



Idea management and innovation activities in Serbian companies

Vidicki Predrag

(Assistant professor, Faculty of Technical Sciences, Novi Sad, Serbia, vidicki@uns.ac.rs)

Vrgovic Petar

(Assistant professor, Faculty of Technical Sciences, Novi Sad, Serbia, vrgovic@uns.ac.rs)

Abstract

Idea management is often referred as the beginning of innovation process. This paper explores current state of Idea management practices in Serbian companies and its influence on accomplished innovation activities. It is focused on external and internal Idea sources and their relationship with process and organizational innovation in surveyed companies. The obtained results indicate a significant contribution of organized Idea management on company overall innovation activities although the results showed that Serbian companies mostly have basic idea management systems, whose potentials are often not used, and that employees tend to express their ideas verbally

Key words: Ideas, idea management, innovation activities, employees

1. INTRODUCTION

Innovation is a strategic priority for many companies, but there is a large gap between the perceived importance of innovation and the effectiveness and appropriateness of approaches and methods used to systematically support and accelerate innovation (Iversen et al., 2016). The governments in developed economies have recognized that competitiveness of the economy to a large extent depends on its ability to innovate so they finance research projects to explore critical role of idea management. In the innovation process, that is emphasized by many authors, in order to improve their policies (Stevanović, Marjanović, & Štorga, 2016). Changes in the nature of innovation, from product and process innovation towards business model innovation and open innovation, impose new demands on the idea management systems (Sandstrom & Bjork, 2010), and on innovation policies.

The purpose of this study was to determine current practices of Serbian companies in the field of Idea management and to investigate its contribution to innovation activities in the surveyed companies.

2. THEORETICAL BACKGROUND

Firms that successfully innovate have an ability to implement more and better ideas than their competitors (Francis & Bessant, 2005). Without new quality ideas, an organization stagnates or declines and can be eliminated by those who have new ideas. To successfully innovate, firms need to have a sustainable flow of ideas from which to choose (Boeddrich, 2004) and idea management is a tool that has to provide high quality ideas for organization innovation process.

One of the many definitions of innovation emphasizes that an innovation is the successful implementation of an idea, which may be expressed in the form of knowledge, practice, or a physical object (Rogers, 1995). Innovation stems from an innovative idea, which is developed into an invention, and when invention is incorporated into the organization or introduced to and adopted by the market then it can be called an innovation (Bogers & West, 2012). Therefore, the three main innovation process phases are the idea development phase, the invention phase and the commercialization phase (Van Lancker, Mondelaers, Wauters, & Van Huylenbroeck, 2016). Idea management is the beginning, the front end (fuzzy front end) of the innovation process.

Idea management can be defined; as a process of seeking, creating and applying ideas (Saatcioglu, 2002); as a process of recognizing the need for new ideas, collection and evaluation of ideas (Vandenbosch, Saatcioglu, & Fay, 2006); and if the definition is further expanded, as a process of collecting focused business ideas, developing of ideas into applicable concepts, evaluating and selecting of the best concepts and performance measuring (Turrell, 2002).

Traditional suggestion box or suggestion programs are heavily focused on cost reduction or process improvement and tend to have no collaboration at all. The company employees usually want to make life easier at work by providing potentially useful ideas, aimed at eliminating problems. After a while, good ideas are worn out, employees lose motivation and this way of collecting ideas becomes ineffective.

Basic idea management systems are focused on creating of idea bank and they provide evaluation tools. These systems tend to define who can access the ideas and who can build on idea and they tend to collect both cost reduction and revenue generation ideas. Some of them offer limited idea collaboration tools, but ideas are collected without any commenting, voting, rating etc (Turrell, 2003).

Advanced idea management systems use the collective brainpower of employees and externals to generate ideas, and also take advantage of asynchronous collaboration. These systems are designed to support focused idea gathering around events or campaigns through web based platforms that have a functionality to collect and refine ideas, evaluate them based on certain criteria, recommend for actions and store them into a centralized online database for future reference. These systems overcome internal employee ideas capacities by utilising external sources.

In the era of open innovation idea management strongly relies on collaboration, understanding the importance of opening up in order to bring external ideas and knowledge into the company. Not only because of the positive dependence between the number of people involved in the process of ideas giving and the number of good ideas (Diehl & Stroebe, 1987) but because external ideas have a tendency to be more radical and lead to radical innovation (Bigliardi, Ivo Dormio, & Galati, 2012). A key pre-condition to internalise external ideas and knowledge is company inbuilt absorptive capacity and research have shown that even in developed economies SMEs and companies in traditional industries might need assistance in building absorptive capacity (Spithoven, Clarysse, & Knockaert, 2011).

