# CONTINGENCY MODEL OF LEARNING FROM MISTAKES IN PUBLIC SECTOR OF IRAN

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*Abstract: Learning is a new paradigm that has been introduced in today's organizations to address the competitive environment. The purpose of this study is to create a particular learning contingency model based on information obtained. The study subjects consisted of government agencies in Western Azerbaijan. The study is non-experimental and based solely on field investigation.*

*For this purpose, indicators and variables were identified using the Delphi technique. A questionnaire was designed and its validity and reliability tested. The reliability equals to á =0.858. Due to Cochrane sampling and risk estimate alpha and beta, samples were 175. The review consisted of government agencies in Western Azerbaijan. Analysis was based on descriptive statistics, Friedman test, correlation, TOPSIS; regression and statistical software. The general conclusion of this study is that reinforcement should be presented to the organizational learning program. For this purpose, a contingency model is presented with respect to the review. The hierarchy of types of learning is also provided.*

*Keywords: learning, learning from mistakes, public organizations, contingency model*

## INTRODUCTION

It is human nature to learn. It is often observed that individuals learn more from their failures than their successes. Organizations, like individuals, must be equipped to learn as well. But it is rare to find an organization that demonstrates the efficacy of learning. Because the current default belief is that making a mistake is bad, rarely are techniques implemented that enable organizations to learn from mistakes.

Government agencies in Iran, from first model of the administrative system at the start of the 14th century in European governments, have seen a lot of changes and developments (Kian, 1964). Government agencies in Iran have undergone many changes but one change that has NOT occurred is the formal adoption of an approach to learning from mistakes.

If the researches in the field of learning from the mistakes of government agencies are examined, a small number of studies and academic records can be found. This research has been conducted to fill a gap in the administration field in

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Iran. Learning-related issues of decisions of policy makers have received considerable attention, including a number of different learning programs conducted in organizations representing a long history of Iranian government. The question addressed in this paper is that how learning from mistakes can benefit an organization what kinds of this technique should be used in different situations. There is not much information on learning from mistakes in other types of decision making in organizations.

Proper and effective implementation of learning from the mistakes in organizations is coupled with the specific problems that the organizations face. Effective implementation also requires analysis of the current situation of awareness of the mistakes. In addition, individual motivations can impact organizational learning. In any organization, it is possible for people to commit mistakes during their performance. The manner of individuals, mangers and organizations in recognizing and facing these mistakes and also how they neutralize their effects and learn from them are very important. Many researchers have pointed out the importance of learning from mistakes (Argyris, 1993; Edmondson, 1999, Weik & Ashford, 2001; Edmondson, 1996). However, there is a lack of scientific literature addressing the issue in Iran, one indicator of the need for presenting this study. Due to the extreme importance of learning in recent years, most public organizations of worldwide have focused much attention on learning programs (Dasgupta, 2012, Ellstrom, 2001). The government agencies in Western Azerbaijan, including organizations that have a role in state management, it is clear that further deliberation on factors affecting learning will play a key role in achievement of organizational goals. According to studies conducted by internal and external sources, not much effort has been done in government offices in Azerbaijan to implement procedures of learning from the mistakes. Thus, present study, which considers the circumstances and characteristics of government agencies in Western Azerbaijan with respect to openness of organization and motivation of employees to learn from mistakes, attempts to identify the personnel and organizations situations to learn from mistakes. The hierarchy of learning from mistakes is offered that it is a result of the study. Finally, a two-dimensional contingency model for the proposed learning model is presented.

## LITERATURE

For survival and adaptation in complex, dynamic and turbulent environments, organizations need to be engaged in learning (Visser, 2008). To understand the problem, we need to define learning and have knowledge of its dimensions. Learning consists of a permanent change in behavior or pattern of behavior that arises from continuous experience (Hergnhahn, 1982). It seems that most human behavior is based on lessons that have been learned (Abtahi, 2007, 71). Learning does not mean only to learn from past mistakes, but also it is a new understanding

(Torgersen, 2009) that requires a fundamental change in thought and behavior (Senge, 2011). Hiding mistakes is akin to hiding charcoal in a place full of dry wood once ignited the fire will spread quickly (Mirzaaghai, 2004).

Learning from feedback will help staff to discover knowledge and needed skills, correct mistakes and improve poor performance (Goodman & *et al.*, 2004; Goodman & Wood, 2004). When the external feedback is negative, it may raise negative emotions because staff will doubt the motivation of feedback givers, correctness of the feedback or accuracy of system used to evaluate the performance (Norman, 1981; Zapf & Reason, 1994; Reason, 1990).

According to research, feedback and learning structures are often not in place and, if in place, are ineffective. The feedback systems need to be integrated with the landscape (Esain & Williams, 2012). The feedback received through the learning can facilitate new knowledge or hinder it (Arling & Chun, 2011).

Perfect and uninterrupted performance cannot guarantee success based on the knowledge economy. The influx of knowledge in most areas can lead to drop behind of others (Edmondson, 2008). To comply with the complex and dynamic environment, organizations should focus on learning (Visser, 2008). The biggest challenge facing organizations today is to know how learning can be used for their purposes (Dasgupta, 2012).

Learning in the workplace is crucial to the survival of organizations (Rahimnia *et al.*, 2011). This includes conscious and deliberate learning activities that reflect the actual experience in the work environment (Raelin, 2000). Learning in the workplace improves the perception of work activities (Elkjaer & Wahlgren, 2006), because learning is related to performance improvement and adaptation to change (Gherardi, 2006). Continuous learning at work is essential to solve the problems facing individuals and organizations and has an important role in responding to changes in the competitive situation (Ellstrom, 2001).

Workplace learning helps individual improvement and organizational performance. It improves the integrated process of interaction between man and his environment (Doornbos *et al.*, 2004). According to this view of learning, the workplace is as a social field (Gherardi & Nicolini, 2001) that can be considered a place for learning (Ashton, 2004).

Learning requires motivational factors and cognitive resources (Rybowaik, *et al.*, 1999; Kanfer & Ackerman, 1989). The motivation for learning is a introduction to learning (Weick & Ashford, 2001; Noe, 1986). Motivation is a mediation mechanism that is essential to promote learning in the workplace (Colquitt, *et al.*, 2000; Colquitt & Simmering, 1998). When we obtain knowledge and perspective by talking about the causes of faults, it reduces or prevents negative outcomes (Frese, *et al.*, 1991; Reason, 1990; Reason, 1997).

The ability of a labor force to learn faster is a competitive advantage (De Gues, 1998). To understand the problem, we need to define the learning and dimensions of knowledge. Learning consists of a permanent change in behavior or pattern of behavior that arises from continuous experience (Hergnhahn, 1982).

Understanding the learning at work is meant to recognize the complexity of effective social, individual and organizational processes (Boud & Garrik, 1999). Researches about learning at work are studied many affect factors (e.g. conducive learning culture) (Park, 2011).

Learning in the workplace is the first step by which people use it for meaning-creation in personal and corporate organizational life. Learning in the workplace requires a rethinking of past experiences and is a planning for future activities (Streecher *et al.*, 1986). This type of learning includes reasonable process to achieve individual and organizational expected outcomes (Matthews, 1999). The key feature of this type of learning is linked with employee participation, because learning cannot be separated from working (Clarke, 2005). Working is necessarily had to be a form of learning and learning as a form of work (Barnett, 2002).

