



ORIGINAL PAPER

Paradox resolution tactics in the sustainable organization culture through interviews and text mining: A case study of education

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Abstract:

The purpose of this study is to identifying and recognizing the tactics of paradox and conflict resolution in the sustainable organizational culture through interviews by the means of text mining methods. In this regard, the research method is exploratory and has been done with text mining techniques. The research tool was an interview and the most frequently used words, respectively, include broken infrastructure, raising the scientific level, asking for information, consulting with colleagues, logical method, agreeing with the majority, helping the ministry, dealing with the problem, referring to the recruitment, Paying attention to the existing notes, helping informed people, paying attention to Islamic recommendations, and according to the clustering and the average obtained clusters, respectively, include efforts to improve infrastructure (solution orientation), the nature of the manager's decisions (Integrity), the use of majority vote (participatory), the nature of the law and instructions (integrity), training classes (compatibility), interaction with colleagues (non-confrontation) and the best way to identify tactics and culture of paradox resolution tree It was a decision and after the decision tree, regression was the best technique to identify conflict resolution tactics according to the error criterion. In conclusion, the legal challenges can be overcome by re-examining the rules and technical challenges can be addressed through education.

Keywords: *Sustainable Organizational Culture; Paradox and Conflict Resolution Tactics; Interview and Text Mining; Education Organization; Islamic perspective.*

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INTRODUCTION

Today, one of the basic issues in the management of organizations is dealing with differences and organizational paradox. Because paradox is inevitable (Khazaei et al, 2021a) and no one can claim that they have not or will not face it. On the other hand, as interaction with cultural differences grows, paradox is more likely to be salient, and those who do not know how to communicate effectively, recognize and manage paradox and conflict, will lose benefits (Badal, 2015). Conflict management is one of the most difficult and at the same time the most important tasks of any manager and the ability to resolve paradox or conflict is defined in the skill of effective conflict resolution by choosing the most appropriate resolution strategy in each situation (Indurkha, 2010).

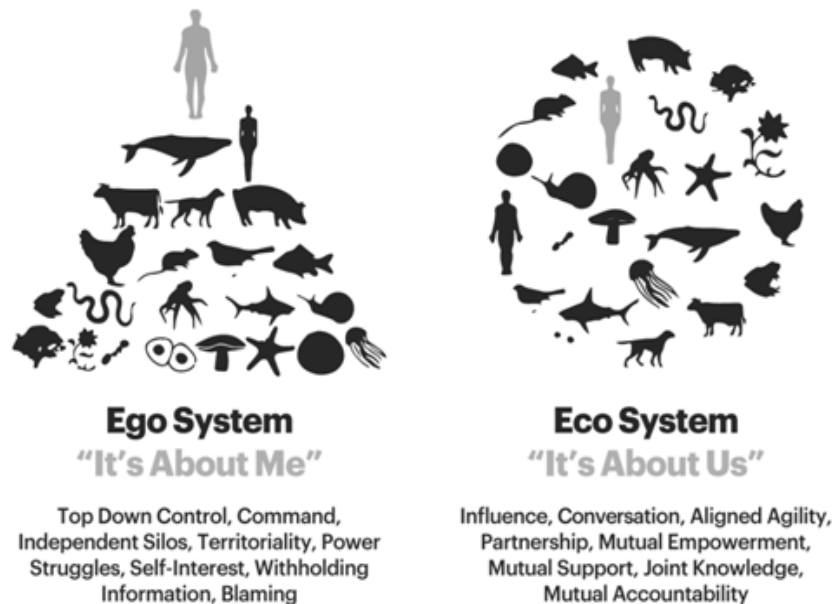


Figure 1. Egosystem vs Ecosystem (from oxfordleadership.com)

Differences and contradictions are necessary for organizations to survive in order to be able to adapt to the world around them (Jose, 2015). In education-oriented organizations, such as education, management has a much more important and fundamental role and position, and in other words, the performance of the organization is more influenced by the performance of its managers (Zanasi, 2009). Education is the basis of cultural, social, economic and political development of any society, which is considered as an industry in most countries today and has the largest government budget after defense. Since a significant part of educational activities take place in schools, schools have a special place as a sensitive and important social system.

