

Designing a Local Organizational Unlearning Model Emphasizing the Underlying Factors

Mahdieh Amani ¹, Ali Shirazi ^{2*}, Alireza Khorakian ², Gholamreza Malekzadeh ³

¹ PhD Student in behavioral management, Ferdowsi University of Mashhad, IRAN

² Associate Professor, Ferdowsi University of Mashhad, IRAN

³ Assistant Professor, Ferdowsi University of Mashhad, IRAN

* CORRESPONDENCE: ✉ a-shirazi@um.ac.ir

ABSTRACT

The purpose of localization is to match the theories in order to present a better explanation of phenomena associated with the land of formation and existence of the phenomena being studied. Using this method, some theories can be examined and retested in the context of their social, cultural, religious, and economic affairs, and make changes in order to a better explanation of phenomena being studied, if it is required. This research is aimed at designing and explaining the unlearning local model in model farmers in the Khorasan-e-Shomali Province to achieve the dimensions and components of underlying factors. In order to achieve this, based on the theoretical sampling principle, 17 interviews with model farmers and experts of the Education Department of Jihad-e-Keshavarzi Organization of the Khorasan-e-Shomali Province were carried out. The carried out analysis using MAXQDA software and through the continuous comparison method in the actual and theoretical coding process showed 300 codes, 42 concepts and 6 categories that led to the emergence of a final research model focused around the core category, called organizational memory retrieval. The related model refers to causes, correlated factors, intermediary factors, suitability and respective results of the core category of research. In general, this study is proposed the effective variables to unlearning in the land if agricultural activities, especially the replacement of traditional irrigation methods with modern methods for optimal use of water resources, in the form of a model with an apparent approach. In this research, a local unlearning organizational model is presented for the first time.

Keywords: organizational unlearning, organizational memory recovery, underlying factors, local model

INTRODUCTION

Existing variables in the environment, including rapid and turbulent changes in technology, complexity increase and shortening the product life cycle, highlight the need to organizational learning increase (Kushin, 2012). Scarborough (2004) argues that learning improves the organization's efficiency and ability to adapt to environmental changes. In this regard, it has always emphasized on learning and protection, and less attention has been paid to unlearning. Unlearning is to release and abandon old procedures to construct new procedures, which is in fact the intermediary stage between the forgetting of old knowledge and the application of new environmental knowledge (Adli, 2010); Unlearning and organizational learning are of the same importance that the concept of both is created in the learning organization in consequence of an inherent philosophy to predict, reaction and response to change, complexity and uncertainty (Abu Khedra, 2006). From

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a theoretical perspective, there have been many studies in organizational learning, but few have looked at it from an unlearning perspective. Nerroum and Starbuck (1984) state that before organizations try to get new ideas, they should first forget the old ideas as soon as they discover their inefficiencies; therefore, the organizations unlearning has a special role in their better performance (Wang, 2011). On the other hand, the inability in organizational unlearning is a great weakness of many organizations, because they may spend a lot of capital to improve their previous success because of the role of old beliefs and practices (Akgan, 2006). Therefore, the use of unlearning process and techniques plays an important role in adapting organizations to environmental conditions. Perhaps most of the management challenges in organizations, rather than addressing learning management, are the understanding of unlearning management (Holan, 2004). The public sector and the administrative system of a country are among the important platforms for growth and development and are the main means of government activities and duties implementation. Hence, the ineffectiveness of this sector has many problems for a society. Over the past three decades, due to numerous economic and administrative problems, the government has always faced major challenges in various lands (Abavi et al., 2012). In this regard, Rahnavard (2008) emphasizing on the lack of performance of government agencies states that if these organizations showed a better performance in different sub-sectors such as agriculture, the existing gap between the performance of public sector organizations in Iran and successful government organizations in other countries would not be this much. According to existing statistics, the performance of government organizations and companies in Iran is too low and their resource lost is about 5-12% of GDP (Nikoo Eqbal, 2010). In the meantime, public active organizations in the agricultural sector, especially the Jihad-e-Keshavarzi Organization, are not well-positioned based on various reasons, and their performance is below the quantitative targets set out in development plans (Rezaei et al., 2014). In such circumstances, it is necessary to examine the current status and identify the main factors affecting them in order to improve the performance of these organizations (Kusha Zadeh et al., 2012). Statistics and evidence also indicate that the Jihad-e-Keshavarzi as a ministry has the required capacity to take advantage of organizational unlearning. Evidence of this is the existence of objective and specific processes that make it easier to understand the unlearning theory. For example, drop by drop irrigation philosophy is a way to optimize the use of water in the agricultural sector, which its similarity can be seen in organizational unlearning philosophy; because the goal of both is to eliminate inefficient cases to create more efficiency. On the other hand, water crisis has threatened all parts of the globe, especially in the last few decades, as the global water crisis is considered one of the main challenges of the 21st century (the American Public Health Association, 2008). According to studies carried out by the International Organization for Water Management, Iran ranked 14 among the 116 countries in terms of water crisis, which indicates the inappropriate condition of Iranian water resources. According to Bakhshandeh (2009), one of the most important factors causing water crisis in Iran is the continuation of traditional management in the agricultural sector. According to Rahimi (2000), one of the most important strategies to prevent the water crisis is the creation of new and efficient methods in water use, especially in agricultural and industrial sectors. Khorasan-e-Shomali is among the leading provinces of the country in drought and its consequences so that the average rainfall in the summer of 2016 in this province was of 11.6 mm, which is 57 percent of the same period in comparison to last year and 40% reduction in rainfall in comparison to long-term average (Fakhr Hashemian, 2016). Therefore, experts believe that the implementation of new irrigation projects in the agricultural land of this province is necessary and due to the drought phenomenon and water crisis, the process of irrigation of agricultural lands in this province needs to be changed from traditional to modern. To realize this, we can address to unlearning the traditional methods of irrigation to the farmers. If no unlearning occur among the farmers and they continue their traditional irrigation methods, we will face famine in the not-too-far future, as more than 90 percent of the surface and underground water is used in agriculture. In unlearning process, farmers abandon traditional methods such as flooding and come to optimized methods such as droplets and rain. In fact, the farmer will be aware of the benefits of modern methods and realize the detrimental effects of traditional methods. This awareness, given the large amount of water used in agriculture in the country, can have a significant effect on the rescue of future generations from drought. This process might be occurred in Individual and organizational dimensions. Unlearning is a continuous change that empowers individuals and organizations to adapt to the environment and development of new skills. Moving in the unlearning curve is intentional and requires the reorganization and the purging of old procedures; in this process, it is necessary to escape from what is no longer useful and to stop thinking and creating a clean mindset for new learning (Adli, 2010). Therefore, the present study attempts to explain the local model of organizational unlearning through the use of the apparent methodology in data base theory. The purpose of the localization is to adapt theories and models to study the phenomena associated with the formation and existential nature of the phenomenon

