Crisis Management, Agile Leadership, and Organizational Culture in Primary Schools

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ARTICLE INFO	ABSTRACT
	Educational organizations include intense human relations and social interaction. In this respect, the potential for the emergence of crises in educational organizations is quite high. In the literature, agile leadership is a significant type of leadership in which leaders possess an ability to take quick and correct decisions, cope with stress and psychological pressures, and remain calm while managing crises. In addition, a strong, established, and experienced organizational culture is essential in times of crisis. With these aspects, the variables of crisis management, agile leadership, and organizational culture are considered to be related to each other. The relationship between the variables of crisis management, agile leadership, and organizational culture, as well as the direction and size of this relationship, was examined. The study was designed in the correlational model. Teachers working in public primary schools in Malatya during the 2021-2022 academic year were included in the population of the study. In the study, 406 teachers determined by the random method were included in the sample. Data were collected through five-point Likert-type scales including "Crisis Management", "Agile Leadership", and "Organizational Culture". Teachers reported that there was a moderate, positive, and significant relationship between crisis management, agile leadership, and organizational culture. In addition, it was concluded that the agile leadership of the principals and organizational culture could predict crisis management. It is recommended that agile leaders be employed in organizations, agile leadership training be provided, and strong and permanent/continuous cultures be established in organizations to avoid the negative effects of crises on organizations and employees in educational organizations. **Key words:** Agile Leadership, Crisis Management, Organizational Culture, Primary School

INTRODUCTION

From an objective point of view, management sciences are viewed as a simple and standardized process. It seems that organizations are simply managed with pre-prepared legal texts (law, regulation, directive, etc.), principles, and the culture of the organization. How everything will work seems obvious. However, management is different than it seems and contains living processes. Especially in organizations with intense social relations, different situations may arise at any time and the usual situation may differ. The emergence of crises is also an unusual situation. The management may differ depending on crisis moments.

A manager is as important as the management style in moments of crisis. At such moments, it is essential that the manager cope with stress, remain calm, and act rationally while taking decisions. The term crisis management is described as management at such moments in the literature. Crisis management is quite different from the management of other times. What is crucial at crisis moments is to make quick decisions, avoid deepening the crisis, and prevent potential damage to the organization and employees while resolving the crisis. When re-establishing the system after crisis moments, making arrangements to eliminate some organizational and structural problems, if possible, might be a crucial part of crisis management.

Organizations and managers may take different stances towards managing and bringing an end to the crisis. While some managers are more effective, some may face challenges. Leaders acting effectively are called agile leaders. With the ability to manage and solve problems more effectively, agile leaders are viewed as important figures for organizations. During crisis management, the culture of organizations is another factor that should be taken into consideration along with agile leadership. Organizations with a strong and experienced culture that can survive crises can be more advantageous in overcoming crises. In this context, this study was carried out to examine crisis management, agile leadership, organizational culture, and the relationship between these variables specifically in terms of educational organizations.

Educational organizations are places where human relations are continuous and very lively. The limitation of people

is also getting harder day by day all over the world. For this reason, it becomes possible to experience crises in schools, which are social organizations. So what is urgently needed is to learn more about crises. It is thought that the more information is known about the causes, management and consequences of crises, the more agile organizational managers will be in understanding and responding to the crisis. For this reason, it is important to examine the relationship between crisis management and agile leadership in educational organizations. The fact that the number of studies conducted in this direction in the field of educational sciences is very low, indicates a literature gap (Zaidi & Bellak, 2019).

LITERATURE REVIEW

Crisis Management

Crisis refers to difficulties that emerge unexpectedly and need to be resolved urgently to return to normal (MacNeil and Topping, 2007). Crises can occur in different periods of life of individuals and organizations. Times of crisis are significant moments for individuals, societies, and organizations. Times of crisis are not forgotten for a long time, and they remain alive in memories. Individual and organizational behaviors in times of crisis are also remembered for a long time. How organizations take positions as well as their policies and management in times of crisis are significant issues.

Crisis management was first expressed in the field of literature in the 1970s. Crisis management after major disasters around the world such as the gas leak at the pesticide factory in India (Bhopal Disaster - 1984), the Exxon Valdez Environmental Disaster (1989) when the Exxon Valdez oil ship dumped 10.8 million gallons of oil into the sea, and the accident at the Chernobyl nuclear power plant (1986) concept has begun to be used in every field of science (Heradstveit & Hagen, 2011; Özgür, 2018). Scientists dealing with crisis management have identified some stages related to crisis management. Cushnahan (2004) determined the stages of risk assessment, management plan and team creation, and evaluation and reporting of the implementation. Wilks and Moore (2004), who study crisis management, expressed the crisis management process as trying to reduce the impact of the crisis, preparing for the crisis, intervening in the crisis and healing the wounds of the crisis.

