

Remarkable Impacts of initiatives on fostering and innovation

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Abstract. This research focuses on initiatives for innovation opportunities within the firm. Initiatives refer to self-starting, proactive predevelopment as well as issue selling activities. They are a precondition for any innovation project to happen. Since the emergence of initiatives is difficult to observe and to manage we investigate its organizational context. In this study we have investigated the effects of twelve different work environment factors with empirical data from 103 employees of Iranian companies. The results have shown are that significant effect on initiative behaviour, number of initiatives and time spent on initiative activities are related.

Keywords: Innovative behaviour, initiatives, supportive work environment.

1. Introduction

Concerning innovation activities, practice and research focus heavily on how to organize innovation and design the innovation process (Damanpour, 1991; Montoya-Weiss & Calantone, 1994; Henard & Szymanski, 2001; Ernst, 2002). Although the early phase of the innovation process - the so called fuzzy front end - is identified as crucial for innovation success (e.g. Cooper et al., 2004b), its understanding is still limited. It is dominated by analyses of the process anatomy, describing management activities within certain sub-phases (Khurana & Rosenthal, 1998; Cooper, 2006; O'Connor & Rice, 2001). Especially two shortcomings of this literature are addressed in this research: (i) the existence and visibility of an idea at the decision point to start an innovation project within the firm is taken for granted and (ii) the relevance of the individual employee in the process of innovation emergence is widely neglected. This research investigates the emergence of initiatives for innovation opportunities of moderate to high degree of newness. Initiatives are the pre-conditions for any subsequent innovation project to happen. They include self-starting, proactive predevelopment and market creation activities to show feasibility as well as issue selling activities to get others - especially top management - to carefully consider the opportunity and achieve official project status including resources for further exploration (Sharma, 1999; Markham & Griffin, 1998). Figure 1 shows a descriptive process model of the front end at the individual level initiatives are often confounded with bootlegging (Augsdorfer, 1996) and tremendous effort to overcome internal barriers and setbacks because of

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the dominance of established routines, technologies and products/services (Davis, 1999; Howell & Higgins, 1990; Jenssen & Jorgensen, 2004). Especially if the opportunity is of a high degree of innovativeness for customers and the company, these autonomous initiatives for innovations are often not top management induced and face various obstacles during exploration because of their missing strategic alignment (Burgelman, 1991) but simultaneously incorporate the probability of a high and sustainable impact on firm's performance. From this perspective, innovation is not only a problem of discovery, creativity and diffusion within the company and the market, but also a problem of emergence (Gemuenden, 2001). Identified new opportunities need a decision of an employee to be exploited (Shane & Venkatarama, 2000). Following this, major management problems concerning initiatives which highlight the relevance of this research are as follows:

- (i) Without initiative, the opportunity stays hidden inside the recognizer and cannot be taken into consideration by the management. Simultaneously top management needs a sufficient number of various initiatives because they create the input to the innovation portfolio which needs to be balanced in terms of innovativeness and risk/return spread (Talke et al., 2006).
- (ii) Since the process of initiative emergence at the individual level is not observable by management until it is confronted with issue selling activities of the initiator, direct intervention to foster initiatives, is difficult.

Although initiatives are difficult to predict, they do not happen at random (Burgelman, 1991). Their emergence is rooted in and constrained by both the initiators' characteristics and organizational system. While recent research already explores motivational and cognitive processes of the initiator when deciding to take the initiative (Globocnik, 2010). This study investigates work environment characteristics which foster innovative behaviour of employees to reveal and proactively explore innovative ideas within the firm.

2. Methods

To investigate the proposed model a questionnaire based survey was conducted. Consequently the researchers have investigated the effects of twelve different work environment factors with empirical data from 103 employees of Iranian companies.

