Journal of International Trade, Logistics and Law, Vol. 12, Num. 1, 2026, 298-315

A CROSS-SECTORAL "ETHICAL LEADERSHIP SCALE": DEVELOPMENT AND VALIDATION

Abdullah ÇALIŞKAN
Cyprus West University, Cyprus

Emine Özlem KÖROĞLU
Mersin University, Turkey

Ömer TURUNÇ
Antalya Bilim University,Turkey

İrfan AKKOÇ
Izmir University of Economics, Turkey

Received: March 24, 2026 Accepted: May 28, 2026 Published: June 01, 2026

Abstract:
Existing ethical leadership scales are often limited by sector-specific designs and lengthy multidimensional structures, restricting their applicability in diverse organizational contexts. Addressing this limitation, the present study develops and validates a concise, cross-sectoral Ethical Leadership Scale. Data were collected from three independent samples representing education ($n_1 = 385$), healthcare ($n_2 = 447$), and industry ($n_3 = 503$). Following a rigorous scale development procedure, an initial 14-item instrument was assessed using exploratory and confirmatory factor analyses, along with criterion-related validity testing. The results support a robust two-dimensional structure consisting of ten items: value-based ethical leadership and behavioral ethical leadership. The scale demonstrates strong psychometric properties, including high validity and reliability across heterogeneous samples. By introducing a short, theoretically grounded, and empirically validated instrument, this study contributes to the ethical leadership literature by overcoming limitations related to sector specificity and measurement complexity. The cross-sectoral validation enhances the generalizability and practical utility of the scale, particularly in large-scale and time-constrained research settings.The proposed scale provides researchers and practitioners with an efficient and reliable tool for assessing ethical leadership across diverse organizational environments, thereby advancing both empirical research and evidence-based management practices. The scale items are presented in both English and Turkish at the end of the study.

Keywords:
Ethical leadership; value-based ethical leadership; behavioral ethical leadership; scale development

JEL Classification:
M1401, D23, C38

1. Introduction

Ethical leadership has become an increasingly prominent topic in both the business world and society at large. There is a growing awareness that leaders not only have a responsibility to their organizations but also to their communities, to do what is right when carrying out their duties (Ahn et al., 2018; Kuenzi et al., 2020; Palanski et al., 2021; Zhu et al., 2016). Ethical leadership entails leaders upholding ethical principles and not only protecting their values but also ensuring the well-being of their employees, customers, and society at large (Al Halbusi et al., 2022; Babalola et al., 2019).

Ethical leadership involves leaders evaluating their responsibilities and decisions based on ethical principles and values, and acting accordingly (Al Halbusi et al., 2021a; Latta & Clottey, 2020; Pircher Verdorfer & Peus, 2020).

Ethical leadership is of great importance in ensuring the sustainability of organizations, increasing employee satisfaction, and creating social impact. The attitudes and behaviors of leaders based on ethical principles have a significant impact on employee satisfaction, organizational culture, social development, and many other factors. Therefore, discussions on the importance of ethical leadership and leaders' ethical behaviors have been increasing in recent times (Al Halbusi et al., 2020; Cheng et al., 2022; Mitchell et al., 2020; Ng et al., 2021).

Numerous theoretical and practical studies have been conducted to establish an ethical leadership environment in organizations, as well as to understand the concept of ethical leadership, identify the factors that influence ethical leadership and develop and sustain ethical leadership within organizations, and to determine and discuss their effects (O'Keefe et al., 2020; Miao et al., 2020; Peng & Wei, 2020; Salem et al., 2020; Shakeel et al., 2019; Zhu et al., 2021). However, for these activities related to ethical leadership to be carried out, they must first be measurable. Therefore, it is necessary to develop a specific scale for ethical leadership by addressing the shortcomings of previously developed scales.

Some of the scales used in the literature may not cover all dimensions of ethical leadership or may not be valid in certain contexts (Brown et al., 2005; Tuna et al., 2012). For instance, some scales may have been designed for only a single industry or cultural context. Changing societal and business values, digitalization, and other modern developments can lead to changes in the understanding of ethical leadership. Existing scales may not encompass these new developments. New work models, such as digitalization and remote work, have altered the concept of ethical leadership. A new scale could measure the leadership skills and behaviors required by this transformation. The roles of leaders in technology and data ethics are evolving, and existing scales may not cover these new responsibilities. Additionally, it has been observed that some of the scales used are very multidimensional and consist of numerous items (Kalshoven et al., 2011; Tenuto & Gardiner, 2017; Yukl et al., 2013). Long scales can lead to participant fatigue and distraction, negatively affecting the accuracy and consistency of responses. Long scales may decrease the likelihood of participants completing the survey. Particularly due to time constraints in the business world or academic studies, participants may refuse to complete lengthy scales. Long scales may not be practical, especially in research with a large participant base, training programs, or internal evaluations. Shorter scales improve applicability and usability.

These arguments demonstrate why developing a new scale for ethical leadership might be meaningful and necessary. Therefore, it is necessary to develop a specific Ethical Leadership Scale by addressing the shortcomings of previously developed scales to measure ethical leadership with a valid and reliable measurement tool based on scientific methods, which is aimed at determining ethical leadership in businesses/organizations operating in all sectors. Furthermore, this study aims to contribute to the literature on management and organizational behavior disciplines, such as measuring, controlling, and improving a situation that is a precursor and sequel to many desired variables within organizations, such as ethical leadership.

2. Theoretical Framework

2.1. Ethical Leadership Theory

Ethical leadership involves the evaluation of leaders' responsibilities and decisions based on ethical principles and values, and acting accordingly. This style of leadership is of great importance for ensuring the sustainability of institutions, increasing the satisfaction of their employees, and creating a social impact (Al Halbusi, 2021; Decoster et al., 2019; Lian et al., 2020).

Ethical leadership has been defined in various ways by different researchers. Brown and colleagues (2005) defined ethical leadership as leaders behaving honestly, fairly, conscientiously, and respectfully in their jobs. Ethical leadership is expressed as a leadership style that directs employees toward ethical behavior (Sharma et al., 2019). Piccolo and colleagues (2010), on the other hand, identified ethical leadership as a leadership type that effectively enforces values within the organization.

Ethical leadership is a type of leadership and requires leaders to act from a moral perspective and make decisions based on ethical values. The theoretical foundations of ethical leadership come from different disciplines, especially philosophy, psychology and sociology. Below are the theoretical foundations of ethical leadership (Ahmad et al., 2017; Alkhadra et al., 2022; Alshammari et al., 2015; Bedi et al., 2016; Guo et al., 2022; Ullah et al., 2022; Wang et al., 2017):

2.1.1. Virtue Ethics
This theory emphasizes the character and personal virtues of a leader. Ethical leaders who embody virtues such as honesty, integrity, and empathy are more likely to make ethical decisions and inspire ethical behavior in their followers.

2.1.2. Utilitarianism
Utilitarianism is a consequentialist ethical theory that emphasizes the maximization of overall happiness or utility. Ethical leaders who use utilitarianism as a framework for decision-making consider the impact of their actions on all stakeholders and make decisions that maximize the overall well-being of society.

2.1.3. Deontological Ethics
This is an ethical theory that emphasizes the importance of following moral rules and duties, regardless of their consequences. Ethical leaders who follow deontological ethics prioritize moral obligations and principles and may make decisions based on principles such as justice or respect for autonomy.

2.1.4. Ethical Relativism.
This is a theory that suggests that ethical standards are relative to the cultural, social, and historical context in which they are developed. Ethical leaders who adhere to ethical relativism may be more open-minded and tolerant of diverse ethical perspectives, but may also struggle to make universal ethical decisions.

2.1.5. Social Learning Theory
This theory suggests that individuals learn ethical behavior through observation and imitation of others. Ethical leaders who embody ethical behavior can serve as positive role models and inspire their followers to behave ethically.

2.1.6. Transformational Leadership Theory
This theory suggests that leaders who inspire and motivate their followers can transform organizations and society. Ethical leaders who use transformational leadership techniques may inspire ethical behavior in their followers and create a culture of ethics within their organizations.
Overall, ethical leadership requires a deep understanding of ethical principles and theories, as well as the ability to apply them in real-world situations.