## LEARNING FROM MISTAKES

Sometimes people encounter with problems as a result of the attention devoted to the causes of the problem in the past (Senge, 2011, 74). Human errors, not always, are common in most organizations (Ramanujam & Goodman, 2003). Mistakes can be very costly in organizations and often associates with economic costs, bad reputation, stress and dissatisfaction (Helmreich, 1997). Errors relate to the decisions and actions of individuals and undesirable gap between what is expected and what actually occurs (Zhao, & Olivera, 2006).

Mistakes are unbearable for most people because human society has a blaming culture to mistakes. Unpleasant feelings of mistakes are very common and deeply rooted in individuals experience since there is a wide blaming culture for variety of errors (Pearn, *et al.*, 1998). People who have negative feelings about their mistakes; this will affect their learning from mistakes (Edmondson, 1996; Paget, 1988; Snell, 1988). When the staffs do not fell to speak about their fails and minor mistakes, organizations will face micro risks and fails (Edmondson, 2008).

Many researchers have pointed out the importance of learning from mistakes (Argyris, 1993; Edmondson, 1999). Learning from mistakes is a major activity for individuals, groups and organizations (Weik & Ashford, 2001; Edmondson, 1996). The mistakes value is to learn from them (Sitkin, 1992). Learning from the mistakes includes finding ways to test and understand the relationship between actions and outcomes in the workplace. People will improve their mental model of the system through such investigative learning (Goodman, 1998; Heimbeck *et al.*, 2003).

Learning is based on previous knowledge and experience. In fact, memory is the basis for learning (Senge, 2011, 429).

To respond to the challenges of the modern world, a new learning paradigm called modified learning is presented. This type of learning focuses on learning from the feedback and to do it focuses on learning from mistakes. Error-based learning also provides considerable advantages (Raman *et al.*, 2010).

McCall (1994) research noted that the Board Chairman should seek signs to learn from mistakes. When people recognize their mistakes, and reflect it in their action, they actually produce more knowledge about the available opportunities (McCall, 1994).

Learning from mistakes is a process in which people reflect mistakes that have been made, identify the root causes, and develop their knowledge about the relationship between the outcomes - practice and under affect these relationships in the workplace. Also this knowledge is used to improve or modify the behavior and decisions (Duncan & Weiss, 1979). Learning does not mean to avoid conflict but to have a new understanding of the mistakes of the past (Torgersen, 2009).

In learning from mistakes, errors are associated with negative feelings (Norman, 1981; Zapf & Reason, 1994; Reason, 1990). In organizations that enhance in the performance and reward system are based on the culture of blaming any errors (blaming is always with an error); staffs will find their work environment where management poor intolerance re entitled to mistakes. In such environments, employees feel a lot of pressure to maintain high performance standards and those with mistakes tend to self-reproach, because they fail to do anything. Managerial intolerance towards errors has been defined as an attitude or the general tendency of managers to mistakes (Zhao, 2011).

Learning from mistakes, is a laborious and controlled activity. If people have the motivation to learn (directly) they will be involved in the process of learning from mistakes. The more motivated, the more likely that people will learn from mistakes (Zhao, 2011).

Obviously, organizational management and performance and the reaction in different situations will determine the success or failure of them. In any organization, managers and employees may have mistakes in their work tasks. How to deal with these errors and neutralize the effects of these errors have paramount importance (Esfahani *et al.*, 2013).

Learning from mistakes is different from learning from negative performance feedback. There is a distinction between external feedback and work performance feedback. External feedback is usually by an administrator, or someone more experienced or an educator. But people do get feedback through the work. Researchers, who compare learning from feedback and learning of the external

feedback, expressed the importance of learning from mistakes better (Goodman, 1998).

## FACTORS INFLUENCING LEARNING FROM MISTAKES

To comply with the complex and dynamic environment, organizations should focus on learning (Visser, 2008). So the environment (Mirzaaghai, 2004) is an effecting factor on learning from mistakes which is analyzed in this study. The error cause can be distraction, inattention, lack of capacity, inefficient processes, challenging activities, process complexity, uncertainty, hypothesis testing and heuristic analysis (Edmondson, 2011). Fear paralyzes the learning process (Edmondson, 2008). Organizational culture in an organization can facilitate the learning of its members (Visser, 2008), including the culture of collectivism or individualism, willingness to change, flexible structure, emphasizing the past or the future and etc noted in this context. Centralized or decentralized organizational structure is the factors that affect the learning model (Visser, 2008).

Also to promote organizational learning, there is a need to develop a certain degree of confidence (Niu & Miles, 2012) that can be a major factor on learning from mistakes.

The feedback received through learning can facilitate new knowledge or hinder it  (A. Arling & W. S. Chun, 2011). One important issue is that most learning happens in the workplace rather than in formal classes. Learning directly moves back to discover and correct errors in the daily business operations (Visser, 2008).

A study in a multinational company shows that half of employees think that delivering of what is going on in their minds is risky. The staff not only disclosed bad news, but refuses new ideas that seem too risky (Edmondson, 2008).

On the other hand, fear can stimulate learning from mistakes. Fear alerts people learning in order to avoid repeating the same mistakes (Lazarus, 1991; Baumeister *et al.*, 2007).

## HOW DO LEADERS CREATE SECURE PSYCHOLOGICAL ENVIRONMENT?

One of the major problems is learning environment in which an organization and its members facilitate learning in it (Visser, 2008). An effective leader and manager can affect learning in the workplace. The roles of managers as an organizational context is stressed because make informal learning in the workplace employees (Ellinger, 2005). Sense of psychological security among team members predicts that the process of learning from mistakes is in what level of involvement. In fact, team psychological security determines the individual team members have a safe environment for risk-taking (Edmondson, 1999).

## LEARNING TYPES

Learning types include single-loop learning, learning through formal training, collective learning, learning from mistakes in cyberspace, error management, individual learning, organizational learning, double-loop learning, tri-cyclic learning, generative learning, cognitive learning, adaptive learning.

In many organizations, individual skill development programs are implemented mandatory. Although the purpose of this program is good but never managed to inspire a commitment to not lean on staff (Senge, 2011, 218). Most learning happens in the workplace rather than in formal classes. Learning directly leads to discover and correct errors in the daily operations of the business (Visser, 2008).

Collective learning occurs when team members' capacity are increased and aligned so that the results are in all members desire (Senge, 2011, 298). Group learning occurs when a group of people based on specific actions into it to generate feedback, internalize and reflect (Yeo & Li, 2013).

Freedom to experience is the main point in the virtual world. In cyberspace, you can speed up or slow down the action. All actions are reversible. Non-recurring or irreversible actions in the real world are repeated several times in the virtual space. In whole or in particular, situations can be changed. One can also isolate variables that have joined together in practice to reduce the complexity of the issues. Interestingly, the handfuls of groups that have been successful in the business world over a long course and gained continuous learning have been the ones that have been used the virtual world effectively (Senge, 2011, 327).

Errors management means to encourage positive attitudes towards mistakes as learning opportunities. Error Management structures on trainees can help them respond their negative emotions to control errors and to facilitate their learning (Keith & Frese, 2005).