One of previous research regarding idea management in Serbia that was conducted among 66 top and mid-level managers of 6 companies found that idea sharing is found to be random and unorganized that ideas are usually transferred orally, with little chance to be realized and with inadequate feedback from managers, (Vrgović & Mihailović, 2012). Another study showed that in Serbian companies without organized idea management employees do share their ideas especially if they are young, if they work on position of mid-level manager or if they are convinced that idea is really significant for the company (Vrgovic, Vidicki, & Senk, 2013) The same study showed that only 30% of surveyed workers believed that their ideas were even considered.

3. SURVEY FINDINGS

Data used to investigate Idea management and innovation activities were collected using a survey instrument, and analyzed with descriptive statistics. Questionnaires, developed by the authors, were sent to the management staff of available companies in pdf form. Out of 180 returned questionnaires, 121 of them (67.2%) were assessed as valid. Production companies are predominant with a participation of 60.3% in the

observed sample, service companies make 29.8%, while companies that offer both products and services make 9.9% of the observed sample. Middle-aged companies (up to 26 years of age) are the most numerous in the observed sample with a 55.4% share, old companies (over 26 years of age) make up 26.4% and young companies (up to 9 years of age) make 18.2% of the observed sample. Public (government-owned) companies account for 8% of the observed sample.

Examined companies ranked sources of ideas for their innovation activities according to importance from 1. Extremely important, to 5. Not at all important. According to the results, very important sources of ideas for innovation activities are customers and users of services and products with the mean score of 2.09, employees follow with score of 2.48. Competitors, fairs and subcontractors are recognized as moderately important source of innovation activities with scores in between 2.89 and 2.93. The rest moderately important sources of ideas for innovation activities are: Scientific journals and publications with 3.21, Consultants with 3.31, Universities with 3.53, Professional associations with 3.53 and Research institutes and agencies with 3.57. In the further research idea sources are separated into two groups, ideas from the environment and employee ideas.

3.1 External ideas

According to the obtained data 47.5% of surveyed companies formally collect ideas from the environment. The system for gathering ideas from the environment is more often present at production companies 55.5% than at service companies 30.6%. It is interesting that due to monopolistic position of government owned companies on the Serbian market, only 20% of them formally collect ideas from the environment.

In relation to the age of the company, 53,1% of the Old companies, 44,8% of the Middle-aged companies, a 44,6% of the Young companies formally collect ideas from the environment, although in 12,5% of the Old companies the existing system does not work well while in other two types of companies this percentage is 3% and 4.8% respectively.

According to the obtained results, existence of a system for collecting ideas from the environment positively influence on volume of innovation activities in the examined companies (Table 1). For example, if entering a new market is observed, 82.0% of companies that have a formal system for gathering ideas from the environment entered a new market, while for companies that do not have an environment idea-gathering system, only 57.1% entered a new market, so the difference between these two groups is 24.9%. Significant impact of existing environment ideas collecting system is evident on activities related to development of planning, decision-making and management. The small difference in development of new products between companies that have and those that do not have environment idea-gathering system is

Interesting. Maybe the reason for this is that even 76% of surveyed companies reported the development of a

new or improved product indicating a strong orientation of Serbian firms towards new products and services.

Table 1. Influence of a formal environment ideas collecting system on innovation activities

Innovation activities	Formal system	Informal system	Distinction
Going to the new market	82.0%	57.1%	24.90%
Development of a new product	80.0%	71.4%	8.60%
Development of production equipment and technology	88.0%	77.8%	10.20%
Development of organizational structure	70.0%	54.0%	16.00%
Development of the information system	62.0%	50.8%	11.20%
Development of the production and service process	84.0%	71.4%	12.60%
Development of marketing processes	82.0%	69.8%	12.20%
Development of the logistics process	64.0%	54.0%	10.00%
Development of the process in the field of planning, decision-making and management	62.0%	39.7%	22.30%