2.2. Organizational Ethical Climate and Ethical Leadership
Ethical climate is a set of values that guides employee behavior in the workplace and determines and influences important work outcomes (Appelbaum et al., 2005; Barnett & Schubert, 2002; Cullen et al., 2004; Çavuş & Develi, 2017; Deshpande, 1996). Ethical climate is a mechanism that directs individuals encountering conflicting values within the organization to evaluate ethical alternatives and determine what is right or wrong by providing opportunities to overcome such problems and involving organizational values (Çalışkan, 2022a; Ryu, 2020).
Organizational ethical climate refers to the ethical values, norms, and standards within an organization, providing a framework for employees to determine ethical behavior within the organization. Ethical leadership, on the other hand, refers to a leader's encouragement and exemplification of ethical behavior in employees. The necessary first element for developing a strong and sustainable ethical climate within an organization is the presence of strong, unconditional leader support (Egorov et al., 2019; Shin, 2012; Zhou et al., 2018). Ethical leadership behavior is a necessary condition for building an ethical organization. Leaders must be aware that the policies and strategies they openly and implicitly define and implement will shape employees' ethical perceptions (Potipiroon et al., 2017; Shim & Park, 2019). Managers who exhibit ethical leadership behavior should also act as virtuous intermediaries in promoting an ethical climate and serve as role models for all individuals within the organization (Shin, 2012; Walumbwa, 2011; Zhang et al., 2021).
Ethical leadership contributes to the formation and maintenance of an organizational ethical climate. For instance, an ethical leadership style that emphasizes honesty and justice encourages employees to exhibit similar behaviors and enhances the development of an ethical climate within the organization. On the other hand, an ethical climate reinforces and strengthens ethical leadership. An ethical climate with clear and transparent ethical standards within an organization encourages leaders to act in accordance with ethical behavior.

2.3. Characteristics of Ethical Leadership

Ethical leaders are individuals who manage and lead businesses, organizations, or communities in accordance with ethical values. Ethical leaders must act as role models for their employees and stakeholders, and promote the preservation of ethical values within the organizational culture (Al Halbusi et al., 2021b; Iqbal et al., 2020; Marquardt et al., 2020). It should be understood that for businesses to move towards a sustainable future, they must adhere to ethical behavior and social responsibilities. Ethical leadership is also crucial for happiness, motivation, and commitment. When employees believe in the values of their organization, they feel happier and more committed, resulting in better performance (Al Halbusi et al., 2019; Asif et al., 2019; Bush et al., 2021; Develi et al., 2022; Irk & Bıyık, 2024).

The qualities that ethical leaders should possess are generally stated as follows (Enwereuzor et al., 2020; Fatima, 2020; Haar et al., 2019; Keck et al., 2020; Kuenzi et al., 2020; Mitchell et al., 2023): First, ethical leaders should have ethical values, which include honesty, respect, justice, responsibility, tolerance, and integrity. Ethical leaders are expected to make decisions in accordance with ethical values and be determined to implement them. They communicate well with people and listen to them, which is done by respecting other people's ideas and motivating them. Ethical leaders set an example for all individuals by doing what is right, even if it goes against their own interests. This means that others follow them and observe their leadership qualities. Ethical leaders are open to learning and strive to improve themselves continuously. This includes being open to new ideas and technologies. Ethical leaders are individuals who have a vision for the future and can clearly communicate that vision to others. This requires goal-setting and planning skills. Ethical leaders empathize with people and understand their feelings. This requires the ability to understand others' perspectives and motivate them. Ethical leaders are responsible and accept the consequences of the decisions they make. This requires the ability to accept others' mistakes and help them improve.

When performing ethical leadership behavior, it is first expected that the leader is ethical and then encourages it to their subordinates. The attitudes and behaviors of leaders towards ethical leadership increase employees' self-confidence, elevate their motivation, and make the work environment more ethical. An ethical leader is focused on understanding, supporting, and adopting ethical standards. These leaders ensure that all individuals within the organization behave in accordance with ethical standards (Keck et al., 2020; Kuenzi et al., 2020; Marquardt et al., 2020; Potipiroon et al., 2017; Ullah et al., 2022; Wang et al., 2017).

2.4. Question of the Study

Ethical leadership is an increasingly significant issue in today's world. Leaders' ethical behavior is crucial for organizational success and societal impact. Scales developed to measure ethical leadership can enhance organizational performance and positively influence social effects by examining leaders' behaviors in more detail (Chikeleze & Baehrend, 2017; Kalshoven et al., 2011; Yukl et al., 2013; Zappala & Toscano, 2020). However, existing scales pose problems because they do not cover all aspects of ethical leadership and are multidimensional and complex. This study aims to develop a new, short, and functional Ethical Leadership Scale that can be applied to all sectors. The purpose of this scale is to objectively evaluate leaders' ethical behavior and contribute to the adoption of ethical leadership values in organizations. The importance of this study lies in its focus on measuring ethical leadership during a time of increased discussions on the significance of ethical leadership and the societal impacts of leadership.

3. Method

3.1. Sample

For research, three distinct sample groups were identified through a convenience sampling method, consisting of academic and administrative personnel from higher education institutions affiliated with public and private foundations, as well as personnel from institutions/businesses in the health and industry sectors in Mersin province. The aim of selecting three different sample groups for the study is to increase the generalizability of the findings at the end of the study. Sectors where the effects of ethical leadership perception can be significantly felt were prioritized in selecting the industries to be included in the research, with education, health, and industry sectors considered to fall within this scope. Detailed information regarding the sample groups is presented below.

3.1.1. First Sample Group

The academic and administrative personnel employed by universities and foundations constitute the first sample group of the study. Survey forms regarding the research were distributed to approximately 750 individuals who work in public and private educational institutions included in the study population and were identified through the convenience sampling method. Among the responded surveys, 385 of them were found suitable for analysis (n1 = 385).

The first sample group is comprised of 385 academic and administrative staff, including 202 males (52.5%) and 183 females (47.5%) working in educational institutions in the public and private sectors. Of the first sample group, 258 individuals are married (67.0%) and 127 are single (33.0%), while 236 of them work in public institutions (61.2%) and 149 (38.8%) work in foundation universities. The average age of the participants working in educational institutions in the public and private sectors is determined to be 38.35 years.

3.1.2. Second Sample Group

The personnel of public and private healthcare institutions located in the Mersin region constitute the participants of the second sample group. This population includes approximately 10,000 personnel. The sample size was calculated as 370 individuals with a confidence level of 95% (Sekaran, 1992). Survey forms regarding the research were distributed to a total of 750 individuals who work in public and private healthcare institutions included in the study population and were identified through the convenience sampling method. Among the responded surveys, 447 of them were found suitable for analysis (n2 = 447).

The second sample group consists of 447 public and private healthcare sector employees, including 158 males (35.4%) and 289 females (64.6%) working in healthcare institutions in the public and private sectors. Of the second sample group, 239 individuals are married (53.4%) and 208 are single (46.6%). The average age of the participants working in the healthcare sector is determined to be 32.45 years.

3.1.3. Third Sample Group

The employees of the companies located in Mersin and Tarsus Organized Industrial Zones constitute the participants of the third sample group in the study. There are approximately 15,000 employees in this population. The sample size was calculated as 375 people with a confidence level of 95% (Sekaran, 1992). Survey forms related to the research were sent to a total of 750 people who work in the companies within the research population and were identified through convenience sampling. Out of the answered surveys, 503 were found to be suitable for analysis (n3 = 503).

385 men (76.5%) and 118 women (23,5%) who work in the companies located in Mersin and Tarsus Organized Industrial Zones constitute a total of 503 industrial sector employees, who make up the third sample group. Of the third sample group, 337 are married (66.9%) and 166 are single (33.1%). The average age of the industrial sector participants was determined as 38.01 years.

3.2. Scale Development and Procedure

To establish expressions regarding the measurement of ethical leadership, approximately 30 experienced academicians in the fields of organizational ethics and leadership were consulted initially. During these consultations, the characteristics aimed at measuring the concept of ethical leadership were determined in a structured list format. The initial structure consisting of 16 statements was revised, incorporating feedback from 21 academics, resulting in a draft form of an Ethical Leadership Scale containing 14 items, with revisions, deletions, and additions made accordingly.