studied. Using this method, some theories can be examined in their social, cultural, climatic and economic context, and apply the required changes in order to a better explanation of the phenomena. Examples of research that are generally related to the research topic are as follows.

With the study of literature and research into unlearning and considering the factors affecting individual and organizational levels, Windkench and Dellahigh (2004) provided a model for unlearning. Based on this model, several factors at the individual and organizational levels are effective in unlearning and learning in parallel. At the individual level, the components of explicit knowledge, implicit knowledge, and reference frameworks influence unlearning and learning, and at the organizational level, the components of stagnant knowledge, organizational memory, and organizational culture are factors that influence organizational learning and unlearning. Akgan et al. (2007) point to unlearning role in the production of a new product in their research, given the turbulent environment around the organization. The research was conducted in technology-based companies in the north of the United States. They came to the conclusion that the turbulent environment had an impact on the team's unlearning. Team unlearning stimulates team initiative and team initiative has a positive impact on the success of a new product through the use of knowledge gained through unlearning and team initiative. In 2008, Becker developed one of the unlearning-based models. He also extracted the factors influencing unlearning through factor analysis and other statistical techniques in a model. He showed in his model that the multiplicity of individual components is of its high importance in the process at the individual level. There are individual inertia, emotions and expectations, positive experiences and unofficial support, understanding the need for change and assessment of the new method in components of the past positive view, and at the organizational level, there are two components of organizational history and organizational support and retraining. Becker (2010), in his research on facilitating unlearning while application of new technology, addressed to the use of Australian energy industry. The results of the research showed that there are some factors that contribute immensely to the unlearning process during change. These include understanding the need for change, the level of education and organizational support, the assessment of change, positive experiences and informal support are the background of the organization to change the feelings and expectations of individuals from change. Wong et al. (2012) point out in their research, "Organizational unlearning of the learning", state that organizational unlearning and learning processes are very important in Australian construction projects. The results of this study show that unlearning, which is one of the important aspects of organizational forgetting, has a positive effect on the relationship between these two components. Yang et al. (2014), in their research titled "How unlearning-based affects innovation?" examined the impact of organizational unlearning dimensions on innovations in telecommunications industries. The results of the research showed that unlearning has a positive impact on organizational innovation.

RESEARCH METHODOLOGY

To analyze the findings of this research, the methodology of the fundamental data theory was used. The fundamental data theory is exploited from a variety of angles, most notably the following: 1. Straussian or systematic approach 2. Glaserian or emergent approach 3. Constructivist approach. Among these three approaches, the present research has followed the emerging approach, since the emerging or Glaserian approach offers wider and varied patterns for data integration. This approach, instead of imposing the theory to data, consults the details of the data, so the Glaserian approach gives the researcher more scope (Glaser, 1978). The statistical population of this research is the experts of Jahad-e-Keshavarzi who can provide useful information in the land of unlearning the traditional methods of irrigation. These experts included model farmers from the northern province of Khorasan in the last 10 years (whom were chosen due to use of optimized irrigation methods) as well as experts in the Jahad-e-Keshavarzi in the northern Khorasan province working in the education sector who are responsible for training and promoting new irrigation methods. Among these experts, 17 people are interviewed based on targeted sampling to reach the theoretical saturation. It should be noted that due to the openness of the interviews using the continuous comparison method in the coding process, the code was analyzed by breaking the data from the empirical level so that he groups the data into code that becomes the final model (Glaser, 1978). In the present study, with the studies on the relationship of concept, it seems that 6th family of 18 families in the Glaserian approach bestows the possibility of combining categories around the core category with the title of organizational memory and defines the final model of research. In the following, each element of the model will be described after the description of the axial category. The following figure shows the research model.

