AVE**
Emulating from successful countries and transformation	0.919	0.982	0.626	0.615
Workforce	0.995	0.681	0.976	0.622
Planning	0.926	0.966	0.922	0.678
Empowerment	0.966	0.983	0.929	0.626
Shared responsibility	0.919	0.982	0.626	0.615
The sense of teamwork	0.985	0.681	0.988	0.622
Optimal communication pattern	0.986	0.966	0.622	0.682
Implementation of ethical principles	0.969	0.982	0.623	0.821
Using the suggestion system	0.625	0.661	0.656	0.666
Cooperation	0.626	0.666	0.922	0.666
Flexibility and compromise	0.626	0.683	0.929	0.639

Table 4: Goodness of fit assessment

	Emulating from successful countries and transformation	Workforce	Planning	Empowerment	Shared responsibility	The sense of teamwork	Optimal communication pattern	Implementation of ethical principles	Using the suggestion system	Cooperation	Flexibility and compromise
Emulating from successful countries and transformation	0.919										
Workforce	0.536	0.922									
Planning	0.326	0.523	0.992								
Empowerment	0.883	0.265	0.226	0.929							
Shared responsibility	0.622	0.132	0.197	0.132	0.919						
The sense of teamwork	0.261	0.197	0.221	0.197	0.132	0.922					
Optimal communication pattern	0.211	0.966	0.511	0.622	0.197	0.132	0.956				
Implementation of ethical principles	0.126	0.132	0.221	0.132	0.511	0.197	0.822	0.966			
Using the suggestion system	0.266	0.172	0.321	0.322	0.132	0.966	0.173	0.639	0.959		
Cooperation	0.126	0.178	0.529	0.179	0.626	0.132	0.236	0.527	0.612	0.956	
Flexibility and compromise	0.116	0.576	0.221	0.378	0.852	0.226	0.652	0.229	0.278	0.172	0.933

indices. In the following section, estimating the structural equations of a suitable model has been conducted for enhancing employees' moral intelligence. The results include factor loadings (path coefficients) and t-statistics of path coefficients, presented in Figures 1 and 2 respectively. It is worth noting that components with factor loadings less than 0.3 or those that were not statistically significant were excluded from the model to improve model parsimony and better estimation accuracy.

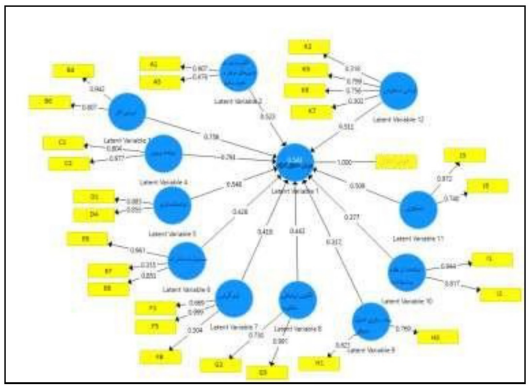

Figure 1: The factor loadings of a suitable model for enhancing employees' moral intelligence

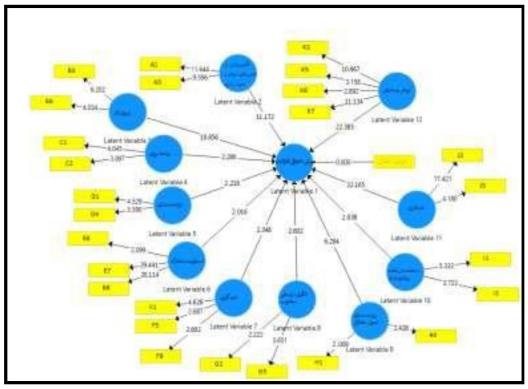

Figure 2: The t-statistic of the factor loadings for a suitable model for enhancing employees' moral intelligence

The factor loadings and t-statistics of latent variables (dimensions) and components are presented in Tables 5 and 6, respectively.

Table 5: The factor loadings and t-statistics of latent variables (dimensions)

Latent variables	**The factor loading**	**t-statistics**	**Result**
Emulating from successful countries and transformation (A)	0.623	11.192	Meaningful
Workforce (B)	0.966	12.668	Meaningful
Planning (C)	0.971	2.262	Meaningful
Empowerment (D)	0.656	2.218	Meaningful
Shared responsibility (E)	0.526	2.218	Meaningful
The sense of teamwork (F)	0.517	2.356	Meaningful
Optimal communication pattern (G)	0.552	2.822	Meaningful
Implementation of ethical principles (H)	0.319	8.275	Meaningful
Using the suggestion system (I)	0.399	2.236	Meaningful
Cooperation (J)	0.627	22.186	Meaningful
Flexibility and compromise (K)	0.611	22.366	Meaningful

The factor loadings of the ethical (moral) intelligence dimensions of employees are as follows:

Emulating from successful and transformative countries has a loading of 0.623, which is an average figure.

