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Abstract

The aim of this study is to examine the relationship between teachers' perceptions of organizational ethical climate and their accountability tendencies. The research was carried out with 405 teachers working in the province of Istanbul. Organizational Ethics Climate Scale and Teacher Accountability Tendency Scale were used as data collection tools in the research designed in relational survey model. As a result of the research, it was found that teachers' ethical climate perceptions and accountability tendencies regarding their schools were high. In addition, it has been determined that there is a statistically positive, moderate, and significant relationship between teachers' ethical climate perceptions and accountability tendencies. Based on the findings of this study, it can be suggested that ethical and accountable behaviors should be considered in order to create a productive working environment at school.

Introduction

Ethical standards and principles established in an organization form a solid basis for the behavior of employees in the organization. In order for these principles to become a form of behavior, they must be adopted by all employees in the organization (Aydın, 2014). The fact that the employees in the organization act in accordance with the principles of ethical behavior is also closely related to the atmosphere created in the organization. A positive ethical climate to be perceived within the organization will undoubtedly contribute to the development of ethical behaviors and attitudes of employees. As a matter of fact, the existence of an ethical climate increases the job satisfaction levels, social responsibilities and commitment of the employees to the organization and thus increases their trust towards the organization (Elçi, 2005).

One of the concepts associated with ethics in the organizational management literature is accountability. When considered in terms of schools and school systems, accountability is mostly used in the context of explaining the educational activities of teachers to other stakeholders (Leithwood, Edge, & Jantzi, 1999). However, at this point, it is thought that the ethical climate perceived by the teachers in the organization may be related to their accountability tendencies. Because it would not be right to expect teachers to have a high tendency towards accountability in schools where ethical principles and values are not particularly important to the administrators and a positive ethical climate is not dominant. Based on this idea, in this study, it was aimed to examine the relationship between teachers' organizational ethical climate perceptions and accountability tendencies.

Conceptual Framework

Ethical Climate

Ethics is a philosophical science that investigates the rightness or wrongness of conscious human actions (Owens, 1982; Werner, 1993). For this reason, the area of interest of ethics is to investigate the basis of all human behavior and actions (Aydın, 2014). Ethics, which is also defined as a set of principles or values (Kılavuz, 2002), and which is also one of the basic and oldest disciplines of philosophy, analyzes morality, discusses the quality of moral concepts and judgments, systematically thinks about morality, inquires, explores the world of self-worth. It can be defined as a way of thinking that deals with the subject and includes everything that adds meaning to life, the theory of moral principles or the discipline of philosophy (Cevizci, 2008).

Considered in the organizational context, ethics are necessary for an efficient and quality work environment. As a matter of fact, some unethical behaviors that may arise in the organization can create an atmosphere of conflict within the organization, weaken the organizational culture, and reduce employee loyalty, performance and motivation (Özdevecioğlu & Aksoy, 2005). Hitt (1990) stated that some of the main factors affecting ethical behavior in organizations are "behaviors of superiors", "behaviors of individuals in the organization", "ethical practices in the industry or profession", "the existence of formal organizational policies" and "ethical climate".

Climate is defined as the way organizations regulate their routine behaviors and activities that are expected, supported and rewarded (Schwepker, 2001). According to another definition, climate is a comprehensive perception that includes some value judgments and norms and procedures existing in the structure of the institution (Silva, 2004). Organizational ethical climate, on the other hand, is a reflection of the general organizational climate and is defined as the perceptions of the organizational member about what the organization should do and how it should be done when faced with any ethical problem (Bartels et al., 1998; Wyld and Jones, 1997; Demirtas-Zorbaz & Hoard, 2019).

The ethical climate, which is of great importance for the survival of organizations and corporate success, helps employees to consider and evaluate various alternatives in the face of problems, and guides them to decide which behaviors are acceptable or not (Barnett & Schubert, 2002; Johnson, 2006). Victor and Cullen (1988), who discussed the ethical climate concept for the first time, examined the ethical climate in organizations in a five-dimensional structure: wishing for the well-being of others, instrumentality, independence, rules, laws and codes. As a result of their research, Victor and Cullen revealed that individuals learn the behaviors expected from them thanks to the ethical climate of the organization and, by behaving in this way, they adapt to their environment. In addition, researchers concluded that organizations have different ethical climate types, and these climate types affect their management style, how they will handle ethical conflicts and how they will resolve them (Forte, 2004).

Accountability

The concept of accountability, which first emerged in the Anglo-American world in the 1960s (Leithwood and Earl, 2000), derives its original basis from being a fundamental part of parliamentary democracy (Strøm, Müller

& Bergman, 2003). Batey and Lewis (1982) define accountability, which is used in a wide variety of fields, contexts and disciplines (West, Mattei, & Roberts, 2011) as fulfilling a formal obligation to a person in authority regarding goals, principles, rules, relationships, results, inputs, and expenditures. Romzek & Ingraham (2000, p. 241) defines accountability as responding to a person about an expected performance. Considering accountability from an educational point of view, many educational reforms that have been made for many years have contributed to making schools more accountable today. This situation began to emerge in the most developed countries in the 1960s and gained significant new energy towards the end of the mid-1980s. Such a massive call for accountability followed the broader economic, political and social context of which schools were a part (Leithwood & Earl, 2000).