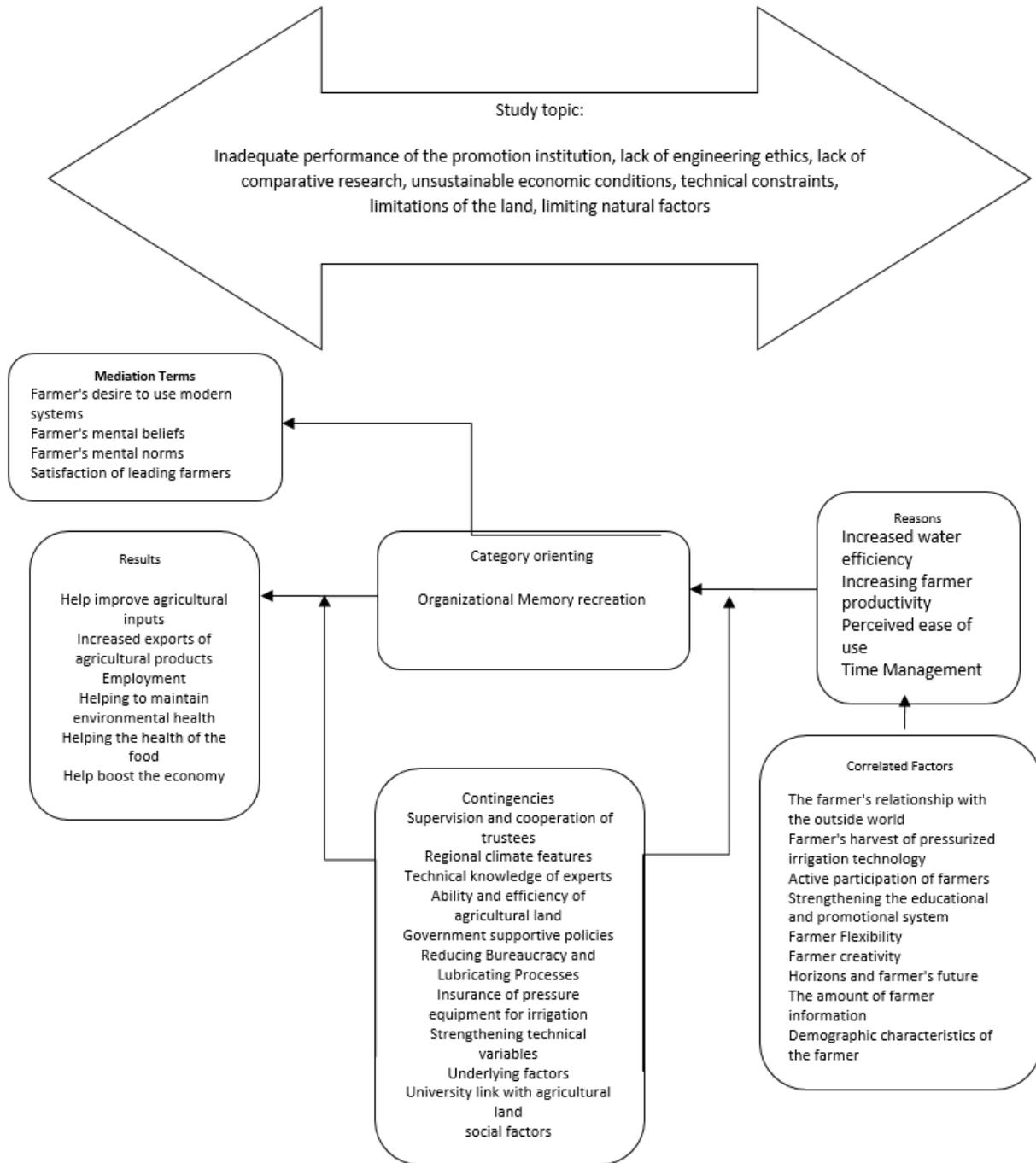


Figure 1. Result model from the research

FINDINGS

As mentioned in the model, the core category of research was named as the recreation of organizational memory. In fact, this is the process of removing old patterns by identifying old knowledge and behavior, criticizing and reviewing it, and choosing the appropriate action to deal with it. It is a very important point to note that in the emergent approach, if the core category of a research is a process, we call it a basic social process. Thus, according to the model derived from the research, the core category is a basic social process.

because considering the model, time sequence is evident. In fact, based on the model of theoretical coding in this research, the core category of research was called “organizational memory retrieval”, which is a basic social process.

Now we are going to explain each element of the model.

Causes

The first C in the 6 C family refers to the first word of “Causes”. The causes reflect the reasons and explanations for the occurrence of the core category. The data encoding in the selective coding stage indicated that the farmers basically pay attention to the retrieving the organizational memory that actually points to replacement of traditional methods of irrigation with modern methods due to four reasons:

Increased water efficiency

In general, the water utilization efficiency is the relationship between the actual volume of water used for a particular consumption and the volume of water transferred or taken from the source of water. Therefore, the efficiency is a suitable indicator for evaluating the performance of transmission paths in irrigation networks or the agricultural land to the farm entrance (Heidari, 2001). For example, one farmer stated: “With a given amount of water I can irrigate one-hectare using irrigation method and two-hectare by the flooding method.”

Increased farmer productivity

Agricultural productivity is one of the most important factors for sustainable development, which is generally not economical in developing countries such as Iran, despite agricultural potentiality due to low productivity. One of the most important sources of agriculture is water that according to the signs of drought and the decrease in rainfall in recent years has become more important than ever. Using pressurized irrigation systems causes the harvest per hectare more than traditional methods. For example, when farmers were asked if the new methods of irrigation influence the amount of crop they harvest, nearly all of them replied: “Certainly we have taken more products in the new methods of irrigation. At one point, one of the reasons that made us use this system was that we saw the farmers who used it, harvest more. We sometimes doubled or tripled in some products.”

