Antecedents of entrepreneurial orientation: does engagement matter?

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Summary

In this paper we argue that individual engagement, initiative and pro-activeness and risk taking are leading to the company-wide entrepreneurial capability and culture, resulting in its higher entrepreneurial orientation. To prove that we develop a model and test it empirically using a survey administered to all of the employees in a large industrial company. We look separately at managers and employees, and investigate differences and dependencies in their behaviors. Our findings suggest that managers will serve as a role model in making suggestions and improvements only for those employees who are engaged with their work. Our findings suggest also that suggestions of employees will benefit the company only if the management is engaged. Otherwise, their suggestions are not leading to a higher entrepreneurial orientation.

Keywords : Engagement; Corporate entrepreneurship; Entrepreneurial orientation; Voice behavior.

JEL Classification: C61, etc.

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In this paper we argue that individual engagement, initiative and pro-activeness and risk taking are leading to the company-wide entrepreneurial capability and culture, resulting in its higher entrepreneurial orientation. To prove that we develop a model and test it empirically using a survey administered to all of the employees in a large industrial company. We look separately at managers and employees, and investigate differences and dependencies in their behaviors. Our findings suggest that managers will serve as a role model in making suggestions and improvements only for those employees who are engaged with their work. Our findings suggest also that suggestions of employees will benefit the company only if the management is engaged. Otherwise, their suggestions are not leading to a higher entrepreneurial orientation.

Keywords: Engagement; Corporate entrepreneurship; Entrepreneurial orientation; Voice behavior.

1. Introduction

Nowadays entrepreneurship enters agenda and strategic objectives of many companies, especially large ones that want to overcome the imprints of history and tradition and the rigidity of the procedures. To balance their mainstream activities with active engagement in entrepreneurship companies may want to develop behavioral capacity to simultaneously demonstrate alignment and adaptability across an entire organization (Gibson and Birkinshaw, 2004). This includes competencies, systems, incentives, processes and cultures (O'Reilly III and Tushman, 2008). Behavioral capacity means that...
people from across the organization are capable of both managerial and entrepreneurial behaviors, and that competencies and motivation to engage in entrepreneurial activity are available at any of the hierarchical levels.

The propensity of established businesses to engage into entrepreneurial activities is known in the scientific literature as Entrepreneurial Orientation (EO, Covin and Slevin, 1989; Lumpkin and Dess, 1996). But what would “entrepreneurial” mean at the level of an individual employee? Research over the past thirty years has proven a positive link between EO of firms and their financial and non-financial performance which has been recognized to remain sustainable over time (Zahra and Covin, 1995). An impressive number of works has investigated the mediators and moderators of this relationship. However, antecedents of EO do rarely come into focus (Anderson and Eshima, 2011; Covin and Slevin, 1991; Engelen, 2010; Zahra, 1991). We argue that individual engagement, initiative and pro-activeness and risk taking are leading to the company-wide entrepreneurial capability and culture.

We are addressing this issue by referring to such concepts as “engagement” and “extra-role voice behavior” and arguing that engaged employees show more “voice behavior” by making suggestions and improving procedures; and that this behavior leads to a higher EO. To do so we develop five hypotheses and test them empirically using the data of a survey administered to all of the employees in a large industrial company. The data is aggregated at the unit level for separately managers and employees, allowing us to make conclusions about the differences in their behaviors. We find some support for our hypotheses which suggests that managers will serve as a role model in making suggestions and improvements only for those employees who are engaged with their work. Our findings suggest also that suggestions of employees will benefit the company only if the management is engaged. Otherwise, their suggestions are not leading to a higher EO.

The contribution to the literature of this research is in adding to our knowledge of antecedents of firms’ EO. We depict EO as a function of employees’ engagement with the company. We argue that a higher engagement of employees from both managers and staff groups within the organization increases their engagement in extra-role behaviors which, consequently, lead to the creation of value for the organizations through innovativeness, pro-activeness and risk-taking.

