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Strategies and Obstacles Facing the Relief and Rescue Organization in Benefiting from Education in the Age of Knowledge

Sima Jalali Nejad[1], Fariba Damirchili[2], Rasoul Davoudi[3]

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Abstract

INTRODUCTION: The current research aimed to analyze the strategies, platforms, and obstacles facing the Relief and Rescue Organization in benefiting from education in the age of knowledge.

METHODS: This applied qualitative research was conducted based on the Grounded Theory. Participants included academic and Relief and Rescue Organization experts. A total of 20 cases were selected and studied by non-random purposive sampling using semi-structured interviews and theoretical saturation principle. In the theory analysis process, MAXQDA-2022 software was used.

FINDINGS: Based on the research findings, managerial factors, as well as technological and behavioral development, were identified as strategies. Moreover, platforms were behavioral, environmental, and social factors, and obstacles were recognized as technological education and support.

CONCLUSION: As evidenced by the obtained results, in order to improve its quality level in the age of knowledge, Relief and Rescue Organization should establish a close relationship with education sector and remove the obstacles ahead.

Keywords: Age of knowledge; Education; Relief and Rescue Organization

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Introduction

Today, knowledge is recognized as the most critical factor affecting the development of a society. Intellectuals consider knowledge the cornerstone of society development since it can boost empowerment and overcome the deprivations of advanced societies in the 21st century. The introduction of knowledge as the main capital of organizations and the importance of knowledge workers have opened a new horizon in the administration and management of organizations (1). Demonstrating the importance of knowledge as the key capital of today's organizations for development and innovation requires managerial and organizational platforms and a long-term strategic plan. Organizational culture change is one of the time-consuming and costly changes, and its implementation requires systemic thinking by senior management of the organization (2).

A combination of cultural, social, technological, economic, and political pressures has forced organizations to pay close attention to their core competencies and specifically promote training for continuous improvement in practice. Now, more than ever, organizations are focusing on workplace learning and continuous improvement in practice, striving for greater competitiveness and trust (3). In other words, today's societies are entering an era when the future is basically determined by the ability of people to use knowledge wisely as a precious global resource that includes technology and human intellectual capital. Knowledge-based economy attaches paramount importance to the dissemination and use of knowledge and information (4).

From the perspective of the World Bank, a knowledge-based economy includes four major

1. PhD student, Department of Educational Management, Zanjan Branch, Islamic Azad University, Zanjan, Iran
2.Assistant Professor, Department of Educational Sciences and Psychology, Khodabande Branch, Islamic Azad University, Khodabande, Iran
3. Assistant Professor, Department of Educational Management, Zanjan Branch, Islamic Azad University, Zanjan, Iran

Correspondence to: Fariba Damirchili, Email: fariba.damirchi@yahoo.com

axes: institutional and economic infrastructure, information and communication technology, national innovation system, as well as skilled and trained human resources. In this new economy, individuals and organizations are committed to maintaining and improving their knowledge capital in order to achieve a basic competency for survival with innovation and the ability to learn to adapt and change. Moreover, knowledge and information are considered the first and most productive source of wealth creation; therefore, it has been replaced by the traditional resources used in the past, such as capital, energy, and workforce (5).

Knowledge orientation is the key in all organizations. In service organizations, relying on knowledge can increase service quality. One of the organizations that are based on current knowledge is Relief and Rescue Organization. The Iranian Red Crescent Society (IRCS) plays a critical role in alleviating human suffering, respecting people and striving to establish friendship, mutual understanding, and sustainable peace between nations as well as supporting people's lives and health without any discrimination by developing deliberate policies to develop public awareness, providing rescue and relief services to the injured and helping them to return to normal life, preparation and use of the latest and most efficient equipment, technology, scientific information and expert human resources as the main capital of the organization (6).

