The Agility of Organization and Improving Efficiency

(Case study: Ilam Provincial Administration’s Employees)

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Abstract:

Today's, efficiency and organizational improvisation have evolved to one of the most important considerable components of management in small and large organizations. At present, most experienced managers in various organizations found that to be success intensive global competition extent and improving efficiency, it's important and of high value to consider factors related to human efficiency and results in make benefits for organization. With the purpose of studying the role of agility of organizations and improving efficiency of Ilam provincial administration's employees, this research investigated the extent of work speed and precision of employees, work channel, work process, JFT (just-in-time) management and application of decisions. Research method is descriptive-analytical; data gathering tools is researcher-made questionnaire. Statistical communities are whole full-time, part-time and conventional employees of Ilam provincial administration, including 523 subjects and 221 subjects of mangers, supervisors and employees selected by Cochran sampling method. To analyze quantities data, it was used Pearson's correlation coefficient and $\chi^2$ statistical tests.

There were 5 research hypotheses that postulated in relation to variable: 1-speed 2-Flexibility 3- competence 4- accountability. All of these hypotheses were confirmed in meaningfulness level %95. In other is a positive relationship among these variables and improving organizational efficiency.

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Keywords: Agility, Efficiency, Organizational Improvisation, JFT (just-in-time) Management, Ilam provincial administration.

Introduction:

Today's, by increasing complexity of structure and performance of organizations, of challenges faced by administrative managers and organizational supervisors, we could mention organizing work environment and creating proficient and proper atmosphere in organization that results in more activity of human force, their pleasure, removing probable risks, improving quality in work, decreasing depressions, growing positive services and finally achievement to respective efficiency (Sarmad: 2009; 25). Results obtained from studies of human forces showed that developing efficient and agile human forces has a vital role in to achieve most organizational purposes (Dived, 2004). Providing useful and effective services is a achieved with an attempt to establish most proper and healthy atmosphere and environment. What is of high importance is producing satisfaction and pleasure in human force in the direction of promoting functional ability and facilitating affairs, in order to, besides having satisfaction of work environment, work identity, benefits and wage… with high ability to perform duties with precision and speed that is of high importance in work cycle of organization, to perform their duties more better. In the organization work cycle, making disorder or delay in a factor like JIT decisions of manager, delaying work by one employee, defect in doing works results in disorder in common hierarch of one work process in organization and this situation affects on agility and improvisation of organization (Goldman & Negel 2009).

Additionally organizations faced to competition increasing due to technological innovations, disordered and undisciplined environment and change in customers demand. Therefore, organizations have various forms. One of most recent organizational form is agile organizations one. Beyond consistency, these organizations think about changes and tend to use potential opportunities in a disarranged environment. It seems that agility is not a
phenomenon only regarded to private section. Applying agility in public section could be a proper context to its development and promotion. Of course some believe that with respect to lack of competition and speed in public section, in other words, lack of dynamics in its functional and work environment, practically the expression of agility is meaningless. But it must be considered that in public section, because of frequency of customers, more need to resolve their problems and fulfill their demands, development and improvisation in the context of speed and quality and most importantly, reducing costs, this section needs more agility that private part. As the purpose in public section is to achieve coincidentally high flexibility and efficiency, agility capabilities results to promoting efficiency in public section with respect to subject importance and role of public sector and its subsidiaries in individual lives, it's suitable to perform studies in this context.

**Research problem statement**

In different dictionaries, the term agility means rapid, agile and active movement and ability to move fast and easily also the ability to fast and intelligent thinking. The origin of agility is agile production. This concept has been generalized in recent years and accepted as a successful strategy by producers/ manufactures who prepare themselves to promote the considerable performance. In such environment, every organization must have the capability of simultaneous manufacturing of various products with short life cycle, products redesign, change of production /manufacturing methods and efficient reactivity to changes. Those with such powers or capabilities are called agile organizations .Agility in every organization considers some vital capabilities including (Khoshima, 2009, 152):

1- Accountability: it means the ability to identify changes, rapid reaction and its application
2- Competence: an extensive set of abilities which provide the efficiency of activities in respect to organization’s purposes and aims.
3- Flexibility: means the ability to process products, various services and achieve different purpose with the same primary facilities.
4- Speed: the ability to perform duties and functions in the least possible time.

Therefore, if an organization follows agility, it must consider capabilities, and to what extent is possible to develop and enforce them internally in order to promote to efficiency of organization.