The rest of the paper proceeds as follows: we first present prior work on EO and show that more research on the antecedents of EO is needed; we then develop and explain our hypotheses; third part is devoted to the methods and analysis; the concluding part offers a discussion of results, the limitations of the study, and the avenues for the future research.
2. Prior work on entrepreneurial orientation

Since its introduction in the end of 80-s, EO has evolved significantly. Works written about EO in the 80-s considered it as a posture (Covin and Slevin, 1989), the 90-s considered the concept in terms of a new entry: “An EO refers to the processes, practices, and decision-making activities that lead to new entry” (Lumpkin and Dess, 1996). After 2000 researchers (Covin, Green, and Slevin, 2006; Lee and Peterson, 2000; Lumpkin and Dess, 2001) shifted to a broader definition of the concept, and currently EO can be defined as key top-management level entrepreneurial processes, beliefs and preferences that answer the question of how new ventures are undertaken.

EO can be described through a set of dimensions. An overview of the dimensions used in the literature is presented in Table 1. The original framework developed by Covin and Slevin (1989) on the basis of Miller and Friesen (1982) and Miller (1983), contains three dimensions: innovativeness, risk-taking and pro-activeness. This scale has substantially determined the knowledge accumulation around the construct of EO (Brown, Davidsson, and Wiklund, 2001). In 1996 Lumpkin and Dess (1996) have added two more dimensions: autonomy and competitive aggressiveness, suggesting measuring EO as a five-dimensional construct.

Table 1. Operationalizations of the EO construct

<table>
<thead>
<tr>
<th></th>
<th>Innovativeness</th>
<th>Risk taking</th>
<th>Pro-activeness</th>
<th>Competitive aggressiveness</th>
<th>Autonomy</th>
</tr>
</thead>
<tbody>
<tr>
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<td>x</td>
<td>x</td>
<td>x</td>
<td>x</td>
<td>x</td>
</tr>
<tr>
<td>Risk taking</td>
<td>x</td>
<td>x</td>
<td>x</td>
<td>x</td>
<td>x</td>
</tr>
<tr>
<td>Pro-activeness</td>
<td>x</td>
<td>x</td>
<td>x</td>
<td>x</td>
<td>x</td>
</tr>
<tr>
<td>Competitive</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>aggressiveness</td>
<td>x</td>
<td>x</td>
<td>x</td>
<td>x</td>
<td></td>
</tr>
<tr>
<td>Autonomy</td>
<td>x</td>
<td>x</td>
<td>x</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

We follow Lumpkin and Dess (2001) in defining these dimensions:
Innovativeness refers to a willingness of the higher management levels to support creativity and experimentation in introducing new products/services, and novelty, technological leadership and R&D in developing new processes; Risk taking means a tendency to take bold actions such as venturing into unknown new markets, committing a large portion of resources to ventures with uncertain outcomes, and/or borrowing heavily; Pro-activeness is an opportunity-seeking, forward-looking perspective involving introducing new products or services ahead of the competition and acting in anticipation of future demands to create change and shape the environment; Competitive aggressiveness reflects the intensity of a firm’s efforts to outperform industry rivals, characterized by a combative posture and a forceful response to competitor’s actions; Autonomy stands for independent action by an individual or team aimed at bringing forth a business concept or vision and carrying it through to completion” (p.421).

