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THE TOP MANAGEMENT'S ROLE IN INNOVATION

Empirical
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Abstract

Innovation has become a prerequisite for the ensuring of the success or even the survival of the business. Innovation cannot be acted singly, multidisciplinary teams are needed in several departments. It is necessary to achieve performance in the innovation management.

Nowadays, to succeed and to offer value, the top management must be comfortable in a new world of rapidly changing technology. In some industries as the IT&C industry, the top management of a company must make difficult decisions about the application of new tools in a regulated environment where privacy is a critical concern.

This paper aims to analyze how the top management of some companies in the IT&C industry in Romania performing work towards the awareness of the importance of innovation at the firm's level and to create the strategic elements defining the innovation and how these activities are positioned in relation to the industry's practices and the employees' expectations.

1. Introduction

The IT&C industry is a highly dynamic industry, the new or significantly improved products of a company appear with a speed measured in months. Thus, we are witnessing the compression of the span of the development process of a new product from years to months or, at most, one year.

We are witnessing the process of the “cannibalization”, meaning that a product of a company will be replaced by another product of the same company, the new product having similar characteristics, practical, such a company has more difficulties because of the decreasing of the sales at the old product. The strategy has a dual role: the customer of the company does not migrate to the competition from the desire to benefit of an improved product and the attracting of the new customers or the clients of the competition. The company shall ensure that after the consumers will get bored of one of its products, it will be replaced by another product of the company, and the company will demonstrate the innovation capability and will remain in the eyes of customers. The customers prefer to pay more to get the most innovative solutions to their problems. Apple has posted a record profit of 18 billion \$ in the first quarter of the fiscal year 2014 (the period October-December 2014) rising by 38% over the same period in 2013. The increased profit from 13.1 billion dollars to 18 billion dollars was due to the new models of iPhone launched in September last year. The models of the smart phones, iPhone 6 and iPhone 6 Plus were sold in the first weekend of its market debut in a record number of over 10 million units, the buyers storming the classical and virtual stores.

To cope with the industry trends, the top management of the companies should put more emphasis on the aspects of leadership, stimulating the change and having as central points the inventory or the significantly improvement of the products.

2. The IT&C industry in Romania

According to an analysis by the economists at the business information and credit management company KeysFin, businesses in the IT&C sector during the crisis “exploded”, as a result over 30,000 companies have developed products and services in this field (KeysFin, 2014).

The statistics show that 70% of the approximately 30,000 companies in Romania opened in IT have been established for the last 10 years (KeysFin, 2014).

The financial performance of the sector has increased from year to year, reaching an annual average turnover of approximately 2.8 billion euro.

The product development software segment owns 48% of the total net profit of the IT sector, profit which amounted to 260 million euro in 2012. The least profitable segment of IT is the one of maintenance and repair, with a return of 11 times lower than the product development software.

Almost all the companies in Romania living from outsourcing and only 10% focus on their own ideas; their implementation lasts, costs and has never the guarantee of a satisfactory result.

The advantages of the companies in Romania are:

- the competitive price,
- the European Union membership,
- the high level of training of the programmers,
- speaking foreign languages.

3. The concept of innovation and its importance in the IT&C industry

In essence, innovation is a form of change. This change may relate to an organization offers, such as goods or services (often called product innovation) or how these deals are created and provided (often called innovation process).

Innovation occurs also in changing its organizational structure and routines, policies and methods. The changes resulting from innovation can have different degrees of novelty (Tidd & Bessant, 2009).

Innovation at the firm’s level can be defined as an activity which results in a product (good or service) new or significantly improved, launched on the market, or represents the introduction of a new or significantly improved process in its own company, as solving the organizational problem with the objective to improve the labour productivity, to improve or streamline technical and organizational solutions applied. Innovation is based on the results of new technologies, new combinations of existing technology or the use of other knowledge acquired by the company. Innovation aims the profit-driven and the customer value creation.

The IT&C industry will always be characterized by innovation. It is about revolutionary thinking in new ways, with new products or services, such as Facebook. The companies that are able to recognize trends in society and be the first to launch innovative products in question are the companies that will have long-term success and will create added value for its shareholders. Also, the companies must be able to adapt and to innovate.

An example of the importance of innovation is the case Apple versus Nokia. Both companies operate within the same industry, but they experience varied degrees of success.