Individual learning means learning to access information, understanding and learning skills (Salagegheh, 2010). But in fact all individual learning is not beneficial to the organization, because employees can learn which is negative for organization. Or may improve their skills but not to the point of organization (Field, 1997). Individual learning occurs in the human mind (cognition) (Yeo & Li, 2013).

Organizational learning depends entirely on individual learning (Shrivastava, 1983). Organizational learning occurs when information is collected and analyzed. It can also change ideas and views on the creation of new perspectives and communication through and convey to all organizational levels. Organizations are more successful that sooner, faster, and better learn from others (Salagegheh, 2010). As well as organizational learning processes in the organization can maintain and improve the capacity or performances that are defined based on experience

(Nevis *et al.*, 1995). Indeed, organizational learning is a process of discovery and correction of errors (Kim & Callahan, 2013). Organizational learning is achieved mainly through trial and error (Ansoff, 1991). Organizations may learn from their mistakes, or may not (Dauber *et al.*, 2012).

Organizational learning is a process in which organizations manage and understand their experiences (Glynn *et al.*, 1992). Organizational learning can be said as a set of people learning in the organization (Kim, 1993; Romme & Dillen, 1997). Organizational learning occurs when individuals are placed within the experience of a problematic situation. They can see a big gap between actual results and expected results. In response to the distance, they enter into the process of thinking and action that change their perceptions of the organization. They reorganize their activities to get actual results and close expectations together (Argyris & Schon, 1996). This learning occurs when individuals and groups participate in challenging the hypotheses underlying the creation through collective knowledge (Yeo & Li, 2013).

To promote organizational learning, the need to develop a certain degree of confidence in the sectors involved in the learning loop is necessary. It is required to trust that a person have substantial amount of knowledge and understanding of others (Niu *et al.*, 2012).

Single-loop learning relates to identification of errors and adjusting strategies to overcome those (Dauber *et al.*, 2012). In single-loop learning, the feedback loop (which consists of actual experiences, hypotheses or underlying decision rules that guide the actions to correct deficiencies) is not changed (Hovid, 2012).

Single-loop learning can be summed up in the words" learning to do things better", a learning that strategies are implemented to solve problems (Raadgever *et al.*, 2012). Technical learning is an example of single-loop learning in which the design, objectives and activities of the organization are not asked (Van Gossum *et al.*, 2010).

When employees are involved in double-loop learning, routines and norms are challenged and they use feedback loops to modify the terms of their benefit (Yeo & Li, 2013). Double-loop learning needs organizational goals and transparent relation between culture and organizational structure (Rowland-Jones, 2012). In the double-loop learning, the system features change deeper and therefore will be more willing to keep the changes (Hovlid *et al.*, 2012).

Double-loop learning is a learning to do things better. To learn about how problems are solved and what goals can be achieved (Raadgever *et al.*, 2012). Social learning and cognition are examples of double-loop learning. Double-loop learning often needs a crisis or revolution because organizational actors (such as managers and agents) transmit culture to be primarily single-loop learning (Van Gossum *et al.*, 2010).

Tri-cyclic learning also allows you to strongly present interpretations of traditional structures of knowledge and challenged understandings of the management of people and work (Patnaik *et al.*, 2013). This kind of learning is learning to learn (Callahan, 2013).

Productive Learning encourages persistent experimentation and risk. This type of learning maintains on new ways of viewing the world and comprehensive thinking. Also to the transformation (change what is already there) to be of great importance and encourages constant change. In addition emphasis on the questions about how and why a lot of things are done (Ions & Minton, 2012).

Cognitive learning can be defined as a mental process. Cognitive learning is influenced by the information that a person displays for selection and interpretation of the data. It takes into consideration when the need to learn new and urgent information is clear. One of the researchers used five criteria for cognitive learning. They include: assessment of changes in attitudes, learning from the results of research and development of results, learning from others ideas and expressing learning from the results (Raadgever *et al.*, 2012).

Adaptive learning maintains a low risk, conservation reserves, increasing improvement of what already exists, coping and stability. This type of learning focuses on previous successes and uses them for future strategy development and does not relate to fundamental hypotheses or basic question (Ions & Minton, 2012).

Dr. Esfahani *et al.* (2013) study determined the effect of self-esteem in police commanders on how to deal with the mistakes they have made. The purpose of this paper is to identify the impact of self-management and military commanders on how to deal with mistakes. The results show that self-management capabilities affects on facing the problems, learn from mistakes, confusion caused by mistake and to cover up the mistake, but is not effective on the conversation about the error. In fact, in this study, four hypotheses were accepted and one of the hypotheses is not accepted (Esfahani *et al.*, 2013).

One of the researches in this case studied the effects of being in fail situation during physical skill learning and analyzed its effects on learning and action. Research variables such as the induction of the successes and failures were added to the two groups through verbal feedback and were applied by emphasizing the role of motivation on the subjects. The results show that the induction of states of success and failure in the course and through additional verbal feedback can be significant for learning and performance. Also documents practices of success and failure indicate helplessness experienced by the failure of the earlier motor skills. Also according to the study, the failure has a significant effect on the learning of motor skills (Farrokhi & Mohammadzadeh, 2004).

One of the searches investigated the predictability of employees learning in workplace through a learning culture, by psychological empowerment and effective

management. The results of this study suggest that psychological empowerment (participatory management and employee contributions) is a powerful mediator of learning to predict the impact of culture on employee learning in the workplace. These findings suggest that the human resource development professionals must consider managerial role and individual motivation and staff learn and develop. Human resource development professionals need to develop confidence and independence of staff and provide learning opportunities for them to develop motivation. It is important that employees believe learning opportunities as a means to solve the problems of individual and organizational issues (Rahimnia *et al.*, 2011).

According to a research done, crime was significantly associated with motivation to learn. Those engaged in crimes mostly concentrate on a special behavior or decision which leads to a negative result and strongly want to prevent the same mistake from happening again (Lewis, 2000; Tangney *et al.*, 1996). Also, research shows that women show stronger emotional reactions to success and failure. When compared to men, women experience more success to come ecstasy and when experience failure they are more depressed than men (Beyer, 1998).

Unpleasant emotion caused by a mistake is very common (Pearn, *et al.*, 1998). Research in this area suggests that negative emotions decrease learning motivation by decreasing hope and excitement. People who have negative feelings about their mistakes compared to those with positive or neutral emotional stability are less likely to believe that they're going to learn from their mistakes. Also less likely to have their learning outcomes assessed as something precious. This will reduce their incentive to learn. To conduct a research in this area, participants' managerial performance simulate software is used (Seo *et al.*, 2004).

In this way, at the end of each period, management performance of participants give feedback about goals, mistakes and their work. The results show that negative emotions are important in learning from mistakes. Also, attention to individual differences in learning from mistakes can help administrators and educators to train people better. As a result, understanding management's perception of intolerance toward errors is significantly and positively associated with negative emotions and low motivation to learn. The negative and significant relation between fear and learn from the mistakes were found (Zhao, 2011).

Also Raybiovik *et al.* (1999) have developed a scale for evaluating talent to response and deal with errors. They found that individual beliefs of learning from the mistakes are related to individual differences such as self-efficacy and readiness for changes (Rybowiak *et al.*, 1999).