Educational accountability, which Rothman (1995) defines as a process of school and school systems attempting to achieve their goals, is a fundamental and inevitable feature of all education systems. Concerning the economies of nations competing for stronger places in competitive global markets, many governments have turned their attention to improving the performance of all aspects of education systems (Anderson, 2005). Therefore, in the environment of globalization and international comparisons, evaluation and accountability have been the main subject of education in all developed countries (Altrichter and Kemethofer, 2015) and for more than a decade quality assurance and accountability have spread from Europe to America, Asia and Australia. It has dominated the education policy agenda in a wide geography from Turkey to New Zealand (Suspitsyna, 2010).

Accountability is a basic and inevitable feature of all education systems (Conway & Murphy, 2013). Historically, there have been three main types of accountability systems for education around the world. These; compliance with regulations, adherence to professional norms, and results orientation. Educators mostly worked simultaneously within these three accountability systems. The first system stated that educators are accountable for adherence to rules and accountable to bureaucracy. The second system is based on adherence to professional norms. Although it is neither mandatory nor desirable, there is broad consensus on existing principles and practices that promote education as a profession. The third system of accountability is result-oriented, which is defined within student learning. This system grew out of increased political participation in education. The "No Child Left Behind" regulation in the United States is an example of an outcome-based system. Educators hold themselves responsible for all three in order to balance their needs in all three systems (Anderson, 2005).

School accountability is becoming an increasingly common practice worldwide (Feng & Figlio, 2010). Because, according to educational accountability systems, schools have to offer some successful outputs against the investments made in them (Armour-Garb, 2008). In this context, in the last 20 years, countries around the world have expanded their official policies to try to maintain the accountability of schools and school systems for results. Sometimes primary and secondary schools can meet standardized tests and control systems and accountability practices. The USA is a leading example of this. In other words, people can see the place of school systems (such as PISA and TIMSS) or private colleges and universities in different rankings thanks to international comparisons (Dorn & Ydesen, 2014).

Accountability is not a new concept for schools. In the past, teachers were responsible for educating their students

well, promoting social rules and respect, and promoting cultural expectations. From this point of view, it can be clearly seen that schools are always held accountable not only for things that can be measured by tests, but also for everything they do (Sahlberg, 2010). As a matter of fact, the General Teaching Council for England (2009) found in its research that teachers are involved in different levels of accountability for different purposes. On the other hand, while teachers hold themselves mostly responsible for ensuring that their students get high scores in national tests, first of all, most teachers stated that they are responsible to their students, and some are responsible to their parents.

There are also many empirical studies that the pressure of accountability encourages the development activities of schools. According to the results of a research conducted in this context, school principals who feel the pressure of accountability are more careful about the quality expectations discussed with the inspectors, they are more sensitive to the reactions of the stakeholders to the audit results and they are more active about the improvement activities. However, some unintentional results may increase with pressure (Altrichter & Kemethofer, 2015). Because Chiang (2009) found that threats of sanctions increase schools' spending on topics such as teacher training, curriculum development, and instructional technology. On the other hand, international accountability experts state that accountability measures and practices differ according to the cultural structures and education systems of societies (Hopmann, 2008). Therefore, it should be taken into account that educators' perceptions of accountability may differ in different countries.

The Relationship between Ethical Climate and Accountability

Ethics in public administration includes a set of moral principles and values that public administrators must comply with when making decisions and conducting public services. These principles and values guide public officials in determining how decisions should be made and how jobs/roles should be done. Accountability is one of these principles and values and has a close relationship with ethics. As a matter of fact, both are a form of control and aim to improve the responsibility of individuals and institutions. However, ethics is the control and responsibility within the person; Accountability, on the other hand, refers to an external person-oriented audit process. In this framework, ethics can be defined as a form of self-accountability or internal control of the behavior of public administrators. In this respect, ethics is a sense of personal responsibility and individual internal control; accountability is the process of external auditing on public administrators (Eryılmaz & Biricikoğlu, 2011).

The ethical climate of an organization is one of the most important factors affecting the behavior of employees (Apriliaswati & Fitrianingrum, 2022; Deshpande, 1996b: 655). The ethical perception of the organization by the employees is very important as it will increase the effectiveness of the organization and the level of job satisfaction of the employees (AlKhudari, Almashaqbeh & Alkhaza'leh, 2022; Brown & Peterson, 1993; Schwepker, 2001; Singhapakdi, et al. 1995). The ethical climate perceptions of the employees affect the policy, procedure and reward systems of the organization they are affiliated with, as well as the formal or informal systems of the organization. (Barnett and Schubert, 2002).

Because organizations that lack an ethical climate or have a weak ethical climate have difficulty in gaining control

over their employees, so negligence may occur. This may lead to wrong choices and decisions (Cullen et al., 1989). Therefore, the development of an ethical perspective in the organization plays a major role in identifying and defining problems; it makes it possible to approach events from different angles and guides managers in decision-making processes (Johnson, 2009). Based on this information, in this study, it is aimed to reveal the relationship between the ethical climate perceptions of teachers working in public schools as an internal control mechanism and their tendency to accountability as an external control mechanism.

Purpose of the Research

The purpose of this research is to examine the relationship between teachers' perceptions of organizational ethical climate and their accountability tendencies. For this purpose, answers to the following questions were sought in the study:

1. What are teachers' ethical climate perceptions and accountability tendencies?
2. Do teachers' ethical climate perceptions and accountability tendencies show a significant difference according to teachers' gender, professional seniority, education level they work and the number of teachers they work with?
3. Is there a significant relationship between teachers' ethical climate perceptions and accountability tendencies?