Perceived ease of use

In fact it is referred to farmers’ perceive from simplicity of the irrigation process under pressure. What is expected of irrigation mechanized systems rather than traditional methods, is to reduce water consumption on condition of no reduction in productivity. Of course, the strong dependence of mechanized systems on manpower for continuous monitoring of the operation of tools and equipment on the one hand, errors caused by the operator’s wrong action or delayed action on the other, have reduced productivity, and the effect of these parameters have been more than ever with the development of the network water supply and diversification of irrigation equipment. The results of researches and studies have focused on the fact that by carrying out automation of pressurized irrigation systems, which is the installation of hardware and software, the above restrictions are eliminated and the possibility of improving water consumption and upgrading the level of irrigation efficiency is provided. One of the farmers said: “In traditional irrigation methods, many of us had to go to the land to irrigate and each of us had a duty, but now everything is related to a button. We press the pump button and the water automatically enters the ground. In fact it does not require any special skills. “

Time management

Time management is the process of organizing and scheduling how to allocate time between specific activities. Time management makes things more accurate, not hard-core. Therefore, less time is taken up with more tasks, even when there is little time. However, if the person cannot manage the time, it will not be effective. Using pressure irrigation systems, farmer can have a better time managed. In this case, one of the farmers said: “Since we had water only in some hours in the tradition irrigation method, we had to be on the land at a certain time so that our turning point would not be lost. Many times, I had to go to work with workers on the land at 3 am.”

Factors Correlated with Causes

In the family of 6 Cs, the second C represents covariance or correlated factors, which refer to a set of factors that are correlated with the causes of the research core category. The factors correlated with the causes in this model include concepts that are briefly described below:

The relationship between farmer and the outside world

This factor has a very important impact on the formation of the farmer's attitude in choosing irrigation methods. When one comes to the advantage of meeting visitors, attending the community, using radio and television, as well as communicating with the neighbors accepting the new systems, it is easier and quicker to abandon the old outdated methods of irrigation and more easily comes to new methods; in fact this factor is gradually affecting organizational memory retrieval. One of the farmers says, "I've been flooding for several years, since I started farming, I believed that land should be full of water to make the plant grow well. But in the next village people used new systems and had good products. Television also talked about the benefits of new systems due to water crisis. "

The farmer's impression of pressurized irrigation technology

In fact, this notion refers to three sub factors. Consistency refers to the extent to which new systems of irrigation are compatible with the water and soil conditions of the farmer. Testing that refers to a pressurized system in part of the land, or in fact, to the use of promotional experimental farms, and the observation that expresses the result of the application of pressurized systems in water consumption and also the amount of production. If these three factors are present at a relatively high level, a farmer will be in favor of new systems. One of the farmers said: "Because I did not believe in these systems and I was not sure if it was compatible with the climate of this region, in the first year I was only irrigating just half an hectare of land to a drip method, but I saw the product of a half hectare was equal to a product one hectare by flooding method."

Active participation of farmers

This factor refers to participatory management. Participatory management means the participation of the right people at the right time and in the right way to do the work. The participation of farmers in the implementation of their irrigation practices and their installation has a positive effect on replacing the old methods with modern methods, which actually results in the reorganization of organizational memory. One of the jihad experts said: "Initially Some farmers refused to accept these methods, but when we gave a number of them at different stages of the system set up and asked them, they had a great deal of impact on their acceptance rates. We also contracted the contractors to implement these plans in each area with the advice of trustees. We selected the same neighborhood. "

Strengthening the educational and promotional system

This refers to organizing agricultural training classes for farmers by the Agricultural Jihad Organization and introducing these systems with their benefits, as well as informing farmers about the challenges posed by the water crisis. Training is one of the most important factors in accepting modern systems. Irrigation is considered by farmers. One of the farmers said: "I think the best way to succeed in persuading farmers to forget about traditional irrigation and the replacement of the new irrigation is in making culture that Jihad-e-Keshavarzi with the provision and distribution of brochures as well as holding Training classes does this. "

Farmer flexibility

Flexibility in the word means the ability to change and adapt to new conditions and changes (Schneider, 2002). According to research findings, farmers who are more flexible are more likely to accept new procedures as well as face changes. This is actually a stimulus for organizational memory retrieval. One of the farmers said: "Our forefathers used to plow the land with cattle in the old days. Today, we do this with the tractor. We all need to change the conditions. It is the same with irrigation, especially since each year there is a shortage of water. There is more to it, so it's a necessity to make our new practices more responsive. "

Farmer creativity

Creativity is one of the main aspects of thinking. Thinking is the process of rearranging or changing the information and the acquired symbols in long-term memory. According to this definition of creativity, there is a direct relationship with the imagination or the ability to visualize (Nili Aram, 1998). According to the

findings of the study, the more creative the farmers are, the more prepared they are to remove the traditional procedures of irrigation from their memory. One farmer said: "All the life of a farmer is dependent on water. When life is at risk, we must think about a new way of keeping it alive. Why do we need to follow the old fashion ways when we use less water in new irrigation systems? I even know the petty farmers who did not have sufficient capital to launch new systems, but by building a small pool next to their land and using a few barrels and plastic tubes have tried to simulate droplet watering in their small lands. This means the farmer is looking for new ways to get rid of the water crisis. "

Farmer's forecasting

Usually, people's lives depend on a variety of factors, which is one of the most important ones. Thinking and taking care to prevent unpredictable crises is very effective. Findings from this study suggest that more prospective farmers are more concerned with their memory retrieval. In fact, they are more concerned with the problems caused by the water crisis for later generations, and are more embraced by the replacement of new methods of irrigation with traditional methods. "More than worrying about my current situation, I am worried about the future of this village and the future next generations and our children. With the critical condition of water and the signs of drought, perhaps in the not-too-far years, it will be vacant here." A farmer said.