Table 1. Ethical Leadership Scale (Draft)

1.	My leader adheres to the principles of honesty, respect, and responsibility during business decisions and practices.

2.	My leader sets an example for his employees to respect human rights and act fairly.
3.	My leader provides equal opportunity by acting fairly and equitably.
4.[a]	My leader attaches importance to reflecting ethical values to the mission and vision of the enterprise.
5.	My leader takes decisions and acts by adhering to ethical values without harming the aims of our institution.
6.	My leader gives training to employees on ethical values.
7.[a]	My leader observes the behavior of the employees and monitors their compliance with ethical values.
8.	My leader supports the inclusion and equal representation of different cultural, social, and demographic groups in the workplace.
9.	My leader respects the privacy, integrity, and dignity of employees, including in the use of digital technologies, and prioritizes ethical values.
10.	My leader acts fairly and consistently in business decisions by prioritizing environmental sustainability and social responsibility, and protects the rights of employees.
11.[a]	My leader exhibits an attitude that does not tolerate injustice and misbehavior within the enterprise.
12.[a]	My leader is a pioneer in respecting the human rights of employees outside of work life.
13.	My leader treats employees equally in terms of workload, salary, and opportunities.
14.	My leader acts primarily in line with the values of society and humanity and sets an example for all of us.

a These items were removed from the scale as a result of subsequent analysis.

The survey form designed for research purposes consists of three sections. The first section includes an informational note to provide participants with details about the study. The second section consists of five questions related to demographic variables such as age, gender, marital status, and the institution where they work. The final section contains the last version of the Ethical Leadership Scale, which comprises fourteen statements. For this survey form, an ethics committee approval certificate was received from the Toros University Scientific Research and Publication Ethics Committee (date: 23.03.2023, decision no: 42). The survey forms created were distributed to participants between February 1, 2023, and March 15, 2023, and data related to the study was collected. Participants' responses to the survey were determined using a 5-point Likert scale (1 = strongly disagree, 5 = strongly agree). Data analysis for the research was conducted using a data analysis software package. Descriptive statistics were first used to determine the demographic characteristics of all three study groups. Subsequently, validity and reliability analyses of the Ethical Leadership Scale were conducted, and criterion validity analyses were performed in the final stage.

4. Findings

4.1. Constuct Validity

Validity indicates whether a measuring instrument accurately measures the concept it intends to measure (Urbina, 2014). In other words, validity is the degree to which the property to be measured regarding a variable can be accurately measured without being confused with another variable (Kartal & Bardakçı, 2018; Çalışkan & Koç, 2025). In this study, structural validity analyses were conducted for the Ethical Leadership Scale that is aimed to be developed. Structural validity is a concept that shows whether a measuring instrument accurately reflects the structure of the concept being measured. Structural validity determines whether the elements contained in the measuring instrument are appropriate for the structure of the measured concept and how these elements are related to each other (Bandalos & Finney, 2010; Westen & Rosenthal, 2003). Exploratory and confirmatory factor analyses were used to determine whether the Ethical Leadership Scale has structural validity.

4.1.1. Exploratory Factor Analysis

Exploratory factor analysis (EFA) is a statistical technique utilized to discover and comprehend the underlying structure in data. This method endeavors to determine the fundamental factors in a dataset by identifying relationships among several variables (Fabrigar et al., 1999; Çalışkan, 2025). EFA scrutinizes the relationships between variables in a dataset and group variables with high correlation, labeling these groups as factors. Each factor represents a subset of interrelated variables (Gorsuch, 1997; Hair et al., 2010). In this study, the EFA was conducted on the data collected from two sample groups consisting of academic and administrative personnel working in higher education institutions belonging to public and private foundations, as well as those working in the healthcare sector. However, before conducting the EFA, whether the collected data is appropriate for this analysis should be examined. The suitability of the data set for this analysis can be examined through the Kaiser-Meyer-Olkin (KMO) test and the Bartlett sphericity test. The KMO test provides information on the suitability of the data set for factor analysis and the suitability of the data structure for factorization. According to the classification made by Kaiser and Rice (1974), the suitability degree of the data set is classified as follows based on the KMO test results: 0.90-1.00: excellent, 0.80-0.89: meritorious, 0.70-0.79: adequate, 0.60-0.69: acceptable. Therefore, the KMO coefficient should be higher than 0.60 for these two aspects. The Bartlett sphericity test analyzes the presence of inter-variable relationships on the partial correlation axis. A significant result of the test indicates the suitability of the data set. Additionally, this situation is also an indicator of the normality of the data set (Büyüköztürk, 2016).

According to the obtained results, the KMO coefficient was found to be 0.941, and the Bartlett's Sphericity Test Chi-Square value was 5584.36 ($p < .001$) for the first sample group, and 0.906 and 3467.06 ($p < .001$), respectively, for the second sample group. Based on these results, it was determined that the data set is suitable for KFA (Hair et al., 2010; Kalaycı, 2006). Principal component analysis was used as the inference method for EFA, and the varimax method was preferred as the rotation method. Factor loads, eigenvalues, and explained variances of the scale items are presented in Table 2.

The EFA for the first sample began with a total of 14 items. As a result of EFA, it was observed that the scale was grouped under two factors with eigenvalues greater than 1. The total variance explained by the two factors related to the scale is 74.70%. The determinant of the correlation matrix created was found to be 0.001. It was determined that there were no expressions that exceeded the threshold value or had a cross-load in the created matrix, and there were no expressions that were below the threshold value of 0.5 in the anti-image correlation matrix. However, the factor load for EL4 (My leadership reflects ethical values in the company's mission and vision.) in the scale is 0.208, and for EL7 (My leadership observes the compliance of employees with ethical values by monitoring their behaviors.) and EL11 (My leadership demonstrates an attitude that does not tolerate injustice and wrongdoing within the company.) is 0.216. In general, the factor loads are based on being above 0.32, and when it is desired that the factors consist of strong items as much as possible, it is recommended that the load value be at least above 0.5 (Çalışkan, 2022b; Field, 2013; Gürbüz & Şahin, 2018; Meyers et al., 2005). Therefore, items 4, 7, and 11 were removed from the scale at this stage. The factor loads of the other items above 0.6 indicate that they have high factor loading.

After this stage, exploratory factor analysis was conducted again with the 11-item scale using data from the second sampling. The EFA results using data from the second sampling revealed that the scale's eigenvalue was gathered under two factors greater than 1. The two factors explain a total variance of 79.27% related to the scale. Furthermore, the factor loading of EL12 (My leadership inspires employees to respect human rights both in and outside of work.) was 0.552. Due to its relatively lower value compared to other items in the scale, EL12 was removed from the scale. As a result of the EFA, the scale was transformed into a 2-dimensional, 10-item final version. Additionally, factor loadings exceeding 0.8 for all items demonstrate that the analysis results are of good quality (Meyers et al., 2005).

At this point, naming activities were carried out for two sub-dimensions that were formed as a result of the EFA of the developed Ethics Leadership Scale: The first dimension, consisting of five items, was named Value-Oriented Ethical Leadership, and the second dimension, consisting of five items, was named Behavioral Ethical Leadership.

Table 2. Exploratory Factor Analysis

Dimensions	
Sample 1: Universities (n_1 =	Sample 2: Health Institutions (n_2 =

385)			447)		
	1. Factor	2. Factor		1. Factor	2. Factor
Eigen value	8.62	2.58	Eigen value	5.99	1.94
Explained Variance	57.49	17.21	Explained Variance	59.88	19.39
Item Code	Factor Loadings		Item Code	Factor Loadings	
EL3	.876		EL6	.896	
EL6	.850		EL3	.884	
EL2	.844		EL5	.863	
EL5	.834		EL2	.842	
EL1	.804		EL1	.828	
EL9		.881	EL13		.883
EL13		.876	EL8		.876
EL14		.864	EL9		.863
EL8		.835	EL10		.830
EL10		.803	EL14		.801
EL12		.800	EL12		~~.552~~
EL11		~~.216~~			
EL4		~~.208~~			
EL7		~~.201~~			
Total Variance Explained		74.70%	Total Variance Explained		79.27%

At this stage, a discriminant validity analysis was conducted to ensure that the dimensions present in the measurement instruments are valid on their own, as they need to be distinct from other dimensions. Discriminant validity explains the degree to which any dimension within a scale differs from another dimension (Elvers, 2021; Fornell & Larcker, 1981; Nunnaly, 1994; Pedhazur & Schmelkin, 2019). The correlation coefficients between the dimensions of the Ethical Leadership Scale are presented in Table 3. In order for the differentiation between dimensions to be significant, the correlation coefficients must be below 0.85 (DeVellis, 2016; Pedhazur & Schmelkin, 2019; Schweizer, 2014). The analysis revealed that the differentiation between the dimensions was at an appropriate level.