Nowadays, innovation has a much broader field of applications in the software service industry. Unlike the product industry, innovation in the software services industry is varied, intense and continuous. Organizations offering IT services have to manage diverse industry domains, technological

obsolescence, and increased customized needs of its customers. Innovation in such a dynamic environment is not easy and requires well-defined innovation methodologies in order to be applied (Chowdhury, 2014).

The IT&C industry faces the challenge of responding to changing business environments on limited budgets, which needs to support the legacy applications as well as the new modern software applications.

At Gartner Symposium/ITxpo in Orlando, the IT experts have identified what they believe to be the top-ten information technology trends for the next three years. Among *the strategic technology trends* are counting: *computing everywhere, the Internet of things, 3D printing, smart machines, cloud/client architecture, risk-based security and self-protection* (Forbes, 2014).

4. The top management's role in directing efforts towards innovation-bibliographic research

The top management of an organization has the responsibility of encouraging innovation activities as a factor of differentiation and competitiveness.

By commitment and support, the top management becomes a key factor in overcoming the resistance from those who challenge the introduction of innovation (Mortara & Minshall, 2011).

It is not sufficient to think at an innovative vision. The top management must share that vision in order to encourage the emotional involvement within the organization as a whole. Such a vision formulates a strategic intention. Its accomplishment involves tenacity; the top management must be able to mobilize efforts for long periods of time, in this way the strategy is deployed.

The top management of a company is responsible for the company's mission statement. Companies want innovation in a mission statement or core value which helps to reinforce the mandate. In order to show clear orientation towards the innovation, the mission statement of the company may include the word "creativity", "innovation", or both. The end goal is that innovation is happening everywhere, all the time, and no one has to think about it. That's the innovation intent at companies like Google (Johnston, 2012).

Innovation is a fundamental part of the philosophy and of the values of a company (Goffin & Mitchell, 2005). In order to complete the mission statement of an organization should be considered the innovation philosophy practiced there. This should explain an organization's general stance towards innovation, the significant reasons for promoting innovation and its contribution to corporate performance.

Among the management tasks are the setting of the objectives for innovation. The innovation objectives can aim the organization as a whole or can be made at the level of the departments and/or

of the processes (Voss & Chiesa, 1993). The typology of setting the innovation goals is varied. Therefore, the objectives aim the innovation of the product, of the process, organizational and marketing.

It is necessary to include the innovation objectives into the plans and strategies of the organization. Innovation should be considered in all major plans drawn up within organizations. The top management should ensure that all relevant innovation and innovation management issues are addressed during the planning process and the results of deliberations are documented in the business plan. If a separate section on innovation cannot be created, these issues should be clearly identified in other sections. Such plans should address the manner in which market demand, specific customer needs and technological advances will be brought together in the range of products offered by the organization. A particular attention will be concentrated on the industries, markets and specific niches (British Standard 7000-1, 2008).

The company's management should be involved in discussing the strengths, the weaknesses and the opportunities of the development with the employees regularly through transparent procedures and making conclusions in a development plan. The creation of a future vision should be followed by a wide-ranging review of the organization's current capabilities, of the current and emerging technologies and practices, in order to draw up a challenging innovation. This should guide and inspire people throughout the organization to come forward with appropriate proposals to be developed into products on long-term.

Such a review should encompass: the analyses of the customers' experiences with the organization and its products; the scenarios, which envision the future markets, the events and the activities; anticipated changes in legislation; trends in leading practices; the competitors' analyses (British Standard 7000-1, 2008).

The top management is responsible for how it is communicated the innovation strategy (Tidd & Bessant, 2009). Considerable benefits might be derived from informing virtually of the staff about the essential features of the plans through team briefings, staff conferences and company's newsletters.

The staff should be made aware of their individual responsibility for the successful implementation of the plans and the efforts should be made to issue a summary of the references and other working documents that inspire and motivate the staff, and help to build the team spirit (British Standard 7000-1, 2008).

The top management is involved and interested in the generating process of the ideas. In this respect

the top management shall define and present a specific problem (Iversen et al, 2009).

The top management involves a group of people within and outside the organisation during a limited time. "Instead of openly soliciting all ideas, the company launches short term campaigns to require ideas on specific issues or problems, for example: "Ideas for new product features that will make our widgets more appealing to young owners" or "How can we improve the documentation of a product in order to reduce customer support demands?". The campaign based on the idea management offers two benefits over the suggestion scheme. Firstly, it obliges people to think about, and focus their innovation on strategic business needs. Secondly, it motivates employees to participate by providing specific challenges, limited in time" (Baumgartner, 2009).