When it comes to the effects of crises, it is observed that organizations experience different consequences. While crises shake some organizations, others remain unaffected and even gain various advantages (Topcu, 2017). One of the most important reasons for these differences is the way of managing crisis. Therefore, crisis management is of utmost importance for organizations. Researchers who think that crises are predictable, preventable, and manageable in terms of organizations have conducted a myriad of studies on these issues (Pauchant & Mitroff, 1992; Roberts, 1989; Pearson & Clair, 1998).

Schools are among the organizations with a highly intense social life. For this reason, times of crisis are likely to be experienced quite often in schools. The factors causing the crisis in schools can occur in two forms: internal factors

and external factors (Döş & Cömert, 2012). Among the internal factors are the principal, teachers, students, and other employees. And external factors are students' parents, various pressure groups, and equipment and financial resources available in schools, and senior administrative bodies of schools (Bursalıoğlu, 1994). Administrators are expected to undertake the biggest task in resolving the crises in schools. Both the need for quick decision-making and the tension caused by the crisis make it difficult to make the right decision (Gökalp & Yalçınkaya, 2018). However, being ready for times of crisis in advance is a factor that may facilitate crisis management.

Proper management of crises occurring in schools can only be achieved if proper preparation is ensured. Thus, it is necessary to plan pre-crisis, crisis response, and post-crisis periods (Aksu and Deveci, 2009). The pre-crisis period is the period when the factors that are likely to cause the crises and the signs of the crisis emerge. In this period, it is important for the school administration to determine the sources of the crisis well and to take the necessary measures to prevent the crisis in a controlled manner (Haşit et al., 2013). If it is impossible to prevent the crisis, the manager is expected to assume a role in overcoming the crisis without causing much harm to the organization or in taking necessary precautions to turn the crisis into an opportunity (Can, 2011). Times of crisis refer to the periods when the crisis in the organization is obvious, which in return lead to events that cause serious stress among the employees, students, and managers. At such moments, managers are expected to calmly implement the plans prepared in advance and decisively take the necessary steps for a solution. Since crisis periods are extraordinary, the leadership at such times should also be extraordinary. Thus, there is a need for leaders who can make agile decisions during new and unprecedented events (Güleryüz, 2015). During the post-crisis period, the causes of the crisis, its management, and consequences should be discussed in detail. In general, agile leaderships that can take quick and appropriate decisions while managing times of crisis come to the fore.

Agile Leadership

It is essential for organizations to carry out works with plans and goals and to follow the plans closely. It is also essential for leaders to follow these processes and to control the organization in line with the plans and so is the management of sudden changes, demands, and crises that may arise within the organization. Managing such sudden changes is expressed as agile leadership in the literature. Agile leadership is basically based on the principles of the agile manifesto which sees individuals and interactions over processes and tools and responding to change over following a plan.

Joiner and Joseph (2007) define agile leadership as the ability to lead effectively in the interests of the organization during change and complexity. While defining agile leadership, some basic perspectives are taken as a basis. While some scientists consider agile leadership as adapting to change and responding to changing conditions (Huang, 1999; Yusuf et al., 1999), others consider it as being ready

for changing conditions (Ganguly et al., 2009; Lin et al., 2006). While defining agile leadership, some authors have based on seeing future opportunities for the organization and making preparations not to miss these opportunities (Dubey & Gunasekaran, 2014; Gökalp, 2021a).

Situational awareness is very important in agile leadership. It is described as noticing the steps to be taken in advance and making the necessary application without wasting time according to the characteristics of the organization and employees (Gedik, 2020). In situational awareness, it is crucial to analyze the environment, to realize what to do in advance, to take decisions quickly, and to make new and strategic applications (Özgenel & Yazıcı, 2020). Another dimension of agile leadership is human relations. Human relations involve the leader developing positive relations with both employees and other stakeholders of the organization and trying to understand their feelings and thoughts (Deniz, 2020; Özdemir, 2018). The human relations dimension is considered very important especially in educational organizations where social relations are experienced at a high level. The leader is expected to be gentle towards those who think differently, to take a step back from time to time, to take decisions together with the stakeholders, and to be fair and tolerant (Özgenel & Yazıcı, 2020). Another dimension of agile leadership is self-awareness, which also refers to the leader's self-awareness. Self-awareness of characteristics means self-awareness of abilities and limitations for leaders (Kırhallı-Gök, İlgar, 2020). The ability of leaders to show agile leadership and manage crises is not limited to their own characteristics. It is thought that the ability to show agile leadership in times of crisis is related to the cultures of the organizations.