Organizational culture in systems is a summary of the commonly intangible practical pattern of all members, collective norms, governing concepts, or beliefs that are extremely difficult and cause paradox to be salient (Hotho, 2005). Regardless of the organizational structure, each unit always has its own goals and interests, which often

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conflict with the goals of other units. (Ayokoet al., 2002; Ayub and Jan, 2006; Avison and Malaurent, 2007). In contrast to the past decades, when the focus was on the centrality of humans as the best beneficiary, new organizational cultures are moving towards decentralization for the benefit of all stakeholders (Dehghannayeri et al, 2020). One of the most famous concepts in this field is the contrast between the concept of egosystem and ecosystem (Fig 1 from oxford leadership), which shows the non-hierarchical and network position of all system elements. The main concern in this concept is that if sufficient attention is paid to all the elements of the system and all the stakeholders, the result is the reduction of paradoxes and conflicts within the system (Taghipouret al, 2022).

Since education has been integrated, the possibility of paradox latency is high. Unfortunately, integration systems face many challenges in countries, especially in developing countries such as Iran (Khazaei et al, 2021b), many of which cause conflict (Ahmadi et al., 2020). Paradox in organizations has been studied from the perspective of its experts from different perspectives and each expert has defined the paradox and conflict in a special way. Hahn and Knight (2021) believes that paradox is latent through the system and represent conflicting stakes, opposing mindsets, or presumably, illogical findings. The fruitfulness of the educational system, on the one hand, has transformed sustainable, mature, balanced and developed talented people, and on the other hand, provides the human resources needs of society in different cultural, social and economic sectors (Taghipour et al., 2023). In this study, using qualitative interviews and text mining is to identify sustainable organizational cultures in order to resolve paradoxes. Text mining means searching databases to extract hidden patterns between data (MotalebiPaqhaleh, 2020). Knowledge discovery has three repetitive stages including: data processing, modeling and evaluation and in this research, prediction has been used. In the forecasting method, the goal is to predict the unknown variable of the data. On the other side, Mehdiabadi et al. (2022) investigated the implications of industry 5.0 considering the dynamics of the global economy.

Given the above, the main question in this study is what are the tactics of conflict resolution in the sustainable organizational culture through interviews and text mining in education? In other words, how can paradoxes in the system be detected before they are fully revealed? In addition to the old methods and statistical methods that cannot be measured directly, how can paradoxes be found through text mining and identify tactics to solve them? There has been a lot of research on paradox and conflict resolution in sustainable organizational culture; However, no research has been done in the organizations in Iran so far. However, this research was not limited to the paradoxes and conflicts of integrated systems; But merge paradoxes have also been examined. Another innovation of this research is the use of text mining and interviews in identifying tactics. Basically, this research used to be conducted by the means of Amos or SPSS software, but we reviewed this research with text mining method to contribute in this research more adequately.

Beneficiaries of the present study include: Education Abroad, Education Organization, Higher Education Organization, Managers, Teachers, Professors, Human Management Planners. Therefore, according to what has been mentioned, the main purpose of the research is to know the tactics of conflict resolution in the organization through interviews and text mining and the sub-objectives are as follows:

a) Understanding the tactics of conflict resolution in the sustainable organizational culture through interviews and text mining.

b) Knowing the best text mining algorithm to predict the tactics of paradox and conflict resolution in the organization through interviews and text mining.

LITERATURE REVIEW

Organizational Culture

Managing concepts or beliefs in the organization that can not be easily imagined are extremely difficult and cause conflict (Coein, 2019). Organization is nothing but interpersonal relationships and the organizational structure reflects these interrelationships, which include determining roles, interpersonal relationships, activities, hierarchy of goals, and other characteristics of the organization (Margaret, 2012). Sustainable organizational culture is a topic that has recently entered the field of management and in the field of organizational behavior. Sustainable culture helps to talk about something considering all stakeholders other than technical issues in the organization and creates a kind of balance through the system. Thus, it can be said that sustainable culture in an organization is like healthy and satisfied person in a human being (William, 2011).

Some beliefs are related to the details of daily life and some of them are in the field of issues that are very important for the individual, organization or society (Khazaei et al 2022). Guiding beliefs, like fundamental rules, rarely change, while everyday beliefs are related to everyday behavior and change according to circumstances (Eyvazi and Grossi, 2020). Miller has related five types of neurotic personalities to the culture of the organization (Zarnegar, 2010).