**The Importance and Necessity of Research**

In public organization, especially parent organs like provincial administrations and head offices agility is of high importance, because outcomes and successes of public agile organization is considerable and admirable. Studies show that these organizations compared to their compartment, have a nearly increasing rate (20%) in the performance of evolutionary efforts. The importance and necessity of efficiency subject in Ilam provincial administration is considerable due to this fact that Ilam province is among deprived and less developed provinces in Iran and after imposed war it has been reconstructed with huge and frequent damages and couldn't precede development trend efficiently to the present time. Researches showed that of most important factors of proving the conditions of Ilam province deprivation in recent years and compared to neighbor provinces and around Irna, over looking the management factors and proper functional and administrative management are those procedures confirmed and predicted in the direction of performing main national plans and policies in Ilam province, in the other words, governing office, this question must be addressed, to what extent is the level and extent of employees, managers and supervisor's abilities and capabilities, procedure, work trend... in organized and agile framework? In respect to functional ability, Ilam provincial office is among those with intermediate administrative and service also functional ability in fulfillment of government's enactments and rules. It includes various official organizations and departments, totally 53 organs. Concentrated on provincial office's activities rather than related offices, this research attempts to measure the extent of organizational agility and assess its relationship to efficiency concept.
Literature Review

Hackman & Lower studies (1998) showed that it's impossible to measure satisfaction extent, unless individual desires and interests have been considered besides the conditions of work environment. U.S telephone manufacturing co studies about 208 subjects of its employees showed that collective and individual satisfaction and work quality with strong requirements are more that subgroup with weak requirements.

According to Youssef et, al (1999): architectural design of comprehensive plan that shows the pivotal skills may empower organization to make rapid concentrated changes and enterprise reframing (with providing opportunities).

Sorolodis & Valuanis (2002) emphasized that because of multidimensionality and being multiphase, designing agility indices is difficult. They recommend a framework based on fuzzy logic knowledge includes four structures of agility making production, market, employees and information. They determined some parameters and metrics for every main structure. Manufacturing framework considers factory, processes, equipment's, establishment, material handling... It's possible to measure it based on time and costs necessary to reaction to changes of manufacturing system. Market framework emphasize on external environment of organization (including services to customers and market feedback). Sorolodis & Valavans (2002) recommended that this framework is measured by means of organization ability in identification of opportunities and product capabilities also services to customers. Employee’s framework is measured by means of their education and motivation level. Finally information frameworks refer, to information flow in the internal and external environment of organization. It could be correctly measured based on the abilities of recording, management and leverage of related information.

Youssef, et.al (2009) mentioned that competitive bases of agility are speed, flexibility, innovation, prospectiveness, quality and profitability. They claimed that their commended
competitive buses are certainly essential features of agile production that must be achieved collectively and synergically. In this framework, Youssef et al. differentiated three agility pivots in various levels of organization. Agility of component refers to individual resources of persons, machineries and management. Micro agility indicated to organization and macro agility considered intra organizational level. This framework includes four pivotal concepts of agile productions: pivotal competence management, establishing virtual organization, reconstruction and reorganization capability and knowledge based organization. Pivotal competence indicated to work force and organization through outs that determined in individual and organizational levels pivotal competence of organization originates from extensive learning process, integration (merging) various skills and technologies, work organizing and intra organizational cooperation. Virtual organization means toleration of pivotal competencies distributed among some organizations with similar supply chain (Gonaskaran, 1999). Sharifi & Zhong (2010) addressed four aspects of agile production. Agility incentives, strategic ability, agility empowerment and agility capabilities. Agility incentives represent characteristics of external enterprise environment in regard to disharmony and lack of prediction of changes. According to theoretical literature, agility incentives enforce an organization to inspect its current strategy, accept the necessity of becoming agile and select an agility strategy. Strategic abilities like accountability, competence, speed and flexibility have been considered as important characteristics of agile organizations that facilitated the consideration of environmental changes. It's possible to achieve agility capabilities through its empowerment. These empowerment forces results from four manufacturing contexts: organization, technology, employees and innovation.

According to Jackson and Johnson (2011) agility capabilities aren't goal but a necessary tool to preserve competitiveness in unreliable and variable market. Agility is based on some capabilities observed in three main aspects of organization: production, product and market. Jackson and Johnson divided agility capabilities to four pivots: capabilities of product change,
competence of functional change, internal and external cooperation, finally knowledge and creativity of employees. First pivot refers to strategies related to product and functions necessary to react changes and unreliability of market. Competence of functional changes considers competences, methods and necessary tools for management of short- and long-term changes of manufacturing system. Cooperation and collaboration pivot refers to the ability of various parts of organization to cooperate with each other, also organization (as a whole) to cooperate with customers and suppliers.