Organizational Culture

The term organizational culture was first used by Pettigrew (1979) and later became one of the most researched areas in social sciences. Members of an organization have certain values, beliefs, expectations, ideologies, and attitudes that they accept as common among themselves. The culture consisting of these common values also constitutes organizational culture (Bess & Dee, 2008; Öztürk & Şahin, 2017)

Although there are a plethora of definitions of organizational culture, attention is generally drawn to similar features. Schein (2010) defines organizational culture as the ways of thinking, feeling, and perceiving that members both adapt externally and integrate internally and transfer them to the new members of the organization while solving their organizational problems. Hoy and Miskel (2010) define organizational culture as a system of emotions and thoughts that can keep members of an organization together, distinguish them from other organizations, and give that organization a special belonging. Dinçer (1992) defines organizational culture as a system of beliefs, values, norms, and habits that control the behavior of organizational members. As seen in the definitions given, organizational culture is comprised of these values, which affect the beliefs, values, norms, and ways of thinking and perception of the members of the organization in the same way, and which are transferred to the new members of the organization.

Organizations have different typologies according to their cultural characteristics. Wallach (1983) defines the dominant dimensions of culture in organizations as a bureaucratic organization, a supportive organization, and an innovative organization in his work titled "Individuals and Organizations: Cultural Match". Although all organizations have bureaucratic, supportive, and innovative cultures, this classification was provided based on some prominent characteristics. In this study, the classification of organizational culture by Wallach will be discussed. Organizations with a bureaucratic organizational culture are organizations operating with a bureaucratic structure defined by Weber. Organizations with bureaucratic culture mainly have a strict division of labor, hierarchical structure, formal relations between members, and technical skills (Atik, 2012; Gökalp, 2021b). In educational organizations where bureaucratic culture is dominant, works must performed in a regular and orderly way pursuant to regulations and laws, the hierarchical structure must be clear between the administrator-teacher and other employees, and the efficiency must be assessed with statistical information and concrete indicators (Daft, 2008).

In organizations with a supportive culture, it is essential that both managers and employees support each other along with mutual trust and cooperation. In terms of educational organizations, it is a culture where everyone in the organization helps each other, tries to adapt to the organization and is in close friend relations in a warm environment. According to Wallach (1983), the most important personal motivation criterion of supportive organizational culture is close communication. Another culture in educational organizations is the innovative organizational culture. Success is the most important factor that motivates members in an innovative organizational culture. Innovative culture in educational organizations ensures that employees are dynamic and entrepreneurial with a sense of achievement and that they transfer such characteristics to the new members of the organization (Aksay, 2011).

Crisis management in organizations, the culture of the organization, and how agile leadership is handled in the literature was discussed above. This study seeks to investigate the relationship of the dominant culture in organizations (Bureaucratic, Supportive, and Innovative) with organizational managers' crisis management and agile leadership. The following hypotheses were developed for this study:

H1: The crisis management and agile leadership of principals in primary schools and the organizational culture of primary schools are related to each other.

H2: Agile leadership of principals in primary schools predicts their crisis management positively.

H3: The organizational culture of primary schools positively predicts the crisis management of the principals.

H4: Agile leadership of principals in primary schools positively predicts organizational culture.

METHOD

Research Model

In this study, the relational model was used. The relational model is aimed at revealing the relationship between at

least two variables (Cohen et al., 2000; Karasar, 2012). In this study, the relationship between organizational culture, crisis management, and agile leadership of the principals is examined.

Ethics Committee Approval Statement

Ethics committee approval was obtained for this study. Ethics committee approval was given with the decision of the Ethics Committee of Şırnak University, dated 16.09.2021 and numbered 2021/73.

Population and Sample

The population of the study is comprised of teachers working in public primary schools in Malatya during the 2021-2022 academic year. Since it takes a very long time to reach the whole population and requires a significant amount of economic cost, a sample that could represent the population was selected to carry out the study. The number of teachers to be selected for the sample was calculated with the formula (Balcı, 2010) prepared for situations in which the size of the population is known. This calculation revealed that the sufficient sample size could be 360 participants. For this study, 406 teachers were selected for the sample. The data regarding the gender, age, and seniority of teachers are given in Table 1.

