The role of entrepreneurial organizational design in maximizing the contribution of employee environment information harvesting

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Abstract

Contemporary market conditions impose the importance of gathering of ever greater amounts of information from the environment. Need of the company for unique, fresh, and often, for business operations of a particular company, characteristic information promotes primary sources of information to the foreground, and makes employees who are in direct contact with stakeholders the main subjects of such a process of environmental scanning. The objective of this research is to explore the importance of company’s entrepreneurial design for harvesting its employee information potential. This paper will propose the DePSO model - model of decentralization of environmental scanning process, which is based in the concept of organisational porosity and identifies key aspects of organisational design important for employee information harvesting: organisational structure, organisational culture, motivation system and internal communication system.

Keywords: environmental scanning, entrepreneurial organisational design, employee information, learning organisation, competitive intelligence

1 Introduction

The key to company success lies in establishing and maintaining the competitive advantage in the market. Unlike the neoclassical economy of 19th and 20th Century whose authors emphasize the importance of natural resources and possibility of access to capital as crucial for establishment of competitive advantage, a whole range of factors has caused the reign of completely different rules of competing in contemporary business conditions. Many authors (Mintzberg, 2004; Murmann, 2003) agree that the most important strategic aspect of a company today is its knowledge, i.e. capability for its collecting, developing, sharing and its implementation and that this knowledge is exactly what enables companies to provide superior value for their customers and develop
sustainable competitive advantage, by combining of traditional resources of production that are disposable to all, in a new and unique way.

One of the main causes of dominance of knowledge as a strategic resource in today’s market conditions is the development of information technology and its influence on increasing of market transparency. “Informatization” of the society provided fine tuning of the picture on the way of functioning of the market in general, but it also provided better information about individual market entities, which widens the possibility of choice from the customer standpoint and deepens the basis of decision making criteria when selecting products and services. Thanks to the development of information technology, information about business operations spreads extremely fast thus making it difficult to maintain the privileged position in the market based on the competitive advantage elements with high possibilities of reproduction (Porter, 2001). Besides the exceptional role played by the development IT, some other factors that also influence the shape of today’s market are: accelerated dynamics of doing business, accelerated dynamics of change of the value system and social trends, information overload, increase of number of competitors who are willing to sacrifice profits in exchange for an increase in market share, etc., and all of them point at the increasing complexity and dynamics of business and the need for knowledge as an important navigation instrument (Edvinsson, 2003).

2 Environmental scanning processes in contemporary market conditions

Aware of the importance of knowledge, developed economies in the last decade have been undergoing transformation from processing of raw materials and production activities to processing of information, development, application and transfer of new knowledge. Exploitation of information-intensive resources, porosity of a company as a system at all its levels and building of an active relationship with the environment have become an imperative and an essential part of doing business of all the companies, and not just an exclusive right of those that come from advanced technology industries. Contemporary market conditions impose the importance of gathering of ever greater amounts of information from the environment (on market conditions, customers, trends in the industry, competition) which is a time, people and financially consuming task that requires a high level of employee education about company’s needs and goals (Gilad, 2004). The necessity for continuous information gathering as a precondition for maintaining of excellence in a certain industry on the one hand, and the lacking of adequate knowledge and other resources for monitoring of all aspects of business on the other, influence the companies to achieve a high level of specialization for particular, quite narrow areas of business in which they have proven their excellence, and to resort to cooperation and outsourcing in all the other segments. “Market practice has shown that only the best businesses survive and that vertical integrations are not stimulated exclusively by the willingness to decrease transactional costs but by knowledge exchange.”

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Greater intensity of interorganisational and intraorganisational cooperation has influenced increasing of the need for socially and technologically efficient communication channels. The market is flooded with various software solutions of the technological aspects of this problem whose aim is increasing of efficiency and speed of information processing in the communication channel. Many of those can be adjusted to a company’s specific needs and organisational structure, however the precondition for their implementation is an already established, efficient, two-way inter/intra organisational communication network. In the social sense, there are many barriers that affect the stated ways of cooperation and communication inside and between organisations. Success and efficiency of inter/intra organisational communication channels are highly dependent upon company’s organisational design, employee motivation for their commitment, their familiarity with company’s strategy and vision, etc. Development of information technology offers tremendous possibilities for rising of the capacity of employees for information processing, but it greatly depends on the employees' awareness of the importance of gathering and sharing of arduously gained information on the market (Gilad, 2004).