Method

Research Model

This study, which examines the relationship between teachers' ethical climate perceptions and accountability tendencies, was designed in the relational survey model, one of the quantitative research models. Survey models are research approaches that aim to describe a past or present situation as it exists (Karasar, 2010).

Population-Sample

The population of the research consists of 14404 teachers working in Kartal (3657), Pendik (7368) and Tuzla (3379) districts of Istanbul in the 2021-2022 academic year. Krejcie & Morgan (1970) reports that it is sufficient for the sample to be in the range of 370-375, which can represent the population in the range of 10000-15000 with a 5% error rate in the sampling table. However, considering possible data losses, more data were collected. The sample of the study consisted of 405 teachers selected from the population using the simple random sampling method. Personal information of the sample group is presented in Table 1.

As can be seen in Table 1, there are 405 teachers in the sample group, 233 (58%) female and 172 (42%) male. The teachers participating in the research; 106 (26%) have 10 years or less, 173 (43%) have 11-20 years, 126 (31%) have 21 years or more of professional seniority; 113 (28%) work in primary schools, 118 (29%) in secondary schools and 174 (43%) in high schools; There are 40 or less teachers in 128 (32%) schools, and 41 or more teachers work in 277 (68%) schools.

Table 1. Frequency and Percentage Values of Personal Information

Variable	Groups	Frequency (f)	Percentage (%)
Gender	Female	233	58
	Male	172	42
	Total	405	100
Professional Seniority	10 years and less	106	26
	11-20 years	173	43
	21 years and more	126	31
	Total	405	100
Level of Education to Work	Primary school	113	28
	Secondary school	118	29
	High school	174	43
	Total	405	100
Number of Teachers in the School	40 and less	128	32
	41 and more	277	68
	Total	405	100

Data Collection Tools

The data collection tool consists of three parts. In the first part, there are questions to learn the personal information of the participants. In the second part, there is the Organizational Ethical Climate Scale developed by Cullen, Victor and Bronson (1993) and adapted to Turkish by Özen and Durkan (2016). In the third part, there is the "Teacher Accountability Tendency Scale" developed by Rosenblatt (2007) and adapted to Turkish by Cerit, Kadıoğlu-Ateş and Kadıoğlu (2017).

Organizational Ethical Climate Scale

The Organizational Ethical Climate Scale, which measures teachers' perceptions of organizational ethical climate, has five sub-dimensions, namely "socially responsible", "ruled", "beneficiary benevolent", "principled" and "productivity" and a total of 22 items. The total variance explained by the five factors of the 5-point Likert-type scale is 57.69%. The Cronbach Alpha reliability coefficient of the scale is 0.83 for the "socially responsible" sub-dimension, 0.78 for the "ruled" sub-dimension, 0.71 for the "self-interested benevolent" sub-dimension, 0.71 for the "principled" sub-dimension, and 0.72 for the "productivity" sub-dimension. The Cronbach Alpha reliability coefficient for the entire scale was reported to be .87 (Özen & Durkan, 2016).

Teacher Accountability Tendency Scale

The Teacher Accountability Tendency Scale, which measures teachers' level of accountability, has two sub-dimensions called "internal accountability" and "external accountability" and a total of 12 items. The total variance explained by the two factors of the 5-point Likert-type scale is 74.33%. The Cronbach Alpha reliability coefficient of the scale is 0.96 for the "internal accountability" sub-dimension and 0.92 for the "external accountability" sub-

dimension. The Cronbach Alpha reliability coefficient for the entire scale was reported to be .92 (Cerit, Kadıoğlu-Ateş, & Kadıoğlu, 2017).

Data Collection and Analysis

The data were collected by sending the link of the online form containing the data collection tools to the teachers who voluntarily participated in the research by the researchers. The data of 405 scales filled by the participants via the link sent were included in the analysis. The collected data were analyzed using the SPSS 25.0 program. Before starting the analysis, it was examined whether the collected data met the one-way and multi-way normality assumptions. George and Mallery (2003) state that the distribution of the data meets the assumption of normality if the skewness and kurtosis coefficients are in the range of ±2.

Based on this information, the skewness- kurtosis values of the data and Q-Q graphs were examined and socially responsible (-.28 to -.48), ruled (-.27 to -.54), beneficiary benevolent (-.19 to -.82), principled (. -27 to -.49), productivity (-.06 to -.48), organizational ethical climate (total scale score) (-.30 to -.47), external accountability (-.06 to -.39), internal accountability (-.19 to -.22) and teacher accountability tendency (scale total score) (-.03 to -.42) scores were within the normal distribution limits. In addition, it has been observed that the expected and actual values of the data are distributed close to a line with a slope of 45 degrees in the created Q-Q charts. This showed that the distribution of the data would be considered normal (Can, 2014). Therefore, parametric tests were used in the analysis of the data.