Table 1 shows that there is no common agreement regarding the dimensionality of the construct. The following list presents an overview of the empirical studies which use the EO construct and investigate its relationship with different aspects of a firm’s life. It shows that the scholar attention has been directed to a number of topics. Among them, investigating relationships between EO and firm performance has remained the main focus (Dess, Lumpkin, and Covin, 1997; Wiklund, 1999; Zahra and Covin, 1995). Studies conducted in the course of the last 20 years demonstrate a positive link between a firm’s orientation towards entrepreneurship and its performance. EO is also reported to influence such parameters as employment growth or product development. However, the predictors of EO do rarely come into focus (Anderson and Eshima, 2011; Covin and Slevin, 1991; Engelen, 2010; Zahra, 1991). Engelen (2010) suggests that it is the “development culture” that has the largest influence on the EO of the company. Research has shown that the culture of the company favors entrepreneurship if certain beliefs and attitudes are characteristic for a large number of employees of the company: Ireland et al. (2009) suggest that if pro-entrepreneurship cognitions are broadly descriptive of organizational members, this influences the strength of cultural norms favoring entrepreneurial behavior and is reflected in organizational culture. Put simply, a firm is more likely to be entrepreneurial when (most of) its employees are entrepreneurially oriented. We further argue that when the employees (whether managers or not) are engaged with their work and when they tend to show initiative by engaging in extra-role voice behaviors there is a higher chance of being oriented towards entrepreneurship, which will be explained further in the next paragraphs.
3. Hypothesis development

3.1. Extra-role behaviors of employees lead to firm’s higher EO

The previous discussion highlighted that an organization is more likely to be entrepreneurial, when the individuals within it are prone to engage in CE-related behaviors. The term of extra-role voice behaviors seems relevant to this discussion. Extra-role voice behaviors (Voice) are defined as ability of employees to develop and propose new ideas and projects, speak up and involve others (Van Dyne and Lepine, 1998). To be extra-role (not in-role) a behavior should not be required as part of a job. Voice emphasizes expression of constructive challenge intended to improve rather than merely criticize. It is linked to making innovative suggestions for change and recommending modifications to standard procedures even when others disagree. Voice is important when an organization's environment is dynamic and new ideas facilitate continuous improvement. By showing their Voice behaviors employees may contribute to creating newness for the company and therefore it may be linked to more innovativeness. Ability to see potential changes should be positively linked to pro-activeness. Daring to make recommendations when others disagree should be positively linked to risk-taking. These three dimensions: innovativeness, pro-activeness and risk-taking form the EO of the organization. That leads us to our first hypothesis:

\[ H1: \text{More extra-role voice behaviors by employees lead to a higher EO.} \]

We expect to find support for this hypothesis for both managers and staff.

3.2. Engaged employees show more extra-role behaviors

Birkinshaw (1997, p.209) writes that if a company expects its employees to engage in entrepreneurial activities, the “challenge for corporate management is to instill the personal involvement and commitment in its employees”. Commitment, involvement or satisfaction at work are concepts alike the concept of work engagement (Hallberg and Schaufeli, 2006) which was introduced by Kahn (1990). Work engagement refers to the individual’s involvement in, satisfaction with, and enthusiasm for work (Harter, Schmidt, and Hayes, 2002). Schaufeli et al. (2002) characterize engagement as “a positive, fulfilling, work-related state of mind that is characterized by vigor, dedication, and absorption” (p. 295). Vigor refers to a high level of positive energy at work and willingness to invest one’s efforts in the job even in the face of difficulties. Dedication refers to being strongly involved in one's work and experiencing a sense of significance, enthusiasm, inspiration, pride, and challenge. Absorption captures employees’ full concentration, which may even lead to difficulties in detaching oneself from work. Absorption was later found to be a consequence, rather than a component of engagement (Salanova and Schaufeli, 2008), hence leaving a two-dimensional structure. Harter et al. (2002) proposed an “actionable work-group-level” definition of engagement and
O. Belousova, A. Groen, B. Gailly developed a special instrument (Gallop Work Audit, GWA). Work engagement has been found to predict self-assessed health, work ability, commitment and job satisfaction, as well as work-unit innovativeness (Bakker et al., 2003; Hakanen, Perhoniemi, and Toppinen-Tanner, 2008; Schaufeli and Bakker, 2004).