Beside the need for ever greater amount of information about changes in the environment, the speed with which market changes occur pushes all the secondary sources of information to the background, which are characterised by obsoleteness and low level of up-to-datedness (according to standards imposed by a complex and chaotic market) and inability to provide information that corresponds with specific needs of the company in a consumable form (Michaeli, 2006). Need of the company for unique, fresh, and often, for business operations of a particular company, characteristic information promotes primary sources of information to the foreground, and makes employees who are in direct contact with stakeholders the main subjects of such a process of environmental scanning.

Large portion of the answer to the question how to create an atmosphere in which employees in a company are going to contribute “more than it is written in their job description" lies in development of entrepreneurial capacity and entrepreneurial way of thinking at all company levels. Many authors (Morris et al, 2008; Gibb, 2002; Zahra et al, 1999) write about what entrepreneurial organisations are, and how to design an organisation in which employees will think entrepreneurially, emphasizing the following characteristics of entrepreneurial organisations: increasing the feeling of freedom, tolerating uncertainty, developing the tendency to take responsibility, building relevant stakeholder networks at all levels of the company, encouraging personal contact as the basis for learning. Entrepreneurial culture of a company can be described as a conjunction of values, beliefs and attitudes, which strongly encourage the opinion that improvement of a company's business can best be achieved through maximizing efforts and responsibilities of all employees (Gibb, 2002). In such an atmosphere company's employees will not only be actively involved in gathering information from the environment, which is relevant for company's business activities and can help management with decision-making, but will themselves be empowered for provocative action, taking initiative, identification of opportunities in the environment, which allows them to perform tasks from their personal area of responsibility better. This thesis is supported by examples of large corporations (Conger et al, 1999) that are often used in
text-books as "case-studies" (Shell, General Electric, SAS, Lucent Technologies), which have, aware of the importance of early observing and reacting to changes in the environment, went through significant transformations with the goal of building of entrepreneurial approach on their frontlines ("frontline entrepreneurs").

Efficiency of new employee-based approaches in processes of company environment scanning is dependent on a whole range of factors. Only some of them connote employee knowledge and the ability to recognize the early signals from the environment, i.e., their "economic literacy", dedication and motivation for contribution to development of company's business, which often require detachment from classic employee job descriptions (Finnie et al, 2002). The increase of importance of economy of knowledge has influenced the change of relationship toward employees. Employees are becoming increasingly important, activating of their potential and knowledge at all levels of the company is extremely important in contemporary business conditions, since it represents the basis for maximization of utilization of intangible resources of the company and the foundation for realization of competitive advantage in the market (Edvinsson, 2003).

3 Model of decentralization of environmental scanning processes – DEPSO model

Results of previous research in the field of environmental scanning talk of a connection between the management's perception of the level of complexity of the environment and the attaching of importance to environmental scanning processes. Management that perceives company environment as distinctly complex, allocates more significant organizational and personal resources to higher quality of monitoring of the changes in the environment (Choo, 2001). According to the contingency theory by Lawrence and Lorsch (1967), companies strive to adapt their organizational structure to the needs and characteristics of the environment, and build an internal communication system which will enable optimal collection and usage of information from the environment. The manner in which environmental scanning processes are organized within a company depends on several factors: company size, level of dependency on the environment, perception of the complexity of the environment, experience in environmental scanning, and the activity in which the company is involved (Choo, 2001), while the focus of environmental scanning is directed to different parts of the environment: market, competition, technology, resources, legislation, global issues (Ghoshal et al, 1995). Literature from the field of environmental scanning shows that management prefers personal and informal sources of information in relation to formal sources (Davenport et al, 1998), but also points to inadequate utilization of the information capacity of managers and employees at the front lines about the changes in the environment (Gilad, 2004) which speaks in favour of the relevance of studying the topic of this paper as an important research question.

Environmental scanning process represents an important component of the organizational learning model (Daft et al., 1984), and organizational learning has a significant influence on ultimate company performance which points to a connection between the level of efficiency of environmental scanning processes and the business results. Learning organization represents the perfect organizational form, one that
maximizes employees' contribution at all levels in different areas of organizational activity, and thus also environmental scanning (Senge, 2008; 1990). Porosity of organization at all its levels is the assumption for the functioning of learning organizations, which reflects in two-way communication and exchange of ideas and information with the environment at all levels of the organization, and the encouragement to build relationships with stakeholders from the environment. Learning organizations base their capacity for organizational development on human resources as the most important resource whose contribution is maximized through contemporary methods of human resources management, such as: empowerment, development of entrepreneurial capacity of employees, localization, decentralization of decision-making processes, enabling social interaction among employees, abandonment of the traditional concept of the system of control, communicating and sharing the vision among the employees, and harmonizing and incorporating employees' personal visions into the organizational vision.

