THE ROLE OF ORGANIZATIONAL CULTURE IN INNOVATION PROCESSES IN INDUSTRIAL ENTERPRISES

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1. Introduction

Successful organizations must create an institutional framework in which creativity and innovation are accepted as basic cultural norms if they want to foster innovation. Organizational culture lies at the heart of innovation [1, p.3–10]. The innovative extend can be regarded for an organization and be circumscribed by its culture. According to P. Ahmed [2, p.30–43] culture is a primary determinant of innovation. Possession of positive cultural characteristics provides the organization with necessary ingredients to innovate. Culture has multiple elements which can serve to enhance or inhibit the tendency to innovate.

The main purpose of this study is to investigate the effect of organizational culture on innovation processes of enterprises. The literature study was done, based on the results of research which were conducted in the most cases in industrial enterprises.

2. Theoretical background

Organizational innovativeness can be defined as an organization's overall innovative capability of introducing new products to the market, or opening up new markets, through combining strategic orientation with innovative behavior and process [3, p. 303–313]. Innovation has been defined in several ways. However, it is generally defined not only as the conceptualization of a new product or service (or a greatly improved product or service), but also as the successful bringing of the new product or service to the market. Accordingly, the firm's innovation capability is its ability to mobilize the knowledge, possessed by its employees [4, p. 325–359].

Innovation is holistic in nature. It covers the entire range of activities necessary to provide value to customers and a satisfactory return to the business [2, p. 30–43]. Innovation capability is one of the most important dynamics that enables organizations to achieve a high level of competitiveness both in the national and international market. Thus, how to promote and sustain an improved innovation capability should be the key focus area of the top managers. The standards for innovativeness is multi-dimensional, and grounded in product, process, behavioral (cultural), and infrastructure aspects. The literature provides a strong link reflecting relationship between culture and innovativeness. Hurley and Hult [3, p.42–54] found that levels of innovativeness in an organization are associated with cultures that emphasize learning development and participative decision making. Also, the antecedents of an innovation culture are similar to those of a market-oriented culture. Market orientation is widely known as an organizational culture that supports behaviors that dictate how employee's think and act as it relates to implementation of marketing concept [5, p.1–8]. Innovation offers a critical source of sustainable competitive advantage. Product innovation, for instance, entails developing new goods and services. Managing such innovation may help firms meet or even drive changing market demands. Likewise, process innovation involves creating or improving methods of production, service or administrative operations [6, p.871–884].

Many researchers in the area have adopted Schein's [7, p.109–19] three dimensional view of organizational culture – consisting of assumptions, values, and artefacts. Assumptions are the taken-for-granted beliefs about human nature and the organizational environment that reside deep below the surface. Values are the shared beliefs and rules that govern the attitudes and behaviours of employees, making some modes of conduct more socially and personally acceptable than others.

Artefacts are the more visible language, behaviours, and material symbols that exist in an

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organization. Values are considered to be so central to understanding an organization's culture and they are also seen as a reliable representation of organizational culture.

Successful innovation requires managing flexibility-control tensions. Flexibility enables creativity, empowerment and change vital for the exploration that fuels innovation. Control, on the other hand, provides discipline, focusing innovation initiatives, for instance, on achieving long-term goals, leveraging core competencies, and meeting budgets [8, p.424–439]. Studies increasingly tout organizational culture as a key to managing innovation. Innovation-supportive culture is a firm's ''social and cognitive environment, the shared view of reality, and the collective belief and value systems reflected in a consistent pattern of behaviors among participants'' [9, p.43]. The authors propose that culture may provide an overarching frame of reference, helping align employee behavior with organizational objectives of innovation and meet paradoxical demands for control and flexibility.

