Innovations in Companies

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Abstract

Innovations are essential for a company's competitiveness. Differences between innovation and creativity are explained and the methods to promote these phenomena in a company's organizations are indicated in this paper. Innovation process has certain rules and phases. The most challenging part seems to be an implementation of innovation. Furthermore innovations are influenced by the company's size, climate and management style (role of Leadership). Numerous studies published on innovations were reviewed and together with the author's extensive knowledge earned by working closely with several companies used as the source for this paper.

Keywords: Creativity, Innovation Process, Self Managed Units, Trust, Leadership

1. Introduction

Innovations are the engine of a company's competitiveness. In order to start-up this engine and keep it running there are certain prerequisites which need to be achieved and consistently observed. During my professional career in management I seek for these prerequisites, based on the literature research, apply them in the management practice and analyze the feedbacks. As a service partner manager in a multinational company I have the opportunity to work in the large corporate environment but also to closely co-work with approximately 20 companies which provide customer services on behalf of our company. Thus I have a chance to initiate and observe an implementation of innovations in different companies with different structures in respect to size, management style, level of trust and bureaucracy or inter-cultural differences – the companies are based in the Central Eastern Europe area. In respect of size they range from 5 customer service employees up to roughly 50. These are made up of small family driven companies as well as quite big divisions/sisters of large multinational companies. This article deals with innovation and creativity and provides an explanation of the both terms, further it is focused on the prerequisites, factors and rules which determine a successful implementation of an innovation in company's practice.

2. The Terms Innovation and Creativity

In general we can understand the innovation as a development, an implementation and a use of new ideas, processes, products or procedures, from which can benefit individuals, teams or the whole organizations (Maier, Frey, Schulz-Hardt, & Brodbeck, 2001). It does not mean that it must necessarily be a world unique idea, process or product. As an innovation we can consider any new thing implemented in the organizational structure, thus we refer to an innovation as "a technology or practice that an organization is using for the the first time, regardless whether other organizations have previously used the technology or practice" (Klein et al., 2001).

This article is focusing on the ways, means and prerequisites for the successful implementation of innovations in the business company's structures. Although these basic principles could be applicable also in other types of organizations (not only the business ones). Presumably they could work in any organization which is consisted of and where people are managed. Some limitations may be seen in the organizations such as the army, emergency hospital units, police, fire departments etc where the culture does not encourage creativity but rather adheres to defined rules and procedures, although sometimes improvisation is also necessary here because the rules and procedures cannot be exhaustive in describing all situations which might arise.

Dytrt (2011) states that only people are capable of the conscious execution of changes in the managed objects and an emphasis on innovating the human resources management at workplaces is needed. Thus it might be necessary that the companies will have to leave the contemporary routine in human resources management and its methods and will actively seek for the new methods and prerequisites which will contribute to the development and successful implementation of human creativity. It has to be pointed out that also copying the methods which have proved to work in another organization (so called "benchmarking"),

does not need to be the right way because the organizational set-up, environment, cultural aspects might be different and could influence the application of the adopted methods. Then the company unsuccessfully attempts to analyse why it works elsewhere and with them.

It could be stated that the way is perhaps more important than the target in respect to innovations. Companies should try to initiate an innovation process, regardless if many innovations will not succeed. As Jack Welch (former CEO of GE) said: "If the rate of change on the outside exceeds the rate of change on the inside, the end is near." (Welch, 2000).

Companies should introduce the general pre-conditions for human creativity, followed by certain rules for transforming creativity into innovation and its implementation in the praxis. It is not critical whether the companies use the techniques such as Creative Problem Solving (CPS), lateral or design thinking, brainstorming, SWOT or any other which are thoroughly described in the management books. A simple interview between the manager and employee can result in a new idea which needs to be caught and followed-up by the manager in the appropriate way. A new innovation can arise in this way.