We argue that being linked to one’s enthusiasm for work and willingness to invest one’s efforts in it, work engagement should be positively linked to one’s ability to change the standard procedures and make other constructive suggestions. This leads us to hypothesize that:

**H2: A higher employee engagement can lead to more extra-role behaviors**

We believe that this should be true for both managers and staff.

**3.3. Engaged employees contribute to firm’s higher EO**

Our following hypothesis challenges the H2. Here we argue that although engaged employees may invest more effort in making suggestions, improvements and setting constructive challenges, we cannot exclude a possibility that they may contribute to firm’s EO in another way. For example, they could engage in making improvements at their own risk instead of suggesting improvements.

**H3: Higher employee engagement directly contributes to firm’s higher EO**

Recent studies have demonstrated that managers of different ranks perceive the support for entrepreneurship and act in regard to it differently, and that middle and top managers benefit more from autonomy and work discretion (Hornsby et al. 2009). Therefore we believe that this link might be stronger for the employees than for the managers, as the managers have more power in suggesting ideas and getting them implemented than staff, while staff members have more tools at hand for experimentation (Dess et al., 2003; Floyd and Lane, 2000; Kuratko, 2007).

**3.4. Attitudes and behaviors of managers will influence their subordinates**

Kahn (1990) has demonstrated that three basic conditions could be fruitful for the engagement of the employees. These conditions are meaningfulness, safety and availability. May et al. (2004) proposed to approach meaningfulness through job enrichment, work-role fit and co-worker relations; safety – through supervisor relations, co-worker relations and norms; availability – through resources (physical and emotional), work role security (self-consciousness), and finally outside activities. This suggests that
among other factors the supervisor relationships may be one of the antecedents of employee engagement. Similarly Brundin et al. (2008) have shown that managerial emotional displays may significantly influence the employee’s willingness to act entrepreneurially. Therefore we hypothesize that managerial enthusiasm for work and satisfaction with their environment may be positively linked with the engagement of their subordinates.

**H4: A higher managers’ engagement will positively influence engagement of staff.**

Further, Menor and Roth (2007) show that the personal “walk-the-talk” example of the manager in innovation and risk taking is one of the dimensions of the entrepreneurial culture. The importance of the individual example of managers for the CE has also been clearly stated in the studies of Hornsby, Kuratko and colleagues (Hornsby, Kuratko, and Montagno, 1999; Hornsby, Kuratko, and Zahra, 2002; Ireland, Kuratko, and Morris, 2006a, 2006b; Kuratko, Montagno, and Hornsby, 1990). Therefore, we hypothesize that when managers show extra-role voice behaviors, suggest changes and provide constructive challenges, their subordinates will more eagerly engage in making their own propositions and suggestions, following the role model set by their management.

**H5: Extra-role voice behavior of managers will stimulate the same behavior among employees.**

Thus, we propose to check these five hypotheses which aim at increasing our understanding of mechanisms how companies become more entrepreneurial. The following section explains our methodology.
4. Methods

4.1. Setting and procedure

The research is conducted within an internationally represented business group operating in a number of different areas with more than 25,000 employees in 30 countries worldwide. As a basis for our analysis, we are using a regular employee engagement survey. The response level of the survey is 86%. In order to presume the anonymity of the data, reflect the “voice” of the majority, and match managers with their employees, the results were aggregated at the country office level, leaving us with 111 observations. One of the observations was deleted for two reasons: first, it reflected the office of the Executive Committee; second, the responses showed themselves as “outliers” (higher than average results for all constructs) in comparison with the others. The remaining 110 country offices are further represented by two groups: management vs. staff (operating-level managers and their subordinates). This is consistent with the approach of Hornsby et al. (2009). On average, the ratio “employees per manager” was equal to 6, so on average we may assume that there is direct contact between a manager and subordinates.