Data Collection Tools

A form consisting of four parts was used to collect data. In the first part, there are questions about the demographic characteristics of the sample. The second part includes the "agile leadership scale", the third part includes the "organizational culture scale", and the fourth part includes the "crisis management scale".

Agile leadership scale

The Agile Leadership Scale developed by Özgenel and Yazıcı (2020) was used in the study. The scale consists of 34 items and three dimensions: Situational Awareness, Human

Table 1. Frequency and percentage values of the demographic data of the sample

Variables	Sub-dimensions	f	%
Gender	Male	152	37.4
	Female	254	62.6
Age	20-29	76	18.7
	30-39	98	24.1
	40-49	107	26.4
	50-59	98	24.1
	60 and over	27	6.7
Seniority	0-10 years	116	28.6
	11-20 years	156	38.4
	21-30 years	101	24.9
	30 years and over	33	8.1

Relations, and Self-Awareness. It was stated that the general internal consistency coefficient (Cronbach Alpha) of the scale was sufficient and no details were given. The total variance explained by the three dimensions of the scale was 63.62%. In the reliability analysis made with the data collected in the sample group of this study, the Cronbach Alpha values were.78 for situational awareness.82 for human relations.,81 for self-awareness, and.82 for the overall scale. The variance explained in the analysis for this study was 64%. The scale is of 5-point Likert type. Scale scores are "Never-1, Rarely-2, Sometimes-3, Often-4, Always-5". If the arithmetic average of the responses ranges between is 1.00 and 1.80, it indicates that "Our principal never shows agile leadership", if it ranges between 1.81 and 2.60, it indicates that "Our principal rarely shows agile leadership", if it ranges between 2.61 and 3.40, it indicates that "Our principal sometimes shows agile leadership ", if it ranges between 3.41 and 4.20, it indicates that "Our principal often shows agile leadership", and if it ranges between 4.21 and 5.00, it indicates that "Our principal always shows agile leadership".

Organizational culture scale

The scale was developed by Atik (2012). The scale of 5-point Likert type is scored as "Never-1, Rarely-2, Sometimes-3, Often-4, Always-5". The organizational culture scale consists of 17 items in total. The scale consists of three dimensions: "bureaucratic", "supportive", and "innovative". It was stated that the total explained variance of the original scale was 64%. The variance explained in the analysis made with the data collected for this study was 62%. The Cronbach-Alpha internal consistency coefficient of the original scale was.85 for bureaucratic.,85 for supportive.,91 for innovative, and.91 for the overall scale. In the reliability analysis of the data collected in the sample group of this study, the Cronbach Alpha values were found as.83 for bureaucratic.,81 for supportive.,89 for innovative, and.87 for the overall scale.

Crisis management scale

The scale was developed by Aksu and Deveci (2009). The scale is a 5-point Likert scale and the scores range between "Strongly Disagree"(1) and "Strongly agree"(5). The crisis management scale consists of 31 items in total. The scale consists of three dimensions: "Pre- Crisis", "Crisis Response", and "Post-Crisis". The total explained variance of the original scale was 78%. The variance explained in the analysis made with the data collected for this study was 72%. The Cronbach-Alpha internal consistency coefficient of the original scale was.95 for pre-crisis.,95 for crisis response.,98 for post-crisis, and.98 for the overall scale. In the reliability analysis made with the data collected with the crisis management scale for this study, the Cronbach Alpha values were.91 for pre-crisis.,89 for crisis response.,92 for post-crisis, and.92 for the overall scale.

Common Variance Analysis

A common method variance is defined as using different scales together or with a single data collection source in the same period in data collection. This variance can be determined by applying Harman's single factor test (Podsakoff et al. 2003) to the scales used in the study. In this study, a loopless factor analysis was made by employing a total of 82 items from three variables. Besides, the variance explained by a single and general factor was 24% and the common variance was low, which means that there is no common variance problem for the scales.