It should be apparent that creativity refers here as a sub-process of the innovation and thus as a generation of the new and useful ideas (Ford, 1996; Maier et al., 2001). Thus we should not interchange the terms creativity and innovation as synonyms. Creativity has three parts based on Valenta (2001):

- ability to overcome state of production or other activity in the fantasy, thus an ability to imagine that things and relations can be different than now,

- ability of invention, or ability to solve what should be the new state of things and relations,

- ability to develop a courage to an innovation deed and ability to overcome a responsibility for an innovation execution because it is a creative destruction based on Schumperter (1994).

3. Implementation of Innovations and its Challenges

Implementation of innovations is one of the most tricky parts. People (teams, managers, all other individuals or groups) tend often willingly to adopt an innovation, thus makes a decision to implement an innovation. But in many cases they disregard, underestimate or simply are not prepared for the challenges to come. Because an innovation implementation is "the transition period during which individuals ideally become increasingly skilful, consistent, and committed in their use of an innovation. Implementation is the critical gateway between the decision to adopt the innovation and the routine use of the innovation" (Klein & Sorra, 1996). "The difference between adoption and implementation is fundamental." (Klein & Knight, 2005). It is not only important to produce the new ideas but also to implement them successfully (King, 1990; West & Farr, 1990).

Based on Klein, Knight (2005) there might be 6 stumbling blocks on the way to the successful implementation of an innovation. All of them could negatively influence not only the implementation of innovation itself but also could affect employee satisfaction and trust.

- Many innovations are not not perfectly designed and not entirely reliable at the start (particularly when we speak about technological innovations).

- Many innovations require the users thinking in the terms could-be in order to acquire new technical knowledge and skills. This could mean for many people a certain tedious, stress and dissatisfaction factor.

- Innovations flow from top to bottom, thus from top management to employees. Unfortunately, based on Nutt (1986) this is a common strategy in many organizations. Users are ordered to follow the new procedures without an opportunity to influence them. This has a great impact on their security in the status quo and creates scepticism in their eyes about the merits of the innovation.

- Change of the roles which might be required. In the period of an innovation implementation it might be that a manager and his subordinates needs to work as peers (consider for instance doctors and nurses). Or it may require the individuals, who acted completely independently before, to share the information and coordinate the activities with other team members.

- Innovations although they are supposed to increase the productivity and efficiency, at the first stage exhaust the resources and require investments of time and money. This is another challenge for change management because many people would rather sustain current levels of performance than to invest into future uncertain ones.

- Formal organizations have the structure with the internal and external links, formal rules and rather informal habits. This itself could be a counterforce against the changes.

According to Vladimir Kulla (2016) the large corporations could have a certain autoimmune system which works against the incentives coming from outside or from new employees. This way such an autoimmune system preserves the status quo in the corporation. These factors result in substantial numbers of attempts to implement major technological or administrative innovations failing. The failure rate varies from nearly 50% to even higher percentage based on the studies (Aiman-Smith & Green, 2002; Baer & Frese, 2003; Repenning & Sterman, 2002). "Financial giant Morgan Stanley estimated that, of $2.7 trillion that companies pour into technology each year, more than $500 billion is wasted – in large part due to implementation failure." (Knight, 2005).

What I see in the business praxis and consider of high significance for the innovation process is the level of bureaucracy and trust in the companies. If the bureaucracy is of a high and trust of a low level then the creativity and innovation potential is rather low. Often it is the case that the new, mostly young, employees join such a company full of enthusiasm and creative ideas. Unfortunately, because of the rigid system of bureaucratic rules and low trust they give up on their attempts to innovate the processes, services or products and end-up frustrated and apathetic. This creativity potential will then most probably be utilized in their private life or in the worst case to circumvent the company's rules for a personal win. On the other hand in the companies with high level of trust and low level of bureaucracy there are much better prerequisites for the successful innovation process. This climate is more typical for small

companies, many of which are family driven. The risk and challenge here is that sometimes these companies have almost no rules, even those required for running a successful innovation process.