Workforce factor loading is 0.966, indicating a high value.

Planning factor loading is 0.971, signifying a high value.

Empowerment factor loading is 0.656, an average figure.

Shared responsibility factor loading is 0.526, an average figure.

The sense of teamwork factor loading is 0.517, indicating a slight figure.

Optimal communication pattern factor loading is 0.552, an average figure.

Implementation of ethical principles factor loading is 0.319, indicating a slight figure.

Using the suggestion system factor loading is 0.399, indicating a slight figure.

Cooperation factor loading is 0.627, an average figure.

Flexibility and compromise factor loading is 0.611, an average figure.

Therefore, among the dimensions of employees' moral intelligence, planning and workforce hold the highest significance among other dimensions. Also, among the components related to each dimension, emulating from the success and failure experiences of foreign companies with a factor loading of 0.729, increasing labor wages with a factor loading of 0.752, planning to enhance organizational spirituality with a factor loading of 0.799, empowering management for ethical implementation with a factor loading of 0.666, voluntary coordination and voluntary attendance of people with a factor loading of 0.781, compatibility with each other's performance with a factor loading of 0.777, public communication with a factor loading of 0.771, observing justice with a factor loading of 0.987, getting help from behavioral science consultants with a factor loading of 0.755, listening to employees' speech with a factor loading of 0.792, and creating a calm atmosphere with a factor loading of 0.977 hold the highest importance in each of the dimensions.

Table 6: Factor loadings and t-statistics of the components

Components	The factor loading	t-statistics	Result
Emulating the experience of success and failure of foreign companies (A1)	0.729	11.855	Meaningful
Modernization (A2)	–	–	Meaningful
Dynamism and Flexibility (A3)	0.698	7.678	Meaningful
Employment of human capital (B1)	–	–	Meaningful
Utilization of experienced workforce (B2)	–	–	Meaningless
Increasing labor wages (B3)	0.752	8.222	Meaningful
Division of labor (B4)	–	–	Meaningful
Utilizing incentives for the workforce (B5)	–	–	Unacceptable
Employee training (B6)	0.629	5.235	Meaningful
Management programs for the workforce (C1)	0.625	5.256	Meaningful
Planning to increase spirituality in the organization (C2)	0.799	3.679	Meaningful
Psychological planning (C3)	–	–	–
Empowering management for moral intelligence implementation (D1)	0.666	5.627	Meaningful
Employee empowerment to enhance moral intelligence (D2)	–	–	–
Enhancing the mental and psychological capacity of employees (D3)	–	–	–
Enhancing the mental and psychological capacity of managers (D4)	0.666	3.372	Meaningful
Coordination between units (E1)	–	–	–
Empathy and compassion (E2)	–	–	–
A sense of belonging to the organization (E3)	–	–	–
Strengthening the spirit of colleagues (E4)	–	–	–
A sense of mutual responsibility (E5)	–	–	–
Voluntary coordination and voluntary attendance of people (E6)	0.781	2.277	Meaningful
Conformity with order (E7)	0.366	27.551	Meaningful
Friendly atmosphere among individuals and working groups for meaningful participation (E8)	0.661	22.115	Meaningful
Attention to coordination and cooperation between different units (F1)	0.887	5.828	Meaningful
Development of team culture (F2)	–	–	–
Emphasis on the suggestion system (F3)	–	–	–
Emphasis on the development of quality improvement groups (F4)	–	–	–
Compatibility with each other's performance (F5)	0.777	2.869	Meaningful
The ability to predict the priorities of others and adapt to changes in the environment (F6)	–	–	–
Correct understanding of work duties (F7)	–	–	–
The existence of flexibility in the organizational structure (F8)	0.625	2.822	Meaningful
Adherence of individuals to group ethics (F9)	–	–	–
Ability to establish interpersonal relationships (G1)	–	–	–
Coherence of employees in the care environment (G2)	0.932	2.222	Meaningful
Public communication (G3)	0.771	3.861	Meaningful
Effective listening (G4)	–	–	–
Responsibility (H1)	0.821	2.227	Meaningful
Work ethics (H2)	–	–	–
Observing justice (H3)	0.987	2.526	Meaningful
Getting help from behavioral science consultants (I1)	0.755	6.332	Meaningful
Consultation with other managers (I2)	0.619	3.923	Meaningful
Creating a sense of cooperation and empathy among employees (J1)	–	–	–
Avoid direct confrontation (J2)	–	–	–
Listening to employees (J3)	0.792	19.521	Meaningful
Attention to the emotions of conflicting parties (J4)	–	–	–
Resolve disputes informally (J5)	0.952	5.162	Meaningful
Using friendly and supportive language (K1)	–	–	–
Peaceful coexistence and compatibility (K2)	0.316	12.789	Meaningful
Letting go of personal desires (K3)	–	–	–
Valuing the satisfaction of both parties (K4)	–	–	–
Creating a calm atmosphere (K5)	0.977	3.166	Meaningful
Avoiding complaining or dissatisfaction in front of employees (K6)	0.968	2.672	Meaningful
Avoiding threatening behavior (K7)	0.322	11.135	Meaningful