Snell (1988) collected data through qualitative method and was used for the job interview to assess managers' learning patterns. As he said, learning from the mistakes is the second form of training (Snell, 1988).

According to the research results, organizational changes that including double-loop learning is more preserved since deeply changes cultural and structural features. But when nurses learn from mistakes, single-loop learning is dominant (Hovlid *et al.*, 2012).

A study by Raadgever *et al.* (2012) conducted using five criteria to assess cognitive learning. Five indicators examined in this study include assessment of changes in attitudes, learning from the results of research and results' development, learning from other people's perspectives and learning from the results of the study. According to the survey results, 29 of 41 respondents' attitudes were changed significantly (Raadgever *et al.*, 2012).

## CONTINGENCY MANAGEMENT

Contingency management is useful behavioral strategy (Roll, 2007). An experimental study in the context of contingency confirms contingency theory importance and validity (Gerdin & Greve, 2004). The main hypothesis in contingency theory is that there is no international relations system that can be used equally in all organizations and in all circumstances. Implementation of any particular method depends on the specific environment that the organization should find it (Otley, 1980). Main area of the contingency approach is that no single system exists for all organization for all the circumstances. Instead, appropriate system depends on the specific circumstances of the organization. It actually depends on a number of contingency factors (Sirinuch & Michaeles, 2010).

Contingence in organizational life can take many forms (such as unexpected encounters, reckless results' trials and errors) and appears to have the potential for long-term effects (Jean-Philipe & Rodolphe, 2010). Factors that affect the requirement are: a new economic in organizations, economic globalization and increasing competitive international markets and changes related to the integration of the workforce, demographic factors and high speed development of new technologies, especially information technology (IT) (Thompson & Jones, 2008).

Selection of strategy tailored to the external and internal environment is emphasized in the contingency model (Mirsepasi, 2009, 29). In this doctrine, the strategist can be selected in terms of environment and contingently appropriate strategy or method. Choices have their own laws and managers can not apply a contingency model based on their own taste (Mirsepasi, 2009, 29).

Contingency is an appropriate, without goal and somewhat random unpredictable phenomenon (Garud *et al.*, 2010). The contingency perspective on the organization means the fit between organizational characteristics and contingency factors. The main area of contingency perspective is that no single system for all organizations in all environmental conditions exists. Appropriate system depends on the specific circumstances of the organization. It actually

depends on a number of contingency factors (Nimtrakoon & Tayles, 2010). Contingency in organizational life can take many forms (Vergne & Durand, 2010). Institutional environment and organizational context are the contingency factors in organizations (Pizzo, 2011). Also organizational factors and the business IT value have been proposed by other researchers as contingency factors (Wiengarten *et al.*, 2013).

Chenhall (2003) has pointed out contingency factors as: environment, technology, size, structure, strategy and culture (Chenhall, 2003). Also, according to the conducted researches, contingency factors (such as environment, technology, organizational structure, size, strategy and culture) have been studied (Sirinuch & Michaeles, 2010). Also the nature of the relationship with the supplier and the degree of proximity (geographic proximity, structural and institutional proximity) are other contingency factors that have been examined in another study (Jarraya & Leclere, 2013). Other researchers have also focused on static and dynamic environments contingency model and offer it based on contingency model (Gruber, 2007). One of the researchers in his study has identified large contingency variables and has been identified contingency variables with a focus on the customer. They are: a group structure, size, unity, culture, design quality, results, industry and etc (Jayaram *et al.*, 2010).

**RESEARCH METHOD**

This research is an applied survey based on the purpose. Applied research means to gain knowledge or understanding necessary to determine the means by which a specific need is known to be resolved (Khaki, 2004, 94). In terms of methodology, this research takes place among the descriptive method. Descriptive study describes and interprets what it is (Khaki, 2004, 104). Research approach is a survey type. The purpose of the survey approach is to explore, describe and explain and the main used tool is the questionnaire (Khaki, 2004, 108). This research is part of the field studies. Field studies are scientific non-experimental studies that aimed at the discovery of the relationship and interaction between the studied variables in terms of the actual structure and are more an orientation toward the research (Khaki, 2004, 114). This research is a correlation relationship because explores the relationships. Correlation studies evaluate a number of variables that are thought to be associated with a major variable (Khaki, 2004, 121). This research will be also in Research Group.

In this study it is aimed to determine a model of learning from mistakes based on two dimensions of organizational tolerance to mistakes and motivation of employees to mistakes. Data from five closed questionnaires and nine options were gathered. One of the questions has two options. As this study was done in current year, it has a specific time period, so the study is cross-sectional. Since this study was conducted in governmental institutions in Western Azerbaijan, study design is large study.

The research statistic includes all managers and employees of government agencies in Western Azerbaijan which according to the latest statistics (the latest figures presented in 2011) by the Governor of West Azerbaijan website it contains about 65,000. Sampling was done randomly and was distributed among employees, managers and government agencies in Western Azerbaijan. Cochran sampling (Neter *et al.*, 1988) and sampling survey was conducted by using Bernoulli distribution (Neter *et al.*, 1988). According to the calculation of sample size, 175 seemed sufficient. To get the data, 200 questionnaires were distributed among the target population and of those, 181 questionnaires were completed. The response rate is 0.9.

Delphi technique, interviews, observations, and questionnaires were used to collect data. Descriptive statistics were used to analyze the questions along with frequency table, frequency and statistical graphs. The analysis of the data was done using statistical software (SPSS). Nonparametric statistical correlations have been selected depending on the search to determine relations between variables. In this study $\alpha$ is 0.05. The Friedman test was used to prioritize the factors.

To ensure reliability, the first test of the questionnaire was conducted on 40 people and Cronbach's Alpha (Vatankhah *et al.*, 2010; Jayaram, L. Ahire, Dreyfus, 2010; Fuentes-Fuentes, *et al.*, 2004; Mellat Parast, *et al.*, 2011) was approved reliability through statistical methods using SPSS 18 software ($\alpha$ = 0.858). The three tables below display detail and reliability of questionnaires:

The first 14 questions assess the tolerance to mistakes and also deals with the level of employee motivation towards learning from mistakes. The first 14 questions validity equals to 0.963. The last 26 questions concerned with evaluation of learning in the government agencies. Their reliability is equal to 0.819. The table below shows the reliability of the whole set of questions. Since reliability is higher than the required minimum (ie, greater than 0.7) (Vatankhah *et al.*, 2010; Jayaram, L. Ahire, Dreyfus, 2010; Fuentes-Fuentes, *et al.*, 2004; Mellat Parast, *et al.*, 2011), it can be said that the questionnaire has the required reliability.

**Table 1**
**Cronbach's Alpha of all questions**

| *Cronbach's Alpha* | *N of Items* |
|---|---|
| 0.858 | 40 |

First 14 questions of the questionnaire are based on Likert scale where each question has five options. Last 26 questions have 9 items and Likert scale is used. As the value of all the questions on the Likert attitude or deemed imagined to be equal, this it has been used in this study because the value of the questions is the same.