Data Analysis

In the analysis of the data, t-test and ANOVA were used to find the arithmetic means, the SPSS program was used for the correlation analysis, and the AMOS program was used for the regression analysis. First, the normal distribution test was applied to the data along with the review of the skewness and kurtosis values. The skewness and kurtosis coefficients were found to range between "+1" and "-1". To find the Z value for skewness, the skewness value was calculated after dividing it by the standard error of the skewness. For the agile leadership scale, the Z value for skewness was (ZSkewness) 1.79 and the Z value for kurtosis was (Zkurtosis) 2.41 for the organizational culture scale, the Z value for skewness was (ZSkewness) -1.80 and the Z value for kurtosis was (Zkurtosis) 2.77 for the crisis management scale, the Z value for skewness was (ZSkewness) 1.25 and the Z value for kurtosis was (Zkurtosis) 3.36. In cases where the sample size is larger than 300, a Z value for skewness is considered normal if it ranges between -2 and +2, and a Z value for kurtosis is considered normal if it ranges between -7 and +7 (Kim, 2013), indicating a normally-distributed data. An analysis of whether there is a multicollinearity problem between the independent variables was also made. As the value was found below .90 considering the relationship between independent variables, there was no multicollinearity problem (Büyüköztürk, 2011). Validity and reliability studies were performed for the scales by calculating Cronbach's Alpha values and factor analyzes. It was found that these values were sufficient for employing the scales. The arithmetic mean was calculated for all three variables included in this study. In the next step, to find out whether there is a relationship between principals' agile leadership, crisis management and organizational culture, correlation analysis was performed. Finally, regression analysis was analyzed with the structural equation modeling (SEM) method to examine the predictive power of these variables. This study was aimed at analysing the relationship between more than two variables and their predictive power on one another. SEM was employed because it is designed to combine independent regression or factor analyzes into a single analysis and to analyze the relationship between them using both variance and covariance. The AMOS program was applied for SEM analyzes. First, confirmatory factor analyzes (CFA) of the scales were performed. At this stage, the values shown below were used for the purpose of measurement (Arbuckle, 2009; Byrne, 2010; Kline, 2011):

- If the $\chi 2/df$ value is below 2, it indicates a good fit, and if it ranges between 2 and 5, it indicates an acceptable fit.
- If the RMSEA value ranges between 0.08 and 0.05, it indicates an acceptable fit, and if it is below 0.05, it indicates a good fit.
- If CFI, IFI, NFI, and TLI values range between 0.90 and 0.95, they indicate an acceptable fit, and if they are greater than 0.95, they indicate a good fit.

FINDINGS

Considering the results obtained from the analysis of the primary school teachers-related data, Table 2 includes the general sum of the agile leadership, crisis management, and organizational culture scales and the arithmetic means and standard deviations.

Table 2 suggests that the agile leadership total score and the averages of the situational leadership and human relations dimensions in primary schools were "generally high" while they were "high" in the self-awareness dimension. Considering the scores obtained from the primary school teachers regarding the agile leadership characteristics of the principals, it was observed that the characteristics of crisis management were found to be "high" for pre-crisis and post-crisis periods while they were found to be "generally high" for the crisis response period. According to the evaluations of primary school teachers, the organizational culture in primary schools was at a "high" level in the dimensions of bureaucratic and supportive organizational culture, and at a "generally high" level in the dimension of innovative organizational culture. It was also observed that the general sum of organizational culture was at a "high" level.

Table 3 highlights the information regarding the correlation analysis that reveals the relationship between principals' agile leadership and crisis management and organizational culture in primary schools and the level of this relationship.

Table 2. Arithmetic means, standard deviations, and standard error values of agile leadership, crisis management, and organizational culture

Variables	X̄	SD	se
Situational Awareness (leadership)	3.78	.94	.04
Human Relations	4.16	.64	.03
Self-awareness	4.43	.54	.02
AGILE LEADERSHIP	4.09	.61	.03
Pre-crisis	4.62	.51	.02
Crisis-response	3.84	.59	.03
Post-crisis	4.50	.45	.02
CRISIS MANAGEMENT	4.36	.33	.01
Bureaucratic	4.34	.53	.02
Supportive	4.71	.36	.02
Innovative	4.11	.71	.03
ORGANIZATIONAL CULTURE	4.33	.46	.02

Correlation analysis is used in research papers that examine the relationships among various variables. If the correlation values are below.30, the values indicate that the relationship is low. If the values range between.30-.70, the values indicate that the relationship is moderate, and if the values are above.70, then the relationship high (Büyüköztürk, 2006). The correlation matrix in Table 3 shows moderate, positive, and significant relationships between school principals' agile leadership, crisis management and organizational culture. These relationships, which are significant, show that the H1 hypothesis of the study has been confirmed. It is also seen that agile leadership and bureaucratic organizational culture have the lowest level of relationship.