4.2. Measures

The study is conceived after the original data collection. One of the consequences is that we cannot use the most reputable scales, but the proxies of the standard scales are on face value close enough to the meaning of the latent constructs we intend to measure. We explain in details the choice of the items (see Appendixes 1.-3.) and perform the necessary analysis to assure the reliability of the resulting scales. Similar practice of using existing surveys has already been implemented in studying the EO and related concepts (e.g. Monsen and Boss, 2009; Pearce, Kramer, and Robbins, 1997).

Engagement (ENG). We measure engagement using the proxies for the items of GWA (see Appendix 1.). Although several authors (Kahn, 1990; Luthans and Peterson, 2002; Salanova and Schaufeli, 2008) have highlighted that work engagement may be a multidimensional construct, Gallup consistently reports using a composite measure for their scale (Harter et al., 2002)†. Out of the eleven potential proxies identified we eventually retained five which would not highly load on other independent latent constructs of the analysis. These items form a short-version proxy scale for the GWA instrument. Analysis gave us a single factor for both managers and staff with alpha coefficient equal to .822 for managers and .881 for staff; loadings reported in Table 2.

Extra-role voice behavior (ERVB) is measured by items which proxied the scale proposed by Van Dyne and LePine (1998). The original scale uses such items as “makes recommendations concerning issues that affect this work group”; “speaks up and

† See also numerous white papers on Meta-analysis: http://www.gallup.com/consulting/126806/Q12-Meta-Analysis.aspx
encourages others to get involved”; “communicates his/her opinions … even if his/her opinion is different”; “keeps well informed about issues where his/her opinion might be useful”; “speaks up in this group with ideas”. Analysis of the proxied scale gave us a single factor for both managers and staff with alpha coefficient equal to .848 for managers and .873 for staff; loadings reported in Table 2.

Entrepreneurial orientation (EO) is measured by items that reflect the key dimensions of innovativeness, proactiveness and risk-taking as defined by Lumpkin and Dess (2001). The generated items proxy the scales of Hughes and Morgan (2007) and Covin and Slevin (1989). Although different opinions exist (see, for example, Wiklund and Shepherd (2005)) EO is initially supposed to be a unidimensional construct (Covin and Slevin, 1989). Analysis of the proxied scale gave us a single factor for both managers and staff with alpha coefficient equal to .847 for managers and .881 for staff; loadings reported in Table 2.

<table>
<thead>
<tr>
<th>Items</th>
<th>MANAGERS</th>
<th>STAFF</th>
</tr>
</thead>
<tbody>
<tr>
<td>7</td>
<td>.63</td>
<td>.67</td>
</tr>
<tr>
<td>13</td>
<td>.62</td>
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<td>39</td>
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<td>02</td>
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<td>10</td>
<td>.69</td>
<td>.73</td>
</tr>
<tr>
<td>29</td>
<td>.75</td>
<td>.77</td>
</tr>
<tr>
<td>Chronbach α</td>
<td>.82</td>
<td>.85</td>
</tr>
</tbody>
</table>