In the analyses, the significance of the difference between the means was tested at the .05 level. In the interpretation of arithmetic averages, the range of 1.00-1.79 was evaluated as "very low", the range of 1.80-2.59 as "low", the range of 2.60-3.39 as "medium", the range of 3.40-4.19 as "high" and the range of 4.20-5.00 as "very high". In the interpretation of the correlation analysis, the range of .00-.30 was accepted as “low”, the range of .31-.70 as “medium” and the range of .71-1.00 as “high” relationship (Büyüköztürk, 2011). Descriptive statistics, independent groups t-test, one-way analysis of variance (Anova), Pearson Correlation analysis and simple linear regression analysis were used in the analysis of the data.

Results

In this part of the study, first of all, teachers' ethical climate perceptions and accountability tendencies were examined and then whether the scale scores of these two variables showed significant differences according to some demographic variables of teachers. Finally, it was examined whether there is a significant relationship between teachers' ethical climate perceptions and their accountability tendencies.

In order to determine the level of ethical climate perceptions of the teachers, the arithmetic mean and standard deviation values of the whole scale and its sub-dimensions were calculated and presented in Table 2. As seen in Table 2, the average score of the teachers participating in the research on the "Ethical Climate Scale" is $\bar{x} = 3.70$. This value shows that teachers' ethical climate perceptions about their schools are at a "high" level.

Table 2. Descriptive Statistics on the Ethical Climate Scale

Score	Number of items	$\bar{x}$	Sd	Skewness	Kurtosis
Socially responsible	7	3.62	.65	-.28	-.48
Ruled	4	3.58	.80	-.27	-.54
Beneficiary benevolent	4	3.64	.83	-.19	-.82
Principled	4	3.71	.75	-.27	-.49
Productivity	3	3.72	.72	-.06	-.48
Ethical Climate Scale (Scale total score)	22	3.70	.59	-.30	-.47

In order to determine the level of accountability tendencies of the teachers, the arithmetic mean and standard deviation values of the whole scale and its sub-dimensions were calculated and presented in Table 3.

Table 3. Descriptive Statistics on the Accountability Tendency Scale

Score	Number of Items	$\bar{x}$	Sd	Skewness	Kurtosis
External accountability	5	3.77	.70	-.06	-.39
Internal accountability	7	3.38	.72	-.19	-.22
Accountability scale (Scale Total score)	12	3.54	.64	-.03	-.42

As seen in Table 3, the average score of the teachers participating in the research on the "Accountability Tendency Scale" is $\bar{x}$ =3.54. This value shows that teachers' accountability tendencies are at a "high" level. In order to determine whether the ethical climate scale total and sub-dimension scores of the teachers constituting the sample group showed a significant difference according to the gender variable, independent groups t-test was conducted (see Table 4).

Table 4. Independent Groups t-Test Results Conducted to Determine Whether Ethical Climate Scale Scores Differ According to Gender Variable

Score	Groups	N	$\bar{x}$	Sd	Se	*t* Test		
						t	Df	p
Socially responsible	Female	233	3.66	.66	.04	1.52	403	.130
	Male	172	3.57	.64	.05			
Ruled	Female	233	3.65	.79	.05	2.08	403	.038
	Male	172	3.48	.81	.06			
Beneficiary benevolent	Female	233	3.69	.84	.06	1.46	403	.146
	Male	172	3.57	.82	.06			
Principled	Female	233	3.75	.75	.05	1.13	403	.261
	Male	172	3.66	.76	.06			
Productivity	Female	233	3.70	.72	.05	-.53	403	.597
	Male	172	3.74	.73	.06			
Ethical Climate Scale (Scale total score)	Female	233	3.74	.59	.04	1.65	403	.101

As can be seen in Table 4, as a result of the independent groups t-test, socially responsible (t=1.52; p>.05), beneficiary benevolent (t= 1.46; p>.05), principled (t= 1.13; p>.05) and while there was no significant difference between the groups for productivity (t= -.53; p>.05) and ethical climate scale total score (t= 1.65; p>.05); for the ruled sub-dimension (t= 2.08; p<.05), the difference between the arithmetic means of the groups was found to be significant. The average of female teachers was found to be significantly higher than the average of male teachers. This revealed that female teachers were statistically significantly more rule-bound than male teachers.

One-way analysis of variance (ANOVA) was conducted to determine whether the ethical climate scale total and sub-dimension scores of the teachers constituting the sample group showed a significant difference according to the professional seniority of the teachers (see Table 5).

Table 5. One-Way Analysis of Variance (ANOVA) Results to Determine Whether Total and Sub-Dimensional Scores of the Ethics Scale Differ According to the Variable of Professional Seniority of the Teachers

Score	Groups	*n*	$\overline{X}$	Sd	Source of Variation	*SS*	*df*	*MS*	*F*	*p*	*Post hoc*
Socially responsible	10 years and less	106	3.71	.66	Between Groups	1.168	2	.584	1.395	.249	
	11-20 years	173	3.58	.66	Within Groups	168.306	402	.419			
	21 years and more	126	3.60	.62	Total	169.474	404				
	Total	405	3.62	.65							
Ruled	10 years and less	106	3.79	.75	Between Groups	6.884	2	3.442	5.474	.005	1-2
	11-20 years	173	3.47	.83	Within Groups	252.758	402	.629			1-3
	21 years and more	126	3.56	.78	Total	259.642	404				
	Total	405	3.58	.80							
Beneficiary benevolent	10 years and less	106	3.83	.79	Between Groups	5.653	2	2.827	4.126	.017	1-2
	11-20 years	173	3.55	.85	Within Groups	275.366	402	.685			1-3
	21 years and more	126	3.60	.83	Total	281.019	404				
	Total	405	3.64	.83							
Principled	10 years and less	106	3.90	.66	Between Groups	5.351	2	2.675	4.827	.008	1-2
	11-20 years	173	3.61	.79	Within Groups	222.806	402	.554			1-3
	21 years and more	126	3.70	.74	Total	228.157	404				
	Total	405	3.71	.75							
Productivity	10 years and less	106	3.62	.68	Between Groups	1.417	2	.709	1.360	.258	
	11-20 years	173	3.77	.74	Within Groups	209.447	402	.521			
	21 years and more	126	3.73	.74	Total	210.864	404				
	Total	405	3.72	.72							
Ethical Climate Scale (Scale total score)	10 years and less	106	3.81	.58	Between Groups	1.720	2	.860	2.489	.084	
	11-20 years	173	3.65	.60	Within Groups	138.939	402	.346			
	21 years and more	126	3.68	.58	Total	140.659	404				
	Total	405	3.70	.59							