Researchers draw upon correlation analysis if they study the relationships among various variables. In this context, the correlation values below.30 indicate a low-level relationship,

the values ranging between.30-.70 indicate a moderate-level relationship, and the values above.70 indicate a high-level relationship (Büyüköztürk, 2006). The correlation matrix included in the table above reveals moderate, positive, and significant relationships between school principals' agile leadership and crisis management and organizational culture, which in return is observed to confirm the H1 hypothesis within the scope of the study. It is also observed that the bureaucratic organizational culture has the least level of relationshiop with agile leadership.
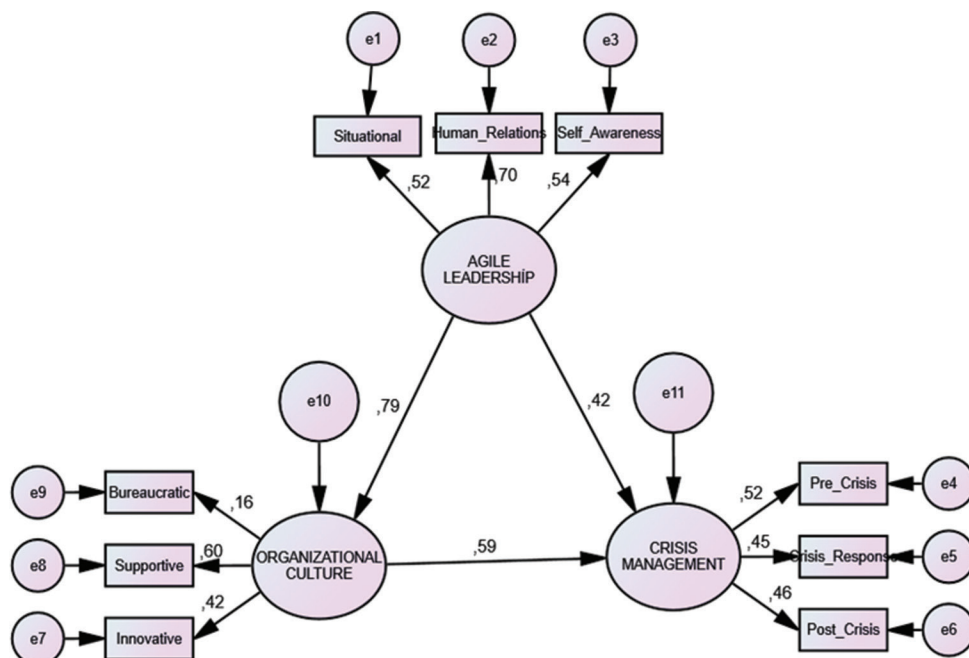
The structural model aimed at demonstrating the effect of the agile leadership of the principals and organizational culture on crisis management in primary schools is shown in Figure 1.

Table 4 includes the following items: the unstandardized regression coefficients (b), standardized regression coefficients (β), critical values (CR), standard errors (SE), and

Table 3. Correlation relationship between principals' agile leadership and crisis management and organizational culture

Variables	1	2	3	4	5	6	7	8	9	10	11
1. Situational Awareness	1										
2. Human Relations	.73**	1									
3. Self-awareness	.34**	.39**	1								
4. AGILE LEADERSHIP	.92**	.90**	.56**	1							
5. Pre-crisis	.46**	.48**	.46**	.48**	1						
6. Crisis Response	.46**	.48**	.52**	.59**	.68**	1					
7. Post-crisis	.31**	.32**	.33**	.30**	.63**	.61**	1				
8. CRISIS MANAGEMENT	.44**	.48**	.46**	.47**	.79**	.72**	.79**	1			
9. Bureacratic	.10*	.14**	.15**	.16**	.10*	.16**	.14*	.16**	1		
10. Supportive	.51**	.55**	.57**	.57**	.51**	.40**	.55**	.48**	.36**	1	
11. Innovative	.52**	.61**	.62**	.56**	.64**	.66**	.61**	.63**	.22**	.77**	1
12. ORGANIZATIONAL CULTURE	.37**	.42**	.43**	.44**	.44**	.46**	.42**	.43**	.28**	.70**	.89**

**p < .01 / *p < .05

Figure 1. The structural model regarding the effect of the agile leadership of the principals and organizational culture on crisis management in primary schools

Table 4. The table of β and p values of the model

	b	β	se	CR	p
Agile Leadership-Crisis Management	.477	.423	.199	3.998	<.01
Organizational Culture-Crisis Management	.734	.588	.173	4.735	<.01
Agile Leadership-Organizational Culture	.865	.794	.131	5.232	<.01

p-values obtained as a result of the model. The model producing the best-fit indices reveals that the agile leadership of principals positively affects crisis management in schools (β=.42, p<0.01, CR=3.998). The regression values obtained show that the second hypothesis (H2) has been confirmed. According to the opinions of the teachers, an increase of one unit in agile leadership of the principals provides an increase of.36 units in crisis management. As the principal's agile leadership increases, there is an increase in the positive management of crises in schools.