"In order to demonstrate the preoccupation to the innovation, the top management wants the workforce to be more creative, also, the senior managers should be more creative. If the management is seen as managing by the book, the employees will doubt about the management's commitment to the innovation. Instead, the management should share and implement the innovative ideas, and must communicate these to the workforce" (Baumgartner, 2009).

The top management distributes the background information (including how other industries have solved similar problems) (Iversen et al, 2009).

5. Methodology and results

The main research objective was to analyze how the top management of some companies in the IT&C industry in Romania performing work towards the awareness of the importance of the innovation at the firm's level and to create strategic elements for defining the innovation.

The sample consisted of 84 respondents, managers and staff from 76 IT&C companies, most of them are foreign-owned, and the analysis period was January-February 2015.

The analyzed issues would be desirable to be among the top management's tasks in the steps of implementing an innovation management at the firm's level:

A1: The concern for the innovation. Identify forms of the innovation present in the company (product innovation, service innovation, process innovation, organizational innovation and marketing innovation) and orientation of the innovation towards improvement or novelty.

A2: The existence of a well-defined vision aimed at expanding the businesses of the company and their communication to the employees.

A3: Mentioning in the mission statement of the company of the words such as "novelty", "creativity" and "innovation".

A4: The commitment and the support from the top management to efforts aimed at the innovation.

A5: Requesting the support and training from the employees regardless of their hierarchical position in providing potentially useful ideas to solve problems and to valorise the opportunities facing the company.

A6: The employees' awareness on the effects of the lack of initiative in providing ideas or commenting them.

A7: Presentation by the top management of the company through various communication channels, the situations in which employees of other companies have successfully solved a number of problems.

A8: Opening the top management for taking action, with finality, which aims to change and to improve processes within the company.

A9: The existence of a strategy for innovation which highlights the role of each department in making innovation.

A 10: The intention for the innovation must be formulated as goals, communicated to the employees.

A 11: The orientation of the company to create some competitive advantages recognized by the market.

A 12: Discussing the strengths, the weaknesses and the opportunities of the development with the employees, regularly, through transparent procedures and translating the findings into a development plan.

For each issue that is the responsibility of the top management was achieved a differentiation between the existing practices in the companies ("state of fact") and the best practices in the field which leads to a series of expectations of the employees towards the company's management ("practices") (Table 1 - Appendix).

Regarding the A1 (the forms of innovation present in the firm), for each form, namely: product innovation, service innovation, process innovation, organizational innovation and marketing innovation, the respondents had to choose among five options: the overall orientation toward improvement, the majority orientation towards improvement, the balance between improvement and innovation, the majority orientation towards innovation and the overall orientation towards innovation. The majority of the respondents opted for the middle ground, opting for balance between improvement and innovation, such as: product innovation - 29%, service innovation - 33%, process innovation - 35%, organizational innovation - 33%, marketing innovation - 26% (Table 1 - Appendix). This highlights the concern

of the managers of the firms for innovation and their desire to achieve a balance between different forms of innovation.

For the issues A2-A12, the respondents had to choose between the values: 1 - appearance is not important in making innovation, 2 - appearance is less important, 3 - appearance is important, and 4 - appearance is very important in making innovation. The research reveals, firstly, that in ten of the eleven of the managerial aspects analyzed in the IT&C companies, the top management gave an increased attention. The existing practice management, succeeded to convince the employees about the fact that the company is on the right path, the proof is the average value being in the range of responses 2.94 and 3.54 with a polarization of the responses around 3 (important in the management's opinion). The only exception is encountered at the issue *A7 Presentation of the situations successfully resolved*, where the average of the responses is 2.54, indicating that the company's managers have to work more in this area (Table 2 - Appendix).

When the facts of the firms and the best practices in the field are analyzed, it is noted that in almost all the analyzed aspects firms have to work more, even though the differences are not large, though there are differences between the situation of the companies and the best practices in the industry. The exceptions are *A6 (Employees' awareness)* and *A11 (Creating the competitive advantages)*, where the two averages are similar. Larger differences are meeting at *A7 (Presentation of the situations successfully resolved)*, *A8 (Opening of the management for change)*, and *A12 (Existence of the development plan)*, where the management of the companies should act with priority (Table 2 - Appendix).