The amount of farmer information

This factor refers to the level of awareness that the farmer has about the new irrigation methods, the facilities available to develop these methods, as well as his awareness of the dangers of the drought. According to the findings of this study, the study hours, access to the expert and the amount of use the more communication channels, as well as the amount of promotional contacts by the farmer, will be more willing to regain their memory. "I have an average of 8 hours a day studying on various issues, such as the water crisis, the benefits of pressurized irrigation systems, the latest changes in agricultural technology, etc." A farmer said.

Farmer demographic characteristics

These characteristics include academic status, age, work experience, etc., each of them can affect the replacement of new methods rather than traditional methods by the farmer. According to the research findings, the lower the age of the farmer, the higher the acceptance rate, and also the higher the work experience of the farmer, the higher his acceptance. "I have 20 years of agricultural work experience. I can easily recognize that new methods have more advantages than traditional methods." A farmer said.

Risk taking by the farmers

The Webster dictionary defines the risk as "being in danger" and risk is a process in which a person is in danger. According to the research findings, the greater the risk tolerance of the farmer and he is more capable of facing new and unpredictable conditions, the adoption rate of new systems will be higher in him. "For the first time in our area only those accepted to work with this system who had a great courage and so-called were so brave; because the result of the work was unclear, as well as high capital for this task was needed", One of the farmers stated.

Contingencies

The third C in the family encoding 6 Cs from the first letter of the term Contingencies is considered as the circumstances that refer to moderating factors. In this model, the contingencies are factors that modulate the relationship between the causes and the axial categories, as well as the relationship between the core category and the results. The following modulatory variables in this model are:

Supervision and co-operation of trustees

This refers to organizations that can provide farmers with facilities such as Jihad-e-Keshavarzi, the Ministry of Energy and the Keshavarzi Bank. The more the cooperation of these organizations with farmers, the smoother the path are to adopting new methods and more likely to have a memory retrieval. "We now use gasoline for the pump engine, if the electricity department cooperates with us and performs electricity to the farms, the work gets done easier and the dangers of using gasoline are eliminated." One of the farmers said.

Region climate characteristics

This category refers to the province's climate. The province has faced drought crisis and its consequences in the last few years so that the average rainfall in the province in summer of 2016 was 11.6 mm, which is 57% less compared to the same period last year and 40% Reduced rainfall has occurred (Fakhr Hashemian, 2016). "In order to successfully launch new irrigation systems, we need to adapt the type of irrigation system to the climate of the area. For example, sprinkler irrigation system cannot be used in windy and very dry areas. This will prevent the new systems to fail and farmers will be more confident in their efficiency." One of the Jihad experts said.

Technical knowledge of experts

The level of technical knowledge of experts and the information that is about set-up and benefits of the systems is an important factor in restoring the memory of farmers. Because when experts are aware of water resources, ways to cope with the drought crisis and the needs of farmers, they can be better persuade them. "The in-service-classes which Jihad holds for us, is very helpful, because it makes us go ahead with the science of the day. Farmers, because they have been working on the land practically, are more skillful than us, and sometimes ask sophisticated questions that if they are not given the correct answers answer, we cannot convince them that the new systems are more efficient. "

Ability and efficiency of agricultural land

This factor has a moderating effect on the results. Based on the findings of the researcher, this factor includes concepts such as the development of arable land, the flatness of agricultural land, the integrity of agricultural land, the conversion of land to rainwater into the water, etc. "When our land is small and inappropriate and far from each other, it will waste a lot of water during irrigation, but it will be reduced by leveling and integrating the land, water and fertilizer; the amount of production rises and land is easier to irrigate." One of the farmers said.

Government supportive policies

These policies include the provision of less profit loans to farmers, government guarantees for purchasing agricultural products, and the allocation of special credits to the agricultural sector, the provision of lower-priced irrigation equipment, and the proportion of government-run executive capacity. One farmer said: "If the government provides more farmers with less profit loans, more pressure on irrigation systems will be welcomed because many are aware of its benefits, but they do not have the initial capital to launch it," a farmer said.

Reducing bureaucracy and lubricating processes

Although Weber saw bureaucracy as the most rational organizational form, and therefore superior to other organizations, the next writers admitted that the bureaucracy is not as effective as Weber suggests. Thinkers such as Gouldner, Marx, Mills and Bloner believe that Bureaucracy leads to the alienation of employees (Faghihi, Vaezi, & Azaghaz, 2010). Facilitating administrative and banking activities of farmers will be one of the moderating factors in their acceptance.

"I went to the bank several times for my loan. Every time I stood in line for two hours and after a year, I was paid a loan. Besides, I was looking for a guarantor and a bail. When there are such troubles, farmers are discouraged." A farmer said.

Insurance of pressurized equipment for irrigation

Insurance of underlying irrigated land is one of the moderating factors in accepting new systems and, in fact, it will be a factor in restoring organizational memory. Dropping up premiums and early repayment of bad debts by insurance is one of the concepts to which this category refers. One farmer said: "If we be sure that we will be supported in the event of an insurance problem, we will definitely be more inclined towards new systems. There is also the possibility of theft of equipment on the land," A farmer stated.