The effect of organizational culture on crisis management is positive (β=.59, p<0.01, CR=4.735). The regression values obtained show that the third hypothesis (H3) has been confirmed. According to the opinions of the teachers, a one-unit increase in organizational culture provides an increase of.64 units in crisis management.

The effect of the agile leadership of the principal on school culture is positive (β=.79, p<0.01, CR=5.232). These regression values show that the fourth hypothesis (H4) has been confirmed. An increase of one unit under the agile leadership of the principals provides an increase of.82 units in school culture.

Fit indices for agile leadership – organizational culture – crisis management model: X2 = 984.79, df = 255, X2/df = 3.86, p=.000, NFI=.90, IFI =.96, TLI =.95, CFI =.96, RMSEA =.07

DISCUSSION, CONCLUSION, AND RECOMMENDATIONS

This study was carried out to better understand the relationship between crisis management in primary schools, agile leadership of principals, and organizational culture. First of all, crisis management, agile leadership of principals, and organizational culture in primary schools were examined according to teachers' opinions. It was concluded that crisis management levels in primary schools were "high". Related studies in the literature were reviewed. In this context, Karakuş and İnandı (2018) reported that a score of 3.48 was obtained from the teachers regarding their principals' crisis management skills. This score indicates a "generally high" level when compared with the scoring values of this study. Yılmaz and Yıldırım (2020) also reported that crisis management of school principals was at a "high" level. It is important what they see as a crisis in the answers given by the participants, both in this study and in other studies. To understand the subject more clearly, it may be useful to examine what is seen as a crisis with qualitative questions.

The agile leadership of the principals in primary schools was found to be "generally high". As regards the sub-dimensions of agile leadership, one may notice that situational awareness and human relations were "generally high", while self-awareness was "high". Özdemir (2020) also reported a "generally high" level for agile leadership levels of the principals, adding that the evaluations of teachers in England also showed a "generally high" level in this sense. Yılmaz (2021), on the other hand, reported a "low level" for the agile leadership of the principals and Özgenel and Yazıcı (2021) reported a "high level" for the learning agility of school principals. In general, it is seen that the results of this study and other studies in the literature are similar. However, in this and similar studies, it may be beneficial to include the words, thoughts and behaviours of the participants in leadership with qualitative explanations that they perceive as "agile leadership".

Organizational culture, which is the other variable of the study, was also found to be at a "high" level. Along the same lines, Öztürk and Şahin (2017) found that the organizational culture in primary and secondary schools was at a "generally high" level while Korkmaz and Çevik (2017) reported a "generally high" level based on high school teachers' opinions. Additionally, Balçık and Ordu (2018) reported a "generally high" level for organizational culture levels in schools.

Correlation analysis was conducted to understand the relationship between crisis management, agile leadership of principals, and organizational culture in primary schools. As a result of the analysis, positive, moderate, and significant relationships were found between agile leadership and crisis management, between agile leadership and organizational culture, and between organizational culture and crisis management. Betta and Owczarzak-Skomra (2019) studied the application of agile methods in crisis management and reported that the relationship between agile leadership and crisis management was available. In another study by Betta et al. (2018), it was emphasized that agile leadership had a crucial role in crisis management and that there was a positive relationship between agile leadership and organizational culture, meaning that similar results were found in studies in the literature. Aktemur (2016) focused on the relationship between organizational culture and many leadership styles and concluded that organizational culture was related to leadership. Basri and Zorlu (2020) touched upon the effect of perceived organizational culture on organizational agility and concluded that perceived organizational culture was related to organizational culture. Yet another study examining the relationship between agile leadership and organizational culture was conducted by Kompella (2014), who concluded that there was a relationship between agile leadership and organizational culture. According to the analysis of this study, there was a very low relationship between agile leadership and bureaucratic culture, which is a dimension of organizational culture. This shows that agile leadership, which has relatively more active, is not compatible with the bureaucratic culture that requires static management. The evaluations showed that the relationship between agile leadership and organizational culture in this study overlaps with the results found in the literature. In this study, it was found that there

was a relationship between organizational culture and crisis management. The relationship between organizational culture and crisis management was also examined in the study conducted by Deverell and Olsson (2010), who found that the relationship between organizational culture and crisis management was strong. Bowersa et al. (2017) conducted a study on the relationship between crisis management and organizational culture to conclude that organizational cultures were related to the conditions and precursors that create crises. It is seen that the results of this study and the results of previous studies in the literature are similar. The important aspect of this study is that, as in other types of organizations, it has been found that there is a moderate and significant relationship between crisis management and agile leadership and organizational culture in educational organizations.