6. Conclusions and further research

As a conclusion, the managers of the IT&C industry in Romania have achieved good results in making innovation as being interested in their companies to have all its forms, but they choose the less innovative projects. Although, the differences in wages can occur. For example, in Romania a salary of 3,000 euros received by a very good programmer is large, but it pales compared to that of a very good programmer in Germany, the USA and the United Kingdom, where remuneration can pass over 10,000 euro per month. A third of the IT firms in the local market have paid their engineers and software developers with net wages between 1,000 and 1,500 euro per month and only 4% of the companies have paid their engineers with salaries between 2,000 and 3,000 euro per month (Popa, 2014).

The salaries in IT were raised very much in the last ten years by the foreign companies that opened their development centres in Romania, such as: Ixia, Intel and Adobe, which made that the salary

being 3.5 times higher over the past decade. The foreign firms have brought changes in the strategic management, many practices from abroad were successfully implemented among the firms in Romania, the evidence of this work is the results of the research. Thus, the majority of the employees have a good opinion, sometimes even very well about the efforts of the managers in creating a favourable climate for the innovation, although the aspirations of the employees still exceed the managerial capacity of implementing the best practices in the industry.

The efforts of the top management towards innovation should be supported. According to the Gartner's analysts, as an application to be imposed on the market, it must be quality and provide more functionality. And these things mean higher costs for research, development, delivery and support. Gartner estimates that by 2018, only one in 10,000 applications dedicated to the consumers will be a financial success (Popa, 2014).

One direction of the development could be the extension of the research into other industries, some that stand out through the results in the innovation management and others on the contrary, which does not excel; then starting from these comparisons, to identify those strategic and leadership aspects that influence the innovation outcomes.

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Appendices

Appendix A

Table No. 1

The innovation forms identified in the analyzed companies

A1 Innovation forms					
Total orientation towards improvement	Major orientation towards improvement	Balance between improvement and innovation	Major orientation for innovation	Total orientation towards innovation	
Product innovation					Total
3	15	29	24	12	83
3	15	29	24	12	83
Service innovation					Total
7	11	33	23	8	82
7	11	33	23	8	82
Process innovation					Total
4	11	35	23	9	82
4	11	35	23	9	82
Organizational innovation					Total
13	18	33	10	9	83
13	18	33	10	9	83
Marketing innovation					Total
7	12	26	24	14	83
7	12	26	24	14	83

Source: data processing in SPSS

Appendix B

Table No. 2

The statistical analysis of the data on the work of the top management

Managerial aspects analyzed	N	Minimum	Maximum	Mean	Std. Deviation
A2 Existence of the vision - practices	84	2	4	3.60	.540
A2 Existence of the vision - state of fact	84	1	4	3.33	.683
A3 Content of the mission statement - practices	83	1	4	3.33	.718
A3 Content of the mission statement - state of fact	83	1	4	3.11	.924
A4 Management's commitment - practices	84	1	4	3.46	.685
A4 Management's commitment - state of fact	84	1	4	3.12	.884
A5 Requesting the staff's support - practices	84	2	4	3.48	.611
A5 Requesting the staff's support - state of fact	84	1	4	3.07	.875
A6 Employees' awareness - practices	84	1	4	3.06	.700
A6 Employees' awareness - state of fact	84	1	4	2.94	.812
A7 Presentation of the situations successfully resolved - practices	84	1	4	3.00	.931
A7 Presentation of the situations successfully resolved - state of fact	84	1	4	2.54	1.046
A8 Opening of the management for change - practices	84	2	4	3.40	.642
A8 Opening of the management for change - state of fact	84	1	4	3.12	.798
A9 Existence of the innovation strategy - practices	84	2	4	3.29	.687
A9 Existence of the innovation strategy - state of fact	84	1	4	3.12	.751
A10 Setting the innovation goals - practices	84	2	4	3.36	.633
A10 Setting the innovation goals - state of fact	84	2	4	3.13	.773
A11 Creating the competitive advantages - practices	83	2	4	3.57	.628
A11 Creating the competitive advantages - state of fact	83	2	4	3.54	.611
A12 Existence of the development plan - practices	84	1	4	3.42	.764
A12 Existence of the development plan - state of fact	84	1	4	3.01	.938
Valid N (listwise)	82				

Source: data processing in SPSS