The questionnaire is divided into four sections. The first part explains the questionnaire ad the reason of this research conduction and questions such as age, gender, discipline, and the history of the organization were asked. The second part of the questionnaire contains 14 five-option questions that analyze tolerance of organization toward mistakes and people motivation to learn from the mistakes. The third section consists of a two-choice question that has been asked to investigate the hierarchy of learning from mistakes. The fourth section consists of 26 questions that are designed to provide an appropriate learning in the organization.

Delphi technique was used to obtain a variety of learning. It is a 5-stage process (Pashaye Zad, 2007). Number of skilled persons in this technique was between 9 and 12. In this study 12 expert opinions (public sector managers and academics) are used. First, different types of learning were identified through the study of researches. Second, the importance of the indicators identified by the 5-choice questionnaire was examined and the experts were asked to choose to refer to indexes according to their ability and expertise another if they are. Or eliminate one or more of them if have no effect on learning. The obtained parameters were prioritized by the Friedman test prioritization technique. Another questionnaire was drawn up on the basis of obtained information. In addition, the individual priorities have been done, and presented with the final list to experts to compare their opinions with the opinions of other experts. This step was performed twice more until it finally ended in five indicators of learning from mistakes. The final five indicators are: single-loop learning, double-loop learning, cognitive learning, productive learning and errors management. The above steps have been performed to select the next two dimensions of contingency. Finally, both the tolerance of the organization toward mistakes and employees motivation to learn from mistakes has been obtained.

Informal validity is based on the judgment of the informed people (Khaki, 2004, 244). This approach is use to test the validity of this questionnaire. Factor analysis was used for the final questionnaire that showcases the correlation between the questions. 200 questionnaires were distributed among government agencies in Western Azerbaijan and 90% were filled. The reason behind high response rate was physical presence of the research scholars in research place. Obtained data were analyzed after collecting through using books and statistical software's. Fist the frequency of each question and its percentage were estimated and then hypotheses were analyzed by means of correspondence tables, correlation, regression, Friedman prioritization test and Bernoulli test. Also, since the sample size is greater than 30, it is assumed to be normal based on the central limit theorem. Due to the large volume of learning, the help of the experts and Delphi technique were adequate. These results include: the single-loop learning, double-loop learning, cognitive learning, productive learning and errors management. To provide a contingency model, the tolerance of errors is intended in one dimension

and employees motivation to learn from mistakes on the other dimension. This size range is reduced from high to low. In fact, both placed in a high range and low range.

The main hypothesis 1 of the study proposes that a significant relation exists between organizational tolerance toward mistakes and learning from the mistake in government agencies in Western Azerbaijan. 5 sub-hypothesis has been proposed to analyze main hypothesis of the study. These hypotheses are briefly examines the relation between different types of learning (single-loop learning, double-loop learning, cognitive learning, and productive learning and errors management) and organizational tolerance toward mistakes.

Second hypothesis of this study is that a significant relation exists between organizational tolerance toward mistakes and learning types in public organizations in Western Azerbaijan. 5 sub-hypothesis has been proposed to analyze main hypothesis of the study. In summary, the hypotheses analyzed the relations of different types of learning (single-loop learning, double-loop learning, cognitive learning, productive learning and error management) and people motivation to learn from their mistakes.

This study also examines the hierarchy of learning from mistakes. For the management to know what level of investment on learning should be, learning hierarchical levels should be in order to determine their significance. As a result, the questionnaire for each level of learning designed with 9 answers that offer a hierarchy of learning from mistakes through the Friedman test. What will be examined in this context is that the priority is of which type of learning from mistakes and which kind should be more in attention of managers to reinforce the learning from the mistakes?

## DATA ANALYSIS

Total average of first 6 questions is 23.02, when divided by 6 (number of questions) average level of organizational tolerance to errors can be obtained by average of averages. The resulting level equals to 3.83 which is close to the average equaled to 3. In conclusion we can say that the tolerance level in government agencies in Western Azerbaijan is lower than the average level of errors. By median and mode, the same conclusion can be reached. Mood and Mean of Questions 7 to 14 are 4 and 5, respectively, indicating high incentive of people to learn from mistake. The average mean is 4.32 which is high. As a result, according to descriptive statistics, mean, median and mode it can be said that people are highly motivated to learn from their mistakes.

58 men of a total of 110 men agreed to learn from their mistakes (almost 53%) while 37 women (out of 65 women), 56% of whom are sympathetic to learn from their mistakes. 52 men give more points, 47%, to learn from others mistakes, and

44% of women believe that they learn from the mistakes made by others. It can be said that almost equally both men and women care of learning. In both sexes, learning from self-mistakes allocated higher percentage.

Generally 97 members marked option A (learning from self-mistakes) (54%) and 84 members have chosen option B (learning from the mistakes of others) (46%). Here the null hypothesis is that the probability of selecting a trial at any time is equal to 0.5. The Bernoulli experiment is used to test this hypothesis. Binomial test can also be used since the probability of success (option A) in each test is a specific number (0.5). The following table displays the results of the test. Table 4-23.

**Table 2**
**Bernoulli binomial test output**

| | | | | | | |
|---|---|---|---|---|---|---|
| | | *Binomial Test* | | | | |
| | | *Category* | *N* | *Observed Prop.* | *Test Prop.* | *Asymp. Sig. (2-tailed)* |
| Learning | Group 1 | From self-mistakes | 95 | .54 | .50 | .290[a] |
| | Group 2 | From the mistakes of others | 80 | .46 | | |
| | Total | | 175 | 1.00 | | |

a. Based on Z Approximation.

The most important word of the table is on the right in the last column. Since the p-value is greater than 0.05 (actually is 0.29), therefore the null hypothesis is not rejected. This means that although people have chosen option A (learning from mistakes) more than Option B (learning from the mistakes of others), the binomial test did not reject the hypothesis that there is a greater tendency (p-value> 0.05).

**Table 3**
**Friedman test table**

| Test Statistics[a] | |
|---|---|
| N | 175 |
| Chi-square | 85.417 |
| df | 6 |
| Asymp. Sig. | .000 |

a. Friedman Test

Since Asymp. Sig is less than 5%, a significant difference exists between the different types of learning. In fact, given that this value is equal to 0.000 and less than 5%, we can say with 95 percent certainty that a significant difference exists between the different types of learning.

Learn from the mistakes of others allocated the highest rated in current organization (4.93). The next point is awarded to question17, which is equal to 4.36. The second priority of the government agencies is to learn from their mistakes in the current organization. The third priority is with an average of 4.09 to question twenty that relates to learning from their mistakes in a virtual environment. The fourth priority is also related to the question twenty-two. This question is about learning from the mistakes of others in the virtual environment and the average is 3.97. The next priority is to question20, the average is 3.81. In fact, learning from the mistakes of other partners in the past was included in the question of the previous organization. The sixth priority with an average of 3.69 relates to question 18 about learning from their mistakes in the previous organization. The last priority with an average of 3.14 relates to question 16 about learning during formal courses of the organization. The following figure depicts these priorities based on the analysis of Question 15 to Question 22.

