A SHORT REVIEW ON MANAGEMENT PRINCIPLES SUPPORTING CREATION AND INNOVATION

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Abstract
All organizations need new thoughts and theories for their survival. New theories and thoughts are as spirit in body of organization and rescue it from overthrow. Innovation is a key element for organization survival and success in today’s competitive commercial environment. This paper introduces the basic elements and definition of creativity and innovation, also study carried out on stages of innovation. Then three stages introduced and the management principles which create innovation and creativity studied. The principles are as follow: accessible and variable knowledge, collaborative work environment, quick testing of new ideas, reward the behavior which supports the three principles and punish resistance. In this paper first these principles are discussed, then factors that lead to disappearing and overthrowing of innovation will be investigated.

Key words: Creativity, Innovation, Knowledge

Introduction
Creativity and innovation are as two basic elements for success in 21st century. All of organizations need new thoughts and ideas for survival. They are as spirit in organization’s structure and release it from overthrow. In our century, we should preserve and continue innovation in organization in order to survival and progress and even maintaining the current state in order to prevent stagnation and overthrow. Innovation is the key element for organization’s survival and success in today’s competitive commercial environment. Current successful organizations should try to innovate in order to survive and encourage persons to innovation and welcome the changes in the organization. Changes in organization includes the innovations that develop organization’s adoptability with external environment. Thus, innovation is very important and necessary for preserving commercial state and ensure profitability of organization. The organization which has not creativity and innovation, can't survive. So, organizations generally search the ways for supporting creativity and innovation in organizational and personal stages.

Definitions of creativity and innovation
Creativity and innovation are so mixed that presenting an independent definition would be difficult. But, it can be separately defined. Creativity is creation and production of a new thought, while innovation is, applying of that new thought in practice. Generally, creativity is the link between current knowledge and new situation, as innovation is usage of these new situations in practice.

Innovation in organization could be defined in different ways:

A) Applying new work or production technology in the organization.
B) Change in organizational structure or management methods.
C) Successful innovation, developing and introducing new products, processes and services.

Also, creativity could be defined in different ways. The definitions for creativity emphasizes on one of the three following aspects:

A) Procedure; new thought or mind activities that are created via new solutions and visions.
B) Individual; excel personal characteristics and cognitive capabilities of creative persons.
C) Product; definite and obvious quality originated from creative thought.

However, creativity is production of new innovative ideas. So, a creative practice generally includes innovative elements, but should have capability to practice [3].

**Stages of Innovation**
Betz, illustrated the stages of innovation in one of the following categories;
A) **Radical**; innovation is basis for technology development. Innovation mainly removes constraints which prevent new changes in an industry or creation of a new sample. An obvious example is development of first computer in 1940. There is high risk and cost and long period of time in innovation. In this regard, many of the ideas will be performed, but most of them can’t accompany the production line and market.
B) **Organization**; organization is the sign for commercialization of a technology. (Mumford et al, 2002) Ne computer is as simple as a calculator and for data storage, too. If it is attached to writing machine it can increase and improve the capability of type machine. It is obvious that the risk probability in this stage is less than construction of a new idea that will be lead to a completely new innovation.
C) **Incremental**; this stage has the least risk probability compared to the previous stages and contains refinement. Increment, includes developing and capability as example in a computer by sampling the spares and improving the work of machine. Increment is one stage of innovation which makes possible development of content, removing defects, patent production and new technologies which will arrive in the best form in market.

The following table shows the three stages of innovation;

<table>
<thead>
<tr>
<th>Class</th>
<th>Example</th>
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<tbody>
<tr>
<td>Radical</td>
<td>Computer development</td>
</tr>
<tr>
<td>Organization</td>
<td>Linking computer to type technology</td>
</tr>
<tr>
<td>Increment</td>
<td>Improving in data storage and analysis</td>
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</tbody>
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**Management principles that creates creativity and innovation**
As mentioned above, the organizations that creativity and innovation is the basis of their work, can be adopted with the complex environments. So., there is a deep paradox in this case; when the companies need to innovation more, the desire for practicing innovation and creativity is less. Therefore, knowing management principles which supporting creativity and innovation, would help the organizations to overcome difficulty.

They are four principles that help organizations to apply creativity and innovation as follow:
1- Diverse and accessible knowledge
2- Collaborative and non-complacent work environment
3- Quick testing of new ideas
4- Reward behavior that supports these principles and punish resistance

The following figure, displays these four principles;
Variable and accessible knowledge
Creativity is generated by recombination of knowledge. In fact, different basics of knowledge, make the chance for generation of new and novel ideas. Some companies, introduce this variable knowledge through training of employees and improving their performance (Amabile & Conti, 1996). Other alternative is leasing of trained individuals in different fields. For example, the companies that enjoy hired engineering activities, can produce variable perspectives by engineers in different fields such as mechanic, electronic, way and building, etc. The activities performed in teams or work groups. In addition, some companies, can create variation in knowledge using engineers from different universities with different theoretical and practical attitudes; this will lead to combination of applicable and abstractive views about issues.

Collaborative and non-complacent work environment
Study on activities of innovative organizations showed that knowledge of problem solving or organizational procedures are naturally in a tacit state and only it can be achieved by encountering external effects. A procedure which successfully manages frequent challenges and not effective management of new problems. Furthermore, researchers believe when the commercial environments are unsustainable, in order to solve this problem, they should create chances for generation of explicit knowledge and not waiting for external factors to create knowledge.