5. Data analysis

The primary tool of the analysis is structural equation modeling (SEM). Our SEM analysis follows the two-step procedure recommended by Anderson and Gerbing (1988). In the first step (confirmatory factor analysis, CFA) we check the scales for each of the investigated parameters and for each of the levels (managers, staff). In the second step, we estimate the structural models for each of the hypotheses. The goodness-of-fit parameters are reported in Table 2.
The goodness of fit parameters in our case should be interpreted cautiously. Our sample size in this analysis is equal to N=110. Traditionally, a small sample of N < 200 may lead to two persistent estimation problems: nonconvergence and improper solutions. For non-convergence the effect of the small sample and small factor loadings can be mitigated using the number of factors per variable. For a sample of 100 (like in our case), the probability of non-convergence decreases to 1 percent if 4 items per variable are available (Boomsma and Hoogland, 2001). These results are consistent with the research of Marsh et al. (1998). Marsh and colleagues recommend to have the ratio between the number of items (NI) and number of factors (NF) at least NI/NF = 3 or 4 for the number of observations N = 100. The general implication of their research is that there is a mutual compensatory effect of N and NI/NF: a higher NI/NF ratio may compensate for small N, and larger N may compensate for a small NI/NF ratio. As a consequence Marsh et al. (1998) deduced that it would be unwise to blindly follow general “rules of thumb” demanding the minimum ratios of N/NI or N/NF (Boomsma and Hoogland, 2001). For example, an admittedly “oversimplified guideline” (Boomsma and Hoogland, 2001), often referred to in the literature, is that of Bentler (1995): N/NI = 5 for normal or elliptical theory, and N/NI = 10 for arbitrary distributions. Such prescriptions require NI/NF to be minimal if N small, which could be catastrophic because it would increase nonconvergence, and improper solutions as well. Same “solutions”, as Boomsma and Hoogland show, hold also for the problem of improper solutions: having more items to define variables may reduce the probability that the problem occurs. We, therefore, tried to stick to this rule of keeping 3 to 4 items per variable.

Another problem related to the small samples consists in the instability of the goodness-of-fit parameters. For example, the RMSEA and the SRMR indexes are larger with smaller sample sizes. There is greater sampling error for small df (degrees of freedom) and low N models, especially for the former. Thus, models with small df and low N can have artificially large values of the RMSEA. For this reason, Kenny, Kaniskan, and McCoach (2011) argue to not even compute the RMSEA for low df models. Similar conclusion is stated in Hu and Bentler (1999) who write that ML-based RMSEA tends to over-reject true-population models at small sample size and thus is less preferable when sample size is small. Therefore, in our analysis we tend to focus on the relative (rather than absolute) parameter of the ratio $\chi^2/df$.

A third point that needs to be reported here concerns the normality issues with the sample. As in our sample some violations of normality are observed, and the sample is small, we stick to the ML estimation method, as it is the most robust under small samples (Boomsma and Hoogland, 2001).

The results of the analysis are summarized in Table 3 and discussed below.
5.1. **CFA analysis**

The CFA analysis was needed to establish the construct validity of the scales. The first three sets of rows in Table 3 show the goodness-of-fit parameters for the key constructs: engagement, voice behavior and entrepreneurial orientation, denoted as ENG, ERVB, EO subsequently. The models show reasonable fit. As discussed earlier, RMSEA is not reported for ERVB and EO models because of a low number of degrees of freedom (\(df = 2\)).

<table>
<thead>
<tr>
<th>Model</th>
<th>Level</th>
<th>RMSEA</th>
<th>SRMR</th>
<th>GFI</th>
<th>AGFI</th>
<th>NNFI</th>
<th>NFI</th>
<th>CFI</th>
<th>(\chi^2/df)</th>
<th>p-value</th>
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</thead>
<tbody>
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<td></td>
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<td>1.27</td>
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<td>.99</td>
<td>1.27</td>
<td>.27</td>
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<tr>
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<td>.99</td>
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<td>1.00</td>
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<td>2.07</td>
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<td>SEM</td>
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<tr>
<td>Model 1: ENG → ERVB</td>
<td>Managers</td>
<td>.04</td>
<td>.003</td>
<td>.94</td>
<td>.90</td>
<td>.98</td>
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<td>.18</td>
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<td>Model 2: ERVBm, ENGs → ERVBs</td>
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<td>.061</td>
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<td>Model 3: ERVBm → ERVBs</td>
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<td>Model 4: ERVB → EO</td>
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<td>.005</td>
<td>.89</td>
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<td>.041</td>
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<td>.055</td>
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<td>.96</td>
<td>.93</td>
<td>.97</td>
<td>1.50</td>
<td>.04</td>
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<tr>
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<td>.94</td>
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5.2. SEM analysis

We test our hypotheses in several steps. First, we develop individual models for the hypotheses H1 (Model 4), H2 (Model 1), and H3 (Models 5 and 6). For H1 we test the link ERVB → EO separately for managers and for the staff. Similarly we test ENG → ERVB (H2) and ENG → EO (H3). Models 2, 3, 7 and 8 are mixed level models, capturing the interaction between managers and staff (H4, H5). The following paragraphs describe the models and we present the results of the hypotheses testing in the discussion section.