**Figure 1: Hierarchy model of learning by mistakes priority**
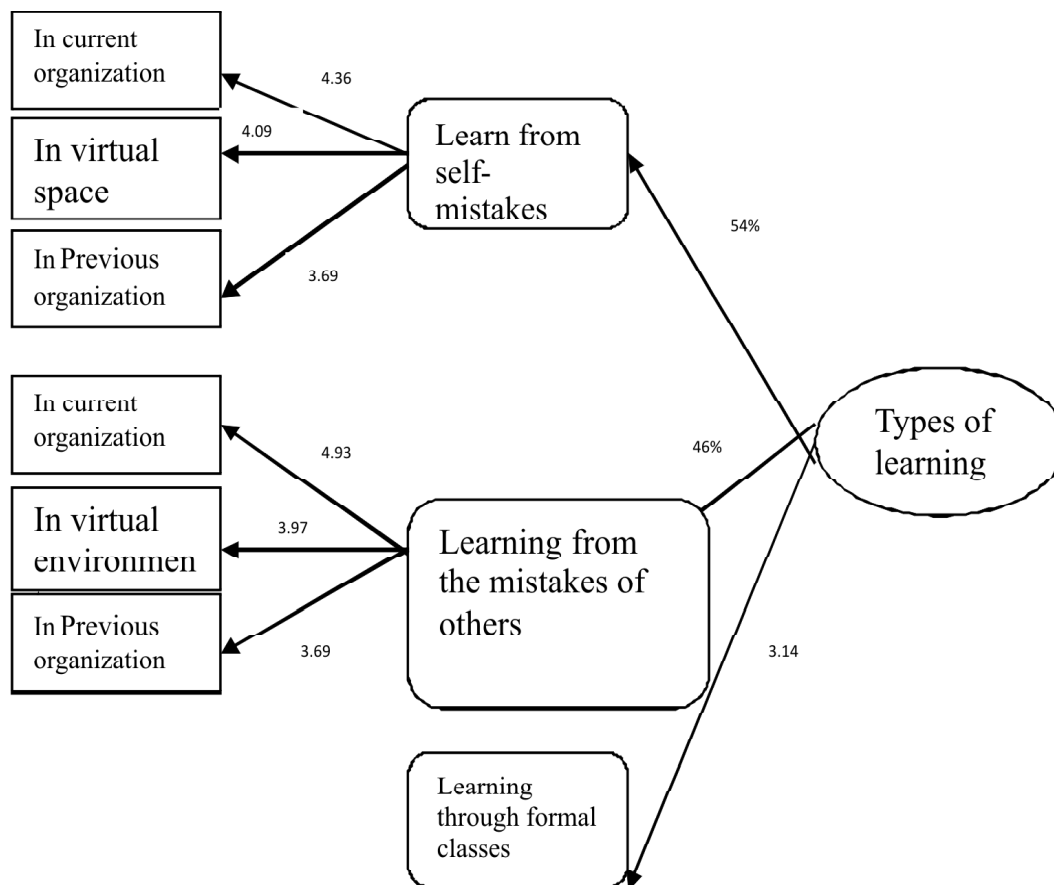
As a result a poor correlation exists between the organization tolerance to mistakes and different types of learning. The value of r is equal to 0.163 and is significant in more than 5%. The above hypothesis is confirmed by the weak correlation.

To analyze the data for secondary hypotheses, multiple regression analysis was used. Here all the independent variables simultaneously inserted or removed. Double-loop learning variables are most correlated with the tolerance to errors. Correlation is equal to 0.185 with p-value = 0.006, meaning that more than 95% shows that the tolerance to errors and double-loop learning organization have significant relations at 0.185. Then, the highest correlation relates to productive learning with 0.138 correlation and 95% level of confidence. It can be said with 90% confidence a correlation relation (0.115) exists between the error tolerance and single-loop learning in organization. It should be noted that these figure suggests a weak correlation between the variables. A significant relation does not exist between cognitive learning and error management with organization tolerance toward mistakes.

The following table shows the regression coefficients. Due to beta weight, double-loop learning had the greatest role in the tolerance to errors, because a unit of change in double-loop learning (SD) can change standard deviation to 0.153 in the tolerance to errors. Yet this is not surprising. Changes in the fundamental beliefs and values are required to increase tolerance to errors. After double-loop learning is productive learning. Because a unit of changes in standard deviation leads to productive learning to change 0.066 in standard deviations in the tolerance toward errors, while the issue in single-loop learning is 0.022. As shown in Beta Table, specific changes in cognitive learning and errors management do not affect organization tolerance to errors.

**Table 4**
**Regression coefficients learning Table**

Coefficients[a]

| Model | | Unstandardized Coefficients | | Standardized Coefficients | | |
| --- | --- | --- | --- | --- | --- | --- |
| | | B | Std. Error | Beta | t | Sig. |
| 1 | (Constant) | 20.239 | 1.408 | | 14.375 | .000 |
| | Error management | -.011 | .058 | -.017 | -.192 | .848 |
| | Double-loop learning | .088 | .058 | .153 | 1.520 | .130 |
| | Single-loop learning | .012 | .056 | .022 | .220 | .826 |
| | Productive learning | .035 | .046 | .066 | .764 | .446 |
| | Cognitive learning | -.007 | .053 | -.012 | -.128 | .898 |

a. Dependent Variable: the tolerance to errors

Here, as in the first study hypothesis, simple regression was used to test. Only the two variables are investigated. Relatively a strong relation exists between employee motivation and learning from mistakes. The value of r is equal to 0.428 and is significant in more than 5%. In fact, with 95% confidence a significant relation exists between motivation to learn and learning from mistakes.

Single-loop learning variables have the most correlation with employee motivation to learn from mistakes. Their correlation with p-value = 0.000 is equal to 0.477. This means that you can say with 99 percent certainty that the motivation of employees to learn from mistakes and single-loop learning has significant relation at 0.477. Then, the highest correlation relates to cognitive learning with 0.387 correlation and 99% level of confidence. We can say with 99% of confidence that a correlation (0.317) exists between the motivation of employees to learn from mistakes and double-loop learning. The correlation between error management and generator learning are 0.259 and 0.142, respectively that also shows a weak correlation.

**Table 5**
**Regression coefficients Table**

| Model | | Unstandardized Coefficients | | Standardized Coefficients | t | Sig. |
|---|---|---|---|---|---|---|
| | | B | Std. Error | Beta | | |
| 1 | (Constant) | 25.215 | 1.392 | | 18.112 | .000 |
| | Error management | .029 | .057 | .039 | .502 | .617 |
| | Double-loop learning | .033 | .057 | .051 | .570 | .569 |
| | Single-loop learning | .222 | .055 | .360 | 4.012 | .000 |
| | Productive learning | -.028 | .045 | -.047 | -.617 | .538 |
| | Cognitive learning | .089 | .052 | .145 | 1.701 | .091 |

a. Dependent Variable: motivation to learn from mistakes

**Figure 2: The relations of the dependent and independent variables**
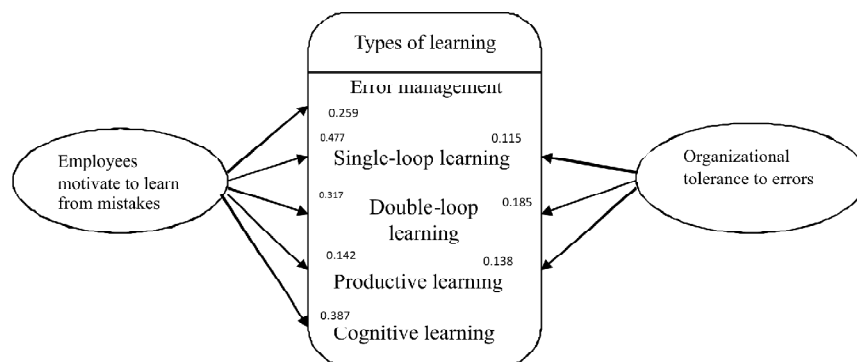
Model with respect to analysis of the information is provided as follows:

The next step is to analyze the data and the relations of variables through exploratory factor analysis. First the relation between field of study with tolerance to errors and staff motivation to learn from mistake have been analyzed that the results show no significant relation between them. But the tolerance of the organization to errors and employees motivation to learn from mistakes is significantly associated (0.240). According to the results, it can be said that a weak correlation between productive learning and field of study exists at 95 percent. In fact, by going to the humanity fields can affect the productive learning. This means that the study field of humanities or non- humanities may affect the level of productive learning. This effect is positive and too weak ($r = 0.170$).