Table 3. Discriminant Validity Analysis

Ethical Leadership Scale	Sample 1: Universities (n_1 = 385)		Sample 2: Health Institutions (n_2 = 447)	
	Value-Oriented	Behavioral Ethical	Value-Oriented	Behavioral Ethical

	Ethical Leadership	Leadership	Ethical Leadership	Leadership
Value-Oriented Ethical Leadership	1.00	.678**		
Behavioral Ethical Leadership			.747**	1.00

4.1.2. Confirmatory Factor Analysis

Confirmatory factor analysis (CFA) is performed to test and validate the structure of a measurement tool that is either based on a solid theoretical foundation or an already developed, repeatedly used, and accepted measurement tool with a new dataset (Brown, 2015; Çalışkan et al., 2019; Gürbüz & Şahin, 2018). CFA was conducted to test the structural validity of the Ethical Leadership Scale, which was developed on two different sample groups consisting of academic and administrative personnel working in public and foundation-owned higher education institutions and personnel in the health sector, on a different third sample group such as the industrial sector. The necessary analyses were performed using the package program, and the goodness of fit values obtained are presented in Table 4. In CFA, for the conformity of the working model, it is expected that the AGFI, GFI, CFI, and NFI values should be 0.90 or above, and the RMSEA value should be lower than 0.08 (Byrne, 1994; Çalışkan, 2019; Schermelleh-Engel et al., 2003; Schumacker & Lomax, 2004; Steiger, 1990). As a result of CFA, it was determined that the goodness of fit values obtained for the AGFI, GFI, CFI, and NFI values were good fit values and the RMSEA value was an acceptable fit value (Meydan & Şeşen, 2011; Ocak, 2020). Therefore, it can be seen that the structure demonstrated on two different samples through CFA has been confirmed. This result shows that the developed Ethical Leadership Scale is statistically validated and meaningful. The model obtained with CFA is presented in Figure 1 and Table 4.

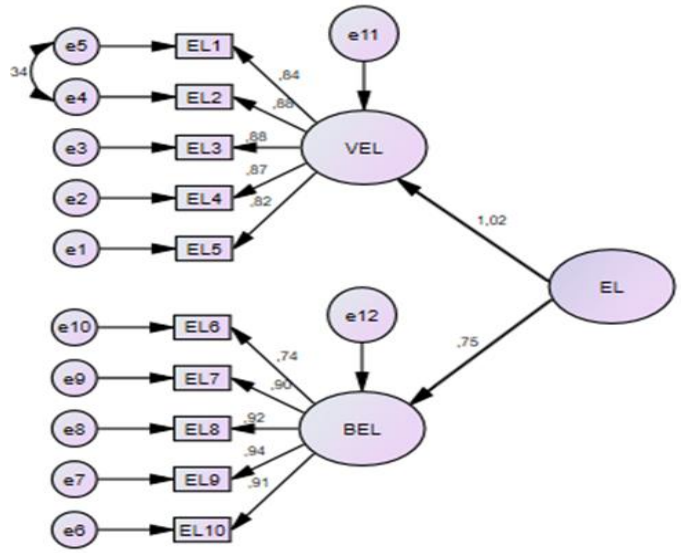

Figure 1. Measurement Model of Sample 3 (Industrial Sectors)

Note. n3 = 503, VEL: Value-based ethical leadership, BEL: Behavioral ethical leadership, EL: Ethical leadership

Table 4. Fit Indices of Sample 3 (Industrial Sectors)

Ethical Leadership Scale	X^2	*df*	X^2/df	*RMSEA*	*NFI*	*GFI*	*AGFI*	*CFI*
Acceptable Fit	-	-	≤ 5	< .08	> .90	> .90	> .85	> .90
Good Fit	-	-	≤ 3	< .05	> .95	> .95	> .90	> .95
Sample 3 (Second order)	127.2	33	3.85	.066	.975	.951	.918	.982

Note. n3 = 503, X2: Chi-Square, df = Degrees of freedom, RMSEA: Root mean square error of approximation, NFI: Normed fit index, GFI: Goodness of fit index, AGFI: Adjusted goodness of fit index, CFI: Comparative fit index.
***p < .001

4.2. Criterion Validity

In order to ensure the validity of the scale, exploratory and confirmatory factor analyses were carried out, and finally, criterion-dependent validity was examined by analyzing the relationship between the data collected from all three sample groups and one or more external criteria (Büyüköztürk, 2016; Develi & Çavuş, 2024). Within this scope, the job performance scale was included in the research model for the second and third sample groups, used as a dependent variable, and the relationship with ethical leadership was examined. The reason for selecting this variable for criterion-dependent validity is that the relationship between ethical leadership and job performance has been frequently discussed in previous studies (Ahmad et al., 2019; Kang, 2019; Sarwar et al., 2020; Schwepker & Dimitriou, 2021).

To measure the perceived job performance of individuals in the second and third sample groups, the job performance scale developed by Çalışkan ve Köroğlu (2022) was utilized. The scale consists of a total of 11 items, with questions such as "I have the competencies that my job requires" and "I take extra care and take extra responsibilities while doing my duty". The Cronbach Alpha coefficients of this scale were obtained as .88 for sample 2 and .092 for sample 3. The relationships between the Ethical Leadership Scale and the Job Performance Scale were analyzed for both sample groups, and the results are presented in Table 5.

Table 5. Criterion Validity Analysis

	Sample 2: Health Institutions (n_2 = 447)			Sample 3: Industrial sectors (n_3 = 503)		
Variables	*M*	*SD*	EL	*M*	*SD*	EL
EL Scale	3.93	1.09	1	4.04	.94	1
JP Scale	3.78	1.21	.74**	3.95	1.04	.79**

Note. M: Mean, SD: Standard Deviation, EL: Ethical Leadership, JP: Job Performance.
**p < .01

According to the results obtained, positive and significant relationships were obtained between ethical leadership and job performance in both sample groups.

4.3. Reliability Analysis

Finally, analyses concerning the reliability of the Ethical Leadership Scale were conducted. The reliability of internal consistency expresses whether the items within the scale are consistent with each other (Bayik & Gürbüz, 2016; Sijtsma, 2009; Streiner, 2003). One of the most widely used methods in determining the reliability of scales is the Cronbach Alpha test, which derives a correct and stable method by taking into account all the items within the scale when measuring the concept to be measured (Cronbach, 1951; DeVellis, 2016; Pekkan & Çalışkan, 2020). The Cronbach Alpha coefficient is a measure of the internal consistency and homogeneity of the items within the scale (Tezbaşaran, 1996). A Cronbach Alpha coefficient greater than 0.70 indicates that the scale is highly reliable (Gürbüz & Şahin, 2018). To measure the internal consistency of the Ethical Leadership Scale, the internal consistency of the

scale was calculated for all three sample groups and shown in Table 5. Additionally, it was determined that all of the corrected item-total correlations of the scale were higher than the assumed threshold value (0.20) (Büyüköztürk, 2006; Çalışkan, 2021). As a result, these findings indicate that the proposed scale's internal consistency is ensured and the scale is highly reliable.