**Research purposes:**

**Main purpose of this research includes:**

Investigating the role of organization's agility to improve efficiency of Ilam Province governorship administration.

Subsidiary purposes are including:

1. Investigating the effect of work flexibility and promoting efficiency of employees of Ilam provincial administration.
2. Investigating the effect of work speed and promoting efficiency of employees of employees of Ilam provincial administration.
3. Investigating the effect of work competence and promoting efficiency of employees of employees of Ilam provincial administration.
4. Investigating the effect of work accountability and promoting efficiency of employees of employees of Ilam provincial administration.

**Research Hypotheses:**

**Main research hypothesis is including:**

There is a meaningful relationship between organization agility and efficiency of employees of Ilam provincial administration.

Subsidiary research hypotheses are including:
1. There is a meaningful relationship between work flexibility and promoting efficiency of employees of Ilam provincial administration.

2. There is a meaningful relationship between work speed and promoting efficiency of employees of Ilam provincial administration.

3. There is a meaningful relationship between work competence and promoting efficiency of employees of Ilam provincial administration.

4. There is a meaningful relationship between work accountability and promoting efficiency of employees of Ilam provincial administration.

**Research methodology:**

Present research is descriptive-analytical, relationship between variables is correlative and Pearson test used to determine the correlation coefficient. Statistical community are all fulltime and part-time employees of Ilam provincial administration, totally 523 subjects and by Cochran Sampling method 221 subjects of managers, supervisors and employees selected as sample.

**Data gathering method:**

In this research, it was used a researcher-made questionnaire of organization agility including 16 questions in 5 items Lickert scale: very low (1) low (2) intermediate (3) high (4) very high (5) in relation to variables work speed, reliability, competence, accountability, as for every variables a questions have been addressed. Demographic data of this questionnaire are related to gender, work experience and nature of work.

**Analysis methods:**

To obtain proper results from research hypotheses, it was used two main statistical analyses:

1. Pearson's correlation coefficient used to determine the extent of effectiveness of various research variables.

2. $x^2$ statistical test used to determine the extent of correlation of main research variables.

**Questionnaire's validity & Reliability:**
To determine the validity of questionnaire in this research a pretest including 24 questionnaires distributed among respondents and asked them to answer questions and at the same time mention every issue and ambiguity in regard to questionnaire. This procedure results in some modifications in items of every questionnaire. Finally its validity confirmed by professionals and its reliability by using a-Cranach (%88).

**Research Hypotheses Test:**

Main research hypothesis: There is a meaningful relationship between organization agility and promoting efficiency of employees of Ilam provincial administration.

**Table (1): Relationship between organization agility and improving employee's efficiency**

<table>
<thead>
<tr>
<th>Research hypotheses</th>
<th>IB</th>
<th>B standardized</th>
<th>$x^2$ test</th>
<th>Significance level</th>
<th>Pearson correlation coefficient</th>
</tr>
</thead>
<tbody>
<tr>
<td>Main research hypothesis</td>
<td>244</td>
<td>221</td>
<td>4.024</td>
<td>004</td>
<td>0.029</td>
</tr>
</tbody>
</table>

Statistical data of about table showed that the hypothesis of variances equality is established in statistical community. Also, it was observed that correlation coefficient of research variables and efficiency improvement is %29 that suggested positive correlation between two research variables, because obtained extent is less than meaningful level (%5). Therefore, main research hypothesis is accepted. In other words there is a meaningful relationship between organization agility and improving efficiency of Ilam provincial administration's employees, i.e. by means of increasing (work flexibility, work speed, work competence, work accountability), it's possible to improve the efficiency of employees.

Hypothesis No1. There is a meaningful relationship between work flexibility and improving efficiency of Ilam provincial administration's employees.
Table (2): Relationship between work flexibility and improving employees' efficiency

<table>
<thead>
<tr>
<th>Research hypotheses</th>
<th>IB</th>
<th>B standardized</th>
<th>x² test</th>
<th>Significance level</th>
<th>Pearson correlation coefficient</th>
</tr>
</thead>
<tbody>
<tr>
<td>first hypothesis</td>
<td>240</td>
<td>197</td>
<td>5.001</td>
<td>0.002</td>
<td>0.034</td>
</tr>
</tbody>
</table>

With regard to statistical results of above table, it was observed that correlation coefficient between variables work flexibility and improving efficiency is 0.34 that shows positive correlation between both variables because obtained results are less than meaningfulness level 0.05, therefore research investigational hypothesis is accepted. In other words there is a meaningful relationship between work flexibility and improving Ilam provincial administration's employees, it means that there is a meaningful relationship between work flexibility and improving Ilam principal administration's employees, in other words by increasing occupational flexibility (delegation of authority, reducing complicated rules) it's possible to improve employees. Hypothesis no 2. There is a meaningful relationship between work speed and improving efficacy of Ilam provincial administration's employees.