An organizational culture which enables two-way and lateral communication, and adapts the formal organizational structure to the informal, is favourable for activating the role of employees in environmental scanning processes. Organizational culture enhances the efficiency of environmental scanning processes based on active role of employees in those processes, if employees are stimulated to take an innovative approach and assume risks, and if employees with their aggressive and competitive approach enable directing various activities in the company towards improvement of its performance (Robbins, 2001).

Management's perception of the efficiency of the employee motivation system is also incorporated into the organizational culture of the company (Schein, 1995). An organizational culture in which the management combines extrinsic and intrinsic motivators, applies individual and diversified approach in awarding organizational rewards and stimulations and notices a connection between employee's invested effort, his or her performance and the awarded rewards is favorable for maximizing employee contributions in various company activities, not necessarily closely related to the description of working assignments, which the employee performs daily (McClelland, 1975; Vroom, 1964). Organizational culture is in the function of the development of the company when it enables diversity for creating creative and innovative potential in the company, when it develops flexibility, when it doesn't represent a barrier to change and does not insist on consistency in behaviour at any cost, and when it, ultimately, stimulates and enables entrepreneurial behaviour of its employees (Gibb, 2002).

Entrepreneurial organizational culture develops entrepreneurial characteristic in employees, such as creativity, ability to network and build a network of contacts with the environment, which are potentially significant for undertaking activities connected with the scanning the company's environment. Kuratko et al. (2005), describe entrepreneurially designed organizations as, among other things, organizations whose organizational culture facilitates and promotes entrepreneurial behavior of employees, allocates available resources to entrepreneurial activities, tolerates learning from own mistakes and allows discretion of work and autonomy in deciding on taking over risks in the search for innovations. Gibb (2002) points out feeling of freedom and control, feeling
of ownership, dedication, building relations with stakeholders from the environment through personal contacts at all levels of the organization, propensity to assume responsibility and risks as some of the important components of entrepreneurially designed organizations.

Organizational structure can also be a limiting or a stimulating factor of proactive actions of employees in a company. The greatest contribution of employees in environmental scanning processes can be expected in an organization with organic structure in which the emphasis is put on direct personal interaction, decentralized power, authority based on expertise, and which is characterized by a low level of formalization and developed information gathering systems with the purpose of anticipating changes in the environment (Miller, 1986, Slevin et al., 1990). A sort of an ideal form to which organizations should strive was described by Welch (2005) with the expression "boundaryless organization" in which the internal horizontal and vertical barriers, as well as the external barriers between the organization and its stakeholders are removed. Each of the levels of management plays an important role in enabling porosity of information through organizational levels. However, because of its central position, the middle management plays the role of the facilitator in vertical communication in the company (Kuratko et al, 2005).

From previous research conducted in the field of environmental scanning, learning organization, organizational design, corporate entrepreneurship and competitive intelligence, a connection between the way in which an organization is designed (culture and structure), its employee motivation system, and the way in which it communicates internally with the way in which environmental scanning processes are organized in the company has been noticed. Figure 1 shows the DEPSO model – model of decentralization of environmental scanning processes which summarizes the previous literature overview in this field, and identifies the key elements of organizational design that influence the level of decentralization of environmental scanning processes in the company. The model is based on the assumption that companies, through management's adequate intervention in the four stated factors, ensure maximum contribution of employees at all levels, and primarily at the front lines, in environmental scanning processes, and thus enhance their organizational performance. Application of the model depends on the level of complexity of the environment in which the company operates, and the management's perception of the information potential of employees at different levels of the company and their level of interest for the development of the company.
4 Methodology

The goal of the empirical part of this research is to verify well-foundedness of the proposed DEPSO model and to observe the relevance of the identified key elements of the model and their influence on activating employee potential in the environmental scanning process. The empirical part of the research was conducted in the construction industry for several reasons: (1) because of the financial and general crisis that hit Croatia in 2008, which is the result of negative changes in the global financial market in the last several years; construction industry has recorded significant losses, and because of that it represents an activity which operates in an extremely complex and turbulent environment; (2) the construction industry is characterized by a high share of transportation expenses in total production costs, which, in the geographical sense, limits the activity of a company to a certain market, influences the need for information and thus enables higher quality comparison of the information potential of the observed companies; (3) the housing construction trend present in the construction industry in the last ten years is entering the phase of market maturity and has a significant influence on company capacity for recognizing the phase of market development and the identification of new market niches for the purpose of timely repositioning. Selection of companies within the construction industry was performed using company size and ownership. The
research was conducted in five medium-sized companies, which are owned by physical persons.