Table 6. Reliability Analysis

Variables	Number of Items	Cronbach Alpha		
		Universities (n_1 = 385)	Health (n_2 = 447)	Industry (n_3 = 503)
Ethical Leadership Scale	10	.833	.872	.911
Value-Oriented Ethical Leadership	5	.822	.901	.937
Behavioral Ethical Leadership	5	.841	.858	.894

5. Conclusions

Currently, the impact of leaders on society and organizations is more important than ever. The behavior of leaders, especially their ethical behavior, has a significant impact on employee satisfaction, organizational culture, societal development, and many other factors. Therefore, debates on the importance of ethical leadership and the ethical behavior of leaders are increasing (Al Halbusi et al., 2021b; Asif et al., 2019; Bush et al., 2021; Latta & Clottey, 2020; Mitchell et al., 2023). Ethical leaders are responsible for creating a culture of trust and respect where employees feel valued and are encouraged to behave ethically. They set the tone for ethical behavior by modeling it themselves and creating policies and procedures that support ethical decision-making (Egorov et al., 2019; Potipiroon et al., 2017; Shim & Park, 2019; Shin, 2012; Zhou et al., 2018).

This study attempts to identify the ethical leadership characteristics of individuals in businesses and organizations by using qualitative and quantitative research methods. The development of a scale to measure and improve ethical leadership characteristics is closely related to the exploration and effective conceptualization of ethical leadership. The 14-item Draft Form of Ethical Leadership Scale was distributed to individuals working in universities, healthcare, and industrial sectors, which are considered to be sectors where the positive/negative effects of ethical leadership can be strongly felt. Data was collected from three separate samples, and the results were analyzed.

To test the structural validity of the scale, EFA was conducted separately on two different sample groups consisting of academic and administrative personnel from higher education institutions belonging to public and foundation sectors, as well as personnel from the healthcare industry. Upon analyzing the EFA results of both samples, a two-factor structure with eigenvalues greater than 1 was obtained. A scale consisting of 10 items and two dimensions was obtained from the analysis. Based on the content of the items in the dimensions, the first sub-dimension comprising the first 5 items was named Value-Oriented Ethical Leadership, while the second sub-dimension comprising the following 5 items was named Behavioral Ethical Leadership. Values orientation is the reflection of ethical values such as commitment to the leader's values, honesty, respect, responsibility, fairness, respect for human rights, and justice. Behavioral ethics, on the other hand, is the evaluation of the leader's behaviors, discourse, and decisions in terms of their compliance with ethical values. These dimensions and measurements can be used to determine a leader's ethical leadership skills and behaviors.

To demonstrate whether the two-factor structure obtained by EFA of the Ethical Leadership Scale could be verified in a different sector, CFA was applied. As a result of CFA, it was determined that the scale's two-factor structure, namely the value-oriented ethical leadership and behavioral ethical leadership, was verified. Regarding the validity of the scale, criterion-dependent validity has been examined. In this scope, the job performance variable has been included in the research model, used as the dependent variable, and the correlation between ethical leadership and job performance has been investigated. The reason for selecting the job performance variable for criterion-dependent validity is the belief that values related to ethical leadership within the organization will urge individuals to show high performance. This is because the adoption of the ethical values and principles of the organization by the

employees depends on a good ethical leader leading them. The leader's exemplary behaviors, such as honesty, transparency, and honest communication, cause employees to imitate their leader. Ethical leaders exhibit fair behaviors and comply with the rules. The leader's behaviors, such as honesty, fairness, and self-discipline, have a positive effect on the attitudes and behaviors of all members of the organization (Ahmad et al., 2019; Kang, 2019; Sarwar et al., 2020; Schwepker & Dimitriou, 2021). With this thought, positive and significant relationships between ethical leadership and job performance have been obtained through correlation analyses performed with data obtained from the second and third sample groups. All the results obtained can be evaluated as evidence that the Ethical Leadership Scale is a valid measuring tool.

To assess the reliability of the Ethical Leadership Scale, each of the three sample groups was subjected to the Cronbach Alpha test separately. The internal consistencies of the value-oriented ethical leadership and behavioral ethical leadership sub-dimensions, as well as the ethical leadership variable as a whole, were calculated, and it was determined that the scale was highly reliable. Although the Ethical Leadership Scale was originally designed to be used as a whole, the high internal consistency values of the sub-dimensions related to the scale suggest that each sub-dimension could also be applied separately.

The results of this study will enrich the literature on leaders' ethical behavior and increase research focused on ethical leadership. By using this scale, organizations will gain significant insights into how to improve ethical leadership and how to benefit from it. The developed scale can be used not only in universities and the health and industrial sectors, where the sample groups were present, but also in other sectors where businesses/institutions operate, both in the public and private sectors.

Given that no other scale with such wide-ranging validation and reliability has been encountered in the literature on such diverse sample groups, it is considered that the Ethical Leadership Scale will fill an important gap for businesses and institutions in all sectors. In addition, a large number of foreign publications were used in addition to domestic ones in the development of the scale. This contribution strengthens the scale's universal representation quality and suggests that the scale can be used in different cultures in other countries.

Furthermore, during one-on-one interviews conducted with both expert scientists and professionals in the health and industrial sectors, it was discovered that the Ethical Leadership Scale is easily comprehensible and straightforward in its application, enabling participants to express their perceptions regarding ethical leadership with clarity.

With its two-dimensional structure comprising value-oriented ethical leadership and behavioral ethical leadership characteristics, the Ethical Leadership Scale is deemed to fill a void in the field by meeting an important need for determining and measuring ethical leadership in future research endeavors. It can be stated that in future research on this subject, applying the scale to various samples and examining its interaction with different variables will further strengthen the reliability and validity of the findings obtained in this study.

Data availability statement

Data sets associated with the present study are available upon request of interested researchers.

Disclosure statement

Authors declare no conflicts of interest.

Funding

The authors received no financial support for the research, authorship, and/or publication of this article.

References

Ahmad, I., Donia, M.B.L., Khan, A., & Waris, M. (2019). Do as I say and do as I do? The mediating role of psychological contract fulfillment in the relationship between ethical leadership and employee extra-role performance. Personnel Review, 48(1), 98-117. https://doi.org/10.1108/PR-12-2016-0325

Ahmad, I., Gao, Y., & Hali, S. M. (2017). A review of ethical leadership and other ethics-related leadership theories. European Scientific Journal, ESJ, 13(29), 10. https://doi.org/10.19044/esj.2017.v13n29p10

Ahn, J., Lee, S., & Yun, S. (2018). Leaders' core self-evaluation, ethical leadership, and employees' job performance: The moderating role of employees' exchange ideology. Journal of Business Ethics, 148, 457-470. https://doi.org/10.1007/s10551-016-3030-0

Al Halbusi, H. A. (2021). How upper/middle managers' ethical leadership activates employee ethical behavior? The role of organizational justice perceptions among employees. Frontiers in Psychology, 12, 13. https://doi.org/10.3389/fpsyg.2021.652471

Al Halbusi, H. A., Ismail, M. N., & Omar, S. (2019). Examining the impact of ethical leadership on employees' ethical behavior: The role of organizational justice and employees' moral identity. Journal of Technology Management and Business, 6(2), 30-48.

Al Halbusi, H., Ruiz-Palomino, P., Jimenez-Estevez, P., & Gutiérrez-Broncano, S. (2021a). How upper/middle managers' ethical leadership activates employee ethical behavior? The role of organizational justice perceptions among employees. Frontiers in Psychology, 12, 719.

Al Halbusi, H., Ruiz-Palomino, P., Morales-Sánchez, R., & Abdel Fattah, F. A. M. (2021b). Managerial ethical leadership, ethical climate, and employee ethical behavior: Does moral attentiveness matter? Ethics & Behavior, 1-24.

Al Halbusi, H., Tang, T.L.P., Williams, K.A., et al. (2022). Do ethical leaders enhance employee ethical behaviors? Asian Journal of Business Ethics, 11, 105-135. https://doi.org/10.1007/s13520-022-00143-4

Al Halbusi, H., Williams, K. A., Mansoor, H. O., Hassan, M. S., & Hamid, F. A. H. (2020). Examining the impact of ethical leadership and organizational justice on employees' ethical behavior: Does person–organization fit play a role? Ethics & Behavior, 30(7), 514-532.

Alkhadra, W.A., Khawaldeh, S., & Aldehayyat, J. (2022). Relationship of ethical leadership, organizational culture, corporate social responsibility, and organizational performance: A test of two mediation models. International Journal of Ethics and Systems. https://doi.org/10.1108/IJOES-05-2022-0092

Alshammari, A., Almutairi, N. N., & Thuwaini, S. F. (2015). Ethical leadership: The effect on employees. International Journal of Business and Management, 10(3), 108-116. https://doi.org/10.5539/ijbm.v10n3p108

Appelbaum, S. H., Deguire, K. J., & Lay, M. (2005). The relationship of ethical climate to deviant workplace behavior. Corporate Governance, 5(4), 43–55.