3.2 Employee ideas

As mentioned earlier employees' ideas are recognized as the second most important source of ideas, however, out of all surveyed companies, 70.7% of them said that they do not have any system for managing employee ideas, which points to the huge neglect of this important source of ideas for innovation activities, even 13.2% of surveyed companies said they do not have the need to collect employees ideas. Suggestion box is used by 18.9% of surveyed companies and 10.4% companies use a computer program. Still 57.5% of the surveyed companies think that idea management system would be useful to them. Again the system for employee ideas gathering is most often present at production companies 50.3%, 32.3% at service companies and only 19.7% of companies that offer both products and services have formal system for employee ideas gathering. 30% of surveyed public companies formally collects employees ideas. In relation to age of the company, 38.8% of the Middle-aged companies, 34.4% of the Old companies and 28.6% of the Young companies formally collects employees ideas

Ideas and suggestions in the surveyed companies are usually given directly to the superior person or top management, and more rarely at the department's working meeting or in conversation with the person in charge of collecting ideas (Table 2).

Table 2. The way of collecting ideas

	%
In conversation with top management	21.4
In conversation with the department manager	26.5
In conversation with a person in charge	18.4
At the working meeting of the department	18.4
Using the suggestion box	4.1
Using a computer program	2.0
By combining these methods	9.2

Assessment of ideas and suggestions is most oftendone by the company management or department

Table 6. Influence of a formal employee ideas collecting system on innovation activities

Innovation activities	Formal system	Informal system	Distinction
Going to the new market	83.3%	62.3%	21.00%
Development of a new product	83.3%	71.4%	11.90%
Development of production equipment and technology	96.7%	76.6%	20.10%

managers (Table 3).

Table 3. Idea assessment

	%
Top management	56.6
Heads of department	34.3
Colleagues from the same area	3.0
Professional external associate	1.0
By combining these responses	5.1

Ideas proposers usually receive an oral explanation from their manager about whether their idea or proposal is accepted or not (Table 4).

Table 4. Explanation about Idea acceptance

	%
No explanation	14.1
Oral explanation from manager	78.8
Written explanation	5.1
A combination of written and oral explanation	2.0

While 21.4% of the surveyed companies do not reward employees for their ideas and suggestions at all, those who do this are most often rewarded by employees whose ideas are accepted for bonuses, private and public praise (Table 5).

Table 5. Awarding the applicant of the accepted ideas

	%
The companie does not reward employees	21.4
Bonuses	34.7
Greetings to the eyes	10.2
Public praise	9.2
Free Days	2.0
Other privileges	5.1%
By combining these responses	17.3%

According to the obtained results, the existence of a system for collecting employee ideas positively influences on all innovation activities in the examined companies (Table 6). The strongest impact, as expected, is on development of the production and service process.

Development of organizational structure	73.3%	53.2%	20.10%
Development of the information system	66.7%	49.4%	17.30%
Development of the production and service process	93.3%	70.1%	23.20%
Development of marketing processes	86.7%	66.2%	20.50%
Development of the logistics process	60.0%	55.8%	4.20%
Development of the process in the field of planning, decision-making and management	63.3%	41.6%	21.70%

4. DISCUSSION AND CONCLUSION

According to the obtained data surveyed companies are more likely to collect ideas from the environment (47.5%) than from their employees (29.3%). Some studies show that external users ideas are of greater novelty and greater user value (Poetz & Schreier, 2012), which is obviously very important for new product development in Serbian companies even if employee-generated ideas are often more feasible than user-generated ideas (Poetz & Schreier, 2012).

The existence of an external and internal formal idea collecting system positively affect the volume of innovation activities in the examined companies (Table 1, Table 6). It can be noticed that the internal idea collecting system has a greater impact on process and organizational innovations which is expected because employees are closest to the working processes.

About 85% of companies that have a formal system for collecting employee ideas collects ideas orally - in conversation with manager, person in charge or at the working meeting of the department (Table 2), and the important question is whether these orally expressed ideas are recorded and archived. Even though 18.9% of surveyed companies have a suggestion box and 10.4% of companies have an Idea management software, only 4.1% and 2% respectively of surveyed companies use them (Table 2).

According to the obtained results idea assessment in Serbian companies is reserved for managers with none or very little involvement of colleagues that can elaborate and improve ideas. The good thing is that workers in most cases get feedback on their ideas and that they are usually rewarded for their ideas which positively influences their motivation to give new ideas.

Idea management in Serbian companies is found to be a little more than a suggestion box, but this can be noticed even in some developed countries (Mikelsone & Lielā, 2016). In future research it would be interesting to explore to what extent the Serbian companies empowers its employees to be innovative and creative by sharing their ideas for specific focused needs using idea campaigns and the relationship between leadership, organizational culture and idea generation.