Strengthening technical variables

This category refers to the technical variables of pressurized irrigation systems, which are based on concepts such as the existence of standards for equipment and after sales services. The higher the guarantee for standardization and efficiency of the systems, more willing the farmers will be to accept the plan. "I'm not

afraid of the equipment because I bought it from an assured company and if any problem occurs, the engineers themselves will come to land to solve it.” One of the farmers said.

Underlying factors

Another factor is the moderator that has been implicated of concepts such as having deep wells, inheritance of land, ownership of equipment, and so on. According to research findings, the farmers who have deep wells and personal equipment are more likely to deploy pressurized irrigation systems. This trend is also much superior to those used by groundwater resources. In hereditary lands, there is not much interest to deploy new systems, because the heirs do not reach an agreement and continue to use the old ways. One of the farmers said: “In our region, most are using pressurized irrigation systems, except who have deep wells or their land is at the disposal of the heirs.”

University and agricultural land correlation

The relationship between these two domains has a moderating role on the results of the research. The use of academic experts in the field of agriculture and the use of knowledgeable forces in the education division of Jihad-e-Keshavarzi are the concepts of this category. The greater the link between the university and the agricultural sector, the more literate forces will enter the agricultural land and farmers will be more confident. “Many students studying agriculture are actually do not really know anything about land and soil. Several times students were brought here to visit the land, one of them had mistaken the seeds of the sparrow with the pea! Well, it turns out that they only touched the book, not the dirt. I am a farmer who has several years of work experience in this land. How can I trust the advice of these agricultural engineers in the future?” A farmer stated.

Social factors

Social factors also mitigate the relationship between the research core category and its outcomes, such as the membership of a farmer in rural formations and the abstraction of concepts in this category. In our country, lack of balance between supply and demand is put water resources in a critical situation. One of the ways to balance this issue is to monitor the amount of resources and expenditures, prevent unnecessary harvesting of water resources, raise awareness of farmers and stakeholders, reduce government ownership and transfer water management. The watershed organization has developed and expanded in the same direction. It is an organization for managing and optimizing the use of water resources, with the emphasis on the participation of all stakeholder groups. One of the Jihad experts said: “These organizations have had a positive impact on the farmers’ perception of the replacement of dipping systems.”

Mediation Terms

The fourth C is the first letter of Condition, which refers to the mediating variables of interventionism that appear before the emergence of the results of the core category and form the main results. The intermediary variables of this study are:

Farmer’s tendency to use pressurized systems

Farmer’s tendency is one of the mediator results of organizational memory retrieval. This concept has a positive feeling and a positive harvesting of farmers from modern systems. According to the findings of the study, this category of concepts includes: the interest of the farmer in participating in Jihad training classes, the informed and optional choice of the farmer to change the irrigation system and the willingness of the farmer to set up a new system at his own expense. “We have farmers who call us repeatedly to hold classes for them again. Although many of them have not studied at the university, they have a special interest in these classes. It shows that if the farmer becomes aware of the benefits of the system, he will tend to change the style of irrigation,” said a Jihad specialist.

Farmer’s mental believes

Farmer beliefs are among the mediation results derived from the research core category. These beliefs can be derived from the concepts derived from codes such as: the sense of belonging to the irrigation network of farmers, the importance of the close friend of the farmer, the farmers’ patterning from one another and also, the beliefs in the efficiency of new systems as a rescuer of farmers from the drought crisis. “I think the only factor that can save us from drought is to replace floodwaters with pressurized methods, because it is really unnecessary to waste water in a flooding process.” One farmer said.

Farmer's mental norms

The norms formed in the mind of the farmer are another mediator of the results of memory retrieval. These are the categories of concepts such as: farmers' perception of the usefulness of new methods, gaining credibility among people and other farmers through the use of new systems and the expectations of those around the farmer to put an end to the high irrigation rate. One of the farmers said: "I am a ringmaster farmer in the village; many expect me to be a leader if it is a good thing for everyone. Now we are facing severe water crisis and I was the first person to use irrigation under pressure in this area. I can surely say that many farmers here have modeled me because they trusted me. "

Satisfaction of leading farmers

Farmers' satisfaction is another result of the mediation derived from the core category. This satisfaction can be seen in terms such as satisfaction in land management, satisfaction in water resource management, satisfaction in performance, and satisfaction in the cost side of the control. One of the farmers stated: "Why shouldn't I be happy with the pressured systems? I'm now irrigating two hectares with the same amount of water that I irrigated one-acre in flooding method. I've doubled the product and irrigation has been easier."

Results

The fifth C is the first letter of the "Consequences" word that means results. The results of the resulting model refer to the outputs that farmers and the Jihad-e-Keshavarzi Organization have experienced as outputs from the core category. The findings from the research showed that the organizational memory recreation in changing the irrigation style from flooding to pressurized systems has brought positive and significant results.

Help improve agricultural inputs

Improvement of agricultural inputs is one of the major issues among the systemic results of organizational memory retrieval that has the highest number of codes. This includes concepts such as: longer plant life, better growth of plant, uniform distribution of water on the farm, giving mineral fertilizers and mineral salts to plants' root. One of the farmers said: "The cucumber plants of my farm were destroyed last September, but this year until late November they were green."

Increased exports of agricultural products

Increasing the harvest rate in irrigation methods under pressure from the flooding method has led to an increase in the supply of demand in some agricultural items such as cherries and grapes. One of the farmers in this regard stated: "In the new irrigation method because supplements and the fertilizer is better for sowing, in addition to producing more product, the quality and the so-called market is also boosted."