Asif, M., Qing, M., Hwang, J., & Shi, H. (2019). Ethical leadership, affective commitment, work engagement, and creativity: Testing a multiple mediation approach. Sustainability, 11, 4489. https://doi.org/10.3390/su11164489

Babalola, M. T., Stouten, J., Camps, J., & Euwema, M. (2019). When do ethical leaders become less effective? The moderating role of perceived leader ethical conviction on employee discretionary reactions to ethical leadership. Journal of Business Ethics, 154(1), 85–102.

Bandalos, D. L., & Finney, S. J. (2010). Structural equation modeling in psychology. In J. T. Cacioppo, L. G. Tassinary, & G. G. Berntson (Eds.), Handbook of psychophysiology (3rd ed., pp. 691-715). Cambridge University Press.

Barnett, T., & Schubert, E. (2002). Perceptions of the ethical work climate and covenantal relationships. Journal of Business Ethics, 36(3), 279–290.

Bayık, M., & Gürbüz, S. (2016). Ölçek uyarlamada metodoloji sorunu: Yönetim ve örgüt alanında uyarlanan ölçekler üzerinden bir araştırma. The Journal of Human and Work, 3(1), 1-20.

Bedi, A., Alpaslan, C. M., & Green, S. (2016). A meta-analytic review of ethical leadership outcomes and moderators. Journal of Business Ethics, 139, 517–536. https://doi.org/10.1007/s10551-015-2625-1

Brown, M. E., Trevino, L. K., & Harrison, D. A. (2005). Ethical leadership: A social learning perspective for construct development and testing. Organizational Behaviour and Human Decision Processes, 97, 117-134.

Brown, T. A. (2015). Confirmatory factor analysis for applied research. Guilford Publications.

Bush, J. T., Welsh, D. T., Baer, M. D., & Waldman, D. (2021). Discouraging unethicality versus encouraging ethicality: Unraveling the differential effects of prevention- and promotion-focused ethical leadership. Personnel Psychology, 74, 29–54. https://doi.org/10.1111/peps.12386

Büyüköztürk, Ş. (2006). Sosyal bilimler için veri analizi: İstatistik, araştırma deseni SPSS uygulamaları ve yorum. PegemA Yayıncılık.

Byrne, B. M. (1994). Structural equation modeling with EQS and EQS/Windows. Sage Publications.

Chikeleze, M., & Baehrend, W. (2017). Ethical leadership style and its impact on decision-making. Journal of Leadership Studies, 11, 45–47. https://doi.org/10.1002/jls.21523

Cronbach, L. J. (1951). Coefficient alpha and the internal structure of tests. Psychometrika, 16(3), 297-334. https://doi.org/10.1007/BF02310555

Cullen, J. B., Parboteeah, K. P., & Hoegl, M. (2004). Cross-national differences in managers' willingness to justify ethically suspect behaviors: A test of institutional anomie theory. Academy of Management Journal, 47(3), 411–421.

Çalışkan, A. & Koç, M. (2025). Intention to quit scale: a new approach in the context of changing working conditions. Uluslararası İktisadi ve İdari Bilimler Dergisi, 11 (1), 5-24. https://doi.org/10.29131/uiibd.1682394

Çalişkan, A. & Köroğlu, Ö. (2022). Job performance, task performance, contextual performance: Development and validation of a new scale. Uluslararası İktisadi ve İdari Bilimler Dergisi, 8(2), 180-201. https://doi.org/10.29131/uiibd.1201880

Çalışkan, A. & Pekkan, N. Ü. (2020). Örgütsel dışlanma: bir ölçek uyarlama çalışması. Uluslararası İktisadi ve İdari Bilimler Dergisi, 6(1), 51-60. https://doi.org/10.29131/uiibd.736413

Çalışkan, A. (2019). Değişime direnç: Bir ölçek uyarlama çalışması. Süleyman Demirel Üniversitesi İktisadi ve İdari Bilimler Fakültesi Dergisi, 24(2), 237-252.

Çalışkan, A. (2021). Örgütsel güven: Bir ölçek geliştirme çalışması. Antalya Bilim Üniversitesi Uluslararası Sosyal Bilimler Dergisi, 2(1), 42-59.

Çalışkan, A. (2022a). Örgütsel etik iklimi: Bir ölçek geliştirme çalışması. Uluslararası İktisadi ve İdari Bilimler Dergisi, 8(1), 34-54. https://doi.org/10.29131/uiibd.1118411

Çalışkan, A. (2022b). Örgütsel değişime açıklık: Bir ölçek geliştirme çalışması. Aksaray Üniversitesi İktisadi ve İdari Bilimler Fakültesi Dergisi, 14(2), 191-202. https://doi.org/10.52791/aksarayiibd.1069524

Çalışkan, A. (2025). Assessing Organizational Change Capability Through A Multisectoral Study: Development and Validation of The Change Management Scale. Uluslararası İktisadi ve İdari Bilimler Dergisi, 11 (2), 65-94. https://doi.org/10.29131/uiibd.1811002

Çalışkan, A., Akkoç, İ., & Turunç, Ö. (2019). Yenilikçi davranış: bir ölçek uyarlama çalışması. Uluslararası İktisadi ve İdari Bilimler Dergisi, 5(1), 94-111. https://doi.org/10.29131/uiibd.562196

Çavuş, M. F., & Develi, A. (2017). Ethical climate and organizational citizenship behaviour. International Journal of Human Resource Studies, 7(1), 38-51. https://doi.org/10.5296/ijhrs.v7i1.10561

Cheng, J., Sun, X., Lu, J., & He, Y. (2022). How ethical leadership prompts employees' voice behavior? The roles of employees' affective commitment and moral disengagement. Frontiers in Psychology, 12, 732463. https://doi.org/10.3389/fpsyg.2021.732463

De Vellis, R. F. (2016). Scale development: Theory and applications (4th ed.). Sage Publications.

Decoster, S., Stouten, J., & Tripp, T. M. (2019). When employees retaliate against self-serving leaders: The influence of the ethical climate. Journal of Business Ethics, 1–19.

Deshpande, S. P. (1996). Ethical climate and the link between success and ethical behavior: An empirical investigation of a non-profit organization. Journal of Business Ethics, 15(3), 315–320.

Develi, A., Pekkan, N. Ü., Gökçen-Kapusuz, A. & Çavuş, M. F. (2022). The mediator role of personal growth initiative in the effect of career satisfaction on task and contextual performance. Organizational Psychology, 12(4), 86-102. https://doi.org/10.17323/2312-5942-2022-12-4-86-102

Develi, A., & Çavuş, M. F. (2024). Validity and reliability of Work Ability Index in Turkish context: Inter-level, direct, and indirect relations with job satisfaction and task performance. Experimental Aging Research, 50(5), 577-596. https://doi.org/10.1080/0361073X.2023.2250226

Egorov, M., Kalshoven, K., Pircher Verdorfer, A., & Peus, C. (2019). It's a match: Moralization and the effects of moral foundations congruence on ethical and unethical leadership perception. Journal of Business Ethics. https://doi.org/10.1007/s10551-019-04178-9

Elvers, G. C. (2021). Introduction to measurement theory and statistics for psychology students. Springer.

Enwereuzor, I. K., Onyishi, I. E., Albi-Oparaocha, F. C., & Amaeshi, K. (2020). Perceived leader integrity as a mediator between ethical leadership and ethical climate in a teaching context. BMC Psychology, 8(1), 1–11.

Fabrigar, L. R., Wegener, D. T., & MacCallum, R. C. (1999). An empirical evaluation of the usefulness of structural equation models in cross-cultural research. Psychological Bulletin, 125(2), 256-271.

Fatima, Z. (2020). Exploring the organizational factors affecting salesforce ethical behavior: A review-based article. Asian Journal of Business Ethics, 9(1), 29–45.

Field, A. (2013). Discovering statistics using IBM SPSS statistics (4th ed.). Sage Publications.