The research consists of two parts. In the first part of the research an interview was conducted with the manager of the company who, in most cases, is the co-owner or owner of the company. In the interview which lasts several hours, based on the previously prepared Questionnaire for the analysis of company’s business environment2 with open questions, information about the situation in the company and the company's environment is gathered from the manager. The information gathered includes: company history, company's primary activity, industry trends, products and/or services offered by the company, employees, customers, competitors, suppliers, company's information system, problems and challenges which the company faces, and the company's vision. In the second part of the research, interviews were conducted with employees and managers at three organizational levels, and obligatorily with an employee at the front line and a manager at the front line and/or at the middle management level. Interviews with the employees were conducted in two parts. In the first part, Questionnaire for the analysis of company’s business environment is used, which was also used to interview the company's manager. The goal of this first part of the interview is to determine the level of overlapping of information possessed by an employee and the company's manager, and how well employees and managers at lower organizational levels are informed about the situation in the company and in the company's environment. Employees also filled out the Questionnaire for the analysis of the elements of the DePSO model, with closed questions in which, using the Likert's 1-5 scale, the statements offered are assessed. The statements are grouped in categories3, which allow subsequent analysis of the answers from the aspect of individual elements of influence on the decentralization of the environmental scanning processes named in the proposed DePSO model. Instrument for measuring the corporate climate4 was used for the purpose of creating questions in the organizational culture category, and adapted for the purposes of this research. With the goal of establishing a connection between the decentralization of environmental scanning processes and the organizational performance, a category which reviews company's entrepreneurial intensity was added to the last part of the Questionnaire for the analysis of the elements of the DePSO model. Questionnaire for testing entrepreneurial intensity5 was used for the purpose of creating questions in this field, and adapted for the purposes of this research.

The empirical part of the research also encompassed spending one working day in the observed company, for the purpose of observation of the method of internal communication in the company (content, intensity, directions and ways of communication), and the elements of organizational culture. During observation, instructions for conducting the analysis of organizational culture suggested by Schein (1992) were used. Instead of the traditional observation method, that is, ethnography, which is extremely time consuming and, according to Schein (1992), unnecessary if there

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2 Adapted from Guide for creation of consultant reports within the Grow Your Business program, Centre for Entrepreneurship Osijek, Croatia
3 Internal communication in the company, organizational structure, organizational culture, motivation system
5 EI Questionnaire, adapted from D. Miller (1983) and M.H. Morris and D.F. Kuratko (2002)
is no need to research the culture in the greatest detail, Schein suggests the clinical approach in the analysis and deciphering of the organizational culture in an organization in the form of an iterative clinical interview. The success of implementation of an iterative clinical interview with the aim interpreting organizational culture increases if the interviewed internal member of the organization recognizes a benefit of this process for himself and the organization in which he or she operates. In that case the level of motivation and collaboration between the researcher and the internal member of the organization increases. When conducting in-depth interviews and observations within this research, significant efforts were invested in explanation of the purpose of the research and potential benefits for the individual and the organization, and thus significantly arouse motivation for collaboration of the internal members of the organization.

In order to analyze the organizational performance of the companies involved in this research, horizontal and vertical analysis of balance sheets and income statements for two years in a row were performed. The aim of conducting the financial analysis was to determine the level of effectiveness of strategic positioning of the observed companies in the environment, in order to establish a possible connection and influence of the level of decentralization of environmental scanning processes in the company and its porosity with company's organizational performance in the market. For the purposes of analysis and establishing of a correlation between information gathered through empirical research and the results of the financial analysis, *Matrix for the analysis of correlation between decentralized environmental scanning and organizational performance* was created. By entering and evaluating findings about the observed companies in the Matrix, the basis for generating conclusions on the influence and correlation between the level of decentralization of environmental scanning processes in a company and its organizational performance was created.

5 Results

The results of this research are integrated by using the *multiple case study method* in which the same problem is studied in five companies - cases, in order to better illustrate the stated problem and present different perspectives of the same problem. The case method in this research has also been used for the analysis and presentation of the results of the research, which were gathered using ethnography, iterative clinical interviews, interviews, and financial documents obtained from the companies involved.