5. REFERENCES

- [1] Bigliardi, B., Ivo Dormio, A., & Galati, F. (2012). The adoption of open innovation within the telecommunication industry. *European Journal of Innovation Management*.

- <https://doi.org/10.1108/14601061211192825>
- [2] Boeddrich, H.-J. (2004). Ideas in the Workplace: A New Approach Towards Organizing the Fuzzy Front End of the Innovation Process. *Creativity and Innovation Management*. <https://doi.org/10.1111/j.1467-8691.2004.00316.x>
- [3] Bogers, M., & West, J. (2012). Managing distributed innovation: Strategic utilization of open and user innovation. *Creativity and Innovation Management*. <https://doi.org/10.1111/j.1467-8691.2011.00622.x>
- [4] Diehl, M., & Stroebe, W. (1987). Productivity Loss In Brainstorming Groups: Toward the Solution of a Riddle. *Journal of Personality and Social Psychology*, 53(3), 497–509.
- [5] Francis, D., & Bessant, J. (2005). Targeting innovation and implications for capability development. *Technovation*. <https://doi.org/10.1016/j.technovation.2004.03.004>
- [6] Iversen, H., Kristensen, K., Schei Liland, C., Berman, T., Enger, N., & Losnedahl, T. (2016). Idea management: A life-cycle perspective on innovation. In *2009 IEEE International Technology Management Conference, ICE 2009*. <https://doi.org/10.1109/ITMC.2009.7461410>
- [7] Mikelsone, E., & Lielā, E. (2016). Idea Management and Web-Based Idea Management Systems Situation and Potential in Latvia. *Economics & Business*.
- [8] Poetz, M. K., & Schreier, M. (2012). The value of crowdsourcing: Can users really compete with professionals in generating new product ideas? *Journal of Product Innovation Management*. <https://doi.org/10.1111/j.1540-5885.2011.00893.x>
- [9] Rogers, E. M. (1995). *Diffusion of Innovations 4th ed.* New York NY Free Press.
- [10] Saatcioglu, A. (2002). USING GROUNDED INQUIRY TO EXPLORE IDEA MANAGEMENT FOR INNOVATIVENESS. In *Academy of management proceedings* (Vol. 2002, pp. C1–C6). Academy of Management.
- [11] Sandstrom, C., & Bjork, J. (2010). Idea management systems for a changing innovation landscape. *International Journal of Product Development*. <https://doi.org/10.1504/IJPD.2010.033964>
- [12] Spithoven, A., Clarysse, B., & Knockaert, M. (2011). Building absorptive capacity to organise inbound open innovation in traditional industries. *Technovation*. <https://doi.org/10.1016/j.technovation.2010.10.003>
- [13] Stevanović, M., Marjanović, D., & Štorga, M. (2016). Idea management in product innovation – The empirical research results. *Tehnicki Vjesnik*. <https://doi.org/10.17559/TV-20150603223629>
- [14] Turrell, M. (2002). Idea Management and the Suggestion Box. *White Paper-0802-1© Imaginatik,[online], Available Wwww. Imaginatik. Com [Accessed 5 June, 2006]*.
- [15] Turrell, M. (2003). Idea Management ROI Quantifying the Returns from Advanced Idea Management, (June), 1–17.
- [16] Van Lancker, J., Mondelaers, K., Wauters, E., & Van Huylenbroeck, G. (2016). The Organizational Innovation System: A systemic framework for radical innovation at the organizational level. *Technovation*. <https://doi.org/10.1016/j.technovation>.
- [17] Vandenbosch, B., Saatcioglu, A., & Fay, S. (2006). Idea Management: A Systemic View. *Journal of Innovation Studies*, 43(2), 259–288. <https://doi.org/10.1111/j.1467-6486.2006.00590.x>
- [18] Vrgović, P., & Mihailović, D. (2012). Idea management in a developing country with transition economy: good intention, bad communication. In *International symposium SymOrg*.
- [19] Vrgovic, P., Vidicki, P., & Senk, V. (2013). Employees' Communication Patterns in Unorganized Idea-sharing Activities. *International Journal of Industrial Engineering and Management*, 4(1).

* Acknowledgement: The authors acknowledge the financial support of the Ministry of Science and Technological Development of the Republic of Serbia, within the Project No 4700