Studies suggest that an innovation-supportive culture derives from values, which inform an underlying belief structure and reinforce daily practice [10, p.9–12; 6, p.871–884]. The enabling potential of control values is consistent with improvisation approaches to innovation. Control aids improvisation during product development. A planned style of project management (e.g., formal reviews, milestones) provides a vital framework for brainstorming and experimentation [11, p.546–564]. Flexibility values foster a culture of experimentation and empowerment, whereas, control values may set boundaries that facilitate managerial trust and evaluation [6, p.871–884]. Further, while flexibility values enable operators to engage in creative problem solving or debug routine machine-related problems [12, p.701–728.], operators may see control as inhibiting innovation. Thus, innovation-supportive culture may appear paradoxical because of flexibility and control co-existing in underlying values and practices, but also may stem from conflicting views held by occupational and hierarchical sub-cultures within the organization [6, p.871–884].

Research [13, p.29–46] indicated that countries with low power distance have a greater tendency to innovate. According to Nigar Demircan Çakar and Alper Ertürk, [4, p.325–359] it is due to centralized authority, autocratic leadership, and many hierarchical levels, innovation capability of organizations with high power distance is expected to be very weak. High levels of centralization and formalization have been found to be associated with lower rates of innovation adoption [14, p.601–610]. Inventiveness is more likely to occur in low power distance and less bureaucratic surroundings, because bureaucracy reduces creative activity. When uncertainty avoidance is high, people like to have managers sharing information that clarifies and defines assignments, goals, policies, and procedures [15, p.102–115]. However, if uncertainty avoidance is low, employees may be more than willing to make key decisions using information they do not understand, with a potential risk. Organizations in countries with high uncertainty avoidance generally show such features as the resistance to innovations, highly formalized management, and the constraining of innovations by rules. In high uncertainty avoidance cultures, risk-averse attitudes imply that companies will not take avoidable risks and only adopts innovations if its effectiveness and value have already been proven [14, p.601–610]. Organizations in countries with collectivistic culture are characterized by making collective decisions, which may lead to a delay in the innovation decision process. Organizations in high assertiveness focus cultures, where emphasis on rewards, recognition of performance, training, and improvement of the individual are common characteristics, are innovative organizations [14, p.601–610].

The research findings of Nigar Demircan Çakar and Alper Ertürk [4, p.325–359] suggest that both power distance and uncertainty avoidance are linked to both empowerment and innovation capability on the individual level, whereas two new paths between collectivism and innovation capability and between assertiveness focus and empowerment are found on the firm level. Also, empowerment is found to be positively related to innovation capability for both small and medium-sized enterprises (SMEs) on both the individual and firm level.
The results of research done by Julia C. Naranjo-Valencia and Daniel Jime´nez-Jime´nez and

Raquel Sanz-Valle [16, p.55–72] conducted in manufacturing Spanish organizations have implications for practitioners. In order to be successful in the implementation of their innovation strategy (innovation or imitation) managers should pay attention to organizational cultures. In particular, if they adopt an innovation strategy they should foster the cultural values of adhocracy, mainly commitment to innovation, being the product innovation leader and developing a dynamic and entrepreneurial place where people take risks and, at the same time, as creating an environment where team working is highlighted. In contrast with this, if the firm decides to be a follower, in general hierarchy culture is preferable. That is, company should emphasize efficiency, dependable delivery, low-cost production, formal rules and policies, hierarchy and control. The only elements of a hierarchy culture that they should avoid are employees' conformity, predictability and stability in relationships. Organizational culture can affect the innovation or imitation orientation of the firm both positively and negatively. According to the findings, adhocracy cultures foster an innovation orientation while hierarchy cultures are associated with imitation. Taking this findings into account it seems that formal rules and procedures may foster innovation as opposed to imitation when they are balanced by other dominant characteristics but formalization should not become the employees' main shared values because it inhibits innovation.