As can be seen in Table 5, as a result of the one-way analysis of variance, the ethical climate perception levels of

teachers according to the variable of professional seniority for the ruled sub-dimension of the scale (F=5.474; p< .05); for beneficiary benevolent sub-dimension (F=4.126; p<.05); and for the principled sub-dimension (F=4.827; p< .05) the difference between the arithmetic means of the groups was found to be significant. Complementary analyzes were carried out in order to determine which groups resulted from the significant difference determined for these sub-dimensions. For this purpose, firstly, the homogeneity of variance was checked with Levene's analysis and it was found that the variances were homogeneous (For the ruled sub-dimension: L_F=1.383; p>.05; for the beneficiary benevolent sub-dimension: L_F= .236; p>.05; for the principled sub-dimension: L_F=1.450; p>.05). For this reason, the LSD test was preferred. As a result of the LSD test, it was determined that the difference found in all three sub-dimensions was in favor of teachers with 10 years or less professional experience. No significant difference was found between the groups for the other sub-dimensions and the overall scale.

A one-way analysis of variance (ANOVA) was conducted to determine whether the total and sub-dimension scores of the ethical climate scale differ significantly according to the teachers' Level of Education to Work (see Table 6). As can be seen in Table 6, as a result of the one-way analysis of variance, the difference between the arithmetic means of the groups for the productivity sub-dimension of the scale (F=4.094; p< .05) was found to be significant according to the variable of education level of the teachers. Complementary analyzes were carried out in order to determine from which groups the significant difference determined for this sub-dimension was due. For this purpose, first of all, homogeneity of variance was checked with Levene's analysis and variances were found to be homogeneous (L_F=2.379; p>.05). For this reason, the LSD test was preferred. It was determined that the difference found as a result of the LSD test was between teachers working in secondary schools and high schools and teachers working in primary schools, and it was realized at p<.05 in favor of teachers working in secondary schools and high schools. No significant difference was found between the groups for the other sub-dimensions and the overall scale.

Table 6. One-Way Analysis of Variance (ANOVA) Results to Determine Whether the Total and Sub-Dimensional Scores of the Ethical Climate Scale Differ According to the Teachers' Level of Education to Work

Score	Groups	*N*	$\overline{X}$	Sd	Source of Variation	*SS*	*df*	*MS*	*F*	*p*	*Post hoc*
Socially responsible	Primary school	113	3.70	.62	Between Groups	1.206	2	.603	1.441	.238	
	Secondary school	118	3.62	.60	Within Groups	168.268	402	.419			
	High school	174	3.57	.69	Total	169.474	404				
	Total	405	3.62	.65							
Ruled	Primary school	113	3.72	.76	Between Groups	3.292	2	1.646	2.581	.077	
	Secondary school	118	3.49	.77	Within Groups	256.350	402	.638			
	High school	174	3.55	.84	Total	259.642	404				
	Total	405	3.58	.80							

Score	Groups	*N*	$\overline{x}$	Sd	Source of Variation	*SS*	*df*	*MS*	*F*	*p*	*Post hoc*
Beneficiary benevolent	Primary school	113	3.73	.80	Between Groups	1.403	2	.701	41.008	.366	
	Secondary school	118	3.58	.82	Within Groups	279.617	402	.696			
	High school	174	3.62	.87	Total	281.019	404				
	Total	405	3.64	.83							
Principled	Primary school	113	3.80	.73	Between Groups	1.275	2	.637	1.129	.324	
	Secondary school	118	3.66	.71	Within Groups	226.882	402	.564			
	High school	174	3.69	.79	Total	228.157	404				
	Total	405	3.71	.75							
Productivity	Primary school	113	3.56	.78	Between Groups	4.209	2	2.104	4.094	.017	2-1
	Secondary school	118	3.79	.69	Within Groups	206.655	402	.514			
	High school	174	3.78	.69	Total	210.864	404				3-1
	Total	405	3.72	.72							
Ethical Climate Scale (Scale total score)	Primary school	113	3.75	.57	Between Groups	.566	2	.283	.813	.444	
	Secondary school	118	3.67	.56	Within Groups	141.093	402	.348			
	High school	174	3.68	.62	Total	140.659	404				
	Total	405	3.70	.59							

In order to determine whether the total and sub-dimension scores of teachers' ethical climate scale differ significantly according to the variable of the number of teachers in the school, independent groups t-test was conducted (see Table 7). As can be seen in Table 7, as a result of the independent groups t-test, ethical climate scale total score (t= .91; p>.05) and socially responsible (t= .88; p>.05), ruled (t= .69; p>.05), beneficiary benevolent (t= .88; p>.05) .99; p>.05), principled (t=1.52; p>.05) and productivity (t= .29; p>.05) sub-dimension scores were not significantly different between the groups.