Table (3): Relationship between work speed and improving employees' efficiency

<table>
<thead>
<tr>
<th>Research hypotheses</th>
<th>IB</th>
<th>B standardized</th>
<th>x² test</th>
<th>Significance level</th>
<th>Pearson correlation coefficient</th>
</tr>
</thead>
<tbody>
<tr>
<td>2nd hypothesis</td>
<td>156</td>
<td>202</td>
<td>0.040</td>
<td>0.001</td>
<td>0.041</td>
</tr>
</tbody>
</table>

Statistical results of above table showed that the positive correlation between variables work speed and improving efficiency is 0.041 that is less than meaningfulness level 0.05,
therefore research investigational hypothesis is accepted. In other words there is a meaningful relationship between work speed and improving efficiency of Ilam provincial administration's employees. Hypothesis no3. There is a meaningful relationship between work competence and improving efficiency of Ilam provincial administration's employees.

Table (4): relationship between employee's competence and improving efficiency

<table>
<thead>
<tr>
<th>Research hypotheses</th>
<th>IB</th>
<th>B standardized</th>
<th>x² test</th>
<th>Significance level</th>
<th>Pearson correlation coefficient</th>
</tr>
</thead>
<tbody>
<tr>
<td>3rd hypothesis</td>
<td>186</td>
<td>221</td>
<td>5.120</td>
<td>000</td>
<td>0.017</td>
</tr>
</tbody>
</table>

Statistical analysis showed that correlation coefficient between variables work competence and improving efficiency is 0.017 that suggested positive correlation between both variables, because obtained results are less than meaningfulness level 0.05. Therefore investigational hypothesis is accepted. In other words, there is a meaningful relationship between work competence and improving efficiency of employees. Here, by designing proper systems of human resources managers could help to improve efficiency of whole organization considerably.

Hypothesis 4. There is a meaningful relationship between work accountability and improving efficiency of Ilam provincial administration's employees.

Table (5): relationship between accountability and improving employees' efficiency

<table>
<thead>
<tr>
<th>Research hypotheses</th>
<th>IB</th>
<th>B standardized</th>
<th>x² test</th>
<th>Significance level</th>
<th>Pearson correlation coefficient</th>
</tr>
</thead>
<tbody>
<tr>
<td>fourth hypothesis</td>
<td>187</td>
<td>221</td>
<td>5.120</td>
<td>000</td>
<td>0.024</td>
</tr>
</tbody>
</table>

With regard to statistical analysis results, it was observed that correlation coefficient between variables work accountability and improving efficiency is 0.024 that showed
positive correlation between both research variables, because obtained results are less than meaningfulness level 0.05. Therefore research hypothesis is accepted. In other words Ilam provincial administration listens to its customers and acts properly in improving current capabilities.

Discussion & conclusion

Current research results based on the existence of meaningful relationship between organization agility and organizational efficiency were confirmed. These findings have been compared and analyzed with various results and investigations as following: according to Molahosseini (2008) employees' agility is of high importance due to this fact that provides the opportunities to improve efficiency, morality and organizational commitment. Research result analysis showed that with all of four agility capabilities (accountability, competence, flexibility and speed) in Ilam provincial administration, there is a meaningful relationship with efficiency, because by increasing the extent of every item or variable, the extent of efficiency will be increased. It is considered as a sensitive and considerable subject for this organization. Research result also shows that there isn't meaningful gap between current situation, ideal situation and agility capabilities. As an overview of current and ideal situation of this organization in the context of four addressed capabilities, these results would be considered as a proper base to effective planning in the direction of evolution of this organization. Therefore establishment of agility system could help managers to face to future possible challenges and risks. To apply this method, it's necessary to regard to whole organization/ institution with an overall and systemic view and all of factors and elements influential on it. Also, in order to establish agility, organization/ institution must consider the planning of organizational and human resources' activities by applying technics of strategic human resources management totally and identifying characteristics of agile persons, in detail.
References:

2- Ambrose, C; Morella, D (2004) “A measure of agility as the complexity of the enterprise system” journal of Robotics and computer Integrated Manufacturing; no 20: 495-503