The empirical study conducted by E. Martins and N. Martins [17, p.58–65] indicated a new model to explain the influence of organisational culture on creativity and innovation. Each factor will be discussed briefly with reference to the literature based model. The factor "strategy" leads to creativity and innovation in an organization. It is described in the vision and mission as a customer – focused marketing orientation. This orientation also includes active research into the needs of existing and potential customers with a view to promoting creativity and innovation. The core values should be integrated with activities and results and employees should be informed about the core values through the vision and mission of an organisation. It was postulated as a separate determinant for an organisational culture that supports creativity and innovation. The extent to which creativity and innovation occur in an organisation can only be determined if the vision and mission statements mention creativity and innovation. In other words the question about employees' understanding of the vision and mission does not make it possible to determine the extent to which creativity and innovation occur in the organisation; only that an understanding of the vision and mission will influence their implementation. The availability of measurable standards of the results that need to be achieved by individuals also seems to play a role in purposefulness and the promotion of creativity and innovation. Organisational culture which is based on trust that manifests in openness and sincerity, is an organisational culture that supports creativity and innovation. Trust is crucial to an organisation's success in an increasingly complex and rapidly changing environment. The trust relationship in an organisation will be strengthened when management and employees act openly toward each other. People will feel emotionally safe and this should lead to an atmosphere in which creativity and innovation can flourish. Management should also trust the process of innovation from lower to higher levels by taking note of the potential of innovative projects. trust amongst employees should increase the probability of successful change, in other words that employees will replace old practices with new practices. According to E. Martins and N. Martins [17, p.58–65] it appears that support for change and trust relate to each other and both will influence the degree to which creativity and innovation are stimulated and promoted in an organisation. Behaviour that encourages innovation is taking risk among others. Management should create values that support taking risk and should demonstrate through their actions that risk taking and experimenting are acceptable behavior. it is important that risk taking should be calculated and balanced to allow employees freedom in taking risks, but also to increase the possibility of success by creating a culture that allows for moderate risk taking. participation in decision making could lead to (among other things) more ideas being generated, quicker decisions being taken and ideas being converted into outputs, possibly explains why this item forms part of this newly postulated factor, namely behaviour that encourages innovation. The determinant "working environment" seems to focus on employees in the organisation and the way in which work takes place in the working environment as part of the organisational culture. The actualisation

of personal goals and objectives in pursuing organisational goals and objectives seems to relate to creativity and innovation. Another factor that has an influence on the degree to which creativity and innovation take place in an organisation is cooperative teams. One can conclude that if the environment is participative, employees will probably have the freedom to generate new ideas and participate in decision-making, which forms part of empowerment. The factor customer orientation focuses on understanding the needs of internal and external customers, improving customer service and flexibility in customer service. For many organisations, fostering creativity and innovation is essential to their ability to offer high quality products and services. It appears that management has a specific supporting role in promoting creativity and innovation. Open communication between employees, management and different departments as a determinant of organisational culture that would support creativity and innovation. The degree to which equipment and resources are available improves or detracts from the likelihood of there being creativity and innovation. Availability of equipment and resources is dependant on management's support. Also, the degree to which managers support the adaptation of rules and regulations to keep up with change will have an influence on creativity and innovation.

Zdunczyk & Blenkinsop [18, p. 25–40] suggest that higher-level learning, whilst not simply synonymous with innovation and creativity, clearly incorporates these processes. On this basis, one may expect that factors found to be enabling of higher-level learning will therefore be enabling of innovation and creativity. Factors which influence organizational learning can be summarized as: organizational culture, strategy, structure, procedures, resources (including technology and training), and the stability of the environment.

3. Conclusions

The key focus area of the top managers should be the answer how to promote and sustain an improved innovation capability. Innovation-supportive culture derives from values, which inform an underlying belief structure and reinforce daily practice. Possession of positive cultural characteristics provides the organisation with necessary ingredients to innovate. Centralized authority, autocratic leadership, and many hierarchical levels will not increase innovation capability of organizations. Also, high levels of centralization and formalization have been found to be associated with lower rates of innovation adoption. Inventiveness is more likely to occur in low power distance and less bureaucratic surroundings. Managers should foster the cultural values of adhocracy, mainly commitment to innovation, being the product innovation leader and developing a dynamic and entrepreneurial place where people take risks and, at the same time, as creating an environment where team working is highlighted. Nowadays, trust becomes crucial to an organisation's success in an increasingly complex and rapidly changing environment.

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Summary

The article aims at investigating the effect of organizational culture on innovation processes of enterprises. On a basis on literature study one may conclude that innovation-supportive culture derives from values, which inform an underlying belief structure and reinforce daily practice. Possession of positive cultural characteristics provides the organization with necessary ingredients to innovate.

Keywords: organizational culture; innovation processes.

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