Table 7. Results of Independent Groups t-Test Conducted to Determine Whether Ethical Climate Scale Scores Differ According to the Number of Teachers Working at the School

Score	Groups	*N*	$\overline{x}$	Sd	Se	*t* Test		
						t	Df	*p*
Socially responsible	40 and less	128	3.66	.61	.05	.88	403	.382
	41 and more	277	3.60	.66	.04			

Score	Groups	*N*	x̄	Sd	Se	*t* Test		
						t	Df	*p*
Ruled	40 and less	128	3.62	.74	.07	.69	403	.490
	41 and more	277	3.56	.83	.05			
Beneficiary benevolent	40 and less	128	3.70	.81	.07	.99	403	.324
	41 and more	277	3.61	.84	.05			
Principled	40 and less	128	3.80	.70	.06	1.52	403	.130
	41 and more	277	3.67	.77	.05			
Productivity	40 and less	128	3.73	.67	.06	.29	403	.773
	41 and more	277	3.71	.75	.05			
Ethical Climate Scale (Scale total score)	40 and less	128	3.74	.55	.05	.91	403	.364
	41 and more	277	3.68	.61	.04			

Independent groups t-test was conducted to determine whether the total and sub-dimension scores of the teachers constituting the sample group showed a significant difference according to the gender variable (Table 8).

Table 8. Results of the Independent Groups t-Test Conducted to Determine Whether the Scores of the Accountability Tendency Scale Differ According to the Gender Variable

Score	Groups	*N*	x̄	Sd	Se	*t* Test		
						t	Df	*p*
External accountability	Female	233	3.80	.68	.04	1.03	403	.302
	Male	172	3.73	.72	.06			
Internal accountability	Female	233	3.46	.70	.05	2.52	403	.012
	Male	172	3.28	.74	.06			
Accountability scale (Scale Total score)	Female	233	3.60	.63	.04	2.13	403	.034
	Male	172	3.46	.65	.05			

As can be seen in Table 8, there was no significant difference between the groups for external accountability (t= 1.03; p>.05) as a result of the independent groups t-test; For the internal accountability sub-dimension (t= 2.52; p<.05) and for the total score of the accountability scale (t= .34; p<.05), the average of female teachers was found to be significantly higher than the average of male teachers. This revealed that female teachers tend to be statistically significantly more accountable than male teachers.

One-way analysis of variance (ANOVA) was conducted to determine whether the total and sub-dimension scores of the teachers' accountability tendency scale differ significantly according to the professional seniority variable of the teachers (see Table 9). As can be seen in Table 9, as a result of the one-way analysis of variance, no significant difference was found between the groups for the external and internal accountability sub-dimensions of the scale and the overall scale of the accountability tendencies of the teachers according to the variable of professional seniority.

Table 9. One-Way Analysis of Variance (ANOVA) Results to Determine Whether Total and Sub-Dimensional Scores of the Accountability Scale Differ According to the Variable of Professional Seniority of the Teachers

Score	Groups	*n*	$\overline{x}$	Sd	Source of Variation	*SS*	*df*	*MS*	*F*	*p*
External accountability	10 years and less	106	3.79	.70	Between Groups	1.526	2	.763	1.573	.209
	11-20 years	173	3.70	.67	Within Groups	195.029	402	.485		
	21 years and more	126	3.84	.72	Total	196.555	404			
	Total	405	3.76	.70						
Internal accountability	10 years and less	106	3.42	.72	Between Groups	.412	2	.206	.397	.673
	11-20 years	173	3.39	.72	Within Groups	208.738	402	.519		
	21 years and more	126	3.34	.71	Total	209.150	404			
	Total	405	3.38	.72						
Accountability scale (Scale Total score)	10 years and less	106	3.58	.65	Between Groups	.210	2	.105	.257	.773
	11-20 years	173	3.52	.64	Within Groups	163.882	402	.408		
	21 years and more	126	3.55	.63	Total	164.092	404			
	Total	405	3.54	.64						

A one-way analysis of variance (ANOVA) was conducted to determine whether the total and sub-dimension scores of the teachers constituting the sample group showed a significant difference according to the teachers' level of education to work (see Table 10).

Table 10. One-Way Analysis of Variance (ANOVA) Results to Determine Whether the Total and Sub-Dimensional Scores of the Accountability Tendency Scale Differ According to the Teachers' Level of Education to Work

Score	Group	*n*	$\overline{x}$	Sd	Source of Variation	*SS*	*df*	*MS*	*F*	*p*	*Post Hoc*
External accountability	Primary school	113	3.96	.63	Between Groups	7.644	2	3.822	8.133	.000	1-2
	Secondary school	118	3.60	.71	Within Groups	188.912	402	.470			1-3
	High school	174	3.76	.70	Total	196.555	404				
	Total	405	3.77	.70							
Internal accountability	Primary school	113	3.49	.73	Between Groups	2.904	2	1.452	2.830	.060	
	Secondary school	118	3.40	.60	Within Groups	206.246	402	.513			
	High school	174	3.29	.78	Total	209.150	404				
	Total	405	3.38	.72							
Accountability scale (Scale Total score)	Primary school	113	3.69	.61	Between Groups	3.403	2	1.701	4.256	.015	1-2
	Secondary school	118	3.49	.58	Within Groups	160.689	402	.400			1-3
	High school	174	3.49	.67	Total	164.092	404				
	Total	405	3.54	.64							

As can be seen in Table 10, as a result of the one-way analysis of variance, the difference between the arithmetic averages of the groups for the external accountability sub-dimension of the scale and the total score of the accountability scale according to the level of teachers' accountability tendency levels was found to be significant.