3. Measures and analytical procedure

In order to test the hypothesized relationships we developed multi-item measures for most constructs. In an extensive literature review we identified relevant concepts and established indicators. Since empirical research in the field of initiatives is rare, the wording of some scales was refined and new items were specifically generated for this study. The measures were pretested with five experts from academia and practice. All items were rated on a five-point Likert-type scale. The dependent variable "Initiative Behaviour" was measured with two items comparing initiative behaviour intensity relative to peers. We further captured the initiative specific behavioural outcomes by asking for the number of initiatives within the last 12 months and the percentage of work time spent for initiative related tasks with three items. We used Partial least squares (PLS) to analyze the empirical evidence of the proposed framework. PLS first estimates loadings and weights of the indicators on constructs and then estimates paths between constructs iteratively (Fornell, 1982). We chose PLS because this research builds and tests theory in an early stage of development. PLS is appropriate where not all paths are previously empirically tested and measurement instruments in use are new (Joereskog, 1982). Main objective of this study is to examine the amount of variance in the dependent variable initiative behavior explained by individual and organizational predictors. Since PLS is prediction orientated and estimates parameters for partial models, it performs better for analyses of single relationships (Chin & Newsted, 1999). It is also appropriate when the model is complex and sample size is comparatively small like in the present study because of the partial model estimation and the robustness in respect of non normal data (Fornell, 1982; Tenenhaus et al., 2005).

4. Results

Data analysis followed the commonly used two-step approach (Chin, 1998) which includes the assessment of the outer model to test reliability and laity of the reflective measures, followed by estimating the inner path model to test hypothesis. The software packages SPSS and smartly was end for all calculations.

5. Measurement model

We tested internal consistency reliability by calculating the composite -reliability (Werts et al., 1974). Values ranged from, 69 to, 92 which was satisfying (Hair et al. 2006). Reliability of indicators was assessed by standardized outer loadings which should be above j (Fornell & a, 1994) and elimination follows if below A (Hulland, 1999). Only two actors ranged at the lower end and since elimination did not increase posited reliabilities substantially we decided to keep the items with egad to content. Significance of the loadings was tested using the sampling procedure bootstrapping (Efron & Tibshirani, 1993) with 100 -- samples. All t-values were above 1, 96 resp. PS; OS. Uni - dimensionality. Each construct was shown by explorative factor analyses which cited only one factor with Eigen value greater than one and factor dings ~,S for each construct (Hair et al., 2006). Convergent validity was unstated by an average variance extracted (AVE) ~, S for all constructs in, 1998). Discriminate validity at the construct level was supported what the AVE of each latent variable was greater than the arid correlation with any other latent variable.

- Additionally, all items had a higher correlation with their in latent variable than with other latent variables which discriminate validity on the indicator level (Chin, 1998) Based.
- Exults we attested the measurement model reliability and validity and details on results of the measurement model are available from the authors.

6. Limitations

Results suggest that organizational level antecedents need to be defined and operationalized more carefully in research. This proposition has both theoretical and measurement reasons. From the theoretical point of view, explaining mechanisms for the effects of several sub-dimensions may differ significantly from each other. From an empirical point of view aggregated reflective scales which are common in social sciences do not allow for testing sub-dimension effects. To overcome this problem this research operationalized sub-dimensions as separate factors (e.g. Management Support). Another approach is grouping distinguishable dimensions to formative higher order constructs. As an exploratory research some limitations need to be discussed. The effects of work environment identified as factors of success in former innovation literature exert different effects in the front end of the innovation process. These findings need to be investigated by further empirical research. Although initiative behaviour was measured by three different facets future research should refine this constructs. More precisely, we expect substantial differences concerning the degree of innovativeness and the degree of strategic alignment of the opportunities in question. Another differentiation is needed for different types of incentives, such as outcome vs. process based incentives for initiative vs. innovation activities. Finally a different sample will help to analyze differences between SMEs and major companies as well as cross-cultural differences. Empirically, we used self-reported and single-source data. Although this approach is appropriate for this level of analysis, future research could assess initiative behaviour from supervisors, but then has to keep observational and impression biases in mind.

7. References

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