4. Company's Innovation Process Key Factors

Based on Dytrt (2009, 2015) there are certain rules for an effective innovation process:

- **Systematic approach** – thus the certain phases (intrusion, boom, obsolescence) and characteristics (level and frequency) of the innovation must be respected. Time between stop to acting of the previous innovation (I.) and start to acting of the following innovation (II.) should be minimized because there is a high risk that a time of anarchy will appear in this period (c and a').
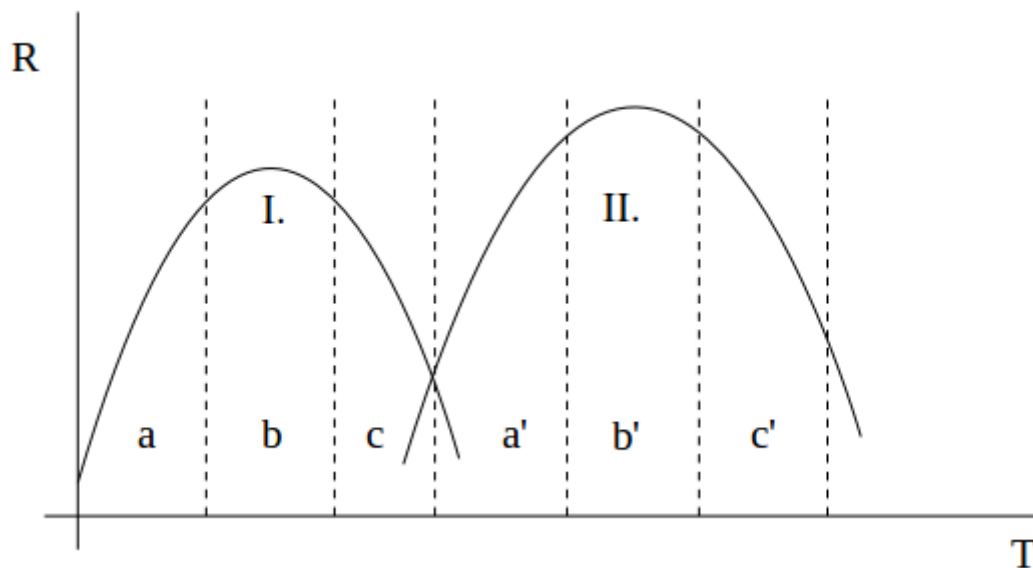

Figure 1. Innovations in Time (according to Dytrt 2015).

Note. a, a' - 1st phase of innovation (intrusion of innovation into space);

b, b' - 2nd phase address the situation (boom of innovation);

c, c' - 3rd phase overcoming (moral obsolescence) of the original decision;

R – level of innovation;

T – time.

- **Complexity** – business phenomena are not isolated but are connected together and influence each other to a certain level. Non-complex application of innovation (isolated innovation) brings reduced, neutral or even a negative effect. A solution could be in the innovation networks which enable us graphically to embrace all relationships between the organizational units and different levels of management in respect to the innovations.

Simply, the innovation network will enable us to understand which units and management levels tend to create an incentive innovation (thus an innovation which stimulates the changes) and where we can expect induced innovations, which deal with the complex relationships within the managed phenomena.

- **Timeliness** – as already indicated in the first rule, the innovations have to be applied at the right time (not too early and not too late) in order to diminish the time of vacuum or anarchy between the innovations. The rule of timeliness represents also a requirement to set the innovations into the praxis relatively fast and without delay which puts an extra emphasis on the quality of the preparation of the innovation. Ideally, the innovation process should be continual and without disruptions, that means that already during the phase of the first innovation we should start to prepare for the next innovations.

- **Consistency** – this is the last prerequisite for the successful innovation process. It is important not only to apply consistently the preceding steps/rules but also to have tools for consistent monitoring of impact of the innovations for the eventual adjustments. Appropriate KPIs can be successfully used to monitor or even better their combination with qualitative parameters, so called Balanced Scorecards (BSC).