Comprehensive relief and rescue services, development of central rescuers, a wide range of resources, as well as national and transnational support enable the organization to be present in national and international arenas to provide effective services to the victims, especially the most vulnerable ones, to reduce the adverse effects of accidents and disasters. Education in this organization is the key to solving problems, which should be applied in accordance with environmental conditions. In today's world, knowledge management is a very popular issue since it is one of the basic tools in dealing with organizations. Some experts have called the current era the age of knowledge. All the processes of societies in today's world are based on knowledge (7).

In the era of a knowledge-based economy and in the wake of extensive economic-social changes, the success of organizations is not limited to acquiring financial and material resources; rather, it depends on the acquisition of intangible capital that can be used to achieve sustainable competitive advantage. In today's new strategic environment, organizations will consider themselves learning organizations that aim to continuously improve their human capital since an organization that cannot increase its intellectual capital will not survive. Nonetheless, despite the increasing importance of intellectual capital as a vital source of competitive advantage for organizations, there is a dearth of information about this issue.

In advanced organizations such as Relief and Rescue Organization, all employees have an effective and efficient presence in research and development processes (8). They strive to help the organization by participating in these processes and sharing their knowledge in innovation and the provision of creative goods and services. (9). Nonetheless, in numerous organizations, skilled human resources are confused about how and where they can develop their knowledge and go through the process of developing and improving it. One of the most important principles in knowledge-based organizations is to obtain the required knowledge for the right person at the right time. This principle is more important in research and development units due to their creative and innovative nature.

In the field of research and development, the lack of access to the required knowledge at the right time may disrupt the project of creating an innovative product or reduce the profitability of a product due to the inability to deliver it to the market on time, or even turn an opportunity into a threat in a competitive business environment (10). Training is a fundamental opportunity to expand the knowledge of employees; however, many employers in the current situation consider it expensive to create educational opportunities for employees. Meanwhile, the employees who receive the necessary training are able to carry out their duties more efficiently. Education gives employees a better understanding of the responsibilities within their role and, in turn, boosts their self-confidence. Self-confidence in employees will enhance their overall performance, which in turn brings remarkable advantages to the organization (11).

The establishment of a purposeful relationship between education and organization is so necessary that today, the continuous and institutionalized interaction between universities

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and organizations in developed countries assumes critical importance. It is claimed that this relationship makes these two modern institutions more efficient in today's societies. The university is the symbol of education in the country; nonetheless, there is no interaction and close communication between these two institutions in our country, and despite the high emphasis on high-level documents and organizational and academic experts, such interaction is not evident in practice.

In developed countries, special attention has been devoted to this category, and they consider the interaction between the organization and educational organizations necessary for organizational life in the age of knowledge. Based on this, it can be stated that if education is given importance in industries, we will witness organizational self-sufficiency to foster national development. The relationship between organization and education has attracted the attention of university authorities and organizational managers across the globe for the past few decades. This relationship is designed and explained according to the needs and structure of organizations and educational centers of the countries, and the role of governments in policy-making and creating suitable infrastructures for its development is very decisive. Nonetheless, the complexity of the issue has presented numerous problems to the establishment of this relationship in many countries.

Considering the competitive conditions of the market and the various demands of consumers, innovation and the use of new technologies are inevitable. The cooperation between organizations and education increases the profit of the manufacturing company due to the production of innovative products and resolving design and technical problems. One of the obstacles present in this field is mission. In general, the mission of education is to promote science and, as a result, bring public and social benefit. In comparison, the mission of the organization is to make a profit for the private sector and its shareholders and owners. This conflict between missions is also evident at the level of goals of these two departments. For example, as educational centers, universities need to produce valid scientific results to improve their scientific reputation. In contrast, the organization needs to provide products and services to sell in the market. Therefore, the credibility of the research results cannot have much attraction for the organization, while it is considered a basic need for the university to achieve its goals (12,13).