A significant correlation exists between gender and Field of Study in government agencies in Western Azerbaijan, which means that the education level of the female tends to humanities. In fact, one can say with 99% confidence that a significant relation 0.277 exists between female sex and education in humanities. The weak negative correlation between education and age groups (-0.194) is seen. This means that with 99% confidence we can say that an increasing in age decreases education level. Also a significant relation exists between gender and educational level at 95 percent. R = 0.158 indicates a weak relations between these two variables. Female education is relatively more than male, but this relation is weak. A correlation exists between age and gender -0.206. This means those females are in younger age groups. Also the most correlation relates to age groups and job experience in which the higher the age is the longest the experience (0.754).

A significant negative relation exists between organization tolerance to errors and the level of education. They think that increment in the education level of employees reduces organizational tolerance of errors. In fact, the education level is a predictor of their understanding about organization tolerance level towards mistakes. The correlation is 0.315 and the confidence level is 0.000.

## RESEARCH CONTINGENCY MODEL

According to the information provided above tables, we can provide a contingency model. As it has been stated, the most important factor affecting organization tolerance to mistakes is related to the double-loop learning mistakes. As a result, if the tolerance to the errors is low, double-loop learning should be strengthened in the organization. The least important factor affecting on organization tolerance to mistakes is related to single-loop learning. So we can say, if tolerance of mistakes is high, it is better to emphasis single-loop learning in organizations. These results are summarized in the following range.

**Figure 4: Range of organization tolerance to mistakes**

productive                     Double-loop learning          single-loop learning

organization tolerance to mistakes                    high                    learning

low
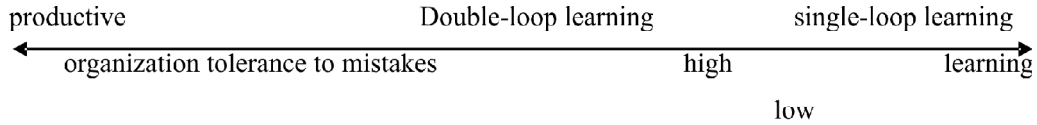
Also among the types of learning, the most influential factor on employee motivation to learn from mistakes is single-loop learning. So to boost employee motivation to learn from mistakes single-loop learning should be more maneuverable. The least important factor is related to productive learning. In fact, according to the analysis results can be stated:

**Figure 5: Staff motivation range to learn from mistakes**

single-loop learning      cognitive learning      double-loop learning      error management      productive learning

Staff motivation range to learn from mistakes                              high

low
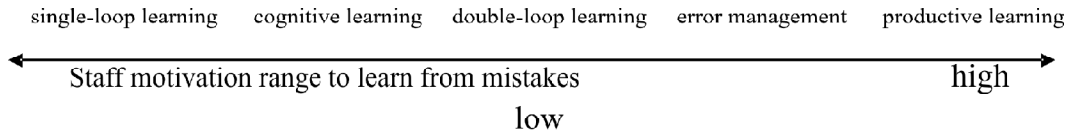
By combining the above ranges, the summary can be found under the two-dimensional model. One aspect of this model is related to the tolerance of organization. The second dimension is related to employee motivation to learn from mistakes.

**Figure 6: Contingency model of learning from mistakes**

high

Employees'
motivation to
learn from
mistakes

low

High                        The tolerance to errors                    low

Finally, Friedman test was used for prioritizing various learning in government agencies in Western Azerbaijan.

**Table 7**
**Friedman test**

| *Test Statistics[a]* | |
| --- | --- |
| N | 181 |
| Chi-square | 329.062 |
| df | 4 |
| Asymp. Sig. | .000 |

a. Friedman Test

It can be seen from the above table, Asymp. Sig is less than 5%; as a result a significant difference exists between the different types of learning. Consequently, Hypothesis 1 is not rejected and with 95% confidence we can say that there are significant differences between different types of learning. From the perspective of the respondents, cognitive learning is the most important type of learning (mean 4.09). The next place is single-loop learning with an average of 4. Third rank with an average of 2.99 dedicated to double-loop learning. Fourth place relates to productive learning (mean 2.11). The last place with an average of 1.82 relates to error management.

Finally, the prioritization of two variables of organization tolerance to mistakes and employees' motivation to learn from mistakes are presented. According to the results, Asymp.Sig is less than 5%, so the difference is significant. The score of employee motivation to learn from mistakes (1.99) placed in a higher rating than the error tolerance (1.01). In conclusion, the importance of employees' motivation for learning from mistakes is more than organization tolerance to mistakes in governmental offices in Western Azerbaijan.

## CONCLUSION

By analyzing the information that is presented separately calculated and observed that government agencies in Western Azerbaijan error has lower tolerance levels toward mistakes than the average level. The same conclusion can be reached by looking at the median and mode. In conclusion we can say that the tolerance level among government agencies in Western Azerbaijan is evaluated below average. Also according to the descriptive statistics of mean, median and mode in seventh to fourteenth questions it can be said that all of their scores are above average. In fact, we can say that people in government offices in Western Azerbaijan are highly motivated to learn from mistakes. In other word, employees' motivation to learn from mistakes is above average.

According to the results of question 15, learning is equally important to males and females, but both sexes allocated higher scores of learning from the mistakes to themselves. More than half of respondents have priority to learn from their mistakes. In fact, according to the respondents, learning from own mistakes has a priority to learn from the mistakes of others.

Considering the results, we can say that a significant difference exists between the different types of learning. Highest rank relates to learning from the mistakes in the current organization. The other cases are: learning from own mistakes in the current organization, learning from own mistakes in a virtual environment, learning from the mistakes of others in a virtual environment, learning from the mistakes of other partners in the past, learn from own mistakes in the past and learn from classes that are held by official agencies. Based on the analysis presented in the previous part, it can be said that a relatively weak relation exists between organization tolerance to mistakes and learning types. This correlation is positive and weak. As a result, the main hypothesis about the relations between the tolerance to mistakes and learning is accepted with a weak relation.