One important factor in making explicit knowledge, is to discuss about the current knowledge of individuals in organization which will be strengthen and completed and developed by knowledge of other persons which leads to creation of more complex and enriched knowledge (Barsh, 2008). Also, exchanges of ideas help the individuals to more new integration for knowledge.
So, exchange of views and collaboration in knowledge creation cause to more explicit and enriched knowledge. So, it is necessary to create knowledge and innovation in work environment.

**Quick testing of new ideas**

In many organizations, issues and problems, also the required solutions is obvious and tangible. The problems from production obstacles to change of customers needs and environmental disorders will be spread; in some cases, solutions includes new suggested systems and alternative technologies. In most cases, experimental administration of solutions is necessary to identify the obstacles of solution. Furthermore, sometimes it is possible to test the new output without complete administration of project. This quick test which sometimes called instant modeling, helps creativity and innovation in organizations, in organizations having various administration obstacles, it can help to generate creation and innovation very much. Experts confirm this idea that the human mind is very wide and understanding of topics will be reinforced by practical performance.

Other benefit, is quick testing of new ideas for unexpected issues. Although it has not direct use in problem solving, it presents valuable solutions for incoming problems.

**Reward behavior that supports these principles and punish resistance**

In order to encourage management activities to proceed creativity and innovation, rewarding systems should be planned. The most important effect of reward is supporting of the environment which apply variable knowledge. The environment which collaboration is as culture and quick testing of new ideas performs without direct supervision. This environment is very challenging and risky for managers (Stoner, 2003). Having update and variable knowledge, requires the chance of development for employees in all aspects not only the case. So, they can apply the knowledge for creating better solutions. When knowledge principles cause abilities of managers more than subordinates, the manager might give the skills to individuals and trust their views (internal reward). Generally, having employees with the knowledge more than managers fear them (Alvqani, 2003). Collaborative environment and permit for testing of new ideas is full of risk for managers. When concentration is on knowledge sharing, for example in discussions and interchanges between colleagues, probably they give up their duties and not effective in their work. Furthermore, the managers usually have not informed about the discussions. So, when the employees perform quick testing of ideas, it is impossible for manager, to follow them whether they have accepted the idea or give it up.

However, according to observations, we need suitable motivation and rewards for administration of the first three principles and reward should be regarded as supplementary principle for those.

**The factors of overwhelming and vanishing innovation in organization**

Although, finding the reasons for not achieving success in organizations are somewhat difficult, studies showed some reasons.

Here some of the reasons mentioned as follow:

1. Innovations that have not supported;
2. Managers have not feeling of ownership in the organization;
3. There is not relation between projects and organizational strategy;
4. The tools and measurement of progress have not developed;
5. There are no capable manager and instructor in innovation teams;
Culture: culture is the bed for innovation. If the present culture don’t consider new ideas and thoughts, any innovation will be vanished. In this condition culture can be regarded as body immunity system which kills new organisms before they can harm the body. Culture can be changed but in a very slow procedure.

Ownership: when a big idea prepared, if the owner of idea have facilities, can practice it. In this case the manager of commercial unit, is owner of one idea and uses trace resources, budget and time to perform the project. If this manager has not enough budget to perform the project, it leads to failure(Robbins,2001).

Strategy: In places which individuals think without framework, a false understanding will be resulted. They think that there is no rule and limits for thoughts. This idea conflicts the idea of thought according to production, and generates separated ideas without any aim. Of course, good and productive ideas may be one in million, but it is not commercially cost effective. The more effective way is to concentrate on creativity in organization’s strategy limits. Of course, this strategy, should consider suitable and wide environment for appearance of thoughts in related fields in addition to identification of main duty.

Tools for measuring progress: In an environment which is safe for innovation, ideas more than presented, will be administered(Afjeh,2005). This can lead to work load in team, unless the priority for ideas determined. Establishment of guidelines before creating idea, can be a logical tool to evaluate suitable and unsuitable ideas.

Training and coaching: The mistake of all organizations is that they think the teams are similar to project teams. In the recent investigation conducted by innovation network, the results showed that each individual has 7.2 item innovation, annually. Nonetheless, only 21 percent of individuals, learned about how to participate in innovation team and less than 10 percent of them learned they are a member of innovation team. It is not surprising that 70 percent of projects lead to failure. Innovation needs new ways for thinking and new skills. Establishing an update, on time and active learning and training procedure, can lead to favorable and effective results for innovation teams, like learning any new skill. During time, validity of innovation blooms when the individual works in actual projects. Coaching is the vital and key element for this validity(Jose Antonio,2008).

Conclusion
As you know, today creativity and innovation, is an obvious trend in organizations. So,in this regard, applying principles and methods which supports individual and organization for creativity and innovation is of high importance. The present paper, tries to use principles that significantly increase innovation. In this study, achievable knowledge constructs the basis and principle of innovation. In fact innovation is on the basis of knowledge. On the other hand, in this view, the organization manager tries to create collaborative and non-complacent environment for innovation. Also, it should be considered that testing new ideas, can create new chances and innovations, too. Finally, it is obvious that beside all of these measures, reward behavior and encouraging individuals supports the principles of creativity and innovation and make the organization capable to achieve novel and significant chances.

References