We can refer to several similar studies considering the importance of education and organization. In their research, Tari et al. (2019) identified the elements of the systematic model of competency-based education using the foundation data approach. The results pointed out that the systematic model of competency-based training of Shahid Rajaee port staff has 8 dimensions and 27 components. Causal conditions in this research include the Causal conditions (learning environment), Interfering conditions (Competency Based Characteristics of Learners), Contextual conditions (context of the learning process), Core category (Competency Based Training), Strategies (Developing a Competency Model), and Consequences (effective training, Desire for Self-Development (14)

As illustrated by Serati Shirazi et al. (2017) holding electronic courses in the National Gas Company of Iran encompassed learners' satisfaction, professors' scientific expertise, organization managers' support, the production of high-quality content, the compilation of a comprehensive bank of test questions, and the implementation method and the design of virtual test procedures (15).

Soleimani et al. (2014) showed that in all these years, the number of co-publications of Iranian Universities has had a strong relationship with the spin-offs organized by these universities; however, more co-diffusion has led to the formation of more spin-offs. Based on their results, research policies can be adopted in such a way as to increase cooperation between universities and the research and development sector in industries in an attempt to expand academic knowledge commercialization. In addition to strengthening the relationship between the organization and the university, joint researches with commercial profitability can satisfy the job needs of both groups. Based on this, commercialization of knowledge can be achieved by focusing on joint research (1).

According to Nafea et al. (2021), intellectuals consider knowledge the cornerstone of society's development since knowledge can help enhance empowerment and overcome the deprivations of advanced societies in the 21st century. The introduction of knowledge as the principal capital of organizations and the importance of

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knowledge workers have opened a new horizon in the administration and management of organizations (16).

Prichetnikov et al. also pointed out that dramatic changes have already started in the future of education and organization, with digitization of education and organization being the most important one. In the future, technology will increasingly help in training and improving the working environment in industries (17). Based on another research, with the introduction of new technologies in today's era, virtual training has helped organizational centers and has facilitated their learning in terms of time, place, content, and method of teaching (18). In their research, Mantovani et al. indicated that these days, there is a transfer of knowledge from the university to the organization, and special attention should be paid to dynamic education for a dynamic organization (19).

Based on the above research, educational institutions often provide useful content theoretically, while the organization needs practical methods. Even top university students cannot obtain a job position in the organization immediately since they do not have the necessary skills. The researchers of this study have presented an educational collection that scientifically and practically presents each field of study in the labor market environment and in other words, depicts the application of each field. The use of new knowledge management systems and synchronization of the organization with technological advances is one of the necessities of today's systems (20).

In this research, the main issue is to investigate the relationship between education and the Relief and Rescue Organization in the age of knowledge. The age of knowledge refers to an era in which technology and new technologies play an important role. For this reason, the improvement of the communication between education and the Relief and Rescue Organization requires an action plan that is prepared using new technologies. This action plan should be prepared in cooperation with public and private educational organizations. Cooperation with these organizations can lead to the sharing of knowledge and experiences related to education and the use of new technologies. In addition, this program should be designed to support training programs in the Relief and Rescue Organization. Moreover, the program should help to improve the technological infrastructure of the Relief and Rescue Organization.

One of the important points in this research is paying attention to technological environmental changes. Due to the rapid growth and changes in technology, it is necessary that the Relief and Rescue Organization keep up with these changes. Furthermore, the level of technology training should be improved among the managers and deputies of the organization so that they can keep up with technological changes in the education of the Relief and Rescue Organization. Finally, the adoption of educational and technological changes in Relief and Rescue Organization should also be taken into account. Modeling behavior to accept educational and technological changes in Relief and Rescue Organization can facilitate the improvement of communication between education and organization. This modeling can include changing approaches, paying attention to needs, and focusing on common motivations. According to these explanations, the research finally answers its main question and provides solutions to improve the communication between education and Relief and Rescue Organization in the age of knowledge.