The fit parameters for all models are reported in Table 3. All models report acceptable to very good fit. Following the discussion above which suggested that on small samples RMSEA may increase, we consider RMSEA up to .10 to be acceptable. This threshold is considered to signal a mediocre fit on normal samples (Maccallum, Browne, and Sugawara, 1996).

The loadings of the structural models are reported in Table 4.

<table>
<thead>
<tr>
<th>Table 4. One level models</th>
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<tr>
<td><strong>Model parameters</strong></td>
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Engagement as antecedent of EO

Models 1, 2, and 3 allow to look into the antecedents of employee extra role voice behavior (ERVB). Model 1 is a one-level model, while Models 2 and 3 are mixed level. These last two models show influence of managers on their subordinated from staff level. The structural models are depicted below on Fig.2 and are presented respectively: 2a. shows Model 1, 2b. shows Model 2, 2c. shows Model 3.

![Fig. 2. Models investigating antecedents of ERVB](image)

Model 1 investigates the influence of engagement on extra-role behaviors for both managers and staff. The results suggest a positive link between constructs: the gamma coefficients between the engagement and the voice behavior are positive and significant for both types of employees (.82 and .90); and the model shows a good fit on both levels. The link is a bit stronger for staff.

Models 2 and 3. The results indicate that managers’ voice behavior stimulates similar behavior among employees more, if these employees are engaged. Influence of ERVB-m on the ERVB-s is positive and significant: .80. to understand whether there is a mediation effect of engagement, we followed the procedure of Baron and Kenny (1986). The direct effect, as has just been said, was positive and significant. However, entering employees’ engagement (ENG-s) in the model makes the coefficient gamma between ERVB-m and ERVB-s almost insignificant ($\gamma = .17$ with t-value=2.10). Still, it remains significant; the mediated effect of managerial voice behavior and employees’ engagement (.72 * .83) is equal to .68 and is less than a non-mediated effect (.80, see Model 3) which signals a partial mediation which staff’s engagement has on managerial influence on the employee initiative.

Models 4, 5, 6, and 8 investigate antecedents of EO. Three first ones are one level models and are presented on Figure 3 (3a., 3b., and 3c. respectively), while Model 8 presents a mixed level analysis; it is presented on Figure 4 and is the main model of the paper.
Model 4. The gamma-coefficients are positive and significant for both managers and employees (.84 and .85). The model also shows very good fit. These results support our assumption that suggestions made by employees may lead to a higher EO.

Models 5 and 6. According to the procedure by Baron and Kenny (1986), at the first step we have to establish that there is a direct effect from the ENG to EO. Model 6 shows that there is indeed a direct effect from the engagement to EO (.96 gamma coefficient for managers and .74 for the staff). Steps 2 and 3 would include the direct effects between ENG and ERVB, and between ERVB and EO. Models 1 and 4 confirm these direct effects. Step 4 includes estimation at the simultaneous chain ENG-ERVB-EO while controlling for the direct effect (ENG-EO). Contrary to our expectations, ERVB did not show a mediation effect for neither employees nor managers (the link between ERVB and EO became insignificant).

Model 7 allows showing the link between engagement of managers and engagement of staff. The model shows acceptable fit, and the coefficient between the constructs is positive and significant. However, the $R^2$ is quite low (.19).