4.1 Role of Company's Size for Innovation

According to Kosturiak (2016) it is not possible to say that the size of company would be a factor in its innovation potential. In general, there are roughly 2% of people in the population who we may call "innovators". Anyhow the size of the company might pre-determinate certain signs which accompany an innovation implementation:

- Small company

    - informality

    - higher motivation (incentives come from lower rather than upper levels)

    - higher speed

- Large company

    - large and complex infrastructure

    - networking

    - financial resources

The small companies can enrich large companies and vice versa. A challenge in large companies is that the formality, complex infrastructure including rules and bureaucracy can diminish some good incentive ideas. In a similar way a lack of rules and formality in the small companies can cause an incentive idea to not lead to its successful end, thus an applied innovation. For the large companies the recommendation would be trying to act as small companies. Create small, independent and self managed units, in some resources (Zeleny,

2011; Kosturiak, 2016) these are called "Amoebas". We could see them for instance in Kyocera Corporation nowadays.

A disadvantage of Amoebas could be their strong independence, which causes employees to loose their security. Furthermore applicability of Amoebas in European Union is challenging or almost impossible due to such independence and the legal restrictions. The solution, thus a balanced approach in regards of independence and formality, we could be seen sooner in Bata company structures, already more than 100 years ago. We can say that Tomas Bata was building what we call now an ownership culture in his company. He was searching for the right organization structure which would ensure a responsibility by employees, their motivation and direct participation in results. He found this optimal structure in the self managed units - workshops. Bata's vision and target, which he finally achieved, was to create from each employee (who he called co-worker) an entrepreneur who would actively seek and promote new ideas (incentive innovations) within his team (self managed unit).

In summary a general rule for the large companies can be the one which Jack Welch pointed out: "For a large organization to be effective, it must be simple. For a large organization to be simple, its people must have self-confidence and intellectual self-assurance. (Welch, 1989).

4.2 Role of Company's Climate for Innovation

In the previous chapter you will have seen rules and pre-conditions for the successful innovation process. Sometimes you may know the rules, you can have the appropriate tools but this will not make you a famous sculptor for instance. Most of the companies can learn, understand and apply the mentioned rules. Will it make them successful innovative companies right away? No, unless they create a certain climate in their company's culture which will be an incubator for the new ideas and their development into the innovation. "Teams seem able to generate a high number of creative ideas, but if they do not operate in the proper environment, which affords them a supportive and participative context as well as a non-threatening psychological atmosphere with excellence of task performance, team creativity will not be translated into innovation implementation." (Somech, Drach-Zahavy 2013).

But let's proceed step by step. If you as a manager enters a new organization or a team which was known to not be really innovative your first challenge will be to find the potential individuals who possess incentive thinking. If you do not find any then at least search for the critical thinking individuals. I believe you will find at least one from each type in any group of people. If only somebody with the critical thinking is identified then your role at the start will be to generate incentive ideas and test them against critical thoughts. If you find incentive thinking in the team, the critical thinking will most probably be there as well. If this is not the case then you will have to take this role and explore the incentive ideas critically promoting open discussion within the team. "Teams aiming to innovate are required not only to develop and explore new ideas but also to align team members to the implementation of these creative ideas." (Somech, Drach-Zahavy, 2013).

Once you ignite a small flame of innovative thinking in the team you have to nurture it with extraordinary patience. You can be sure that there will be winds blowing from all sides and for many reasons which will try to extinguish this flame and return the team to the long-term status quo. It is essential that the manager is acting as the leader and communicates clearly a vision and mission which are aimed towards an innovation culture. "Managers may be understandably suspicious of the recommendation that, once they choose to adopt an innovation, they support it wholeheartedly irrespective of any reservations concerning lack of appropriateness. To do otherwise, however, insures that the implementation effort will fail." Repenning (2002).

A long term orientation based on the principles is of an essence here. This is valid not only for the managers, who try to start-up an innovation process, but also for their superiors to understand that the results might not be delivered immediately but will require time. It should be also understood that before the new innovation is fully in action there might be a period of time when the actual performance may even decline. So the innovations are rather long distance race. During that run it is necessary to secure a so called participative safety (Somech, Drach-Zahavy, 2013). One component of the participative safety is to ensure employees an active participation in the decision making process. The second component is to create a non-threatening psychological atmosphere and an environment based on trust and mutual support in the team. Positive effects of trust are well known not only on human-beings themselves but also in respect to the costs and speed, by which the decisions are implemented. (Covey, 2008; Serek, 2013).