In this study, regression analysis was conducted with the structural equation modeling method to determine whether agile leadership predicts organizational culture and crisis management and whether organizational culture predicts crisis management. Agile leadership was observed to predict both organizational culture and crisis management. In addition, another result was that organizational culture predicts crisis management. Haddad and Bonnet (2020) reported that agile leadership has a dynamic effect on the culture of the organization that constantly innovates to ensure harmony and change. Strode et al. (2009) reported that agile leadership predicts the culture of the organization, adding that agile leadership in organizations largely predicts the culture of the organization. It is reported that the more agile leadership behaviour is exhibited, the greater the impact on the organizational culture. The results obtained in this study show similarities with the studies in the literature on the prediction of organizational culture by agile leadership.

The second result obtained in the regression analysis is that agile leadership predicts crisis management. When previous studies on this subject were examined, it was seen that similar results were obtained. Stoten (2021) emphasized that agile leadership is important in crisis management thanks to its adaptive features in crisis management. It was reported that agile leaders are more sensitive to the crisis with their effective leadership behaviors and are more visionary under crisis pressure. In another study conducted by Sae-Lim (2019), it was reported that agile leadership predicts crisis management, which is considered as managerial competence, with both quantitative and qualitative studies. The result shows that agile leadership predicts crisis management is important for organization, as shown in other studies. Another result of this study is that organizational culture predicts crisis management. Deverell and Olsson (2010) reported that organizational culture is effective in solving crises that may arise in organizations. It was also reported that the culture of organizations is significantly effective in the perspective of crises and determinant in the solution of this culture. Bowersa et al. (2017), who studied the relationship between choosing the right leadership type in terms of effective crisis management and organizational culture, reported that organizational culture is very effective in crisis management. In addition, it was reported that organizational culture is an effective factor in both the emergence and resolution of

crises. These studies in the literature and the result obtained in this study show that the culture of the organization has an important place in the resolution of crises. This research shows that the perspective of crisis in organizational culture affects strategies during pre-crisis, crisis response, and post-crisis periods. Considering the results that agile leadership predicts both the culture and crisis management of the organization, it is seen that the agility of organizations is related to the agility of their leaders. It can be stated that it is important for educational organizations to have agile leaders in terms of overcoming crises in a healthier way and contributing to the culture of the organization.

In this study, it was concluded that the agile leadership of the principals positively predicted organizational culture and crisis management, and organizational culture predicted crisis management positively. Based on this result, the following recommendations were given:

The agile leadership of school principals positively affects organizational culture and proper crisis management. For this reason, it is recommended that situational leadership, human relations, and self-awareness of school principals be enhanced to upgrade their agile leadership. A low correlation and predictive level was obtained between agile leadership and bureaucratic culture. Thus, principals' agile leadership and the bureaucratic aspect of the organization do not have a match. For agile leadership, a supportive and innovative organizational culture is recommended. The resolution of crises in organizations is associated with both organizational culture and agile leadership. In addition, both agile leadership and organizational culture predict crisis management. It is natural that crises occur in primary schools, which are constantly lively, active, and social organizations. In this case, principals in schools are recommended to consider the moment of crisis emerging within the organization properly and to strengthen their situational leadership characteristics, to keep their relationships with the employees positive and alive, and to be aware of their own abilities and characteristics. For organizational culture, which is another important dimension in crisis management, it is recommended that primary schools give less importance to bureaucratic culture for crisis solutions, be more supportive of their employees, and adopt a culture that paves the way for innovation.

This study is limited to primary school teachers in Malatya, Turkey, the quantitative data collection tools mentioned above (agile leadership scale, crisis management scale and organizational culture scale), and the correct acceptance of the answers given. In addition, the research is limited to the months of September and October of the 2021-2022 academic year and a certain number of teachers.

Ethics Statement

In this study, we hereby declare that we have complied with the rules specified in the "Directive on Scientific Research and Publication Ethics of Higher Education Institutions of Turkey" and that we have not taken any of the actions specified under the heading "Actions Contrary to Scientific Research and Publication Ethics". At the same time, we declare that there is no conflict of interest between the authors,

that all authors contribute to the study, and that the responsibility of any ethical violation belongs to the authors of the article.

Ethics Committee Approval Information

Ethics committee name: Şırnak University Ethics Committee Presidency

Ethics committee decision date: 16.09.2021

Ethics committee document number: 2021/73

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