Secondary hypotheses related to the main hypothesis shows that a significant relation exists between the expression of organization tolerance to mistakes and learning types (error management, double-loop learning, single-loop learning, productive learning and cognitive learning). According to the results, we can say that organization tolerance to errors and double-loop learning establishes a significant relation. Then the generator learning has the highest score. Also with a lower confidence than the two previous, it can be said that correlation exists between the tolerance to errors and single-loop learning. It is noteworthy that the obtained figures suggest a weak correlation between the variables. A significant relation does not exist between cognitive learning and error management with tolerance to mistakes.

The second main hypothesis suggests that a significant relation exists between the motivation of employees to learn from mistakes and learning types. According to the results, there was a significant a relatively strong correlation between the motivation of employees to learn from mistakes and learn types in government agencies in Western Azerbaijan. The above hypothesis is supported by the strong correlation.

Secondary hypotheses on two main hypotheses suggest that a significant relation exists between the motivation of employees to learn from mistakes and learning types (error management, double-loop learning, single-loop learning, productive learning and cognitive learning). Single-loop learning variables are the most correlated factor with employee motivation to learn from mistakes. So it is most correlated to cognitive learning. Also it can be said that a correlation exists between employees' motivation to learn from mistakes and double-loop learning

and this is less than other two. There is a correlation between error management and productive learning which is weak. As a result, second, third and fifth secondary hypotheses are accepted with a relatively strong correlation but fifth and first hypotheses are accepted with a weak correlation.

To analyze the data and the relations of variables, exploratory factor analysis was used. First the relations between field of study and organization tolerance to mistakes and employees' motivation to learn of mistakes have been analyzed that showed no significant relations. But a significant relation exists between the tolerance of the organization toward mistakes and employees' motivation to learn from mistakes.

According to the results, it can be said that a weak correlation exists between productive learning and field of study. In fact, by going to the humanities can affect the productive learning. This means that the field of humanities or non-humanities may affect the level of productive learning. The impact is positive and poor.

A significant relation exists between gender and field of study in government agencies in Western Azerbaijan. This means that the level of female education tend to be in humanities. In fact, a relation exists between the female education and human sciences. A weak significant relation exists between education level and age group. This means that with increasing age, education level decreases. Also a significant relation exists between gender and level of education, but the relation is weak. Education is relatively more in female than male, but this relation is weak. Also a correlation exists between age group and gender, but the correlation is negative. This means that female gender is in younger age groups. The highest correlation is of age and experience that it is not far-fetched, because job tenure increases with increasing in age.

Relation between tolerance of organization to errors and the level of education is significantly negative. Increscent in the education level of employees reduces their tolerance of errors. The level of education is one of the predictors of their views about the level of tolerance towards mistakes.

According to the results a contingency model can be presented. As has been stated, the most important factor affecting on organization tolerance to mistakes is related to the double-loop learning. As a result, if the tolerance is lower than the errors, double-loop learning should be strengthened in the organization. The least important factor affecting on organization tolerance to mistakes is related to the single-loop learning. So we can say if tolerance of mistakes is higher it is better to emphasize single-loop learning in organizations. Also single-loop learning is the most influential factor on employee motivation to learn from mistakes among the types of learning. So single-loop learning should be more maneuverable to boost employees' motivation to learn from mistakes. The least

important factor is related to productive learning. As a result, if employees' motivation to learn from mistakes is much, it is better to reinforce productive learning in the organization.

Due to prioritization, from the perspective of the respondents, cognitive learning is dedicated to the most important learning. In the next place, single-loop learning is placed. Third rank is dedicated to double-loop learning. Fourth Place relates to productive learning. Last place is owned by error management. A significant difference exists between the rank of staff motivation to learn from mistakes and organization tolerance to mistakes. Also employee motivation to learn from the mistakes has higher rates that organization tolerance to mistakes. This conclusion implies the importance of employee motivation for learning from mistakes more than the tolerance of mistakes in government offices in Western Azerbaijan.

General conclusion of the study is that organization should pay attention to enhance learning programs. For this purpose, with respect to the review, the contingency model is presented. The hierarchy of types of learning is also provided. Due to the high number of parameters and in many cases of this research, the most important indicators were reached by Delphi technique. The study was studied several limited factors. Researchers can used the results of this study to determine other contingency factors to present a model to reinforce learning from mistakes. Generally several variables have an impact on the study during the investigation and it is tried to reduce their effects as much as possible. Staff fear of factors may have influenced results. At the beginning of the interview was given them confidence that their data is safe and a person's name is not mentioned. To overcome the limitations, standard sampling method is used to neutralize influence of the Collateral Agent on the results. The lack of familiarity of staff with the research and overall research topic, other factors may have affected the study that the problem has been solved by choosing a large sample size to overcome this problem. However, it was necessary to have adequate training to staff. The researcher therefore has attempted to introduce the topic when filling out the questionnaire by respondents.

One of the other problems when doing research was security dealing with this issue. Upon requesting of the human resources to work on this project, the guards are treated securely and usually refused to cooperate. To overcome this problem, we tried to establish a relationship based on trust and cooperate. Another problem was the lack of background research about the topic. No foreign model and domestic sources were found for this topic. As a result, this research deals to overcome this limitation.

The results of this research were to provide contingency model of learning from the mistakes and refers to the following suggestion:

- According to the results, the relative error tolerance level is low. To increase the level of tolerance to errors, contingency model has been presented in accordance with this condition that emphasized the double-loop learning.

- The results indicate that motivation to learn from the mistakes among government staff in West Azerbaijan located on the upper level. According to the proposed contingency model, when the motivation level is high, it is better to focus on productive learning and when motivation is low it is better to strengthen single-loop learning in organizations. As a result, for government agencies in Western Azerbaijan where the motivation for learning from mistakes is high, learning based on risk, trial and error is recommended.

- It is better to reinforce learning programs based on contingency model and to assess organization tolerance to mistakes and employee motivation to learn from mistakes, and then the appropriate type of learning can be prescribed due to the known circumstances of organization.

- With regard to the priorities, the highest priority in the hierarchy relates to the current organizational learning and learning from the mistakes of others. As a result, it is recommended to improve the learning of individuals, increase their level of tolerance towards mistakes.

- The second priority is to learn from own mistakes in a virtual environment. With the increasing further development of cyberspace and virtual networks, its importance was approved in this study. So with the expansion and strengthening of virtual space we can help better learning from the mistakes among employees in public administration in Western Azerbaijan.

- Given that learning through educational classes will hold the least impact on learning staff. As a result, instead of training classes it is recommended to increase the tolerance to errors and the emphasis on cyberspace.

- In the presented results, the most important respondents learning are cognitive learning. As a result, it is recommended to improve learning which is also emphasized in cognitive learning.

- According to prioritize, the motivation of employees to learn from mistakes is more important than the level of tolerance towards mistakes. So it is primarily to strengthen the incentive for individuals to learn from the mistakes. Then to increase the tolerance to errors can be taken.

- Due to the wide variety of indicators and factors that influence learning, this study only examined the influence of two contingency factors. There are other indicators and factors that analyzing them would lead to better contingency model.

– Types of learning that were examined in this study are limited to five cases that were obtained using the Delphi technique. There are many different types of learning that can be addressed in other studies. Future research could examine other types of learning; assess their role in learning from mistakes.

– Also considering that many theories about learning from mistakes is not provided by various scientists, framework of this study can be used to assess contingency.

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