Fornell, C., & Larcker, D. F. (1981). Evaluating structural equation models with unobservable variables and measurement error. Journal of Marketing Research, 18(1), 39-50.

Gorsuch, R. L. (1997). Exploratory factor analysis: Its role in item analysis. Journal of Personality Assessment, 68(3), 532-560.

Guo, Y., Peng, Y., & Zhu, Y. (2022). How does empowering leadership motivate employee innovative behavior: A job characteristics perspective. Curr Psychol. https://doi.org/10.1007/s12144-022-03000-6

Gürbüz, S., & Şahin, F. (2018). Sosyal bilimlerde araştırma yöntemleri (5. Baskı). Seçkin Yayıncılık.

Haar, J., Roche, M., & Brougham, D. (2019). Indigenous insights into ethical leadership: A study of Maori leaders. J. Bus. Ethics, 160, 621–640. doi: 10.1007/s10551-018-3869-3

Hair, J. F. J., Black, W. C., Babin, B. J., & Anderson, R. E. (2010). Multivariate data analysis (7th ed.). Prentice Hall.

Iqbal, S., Farid, T., Khan, M. K., Zhang, Q., Khattak, A., & Ma, J. (2020). Bridging the gap between authentic leadership and employees communal relationships through trust. International Journal of Environmental Research and Public Health, 17(1), p. 250.

Irk, E., & Bıyık, H. (2024). The relationship between intrinsic and extrinsic motivation and task performance: A study in the textile industry. Journal of Management Archive, 1(1), 68-78. https://doi.org/10.70877/joma.13

Kaiser, H. F. (1974). An index of factorial simplicity. Psychometrika, 39(1), 31–36.

Kaiser, H. F., & Rice, J. (1974). Little Jiffy, Mark IV. Educational and Psychological Measurement, 34, 111–117.

Kalaycı, Ş. (2006). Faktör analizi. SPSS Uygulamalı Çok Değişkenli İstatistik Teknikleri. Asil Yayın Dağıtım.

Kalshoven, K., Den Hartog, D. N., & De Hoogh, A. H. B. (2011). Ethical leadership at work questionnaire (ELW): Development and validation of a multidimensional measure. Leadership Quarterly, 22(1), 51–69. https://doi.org/10.1016/j.leaqua.2010.12.007

Kang, S-W. (2019). Sustainable influence of ethical leadership on work performance: Empirical study of multinational enterprise in South Korea. Sustainability, 11(11), 3101. https://doi.org/10.3390/su11113101

Kartal, M., & Bardakçi, S. (2018). SPSS ve AMOS uygulamalı örneklerle güvenirlik ve geçerlik analizleri. Akademisyen Kitabevi.

Keck, N., Giessner, S. R., Van Quaquebeke, N., & Kruijff, E. (2020). When do followers perceive their leaders as ethical? A relational models perspective of normatively appropriate conduct. J. Bus. Ethics, 164, 477–493. doi: 10.1007/s10551-018-4055-3

Kuenzi, M., Mayer, D. M., & Greenbaum, R. L. (2020). Creating an ethical organizational environment: The relationship between ethical leadership, ethical organizational climate, and unethical behavior. Personnel Psychology, 73(1), 43–71. https://doi.org/10.1111/peps.12356

Latta, G. F., & Clottey, E. N. (2020). Ethical leadership: Understanding ethical failures and researching consequences for practice: Priority 8 of the National Leadership Education Research Agenda 2020–2025. J Leadership Studies, 14, 82-89. https://doi.org/10.1002/jls.21711

Lian, H., Huai, M., Farh, J.-L., Huang, J.-C., Lee, C., & Chao, M. M. (2020). Leader unethical pro-organizational behavior and employee unethical conduct: Social learning of moral disengagement as a behavioral principle. J. Manag., 2020:014920632095969. doi: 10.1177/0149206320959699

Marquardt, D. J., Casper, W. J., & Kuenzi, M. (2020). Leader goal orientation and ethical leadership: A socio-cognitive approach of the impact of leader goal-oriented behavior on employee unethical behavior. J. Bus. Ethics, 172, 545–561. doi: 10.1007/s10551-020-04524-2

Meydan, C., & Şeşen, H. (2011). Yapısal Eşitlik Modellemesi AMOS Uygulamaları. Detay Yayıncılık.

Meyers, L.S., Gamst, G. C., & Guarino, C. (2005). Applied multivariate research: Design and interpretation. SAGE Publications. ISBN-13: 978-1412904124.

Miao, Q., Eva, N., Newman, A., Nielsen, I., & Herbert, K. (2020). Ethical leadership and unethical pro-organisational behaviour: The mediating mechanism of reflective moral attentiveness. Applied Psychology: An International Review, 69(3), 834–853.

Mitchell, M. S., Rivera, G., & Treviño, L. K. (2023). Unethical leadership: A review, analysis, and research agenda. Personnel Psychology, 00, 1–37. https://doi.org/10.1111/peps.12574

Mitchell, M.S., Reynolds, S.J., & Treviño, L.K. (2020). The study of behavioral ethics within organizations: A special issue introduction. Personnel Psychology, 73, 5–17. https://doi.org/10.1111/peps.12381

Ng, T. W. H., Wang, M., Hsu, D. Y., & Su, C. (2021). Changes in perceptions of ethical leadership: Effects on associative and dissociative outcomes. J. Appl. Psychol., 106, 92–121. doi:10.1037/apl0000496

Nunnally, J. C., & Bernstein, I. H. (1994). Psychometric theory (3rd ed.). McGraw-Hill.
O'Keefe, D. F., Howell, G. T., & Squires, E. C. (2020). Ethical leadership begets ethical leadership: Exploring situational moderators of the trickle-down effect. Ethics & Behavior, 30, 581–600.
Ocak, M. (2020). AMOS ile adım adım yapısal eşitlik uygulamaları. Ekin Yayınevi.
Palanski, M., Newman, A., Leroy, H., Moore, C., Hannah, S., & Den Hartog, D. (2021). Quantitative research on leadership and business ethics: Examining the state of the field and an agenda for future research. Journal of Business Ethics, 168, 109–119.
Pedhazur, E. J., & Schmelkin, L. P. (2019). Measurement, design, and analysis: An integrated approach. Psychology Press.
Pekkan, N. Ü., & Çalışkan, A. (2020). Yaratıcı takım iklimi ölçeği: Türkçe'ye uyarlama, geçerlilik ve güvenirlik çalışması. İstanbul Ticaret Üniversitesi Sosyal Bilimler Dergisi, 19(39), 1007-1021. DOI: https://doi.org/10.46928/iticusbe.768433
Peng, H., & Wei, F. (2020). How and when does leader behavioral integrity influence employee voice? The roles of team independence climate and corporate ethical values. J. Bus. Ethics, 166, 505–521. doi: 10.1007/s10551-019-04114-x
Piccolo, R. F., Greenbaum, R., Hartog, D. N. D., & Folger, R. (2010). The relationship between ethical leadership and core job characteristics. Journal of Organizational Behavior, 31(2-3), 259-278.
Pircher Verdorfer, A., & Peus, C. (2020). Leading by example: Testing a moderated mediation model of ethical leadership, value congruence, and followers' openness to ethical influence. Business Ethics: A European Review, 29(2), 314–332.
Potipiroon, W., & Ford, M. T. (2017). Does public service motivation always lead to organizational commitment? Examining the moderating roles of intrinsic motivation and ethical leadership. Public Personnel Management, 46(3), 211–238.
Ryu, K. (2020). Empirical analysis of organizational ethical climate, organizational commitment and job performance in JFMEs in China. In The impact of organizational ethical climate on organizational commitment and job performance. Springer. https://doi.org/10.1007/978-981-15-2813-2_4
Saleem, M., Qadeer, F., Mahmood, F., Ariza-Montes, A., & Han, H. (2020). Ethical leadership and employee green behavior: A multilevel moderated mediation analysis. Sustainability, 12, 3314. doi: 10.3390/su12083314
Sarwar, H., Ishaq, M. I., Amin, A., & Ahmed, R. (2020). Ethical leadership, work engagement, employees' well-being, and performance: A cross-cultural comparison. Journal of Sustainable Tourism, 28(12), 2008–2026. https://doi.org/10.1080/09669582.2020.1788039
Schermelleh-Engel, K., Moosbrugger, H., & Müller, H. (2003). Evaluating the fit of structural equation models: Tests of significance and descriptive goodness of-fit measures. Methods of Psychological Research Online, 8(2), 23-74.
Schumacker, R. E., & Lomax, R. G. (2004). A beginner's guide to structural equation modeling (2nd ed.). Lawrence Erlbaum Associates.
Schweizer, K. (2014). On the ways of investigating the discriminant validity of a scale in giving special emphasis to estimation problems when investigating multitrait-multimethod matrices. Psychological Test and Assessment Modeling, 56(1), 45-59.
Schwepker Jr., C.H., & Dimitriou, C.K. (2021). Using ethical leadership to reduce job stress and improve performance quality in the hospitality industry. Int. J. Hospit. Manag., 94, 102860.
Sekaran, U. (1992). Research Methods For Business, Canada: John Wiley ve Sons, Inc.
Shakeel, F., Mathieu Kruyen P. & Van Thiel S. (2019). Ethical Leadership as Process: A Conceptual Proposition, Public Integrity, 21:6, 613-624, https://doi.org/10.1080/10999922.2019.1606544
Sharma, A., Agrawal, R. & Khandelwal, U. (2019). Developing ethical leadership for business organizations: A conceptual model of its antecedents and consequences. Leadership & Organization Development Journal, 40(6), 712-734.
Shim, D. C., & Park, H. H. (2019). Public service motivation in a work group: Role of ethical climate and servant leadership. Public Personnel Management, 48(2), 203–225.
Shin, Y. (2012). CEO ethical leadership, ethical climate, climate strength, and collective organizational citizenship behavior. J. Bus. Ethics 108, 299–312. doi: 10.1007/s10551-011-1091-7