During an implementation of innovation there problems may arise. Organizations need to have the sufficient human and financial resources to overcome these problems. In respect to human resources it is not only their sufficient number (capacity) but also their learning orientation (potential), because during the innovation implementation they probably need to learn a lot of new things. You can benefit also from project management tools to embrace the complexity of an innovation implementation. It is also good to share the knowledge and ideas with other teams because you never know how many other incentive ideas or induced innovations there might be. It is arecommended that the innovation teams should be heterogeneous and consisted of 50% internal and 50% external workers (Kosturiak, 2016).

4.3 Role of Leadership for Innovation

Leaders are not only required in the bad times, when something goes wrong with the innovation, but in general they are important to create and promote an innovating culture in the company. Managers can degrade employees' creativity up to apathy by their dismissive attitude. He cannot claim the right to be the only initiator of fantasy and ingenuity, even if finally it is him who takes the responsibility for the realized innovations. Management should be understood as a process of producing inventions and their transformation into innovation within the manager's decision-making process and an active application into life by all workers (Dytrt, 2015).

A leader must bring an energy and optimisms into the business. Part of his task is to induce an energy and enthusiasm. Leader should create a sense for shared values because the people,

who he leads want to feel like owners and not as employees. (McKenna, Maister, 2005). And as stated before an ownership culture together with entrepreneurship adopted by employees could create a spawn for the innovations in the company. On the other hand there are insecure managers, who are worried to take responsibility for the strategic decisions but create unnecessary complexity and strife to use the solutions (decisions) which have been proofed to work in the past. Such managers (and their teams along with them) live in a certain routine. The routine as a "set of customary or unchanging and often mechanically performed activities or procedures (Freedictionary, 2016) cannot lead to the innovations.

The manager's role in the innovation process is critical; he should be rather acting as a leader and not as a manager in the sense of giving orders. Acting as a leader means in short transforming a company in the desired way (strategy and principles) by a systematic and complex approach which will prevent the problems and seek the solutions pro-actively and consistently. A leader thinks in the term "WE" and therefore is closer to his employees. The former Czech President and Leader of the "Velvet Revolution" once said that the leader is not somebody who the others would be afraid of but rather somebody who they need to have at close hand, to have him in the back. Apart from all the skills and capabilities the leader should also have a certain kind of trust in their co-workers and should radiate a certain peace. He should really provide a sort of background, which the others feel that is important and provides them an energy (Serek, 2010).

Vaclav Havel was indisputably a charismatic leader who, with certain exaggeration, has innovated the whole society in the Czech Republic and has led the country through the changes from a socialistic regime to a democratic one. "Innovation implementation behavior is significantly and positively correlated with charismatic leadership, trust in top management, and affective commitment to change. Affective commitment to a change is significantly and positively correlated with charismatic leadership and trust in top management….The results suggest that companies should invest in leadership training and in selection of charismatic supervisors before initiating the implementation of innovations." (Michaelis, Stegmaier & Sonntag, 2009).

5. Conclusion

Companies are not isolated systems. They are rather acting as living organisms which are interacting and are influenced by their environment. If they want to bring the added value to the customers and sustain their competitive advantage ahead of their competition then they have to continuously innovate their products, services and internal processes. This article brings some ideas to the managers on how to initiate and drive a successful innovation process. Although some rules can be learnt and repeated in the praxis there are also rather tacit aspects which relate to the climate in the company and to the right approach in leading people. Mostly we deal with the partial innovations, for instance when a new more efficient or more comfortable car is introduced. If we want to implement a major innovation, which will completely change an area of human activity, then we have to think more deeply and ask ourselves the questions which will be restructuring the current business model. In case of the car industry we should ask the questions as to why we have to consume fuel and damage our

environment or why we have to go on the road at all. Then there is a chance that a major innovation, which will change the complete car industry, will appear. And the emerging germs we can see already now in the Elon Musk's Tesla cars or in the flying car from a Slovak company Aeromobil. The question is if most of other companies are ready and capable of such major innovations. If we still use in the textbooks and organizational structures the term "Human Resources" management then in my view we still have not reached a nouveau to be able to deal with the major innovations.

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