Methods

This applied research is effective in solving problems and obtaining information to make decisions and meet administrative and even individual needs. In terms of information data, this is a qualitative study that, while considering experts in this field, has attempted to investigate the mechanisms, platforms, and obstacles posed to the model of communication between education and the Relief and Rescue Organization in the age of knowledge.

The statistical population included academic experts, specialists and senior managers of Relief and Rescue Organization who selected and interviewed based on having a PhD degree, having an executive and educational job in the Relief and Rescue Organization or at the decision-making levels of industries, both now and in the past. In this research, a non-random purposeful sampling method was used to determine the samples and 20 people, including seven university managers, eight senior managers of the Relief and Rescue Organization, and five university faculty members were selected and studied using semi-structured interviews as the sample size by using

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the saturation principle.

In order to ensure the validity of the research tool and the accuracy of the findings, the opinions of informed professors and university experts were used. Moreover, at the same time, the participants helped in analyzing and interpreting the data. In the current research, test-retest reliability and intra-subject agreement methods were used to calculate the reliability of the conducted interviews. The method of data analysis in the research was theoretical coding derived from the grounded theory. Theoretical coding is the process during which the data are analyzed, conceptualized, and rearranged in a new way, and it is the main process during which the theory is compiled based on the data. In this method, the theory is formed based on "raw data." Data analysis is the main axis of the grounded theory. In each study as a whole, data collection, data organization, and data analysis are interdependent. Three types of coding, including open coding, axial coding, and selective coding, were used to analyze the data obtained from the interview as well as the theoretical foundations.

Table 1. List of all concepts extracted from the semi-structured interview technique

Construct	Axial coding (component)	Open coding (index)
Strategies	Managerial	Preparation of an action plan to improve the model of communication between the rescue organization and education according to the components of the age of knowledge/getting help from public and private educational organizations to prepare an operational plan/using new technologies as an important factor in the age of knowledge/supporting the educational programs in the Relief and Rescue Organization.
	Technological development	Improving the technological infrastructure/creating a working group consisting of experts to monitor and evaluate the hardware and software for the implementation of training/preparing curriculum content based on information and communication technology based on the needs of the rescue organization/paying attention to technological, environmental changes/improving the level of technology education among managers and assistants of rescue organization.
	Behavioral	Modeling behavior in accepting educational, technological changes in the organization/using expert and experienced teachers in training/preparing a codified curriculum in order to institutionalize training in the rescue organization.

Table 2. List of all concepts extracted from the semi-structured interview

Construct	Axial coding (component)	Open coding (index)
Platforms	Environmental	The opportunity created in adapting to the external environment of the Relief and Rescue Organization/insight of the industry officials regarding the creation of existing and available educational infrastructures/environmental compatibility of the different parts of the Relief and Rescue Organization in facing online training due to the daily environmental changes based on technology/use of various educational social networks needed by Relief and Rescue Organization and its updating.
	Social	The role of managers in preparing people to accept education in addition to their skills/participation with different educational centers Development of social values of education and learning in the Relief and Rescue Organization/development of education-based social norms /being helped by educational centers, such as universities, in order to improve communication.
	Technological education	Training managers and employees of the rescue organization to use and accept new educational technologies/training as one of the important and mandatory contents in the rescue organization/upgrading online education infrastructure/use of experienced professors in the field of education/existence of social networks available for training.

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Table 3. List of all concepts extracted from the semi-structured interview technique

Construct	Axial coding (component)	Open coding (index)
Barriers	Technological support	Lack of necessary technological infrastructure/lack of attention to up-to-date training/mere focus on experience in the operation of the rescue organization/lack of necessary support for the training provided.
	Educational	Lack of educational needs assessment/lack of attention to the effect of managers on the promotion of the relationship of rescue and rescue organizations and training/lack of attention to the curriculum specific to organizers/lack of training and awareness of the need for training and learning at any time.