Employment

Unemployment is one of the greatest disadvantages that afflicts society's balance creates many crises in the social, economic, and psychological realms. With the launch of irrigation systems under pressure, various jobs have been created, including: equipment employment, employment for young village engineers, small workshops for pipe production and other irrigation supplies. One of the farmers said: "My son is graduated in engineering. He was unemployed for three years, but now he has been employed by the Jihad-e-Keshavarzi in order to repair the irrigation equipment pressurized. Several young people in the village could also work at the pipe workshop. "

Helping to maintain environmental health

In general, soil erosion is a natural phenomenon that is caused by factors such as wind, surface water and temperature variations. However, human activities such as over-farming, irrigation of agricultural land, single-ship products, over-grazing of livestock in rangelands, forestry and biodiversity lead to a loss of balance between the process of destruction and soil formation, and ultimately contamination. Much of extreme damages to the environment can be prevented by using pressurized systems. The findings of the research show that the use of these systems lead to less soil compaction, soil erosion and softening, lower consumption of chemical pesticides, prevention of runoff, the uniform distribution of fertilizer and poison, and the maintenance of soil and the prevention of excessive soil washing. "Using pressurized irrigation systems, less weed less grows around the plant, because water only reaches the root of the plant; so we have less to do with

herbicides and other poisons that are environmentally friendly. They will also damage the phenomenon of soil erosion.” One of the farmers said.

Helping the food health

One of the most important physiological needs of humans is the need for food. This category is one of the outcomes derived from the core category of organizational memory retrieval. Research findings show that by abandoning old irrigation methods and using pressurized irrigation methods, the need for pesticides and chemical fertilizers will be reduced. Consequently we will have more healthy products. One of the farmers in this regard says, “In flooding methods, such as plant life, because the plant’s life cycle is usually less, and given the weather conditions of this province in autumn, the plant does not have much resistance to cold, we had to use more toxins and chemical fertilizers to keep the plant alive.”

Help boost the economy

The agricultural sector has been considered by all governments as one of the most important economic sectors. Three major sectors of the economy in the world, including the industrial sector, the services sector and the agricultural sector, have to be addressed by all governments. The agricultural sector has a more privileged position than other sectors. The development of this sector can be of great help to the economic prosperity of the country. According to the findings of this study, contributing to economic prosperity is one of the striking outputs of the core categories that embraces the concepts of sustained production and sustainable development, the introduction of valuable plants into the production cycle, reducing irrigation costs, increasing GDP, etc. has been counted. “Except for the initial investment in planting equipment, I have been able to harvest more crops for several years; the cost of irrigation has been much lower, and even some previously uncultivated lands are now under cultivation “ A farmer said.

Environment

Finally, in the family of 6 Cs, the last C is taken from the word Context and refers to the context in which the community has been studied. According to the research findings, the environmental features of this research are:

Inadequate performance of the institution

This failure is one of the characteristics of the environmental context studied by farmers with a number of implications. This category was counted of concepts such as lack of education and information, farmers’ lack of access to agricultural research results, lack of basic information, etc. “Some farmers in our village still do not know the benefits of pressurized systems. Sometimes the training classes were settled in the city or capital that was difficult to go for the farmers, or they were during harvest and there was no possibility of participation in the class for the farmers.”

Lack of engineering ethics

Having engineering ethics makes engineers, themselves, supervise their activities and ultimately protect the interests of the human community and the health of the environment. The lack of engineering ethics is another feature of the community in which this research is conducted. Among the codes that indicate there is no ethics of engineering in this category are:

Lack of high quality equipment, no use of specialist forces in the host companies, etc. The following quotation from one of the farmers testifies to the claim: “I believe that pressurized systems have lots of efficiency, but many times I’ve been having trouble buying equipment for a while. Unfortunately, high quality equipment is not provided and after a purchase, we have to look for repairs for a long time.”

The lack of comparative research. Another feature of the environmental context is the research community that refers to many factors such as the absence of pressurized systems with weather conditions of the province, the failure to check the status of the area before irrigation by experts, the implementation of no prior studies of water and the soil, the clandestine and clandestine issues from the planner’s point of view. “Despite the advantages of the pressurized irrigation system, we have learned some of the important points about these systems experimentally; for example, which kind of systems have a better result in a kind of soil and a kind of area. Surely it costs to the farmer.” One farmer said.

Bad economic situation

This is among the factors that indicate the environmental context of the research community, such as high initial investment costs, expensive spare parts, and lack of guarantees for the purchase of a farmer's product, uneven and unbalanced growth of various economic sectors. "I could harvest sugar beet twice as much in a year, using a pressurized irrigation system, and I was happy with it; the sugar factory bought our beet, but gave us sugar instead of money a few months after the delivery of the beet to the factory. As a farmer, I definitely need more money than sugar. These factors will discourage the farmer." One farmer stated.

Technical constraints

It is another feature of the study which includes concepts such as: the wrong implementation of the irrigation system, the low power of the pump motor related to the system, the limitation of the displacement of pipes and equipment in the land due to changes in the dimensions of the earth. "Sometimes the irrigation system was not set up correctly; for example, there was a lot of pump-to-farm distance. Also we had difficulty in collecting and re-rolling the equipment due to the change in the dimensions of the land." A farmer said.