Table 1. Organizational cultures and personality types (Miner, 2012)

Sustainable organizational culture	Unusual personality type	Psychological organizational culture
Self-sufficiency	Exciting	dignity
Trusted	Skeptical	Obsessive
Pursue success	Depressed	Abstinent
Focus on purpose	Sideways	Politicized
Creator	Opressor	Bureaucrat

Identify Tactics

What we actually do to achieve our goals is called tactics (Ishizawa, 2019). Tactics are the method that culturists have referred to in the text mining in this study.

Conflict Resolution

Conflict is a process in which a person or persons deliberately try to somehow cause the failure of another person (Ehsanifar et al 2023) or persons to achieve their interests and goals (Hotho, 2005, Ramezani et al, 2021). Researchers have introduced elements such as personality traits, gender, forgiveness, bilingual skills, etc. as predictors of conflict resolution strategies (Robbins, 2006). Although conflict is an inevitable consequence and arises due to differences in goals, values and beliefs, it can be directed and reduced and ultimately eliminated (Neetha, 2015). In the literature, there are several approaches to answer paradoxes and contradictions (Figure 2).

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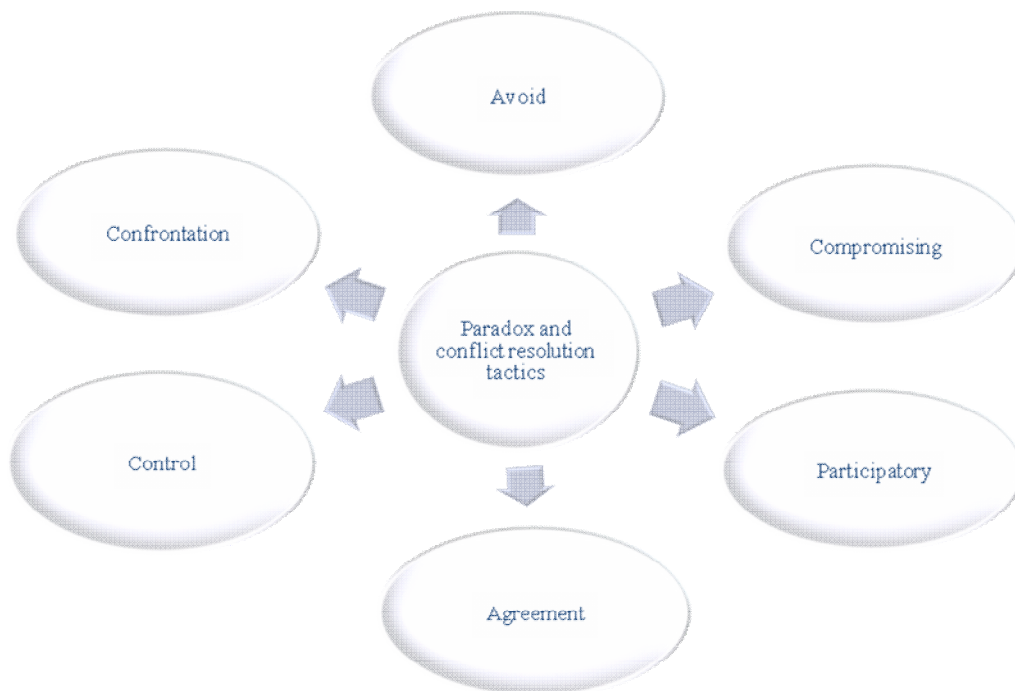


Figure 2. Tactics for paradox and conflict resolution extracted from literature based on Denison(2005) and Putnam and Wilson (2006)

In general, although the best style of conflict management in the school is contingent, ie it depends on the situation, but a successful principal is someone who uses the style of a colleague in the school, because this style makes students learn democracy. And be able to live comfortably with different people and be successful. In general, these styles can be categorized as three strategies for dealing with conflict (Neetha, 2015).

Text Mining

The original idea of extracting knowledge from text or discovering knowledge was first proposed by Mr. Feldman in 1995. He suggested discussing the concept of classifying documents to interpret articles according to their meaning and organization and organizing them in hierarchical structures. For the first time, he discussed the issue of summarizing data and discovering useful patterns (Jafari Powersi et al., 2020).Text processing and text mining along with machine learning and data mining algorithms can lead to useful outputs. For example, automatic translation of texts, building an automated robot to interact with the user, detection of dissertation fraud, and various applications in the field of text analysis and text analysis. Every people talk in their own language. This language is called natural language, and its main problem (from a computer point of view) is that the computer only understands binary logic by default. That is, a computer cannot understand the natural language of our conversation without using artificial intelligent algorithms. Therefore, it is necessary to perform a set of operations on this natural language so that it can be understood by the computer.