5 Conclusion

The present study aimed to provide a model for enhancing the moral intelligence of employees at the Transportation Organization of Tehran Municipality. It was a mixed-method research. Findings indicated that in formulating the model for improving the moral intelligence of employees at the Transportation Organization of Tehran Municipality, 11 dimensions and 65 components should be considered. These components included emulating from successful and

transformational countries, workforce, planning, empowerment, shared responsibility, the sense of teamwork, optimal communication pattern, implementation of ethical principles, using the suggestion system, cooperation, and flexibility and compromise. Results indicated that among the dimensions of employees' moral intelligence, planning and workforce hold the highest importance among other dimensions.

Among the identified components, the following factors hold the highest importance in each respective dimension: Public communication with a factor loading of 0.771, planning to enhance organizational spirituality with a loading of 0.799, listening to employees' voices with a loading of 0.792, voluntary coordination and voluntary attendance of people with a loading of 0.781, getting help from behavioral science consultants with a loading of 0.755, emulation from the success and failure experiences of foreign companies with a loading of 0.729, empowering management for moral intelligence implementation with a loading of 0.666, creating a peaceful atmosphere with a loading of 0.977, and observing justice with a loading of 0.987. These factors collectively hold the highest significance in each of the components. In comparing the results of the present study with other research, it is concluded that all the studies presented in the background section, including Afshani and Abooei [1], Maleki et al. [14], Azarbarahman et al. [4], Pourteimour et al. [17], and Al-Adamat et al. [2], in a way affirm the role of moral intelligence in enhancing the performance of the studied organizations, which aligns and correlates with the findings of the present research. The significance in terms of responsibility aligns with the findings of Golmohammadian et al. [10], Manteghi et al. [16], and Lennick [13]. Additionally, the importance of planning is consistent with Darkenwald and Merriam's study [8].

5.1 Suggestions

- Considering that planning is a significant factor in enhancing the moral intelligence of employees, it is recommended that organizational managers set their goals and undertake necessary planning to increase the moral intelligence of employees and implement morale-boosting strategies.
- Since the workforce is a significant factor in enhancing the moral intelligence of employees, it is recommended that organizations hire experienced personnel and invest in human capital.
- It is suggested that the wages and rewards offered to them be increased as much as possible to enhance workforce productivity and contribute to the improvement of moral intelligence.
- Considering that listening to employees is a crucial factor in enhancing their moral intelligence, it is recommended that managers within the organization be employed who possess the ability to listen actively and consider employees' issues as significant.
- Since seeking assistance from behavioral science consultants is a crucial criterion for enhancing employees' moral intelligence, it's recommended to involve behavioral consultants at every stage of training for this important initiative.
- Structurally, it's recommended that organizational structures be configured to prioritize the enhancement of moral intelligence among employees. In other words, key organizational structures such as management structures should be designed in ways that prioritize employees' moral intelligence.
- It's essential for the organizational culture to evolve in line with enhancing moral intelligence. As every action within an organization necessitates the initial implementation of its culture, this effort holds significant importance.
- Finally, it is recommended to utilize modern and up-to-date technologies, including rapid and extensive information technology and the internet, to enhance moral intelligence and provide training within the organization.
- Researchers are suggested to extract and compare the dimensions and components of moral intelligence in both governmental and private organizations. Additionally, exploring strategies to enhance moral intelligence for managers is recommended.

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