For this sub-dimension and for the scale total score, complementary analyzes were carried out in order to determine which groups caused the significant difference. For this purpose, first of all, homogeneity of variance was checked with Levene's analysis and variances were found to be homogeneous for the external accountability sub-dimension (L_F=2.301; p>.05).

It was found that the variances for the total score of the scale were not homogeneous (L_F=3.056; p<.05). The LSD test was preferred when the variances were homogeneous, and the Dunnett C test was used when the variances were not homogeneous. As a result of the LSD test, it was determined that the difference for the external accountability sub-dimension was between teachers working in primary schools and teachers working in secondary schools and high schools, and it was realized at p<.05 in favor of teachers working in primary schools. Similarly, as a result of the Dunnett C test test, it was determined that the difference in question for the total score of the accountability tendency scale was between the teachers working in primary schools and the teachers working in secondary schools and high schools, and it was realized at p<.05 in favor of the teachers working in primary schools. No significant difference was found between the groups for the other sub-dimensions and the overall scale.

In order to determine whether the total and sub-dimension scores of the teachers' accountability tendency scale differ significantly according to the number of teachers variable, independent groups t-test was conducted (see Table 11).

Table 11. Results of the Independent Groups t-Test Conducted to Determine Whether the Scores of the Accountability Tendency Scale differ according to the variable of the number of teachers in the school

Score	Groups	*N*	$\bar{x}$	Sd	Se	*t* Testi		
						t	Df	*p*
External accountability	40 and less	128	3.72	.72	.06	-.88	403	.379
	41 and more	277	3.79	.69	.04			
Internal accountability	40 and less	128	3.35	.73	.07	-.51	403	.611
	41 and more	277	3.39	.71	.04			
Accountability scale (Scale Total score)	40 and less	128	3.51	.66	.06	-.74	403	.461
	41 and more	277	3.55	.63	.04			

As can be seen in Table 3, as a result of the independent groups t-test, there was no significant difference between the groups for the external accountability (t= -.88; p>.05) and internal accountability (t= -.51; p>.05) sub-dimensions and the total score of the accountability tendency scale (t= -.74; p>.05).

At the last stage of the study, the results of the Pearson correlation analysis conducted to determine the relationship between teachers' organizational ethical climate perceptions and their accountability tendencies are presented in Table 12. As seen in Table 12, there is a moderately positive relationship between the ethical climate scale and the accountability tendency scale (r= .701; p<.01).

Table 12. The Relationship between Perception of Organizational Ethical Climate and Accountability Tendency

		External accountability	Internal accountability	Accountability scale (Scale Total score)
Socially responsible	r	.553**	.581**	.635**
	p	.000	.000	.000
Ruled	r	.631**	.578**	.669**
	p	.000	.000	.000
Beneficiary benevolent	r	.614**	.645**	.705**
	p	.000	.000	.000
Principled	r	.626**	.598**	.679**
	p	.000	.000	.000
Productivity	r	-.026	.038	.013
	p	.605	.446	.790
Ethical Climate Scale (Scale total score)	r	.626**	.631**	.701**
	p	.000	.000	.000

*p<.05, **p<.01

After these procedures, regression analysis was performed to determine whether the ethical climate scale score predicted the accountability tendency scale score in accordance with the purpose of the research, and the results are presented in Table 13.

Table 13. Results of Regression Analysis between the Ethical Climate Scale and the Accountability Tendency Scale

Model	B	Std. E.	β	t	p	R	R^2	F	p
1.(constant)	.74	.14		5.154	.000				
Ethical Climate	.76	.04	.70	19.749	.000	.70	.49	390.034	.000

As seen in Table 13, as a result of the simple linear regression analysis performed to determine whether the ethical climate scale scores significantly predicted the accountability tendency scale scores, it was seen that the ethical climate scale was a significant predictor of the accountability tendency scale score ($F_{(1-403)}$=390.034, p<0.001). It was determined that the ethical climate scale explained 49% (R^2= .49; p<0.001) of the variance in the accountability tendency scale score statistically significantly. According to Cohen (1988; cited in Özsoy & Özsoy, 2013, p. 339), effect size results (R^2): .0196 low; .1300 medium; .2600 is indicated as the large impact value. Therefore, it can be said that the R^2 value (R^2=.49) obtained from this analysis has a great effect.

The regression equation that predicts the accountability tendency scale according to the results of the regression analysis is as follows: Accountability Tendency= (.76 x Ethical Climate) + .74

Discussion, Conclusion, and Recommendations

In the study, teachers' ethical climate perceptions and accountability tendencies were determined. It was examined whether the scale scores of these two variables showed significant differences according to some demographic variables of the teachers. In addition, it was examined whether there is a significant relationship between teachers' ethical climate perceptions and accountability tendencies.