Research Background

Table 2. Research background

Row	Researcher	Title	Results
1	Ahmadi BalaDehii et al (2020)	Investigating the effect of cultural intelligence on the adoption of conflict management strategies among NAJA commanders and managers	The test results show that cultural intelligence has a direct effect on conflict management and its components. Also, according to Friedman test, control (competition) is in the first priority, orbital solution (cooperation and compromise) is in the second priority, and non-confrontation and non-competition (avoidance) are in the third and final rank.
2	NamdarAzad egean (2020)	Investigating Organizational Conflict Management (Three Strategies) on Organizational Entrepreneurship of Tehran Sports Organization	The effect of solution-oriented strategy on organizational entrepreneurship is positive or direct.
3	BehGezin (2020)	Investigating the Impact of Employee Conflict Management Strategies on Organizational Learning	Dimensions of conflict management strategies Strategy dimension (compromise, control strategy dimension, solution orientation strategy dimension) has a significant positive effect on organizational learning of Ardabil Management and Planning Organization staff. According to the research findings, it can be concluded that with the expansion of the dimensions of conflict management strategies in the organization, the amount of organizational learning of employees also increases.
4	JafariPowersi et al (2020)	Machine indexing of data retrieval documents using text mining	Nowadays, with the increasing volume of textual information, the existence of methods for classifying texts seems necessary. Also, with the increasing growth of Persian textual sources, this importance is felt more.
5	Coein (2019)	Conflict Resolution Strategies and Research Marketing Channel Relationships	Relationship norms, in turn, affect how conflicts are resolved and the quality of relationships. A theoretical framework has been developed to examine conflict resolution in marketing channels and its impact on channel relationships by identifying variables to represent channel members' perceptions, relationship norms, conflict resolution strategies, and relationship quality. The propositions that

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			link these variables are developed and show the effect of these variables on each other in the event of a dispute.
6	Diyalmeh and Hosseini (2018)	Investigating the causes of failure to integrate cultural policies in Iran	By using three cognitive, emotional and behavioral techniques, people's attitudes can be changed and ineffective conflicts can be prevented. The cognitive techniques of Islam include recognizing the purpose, understanding the situation, being aware of the responsibility and necessity of accountability, and understanding the importance of time; Emotional techniques including strengthening the spirit of brotherhood, strengthening the spirit of constructive competition and developing sustainable relationships and accessories; Behavioral techniques include administering justice, standardizing, and clarifying rules.
7	Paraskevi (2018)	Effective Resource Management Conflict Strategies in Educational Organizations in Nicolao, Paraskevi	Conflict in an educational organization is influenced by structural and personal factors. According to modern theories of management education, conflicts in an educational organization can be both positive and negative and can positively help to motivate people to work harder and perform better. This research argues that a comprehensive analysis of complex environments and systems can help to understand contemporary issues.
8	Atarodi et al. (2017)	Investigating the causes of failure to integrate cultural policies in Iran; Study based on data foundation theorizing method	What was finally achieved were the three main factors influencing the failure to integrate cultural policies in Iran, which have been introduced under the headings of cultural ecology, policy-making structure and policy-making process. These categories are semantically consistent with the classification of failure factors in the scientific literature in this field (normative, organizational and procedural factors).

In line with the literature review of the research, the main gaps and contribution of this research to this field of study are as follows. The main gaps:

- There is a lack of methods and techniques to find the conflict resolution by the means of algorithmic methods such as text mining through the dialogues (Interviews).
- There is no research conducted to find conflict or paradox resolution in the sustainable organizational culture.

Contribution of this research:

- This research aims to design a model to identify the tactics of paradox and conflict resolution in the sustainable organizational culture through interviews and text mining.
- Also, this research aims to find the best text mining algorithm to predict the tactics of conflict resolution in the sustainable organizational culture through interviews.

RESEARCH METHODOLOGY

The method of the present study is mixed and exploratory and has been done by text mining method. Interview questions were designed based on the components of Pang Organizational Culture Questionnaire (2008) and the validity of the questions was confirmed by an expert in this field. This study, by studying the existing methods for extracting meaningful words in each of the interviews, was entered into Excel software and after this stage, it was entered into Rapid Miner. In Rapid Miner, using some words, the letters of the stops were removed and the words were corrected and refined. Based on the event criterion, using the TF-IDF technique to determine the weight of keywords and adjust the N-grams, the same event words were determined in the Rapid Miner software environment. The data are the retrieval results of 230 interviews.