**Case 1** has confirmed the correlation between weak organizational performance, a centralized process of information gathering, and low utilization of human potential in activities of wider organizational interest. Weak organizational performance in Case 1 is also the result of weak internal formal and informal communication at relation top management - middle management. Case 1 also shows that introducing changes to the way in which company conducts its business with the aim of improving the effectiveness of its positioning in the environment requires an intervention in the basic elements of influence, identified in the DePSO model: internal communication system, organizational structure and culture, and motivation system. In that context, this case confirms the relevancy of the stated elements and for change of the method of environmental scanning in a company.
**Case 2** shows a company which is characterized by the highest level of porosity towards the environment at all organizational levels in relation to other observed companies. At the same time, the conducted financial analysis has shown that this is relatively the most successful company in relation to other observed companies, which points to a correlation between the decentralized environmental scanning process in a company and organizational performance. Case 2 also shows that elements of influence identified in the DePSO model represent important assumptions for opening of a company to the environment at all organizational levels. In the company described in Case 2, elements of influence are appropriately set up and they represent a good foundation for greater involvement of employees at all levels, primarily at the front lines in the environmental scanning process. Further increasing of the level of decentralization of environmental scanning processes in the company described in Case 2 is currently limited by management's perception of employees' information potential, which also justifies the inclusion of this element as one of the preconditions of the DePSO model.

**Case 3** shows a company with a relatively weaker organizational performance in relation to other observed companies, whose porosity is limited exclusively to the top management level. Weak organizational performance of the company is in correlation with unfavourably set basic elements of influence identified in the DePSO model. Non-involvement of employees in environmental scanning processes is the result of management's perception of the low value of the information potential of employees at different organizational levels, despite the fact that management perceives the environment in which the company operates as extremely complex.

**Case 4** points to a correlation between management's perception of company's information potential and the involvement of employees at all levels in environmental scanning processes. Elements of the DePSO model are partially adapted to increasing porosity of the company at lower organizational levels, where organizational structure and internal communication system are favourable, and organizational culture and motivation system are unfavourable for greater involvement of employees in environmental scanning. Case 4 also confirms the importance of increasing the porosity of a company and of involving organizational potential at all levels for improvement of organizational performance.

**Case 5** shows a company that is porous exclusively at the top management level in which the role of employees at different company levels in environmental scanning processes is marginalized. This case again confirms the importance of management's perception of employees' information potential as an important precondition for involvement of employees in scanning processes. Elements of the DePSO model do not have a favourable constellation for greater decentralization of environmental scanning processes. Analysis of company's organizational performance shows that company described in Case 5 is situated in a central position in relation to other observed companies, while financial indicators and evaluations of innovativeness of its products, processes and services speak of inadequately utilized human potential, which is the consequence of its organizational design, which limits better utilization thereof. This case confirms the correlation between non-entrepreneurial organizational design and weak company porosity at different organizational levels.
Conclusion and implications

Research in this paper represents an extension of the scientific discussion about learning organizations based on porosity at all organizational levels with the aim of maximizing organizational potential and improving organizational performance. Within this research the DePSO model was developed, whose foundedness has been verified with application of the qualitative research method. Further research in this field should continue in the direction of a more thorough verification of the connection and influence of the identified elements of the DePSO model. Comprehension of the level and the “weight” of influence of individual elements of organizational design (internal communication system, motivation system, organizational culture and structure) on maximization of employees' contribution in environmental scanning processes would give a significant contribution from the aspect of practical application of the research results, and in that area there is space for further improvement and reconsideration of the model. Qualitative methods have been used for the verification of the well-foundedness of the proposed model, because they allow wider understanding of the context of information that was gathered during research. Apart from direct answers to the questions asked, interviews with employees and managers of the observed companies have also resulted in feedback about the perception of the importance of the research topic and the elements of influence identified in the model. Further research in this field should focus on greater refinement and precision of the created instruments, so as to avoid researcher's influence on examinees through additional clarification of questions. There is also significant space for further elaboration of selected key financial indicators, through a clearer determination of the level of influence of individual indicators. Furthermore, management's awareness of the benefits of the research conducted in the company and its potential positive implications for the organizational performance should be further developed in future research. Greater involvement and greater level of management's collaboration in implementation of this research is the assumption for a more relaxed and honest employee approach to the research. Future research in this area should also include a longer time period of application of the ethnographic approach in the company, since that would give researcher the opportunity to gather an even greater number of useful inputs important for putting information gathered through interviews into adequate context and for its higher quality analysis.

References