Table 4. Components identified after using existing literature, background, and theories

Construct	Component	Item
Strategies	Managerial	4
	Technological development	5
	Behavioral	3
Platforms	Environmental	4
	Social	5
	Technological education	5
Barriers	Technological support	4
	Educational	4

Findings

The findings related to the first question: What are the strategies for identifying organizational benefits of the Relief and Rescue Organization from education in the age of knowledge?

To answer this question, theoretical coding was used using MAXQDA-2022, which is the professional software for analyzing data collected by qualitative and mixed methods. The results of the research pinpointed that the mechanisms were identified in the form of managerial, technological, and behavioral factors. In the last stage of the current qualitative analysis, the findings from the analysis were centered on the main goal, and the concepts (axial coding) were determined by linking the codes (open coding). The following table presents the checklist related to the results of interview content analysis using open, central, and selective coding.

The findings related to the second question: What are the platforms of the Relief and Rescue Organization for benefiting from education in the age of knowledge?

The platforms were identified, including environmental and social platforms and technological education. In the last stage of the current qualitative analysis process, the findings from the analysis were centered on the main goal, and the concepts (axial coding) were determined by linking the codes (open coding).

Findings related to the third question: What are the obstacles to the Relief and Rescue Organization in benefiting from education in the age of knowledge?

To answer this question, theoretical coding was used using MAXQDA-2022. The barriers to technological and educational support were identified. In the last stage of the current qualitative analysis process, the findings from the analysis were centered on the main goal, and the concepts (axial coding) were identified by linking the codes (open coding).

As displayed in Table 4, eight indicators were identified based on the literature, background, and existing theories.

Discussion and Conclusion

The research results demonstrated that the mechanisms exist in the form of managerial, technological, and behavioral factors. It can be said that the communication solutions between education and Relief and Rescue Organization in the age of knowledge are as follows: preparation of an action plan to improve the communication model between rescue and education organizations according to the components of the knowledge age; utilizing public and private educational organizations to prepare an appropriate action plan; using new technologies as an important factor in the age of knowledge;

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supporting training programs in the Relief and Rescue Organization; improvement of technological infrastructure; creating a working group consisting of experts to monitor and evaluate hardware and software for training implementation; preparation of curriculum content based on information and communication technology based on the needs of the Relief and Rescue Organization; paying attention to technological environmental changes; improving the level of technology training among the managers and deputies of the Relief and Rescue Organization; behavior modeling in accepting educational technological changes in the Relief and Rescue Organization; employing up-to-date instructors and experts in training; preparing a codified curriculum in order to institutionalize training in the Relief and Rescue Organization; creating an opportunity to adapt with the external environment of the Relief and Rescue Organization for training; improving the insight of industry officials towards the creation of existing and available educational infrastructures; environmental adaptability of different parts of the Relief and Rescue Organization in facing online training due to daily environmental changes based on technology; applying and updating various educational social networks needed by the Relief &Rescue Organization.

In addition, it was found that the existing platforms for establishing a better relationship between the Relief and Rescue Organization and training in the form of behavioral, environmental and social factors include the role of managers to prepare people to accept training in addition to their skills, which include the following: partnership with different educational centers; development of social values of education and learning in Relief and Rescue Organization; development of social norms based on education; getting help from educational centers such as universities in order to improve communication; training of managers and employees of Relief and Rescue Organization for employment; acceptance of new educational technologies; training as one of the important and urgent contents in Relief and Rescue Organization; improving the infrastructure of online education; using experienced professors in education; the existence of social networks available for education

Finally, the identification obstacles in the form of technological education factors and technological and educational support include the following :lack of necessary technological infrastructure; ignoring up-to-date education; focusing only on experience in the work of rescue and relief organizations; lack of necessary support for the training given; lack of educational needs assessment; neglecting the influence of managers in promoting the relationship between rescue and relief organizations and education; ignoring the curriculum specific to the Relief and Rescue Organization; lack of training and awareness of the need for training and learning at any time.

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Conflict of Interests

Authors declared no conflict of interest regarding the publication of the present study.

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