It should be noted that in order to facilitate statistical calculations, the operators and operators of each of the relevant algorithms and calculators have been used. These operators are used as follows: *tokenize, process document, read document, transform cases, filter token (by length), filter stopwords*.

After this step, we entered the clustering operators for clustering; However, the data were divided into two categories: testing and training. The algorithms used included random forest and decision tree algorithms and neural network and regression.

Remove word stops and correct incomplete words:

In Persian texts, repetitive words such as definite letters and conjunctions have no semantic value; At this stage, these words are removed and the rest are corrected.

Text clearing steps:

At this stage, characters such as tags, html, "@", semicolons, semicolons, and all undesirable characters are removed (Docherty, 2001).

Calculate repetitive words

In this research, thematic mapping has been used. Usually using TF-DF, the phrases with the largest share of the subject are selected as the sample.

Extract features Find n-grams

The n-grams model is widely used in text mining and natural language processing. n-grams is an interconnected sequence of a text with a speech. In a -n grams, size 1 refers to unigram, size 2 refers to bigrams, and size 3 refers to trigrams. n-grams is used in the category of perceptions to select features. This method refers to the analysis of the text into different sections, which indicates the number of words in each section (Yuya, 2017). This model is also called a word package; Because it counts the occurrence of words and ignores the grammar and order of words, in this research, four grams have been used (Alshawi, 2004).

Clustering

SVM clustering of support vectors

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Support vectors are the closest data points to the Hyperplane, points that change the location of the hyperplane if removed from the database. Therefore, these points can be considered as important and vital points of the database (Ahmadi et al., 2020).

Decision Tree

One of the most widely used text mining algorithms is the decision tree algorithm. In text mining, the decision tree is a predictive model; So that it can be used for both regression and class models. When a tree is used for classification work, it is known as a classification tree (Ahmadi et al.,2020).

Regression

A Linear Regression model by calculating a weighted sum of features and a constant called Bias Term or Intercept Term that guesses the linear regression equation (Ahmadi et al., 2020).

$$\hat{y} = \theta_0 + \theta_1 x_1 + \theta_2 x_2 + \dots + \theta_n x_n$$

\hat{y} = Guessevalue

n = Numberof features

x_i = ValueiFeature

θ_j = Parameter j of the model

Data collection method:

In this study, interview tools were used to collect data and after this stage, the interviews were examined through text mining.

The statistical population of the study is all Iranian educators that the cities interviewed include Ardabil, Urmia, Isfahan, Ahvaz, Ilam, Khorasan Razavi, Bushehr, Tabriz, Tehran, Kermanshah, Lorestan, SistanBaluchestan, Zanjan, Semnan, Shiraz, Qazvin, Alborz, Kermanshah, Hamedan, Lalejin, Asadabad, Qarchak, Abhar. Two schools were selected from each city and five people were interviewed from each school.

For the statistical population of each province, two schools were selected by simple random sampling; Their number was 584 people and 230 people were selected as a statistical sample with Cochran's formula. Using various techniques such as clustering, etc., we obtained a suitable technique and Rapid Mine software was used for data mining.

DISCUSSION

Identification of tactics of paradox and conflict resolution in the sustainable organizational culture through interviews and text mining (case study of education) interviewed educators and for analysis and text mining data was used Rapid Miner software. To conduct this research, we asked 12 questions and interviewed 230 people with different methods and online WhatsApp and telegram and face-to-face collection.

Conflict preprocessing stage

- Data preparation

To apply text mining methods to the data set, the first step is to prepare the data.

- Modify words

In the data preparation process, different activities can be performed depending on the need. For example, deleting irrelevant words and correcting words, etc. is done (Figure 3).

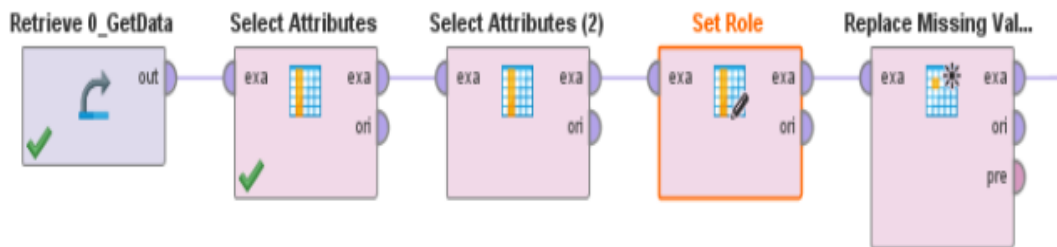


Figure 3. Conceptual model of algorithm process.