When the teachers' scores on the "Ethical Climate Scale" are examined, it is seen that they have the highest score in the "productivity" sub-dimension, but their scores are high in general. In support of the findings of this study, the studies conducted by Demirdağ and Ekmekçioğlu (2015), Sertel (2019) and Hirase (2000) also concluded that teachers' organizational climate levels are high. As emphasized by Demir & Karakuş (2015), it can be said that the finding obtained in this study is a positive situation for the education process when it is considered that the high level of ethical climate affects the trust of the teacher and the student towards each other and teacher motivation positively. In addition, in the study conducted by Kılıç (2019), it was found that ethical climate affects organizational commitment and teacher performance positively, and in the study conducted by Topçu & Gürsoy (2022) in the sample of secondary school teachers, ethical climate positively affects individual performance.

It is seen that teachers' scores on the "Accountability Tendency Scale" are high. In the study conducted by Kandemir and Akgün (2019), which supports the finding obtained from this research, it was concluded that teachers' perceptions of accountability are high. On the other hand, teachers' external accountability perceptions are higher than their internal accountability perceptions in the study. In a similar study conducted by Erdağ (2020), it was found that teachers' internal accountability levels were higher than their external accountability levels.

There is no significant difference in scores between female and male teachers in the overall ethical climate scale and in all sub-dimensions except the ruled sub-dimension. However, a significant difference was found in favor of female teachers in the sub-dimension of ruled. From this point of view, it can be said that female teachers give more importance to rules in terms of providing an ethical climate. In the study conducted by Arslan Hendekçi & Özen (2018), the fact that no significant difference was found between teachers' ethical climate perceptions and their genders partially overlaps with the finding of this study.

According to the professional seniority variable, the level of perception of ethical climate of teachers was found to be significant in favor of teachers with 10 years and less seniority in the sub-dimensions of ruled, beneficiary benevolent and principled of the scale. Based on this finding, it can be said that teachers who are new to the profession are more sensitive to the ethical climate. Kocayigit & Sağnak (2012) conducted by the professional ethical climate perceptions of teachers according to seniority seniority of significant difference in favor of teachers with more than 20 years of professional contradiction with the finding illustrates the findings of this research.

According to the level of perception of ethical climate of teachers, it was found that the difference in favor of teachers working in secondary and high schools was significant in the productivity sub-dimension of the scale according to the variable of the educational level in which teachers work. Based on this, it can be said that the

ethical climate perceptions of the teachers working at the higher level are higher. The fact that the study conducted by Bakkal & Radmand (2019) found that the type of school does not affect teachers' perceptions of the school climate does not coincide with the findings of this study. In addition, in this research, there was no significant difference in the ethical climate scale according to the number of teachers working at the school variable.

While there was no significant difference between female and male teachers for the external accountability sub-dimension of the accountability scale; For the internal accountability sub-dimension and for the total score of the accountability scale, the average of female teachers was found to be significantly higher than the average of male teachers. The findings of the research conducted by Altıparmak (2019) support the finding of this research, and that female teachers have a higher perception of accountability. However, in the study conducted by Kandemir & Akgün (2019), it was concluded that there was no significant relationship between the gender variable and teachers' perceptions of accountability.

In this research, there was no significant difference between the external accountability and internal accountability sub-dimensions of the scale and the overall scale according to the professional seniority variable of teachers' accountability tendencies. In a study conducted by Kandemir & Akgun (2019) in parallel with the findings obtained in this study, it was concluded that there is no significant relationship between the professional seniority variable and teachers' perceptions of accountability. In the study conducted by Altıparmak (2019), it was found that there was no significant relationship between the professional seniority of teachers and their perception of accountability.

In the study, a significant difference was found for the external accountability sub-dimension of the scale and the total score of the accountability scale according to the variable of education level of the teachers. For the external accountability sub-dimension, it was determined that the difference was between teachers working in primary schools and teachers working in secondary schools and high schools, and in favor of teachers working in primary schools. No significant difference was found between the groups for the other sub-dimensions and the overall scale. In the study conducted by Altıparmak (2019), it was found that there was no significant relationship between the type of school where teachers work and their perceptions of accountability. In this study, no significant difference was found for the external accountability and internal accountability sub-dimensions and the total score of the accountability tendency scale.

As a result of the simple linear regression analysis, it was seen that the ethical climate scale was a significant predictor of the accountability tendency scale score. This result shows that the ethical climate in organizations has an effect on the tendency of accountability. In the study conducted by Altaş & Kuzu (2013), it was found that ethical climate positively affects trust in the manager and job performance. In addition, in the study conducted by Göker & Gündüz (2017), they stated that accountability in schools is effective in the formation of a strong school culture. The finding in this research that accountability is related to ethical climate shows the importance of creating an ethical and accountable environment in the formation of organizational culture in schools.

Based on the findings of this study, it can be suggested that ethical and accountable behaviors should be considered

in order to create a productive working environment at school. Considering that ethical climate perception has a positive effect on many variables in educational institutions as well as in all institutions, it can be recommended to make explanations to teachers in the context of accountability in order to improve teachers' ethical climate perceptions. It is among the suggestions to be made based on the findings of this research that school administrators exhibit a transparent and open management model as much as possible.

Notes

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