Area lands constraints

It is another feature of the study which includes concepts such as: scattering of plantations, anomalies in the shape and dimensions of the earth, gender and soil texture, topographic characteristics, etc. One of the farmers in this case says: "In some areas, because of the scatterings of the lands and the wisdom of them, it is not costly to set up pressurized systems," he said.

Restrictive natural factors

Natural factors are among the inevitable features of the environmental studied, including factors such as wildlife damage to equipment, perforation of tubes by animals, blockage of tube openings, etc. "If we have a cold winter, mice and other vermin animals will be greatly eradicated, but in recent years, that we were faced with hot weather and drought, unfortunately, the damage of these beasts in the summer increased for us. Plastic pipe is one of these damages." One farmer said.

Given that each theoretical code includes the causes, the factors associated with the causes, requirements, mediator conditions, the results and the study context, which are drawn around the core category, contain many concepts and codes, and each of the codes are drawn with numerous indications or examples in the interviews. To avoid redundant words, only some examples and signs related to the concepts of the subsets of the theoretical code are mentioned.

DISCUSSION

In this study, using the emerging approach of the fundamental data theory and through the continuous comparison method in the true coding and theoretical coding process, a model with core category of the reorganizational memory emerged as a process. This concept refers to the replacement of previous farmers' knowledge with new knowledge, which leads to the inclusion of related factors in positive terms. The term "organizational memory" was first used and introduced by Hayelbaugo in 1981. Most Organizations that have a lot of dependency on their knowledge, however, once faced with the problem of reducing size and structural reconstruction, followed by the arrival of old employees and the recruitment of new employees, which could lead to the loss of a part of organizational knowledge. In this way, the context and circumstances in which an organization's activities are possible, information used to solve the organization's problems, the activities undertaken to solve these problems, the results of the decisions and the outcome of lessons learned from different situations, gradually lost. Therefore, there should be a system that, in addition to storing all types of knowledge in the organization, always reminds and provides the helpful information to the organization's employees in time and be a solid companion for solving problems. Such a system is called an organizational memory system (Headberg, 1981). In other words, organizational memory is a tool for transferring knowledge acquired in the past to current activities (Stein, 1995). This will allow for organizational learning and continuous improvement of processes. The result of using organizational memory is to improve the competitiveness of the organization by improving the knowledge management existing therein and to explore the experiences of previous projects and reuse them to avoid repeating past mistakes. In fact, organizations need to know the cause of change from the old to the new method before starting and the advantages of the new method or the disadvantages of the current method before the first learning phase of the organization

that acquires the new knowledge. This well describes the relationship between the need for the first phase of the learning process (i.e. the need for change and the perceived usefulness of existing knowledge) to the first stage of the process of organizational learning (that is, the acquisition of new knowledge). Organizations also are able to learn or unlearn only through individuals. Deduction at the organizational level leads to unlearning at the individual level (Carl, 2010). In this research, which is aimed at the farmers' unlearning in the discussion of optimal water consumption, they need to know that new irrigation methods are far better than old ones. Farmers should be aware of the causes of the drought and the water crisis, and help reduce its effects, and adapt themselves to this issue, which is being carried out by experts from the Jihad-e-Keshavarzi Organization. For example, there are reports that irrigation of droplets in semi-arid conditions increases irrigation efficiency up to 95% (Bliss, 2002). With an analytical approach to the research background as well as the models, one can well understand their failures. For example, while in the Windken model, chondells have been considered as components of unlearning at individual and organizational levels. However, the process of linking and transforming individual unlearning into an organization one is in a hodgepodge of ambiguity. Similarly, the lack of credibility or non-model in other organizations indicates the lack of related research and empirical findings. In Becker's model, only the factors affecting the individual and organizational levels of unlearning and learning are considered. As in the previous model, there is a lack of understanding of the relationship between learning and organizational learning. Of course, this is complex and requires understanding of the processes. . Given the mentioned items, this study is based on the inquiries into theoretical literature and with regard to the writer's experiences and the use of imagination that plays an important role in the theorizing process. A coherent model will be presented. The more important thing that distinguishes the model from the above models is its localization nature. The purpose of localization is to adapt theories and models to a better explanation of the phenomena associated with formation field and the existential of the phenomenon studied. Using this method, some theories can be considered in terms of their social, cultural, climatic and economic features. If changes were made to better explanation of the phenomena involved, they would be far better and more efficient than imported models. Similarly, the results of the Adli, Khodaei, and Wangwiang research in this regard point to the impact of unlearning on the success of the organization and the development of new knowledge in it. This research will support the results of this study because in this research unlearning is also considered as an important factor in learning new methods of irrigation by farmers. The results of Sadeghian, Akanozong's research, point out that all three refer to the role of learning in the turbulent and turbulent environment of the organization. The results of this research are consistent with the current research, as in the current research, unlearning is considered as a stimulus to the organization's agility against environmental threats (water scarcity). The results of Becker and Keremati's research are also based on the view that both approaches refer to important processes of unlearning in the same category. Resource-like perceptions of the need for change, the level of education, the abandonment of old knowledge and the use of new knowledge in current research have also been considered as important tools for the unlearning of farmers.

Disclosure statement

No potential conflict of interest was reported by the authors.

Notes on contributors

Mahdieh Amani – PhD Student in behavioral management, Ferdowsi University of Mashhad, Iran.

Ali Shirazi – Associate Professor, Ferdowsi University of Mashhad, Iran.

Alireza Khorakian – Associate Professor, Ferdowsi University of Mashhad, Iran.

Gholamreza Malekzadeh – Assistant Professor, Ferdowsi University of Mashhad, Iran.

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