In the following tables, the hyperwords and repetitions of each are presented:

Table 3. Frequency of words according to thematic tendencies.

The number of repetitions	51	42	54	36	27	66	39	42	57	33	87	48
Answer provided												
Rational method												
Appropriate approach to the issue												
Consult with colleagues												
Pay attention to the available notes												
Pay attention to Islamic advice												
Raise the scientific level												
Refer to recruitment												
Assistance from the Ministry												
Question of information												
Help from informed people												
Damaged infrastructure												
Agree with the majority												
No.	1	2	3	4	5	6	7	8	9	10	11	12

Frequently used words include infrastructure failure, academic level increase, asking for information, consulting with colleagues, logical method, majority agreement, ministry assistance, appropriate self-employment, recruitment referrals, available notes, assistance from knowledgeable people, recommendations is Islamic.

The following diagram identifies the characteristics of the respondents to the questions. This chart is also the n-gram of the answers provided. In n-gram, 5 grams were examined and classified based on high-frequency and frequently repeated subjects (Figure 4).

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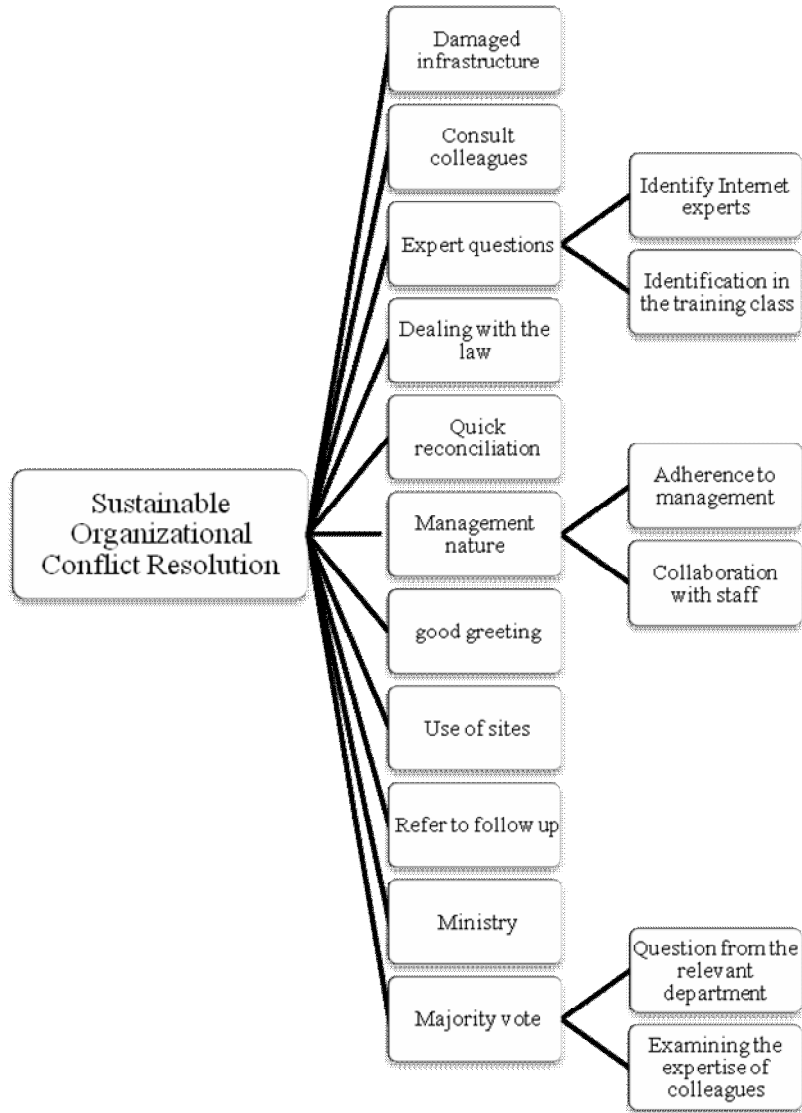


Figure 4. N-gram; characteristics of the respondents to the questions.