Model 8 builds on the previous models and confirmed effects. It checks whether the engagement of staff leads to more voice behavior and EO if we control for engagement of managers. The model is presented as following:
Interesting observation is that the path ENGs-ERVBs-EOs which was insignificant in Model 5 becomes now significant and positive. It suggests that in the entities where management is engaged with their work, voice behavior of engaged employees will contribute to the EO. Otherwise, as model 5 shows, engagement of employees may lead to suggestions, but they will not contribute to innovativeness, risk-taking and proactiveness of the company.

We now proceed with discussing the conclusions these models lead us to.

6. Discussion

In the previous section we discussed diverse models which allow us answering the questions we posed in the theoretical part.

H1 suggests that the more extra-role voice behaviors by employees the higher will be the EO. This hypothesis was studied using Model 4. These results support our proposition that more initiative shown by employees leads to a higher EO.

H2 suggests that the higher the engagement of the employees, the more extra-role voice behaviors they will engage in. This hypothesis was verified using Model 1. It provides support for the influence between the engagement and the extra-role behaviors: the gamma coefficients between the engagement and the voice behavior are positive and significant for both managers and staff (.82 and .90 respectively).

In H3 we argued that all engaged employees will be contributing to a higher EO. We then suggested that this can be true for the staff only, while managers will contribute to a higher level of EO through extra role behaviors. This hypothesis is verified through Models 5 (direct effect) and 6 (mediated effect). Contrary to our expectations, extra role behavior did not show a mediation effect for neither employees nor managers, suggesting that engaged employees will likely contribute to a higher EO of their company, but in a different way than showing voice behavior.

H4 suggested that a higher managers’ engagement will positively influence engagement of staff. We indeed find a positive link between them in our Model 7.

H5 is about the influence of the managerial example on the initiative of the employees which is reflected in their extra-role behavior. The results indicate that managers’ voice behavior stimulates similar behavior among employees more, if these employees are engaged. This seems to send us back to the theories of situational leadership where the strategy of leadership is linked to the readiness of the followers (Hersey, 1985 ).
Model 8 builds on the previous results and provides a complex mixed-level analysis. It allows us arguing that engaged managers contribute not only to the engagement of the employees, but also to their showing initiative and eventually to the EO. Thus, if managers of the department are not engaged and do not show support for the initiatives of the employees, their effort will not result in an increased innovativeness, risk-taking and proactiveness of the company. To make the engagement of staff serve the benefits and development of the company executives need engagement at all levels of the organization, because only then the initiative showed by the employees, brings positive entrepreneurial results.

The main contribution of this paper is that it offers a multi-level analysis, suggesting a new look at both employee engagement and its influence on EO. The implications of the research are two-fold. First of all, it has theoretical implications in thus we offer an empirically tested model allowing us to open the “black box of an organization” (Monsen and Boss, 2009) in studying the entrepreneurship at the firm level. We are doing it by bridging the CE and organizational behavior literatures. Previous works by Hakanen et al. (2008) and Vinarski-Peretz et al. (2010) link engagement to the individual and work-unit innovativeness. Our study further takes into account the way engagement influences the propensity to take risks and envisage future opportunities. We then look into the precise mechanism of how engagement contributes to EO: through the ability of employees to take on extra charge and through mutual engagement of managerial and staff employees.

To the limitations of the study we can add the use of secondary data that was not collected for the purposes of the study. However, in the methodology section we provide a justification to it. Another limitation for the potential analysis is N=110. It limits the spectrum of potential analytic tools and may further introduce the bias in our calculations. Still, we undertake a number of measures and corrections in interpretations of our results. Unlike many other studies, we employ double lenses by looking at the factors influencing staff engagement through position of management.

This research has further a practical, or managerial, contribution is that the study increases our understanding of the role of engagement of employees in organization. While many large organizations try to measure the engagement of their employees, few go beyond the descriptive analysis on the drivers of engagement. This research suggests that rather than being a goal in itself, engagement may become an instrument in the hands of the top managers who lead their organizations towards being more entrepreneurial.

References


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