Sijtsma, K. (2009). On the use, the misuse, and the very limited usefulness of Cronbach's alpha. Psychometrika, 74(1), 107-120.
Steiger, J. H. (1990). Structural model evaluation and modification: An interval estimation approach. Multivariate Behavioural Research, 25, 173-180.
Streiner, D. L. (2003). Starting at the beginning: an introduction to coefficient alpha and internal consistency. Journal of personality assessment, 80(1), 99-103.
Tenuto, P. L., & Gardiner, M. E. (2017). Interactive dimensions for leadership: an integrative literature review and model to promote ethical leadership praxis in a global society. International Journal of Leadership in Education, 21(5), 1-15. https://doi.org/10.1080/13603124.2017.1321783
Tezbaşaran, A. (1996). Likert Tipi Ölçek Geliştirme Kılavuzu, Psikologlar Derneği Yayınları. Ankara.
Tuna, M., Bircan, H., & Yeşiltaş, M. (2012). Etik Liderlik Ölçeği'nin Geçerlilik ve Güvenilirlik Çalışması: Antalya Örneği. Atatürk Üniversitesi İktisadi ve İdari Bilimler Dergisi, 26(2), 143-155.
Ullah, I., Mirza, B. & Hameed, R.M. (2022). Understanding the dynamic nexus between ethical leadership and employees' innovative performance: the intermediating mechanism of social capital. Asian J Bus Ethics 11, 45–65. https://doi.org/10.1007/s13520-022-00141-6
Urbina, S. (2014). Temel Test Kuramı ve Uygulamaları (Çeviri Editörleri: Özkan, T., Demirhan, Y. ve Bıkmaz, F.). Pegem Akademi. Ankara.
Walumbwa, F. O., Mayer, D. M., Wang, P., Wang, H., Workman, K. & Christensen, A. L. (2011). Linking ethical leadership to employee performance: the roles of leader-member exchange, self-efficacy, and organizational identification. Organ. Behav. Hum. Decis. Process. 115, 204–213. doi: 10.1016/j.obhdp.2010.11.002
Wang, D., Feng, T. & Lawton, A. (2017). Linking Ethical Leadership with Firm Performance: A Multi-dimensional Perspective. J Bus Ethics 145, 95–109. https://doi.org/10.1007/s10551-015-2905-9
Westen, D. ve Rosenthal R. (2003). Quantifying construct validity: Two simple measures. Journal of Personality and Social Psychology, 84 (3), 608-618.
Yukl, G., Mahsud, R., Hassan, S., & Prussia, G. E. (2013). An Improved Measure of Ethical Leadership. Journal of Leadership & Organizational Studies, 20(1), 38–48. https://doi.org/10.1177/1548051811429352
Zappala, S. &Toscano, F. (2020). The Ethical Leadership Scale (ELS): Italian adaptation and exploration of the nomological network in a health care setting. J. Nurs. Manag. 28, 634–642. https://doi:10.1111/jonm.12967
Zhang, Y., Guo, Y., Zhang, M., Xu, S., Liu, X. & Newman, A. (2021). Antecedents and outcomes of authentic leadership across culture: a meta-analytic review. Asia Pacific Journal of Management, 1–37. https://doi.org/10.1007/s10490-021-09762-0.
Zhou, L., Liu, Y., Chen, Z. & Zhao, S. (2018). Psychological mechanisms linking ethical climate to employee whistle-blowing intention. Journal of Managerial Psychology, 33(2), 196–213.
Zhu, W., Treviño, L. K., & Zheng, X. (2016). Ethical leaders and their followers: The transmission of moral identity and moral attentiveness. Business Ethics Quarterly, 26(1), 95–115.
Zhu, Y., Sun, L. Y., & Leung, A. S. M. (2021). Corporate social responsibility, firm reputation, and firm performance: The role of ethical leadership. Asia Pacific Journal of Management, 31(4), 925–947.

Appendix

Ethical Leadership Scale

Value-Oriented Ethical Leadership

1. My leader adheres to the principles of honesty, respect, and responsibility during business decisions and practices.
2. My leader sets an example for his employees to respect human rights and act fairly.
3. My leader provides equal opportunity by acting fairly and equitably.
4. My leader takes decisions and acts by adhering to ethical values without harming the aims of our institution.
5. My leader gives training to employees on ethical values.

Behavioral Ethical Leadership

6. My leader supports the inclusion and equal representation of different cultural, social, and demographic groups in the workplace.
7. My leader respects the privacy, integrity, and dignity of employees, including in the use of digital technologies, and prioritizes ethical values.

8. My leader acts fairly and consistently in business decisions by prioritizing environmental sustainability and social responsibility, and protects the rights of employees.
9. My leader treats employees equally in terms of workload, salary, and opportunities.
10. My leader acts primarily in line with the values of society and humanity and sets an example for all of us.

Note. Level of Measurement: 1 = strongly disagree, 5 = strongly agree

Etik Liderlik Ölçeği

Değer Odaklı Etik Liderlik

1. Liderim, iş kararları ve uygulamaları sırasında dürüstlük, saygı ve sorumluluk ilkelerine bağlı kalır.
2. Liderim, çalışanlarının insan haklarına saygı göstermesi ve adaletli davranması konusunda örnek olur.
3. Liderim, adil ve eşitlikçi davranarak, fırsat eşitliği sağlar.
4. Liderim, kurumumuzun amaçlarına zarar vermeden, etik değerlerine bağlı kalarak kararlar alır ve hareket eder.
5. Liderim, etik değerler konusunda çalışanlara eğitimler verir.

Davranışsal Etik Liderlik

6. Liderim, farklı kültürel, sosyal ve demografik grupların iş yerine dahil edilmesini ve eşit temsil edilmesini destekler.
7. Liderim, dijital teknolojilerin kullanımı dahil olmak üzere, çalışanların gizlilik, dürüstlük ve saygınlığına özen gösterir ve etik değerleri ön planda tutar.
8. Liderim, çevresel sürdürülebilirliği ve sosyal sorumluluğu öncelikli kılarak, iş kararlarında adil ve tutarlı davranır ve çalışanlarının haklarını korur.
9. Liderim, iş yükü, maaş ve fırsatlar açısından çalışanlara eşit davranır.
10. Liderim, öncelikle toplum ve insanlık değerleri doğrultusunda hareket eder ve hepimize örnek oluşturur.

Not. Ölçüm düzeyi: 1 = strongly disagree, 5 = strongly agree