Also, the table below summarizes the clusters provided.

Table 4. Introduction of clusters

Items within the cluster	Cluster Name
Nature of recipes (integrity)	CLUSTER-0
Efforts to improve infrastructure (solution orientation)	CLUSTER-1
Training classes (adaptation)	CLUSTER-2
Use of majority vote (participatory)	CLUSTER-3
Interaction with colleagues (non-confrontation)	CLUSTER-4
Nature of manager's decisions (integrity)	CLUSTER-5

The following table identifies the paradox and conflict resolution in the sustainable organizational culture of each cluster:

Table 5. The average score of conflict resolution in the sustainable organizational culture of clusters

Average impact (after error removal)	Cluster Name
16	CLUSTER-0
18	CLUSTER-1
14	CLUSTER-2
16.5	CLUSTER-3
11	CLUSTER-4
17.3	CLUSTER-5

These are presented in the following diagram:

According to the ranking created and according to the average obtained, clustering includes the following: trying to improve the infrastructure (solution orientation), the nature of the manager's decisions (integration), using the majority vote (participatory), The nature of the law and instructions (integrity), training classes (compatibility), interaction with colleagues (non-confrontation) (Figure 5).

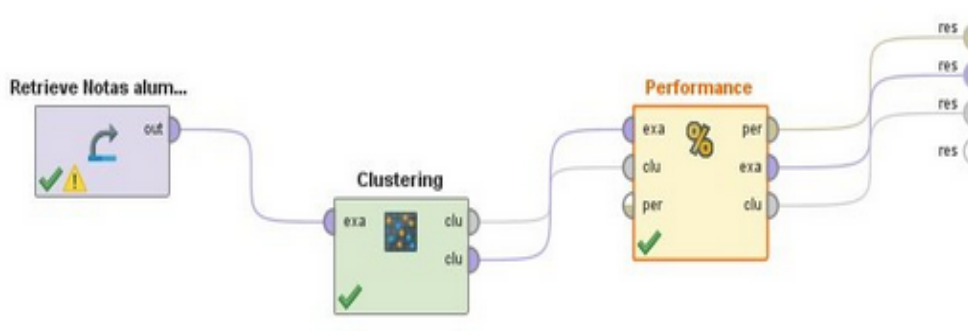


Figure 5. Schematic process of clustering in Rapidminer.

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The results of applying different methods by considering the root mean square error criterion are expressed in the table.

Table 6. Results of applying different methods in the training phase.

root_mean_squared_error	Method Name
0.214 +/- 0.321	Linear regression
0.478 +/- 0.541	Support vector machine
0.214 +/- 0.213	Decision Tree mining
41 +/- 0.58470.	Random Forest

As can be seen, decision tree methods are the best method and after regression decision tree is appropriate. Conflict resolution tactics have been.

Table 7. Results of applying different methods in the test stage.

root_mean_squared_error	Method Name
0.200 +/- 0.341	Linear regression
0.445 +/- 0.593	Support vector machine
0.203 +/- 0.235	Decision Tree mining
0.641 +/- 0.599	Random Forest

In the test phase, the decision and regression tree has less error.

Analysis of research questions

Question 1: What are the tactics of paradox and conflict resolution in the sustainable organizational culture through interviews and text mining in education?

Efforts to improve infrastructure (solution orientation), nature of manager's decisions (integrity), use of majority vote (participatory), nature of rules and regulations (integrity), training classes (compatibility), interaction with colleagues (Non-confrontation).

Frequently used words, respectively, include broken infrastructure, raising the scientific level, asking for information, consulting with colleagues, logical method, agreeing with the majority, helping the ministry, dealing with the problem properly, referring to the recruitment, paying attention to the existing notes.

The identified tactics, based on the advice received from knowledgeable individuals and in accordance with Islamic principles, include several key strategies. On average, efforts are made to improve infrastructure, emphasizing a solution-oriented approach. Managers also consider the nature of their decisions, aiming for integration and cooperation. Majority voting is utilized to encourage participatory decision-making. The importance of adhering to laws and instructions with integrity is recognized. Training classes and in-service courses are utilized for adaptation and skill development. Interactions with colleagues are promoted, focusing on non-confrontational approaches. This approach aligns with the research conducted by BehGozin et al. (2020), Ahmadi

Balasti et al. (2020), and Azadegan (2020). The use of solution-oriented methods in resolving conflicts and minimizing confrontational and aggressive behaviors is emphasized. Additionally, efforts are made to address infrastructure challenges such as slow internet speed and specialization issues through solution-oriented approaches. Problems and conflicts are seen as opportunities for learning and growth, and if individuals are unable to resolve a conflict on their own, they seek guidance from colleagues or school principals. Overall, individuals strive to adapt to their environment while prioritizing constructive and collaborative approaches.

Question 2: What is the best text mining algorithm to predict the tactics of paradox and conflict resolution in the sustainable organizational culture through interviews and text mining?

In this study, several algorithms were investigated to identify the most effective approach for conflict resolution. The algorithms considered included the backup vector machine method, regression method, random forest method, and decision tree method. After evaluating these algorithms based on the error criterion, the decision tree method was found to be the most suitable for identifying conflict resolution tactics. This research question is consistent with the findings of Coein (2019), Powers et al. (2020), and Atarodi et al. (2017). It is important to note that the decision tree method utilizes tree structures to perform operations and is recognized as one of the top forecasting methods applicable in text mining.

On the other hand, Bai Gokarna et al. (2021) have conducted an empirical study on investigating the impact of campus culture and academic leadership on institutional effectiveness. Sumera et al. (2022) argued that education has a very important role and represents an investment in people while human capital is based on educated people. Gillani et al. (2022) suggested that education and health are perceived as essential in order to achieve sustainable development for a society.

CONCLUSIONS

In today's world, coordinating organizational activities and resources to achieve organizational goals has become increasingly challenging. This is due to the growing complexity of communication, goals, tasks, and expectations within organizations. Particularly in the field of education, the establishment of integrated systems has made the education system a crucial asset in striving for development objectives and realizing the aspirations of nations.

The state of the world today reflects the profound impact of education systems and serves as a clear reflection of how these systems operate. The significance of education that aligns with the needs of individuals and society is strongly emphasized. In an interconnected world driven by information networks, it is essential for individuals to possess the skills to effectively utilize technology as a tool for creativity, progress, and productivity. To achieve the objectives of educational centers and schools, it is crucial to place great emphasis on extensive knowledge of information and communication technology, and leverage the abundant resources and technologies available.

Education policymakers widely recognize the potential of information and communication technology (ICT) in education to enhance global competitiveness and foster social mobility by developing a skilled workforce. However, practical implementation has been challenging. Despite the transformative impact of ICT on the education system, its efficient utilization has been lacking until 2021. Many education professionals had limited proficiency in information technology, which posed significant

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challenges, especially when educational systems transitioned to remote learning due to the COVID-19 pandemic.

Despite concerted efforts to improve information technology integration in education, many teachers still face difficulties in effectively utilizing ICT. One of the primary challenges arises from outdated rules and regulations that are incompatible with integrated systems. Furthermore, cultural issues have traditionally discouraged the use of information technology in classrooms, as teachers were instructed to keep students away from it. However, in recent years, the direction has shifted towards incorporating information technology into teaching practices. As a result, teachers face both cultural and instructional challenges in adapting to this new approach. In interviews, some teachers complained about students' misuse of information technology, and teachers were helpless to solve these problems. During the interviews, it was found that teachers, because they are cultural, use integration and solution-oriented methods in resolving the conflicts that arise, and try to solve the problem that has arisen quickly. Because it is the education system and with these thoughts the teachers have been brought up and do not show the educational problems too big, they try to solve that problem. Besides, it should be noted that the presented research proposed novel approaches in comparison to statistical analysis in this field, presented by Ahmadi BalaDehii et al. (2020).

In line with the first research question, the following suggestions are presented:

- Strengthening the country's infrastructure
- Training on how to work with the system for all employees of the education organization
- Changing the bylaws and instructions of the education organization
- Teaching how to work with the system for all elementary students of the Education Organization
- Giving importance to e-learning for elementary students after Corona

In line with the second research question, the following suggestions are presented:

- The decision tree is the best method of problem solving and education should use this technique in doing its job.
- The relevant departments in each province should teach teachers the knowledge of text mining and data mining.

Research suggestions

This research has been done on the tactics of conflict resolution in education with text mining technique. It is suggested that the same research be done with text mining technique in other organizations. Because education has recently been merged, it is also suggested to identify integration conflicts. The tactics of conflict resolution in different cities is also examined, because in this study, cities are not considered separately.

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Authors' Contributions:

The authors contributed equally to this work.

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