

INTRAPRENEURSHIP IN SMES: ABOUT THE ROLE OF MANAGEMENT AND R&D

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ABSTRACT

Intrapreneurship is a research subject for over 30 years. Research focuses mainly on internal factors that stimulate intrapreneurship in large corporations. This paper reports a study on intrapreneurship in organizations of different sizes.

Two indicators for intrapreneurship were developed. A first indicator to measure the perception of the organizational conditions, and the second indicator for intrapreneurial behaviour. A questionnaire was set out among 711 companies of different sizes of which 156 valid responses were received (response rate 22%). The results of this study shows that in organizations with an interest of management for intrapreneurship there are higher levels of intrapreneurship perceived as well as that the organizational conditions are more favourable. Higher budgets for R&D do have an effect on the organizational conditions but not on intrapreneurial behaviour; in other words, perceived better conditions does not lead to higher levels or more intrapreneurship.

1. Introduction

Entrepreneurship is a fashionable concept and refers to “the process of uncovering and developing an opportunity to create value through innovation and seizing that opportunity without regard to either resources or the location of the entrepreneur” (e.g. Antoncic & Hisrich, 2001; Stevenson & Jarillo, 1992). This description does not limit itself to setting up a (new) company (by entrepreneurs), but can include persons working in an existing organization, entrepreneurial employees or intrapreneurs. Entrepreneurial employees and their activities are of high interest for organizations (Bosma, Stam & Wennekers, 2012; Nyström, 2012; Martiarena, 2013). Although entrepreneurial employees is a relatively new concept, the phenomena it refers to, has already been known for a long time as “intrapreneurship” (introduced by Pinchot, 1985). Although each term seems straight forward, the phenomenon is described in the literature under many names: corporate entrepreneurship (e.g. Burgelman, 1983) and corporate venturing (e.g. MacMillan, 1986) - all are used to describe “entrepreneurship within existing organizations”, an “in-house form of entrepreneurship” (Pinchot, 1985). In accordance with this definition a lot of research is done in the field of the innovation processes, organizational entrepreneurial factors, organizational renewal and the creation of new businesses. In the last three decades intrapreneurship is more and more recognized as an important element in organizational development and as a tool of management as well as an activity of individual employees. Menzel (2008) refers to these two levels of intrapreneurship as the “underlying conflict of intrapreneurship”: the (potential) conflict between the organizational and the individual level.

In the early years of the 1980s researchers discovered the importance of entrepreneurship and its role in organizational renewal, innovation, risk taking and intrapreneurship became a subject of interest (for managers and researchers alike) because of these effect on revitalization and performance of the firm. Studies on this topic focused mainly on the organizational factors which influence intrapreneurship like freedom, organizational boundaries, management support (Hornsby et al., 2002; Pinchot, 1985). In the last 25 years research was focused on large companies, little is known of intrapreneurship in smaller organizations. Possibly, the focus on large organizations like IBM, Xerox, General Electric, AT&T, Bell Atlantic, 3M, Texas Instruments, Eastman-Kodak and DuPont has influenced our overall knowledge. Small(er) companies and organizations, act differently with regard to innovation and entrepreneurial behavior (Kaufmann & Tödling, 2002) and, because of this, little is research is done on the basic characteristics of corporations like size and sector and how this impacts intrapreneurship. This leads to the focus of this study: intrapreneurship in small(er) companies.

As mentioned e.g. by Menzel (2008) and Antoncic and Antoncic (2011) intrapreneurship occurs on two levels: the level of the organization and on the level of the individual. In this study we focus on the level of the organization and especially on the support of management and the role of R&D. Support by the management is generally thought of as beneficial for intrapreneurship and change in the organization (Vandermerwe & Birley, 2000). Importance of management involvement, as well as (top) management encouragement, and rewards in terms of training and trusting individuals within the firm to detect opportunities have been proposed by Stevenson and Jarillo (1990) to positively influence an organization’s entrepreneurial behavior. Intrapreneurship is initiated in established organizations for purposes of profitability, strategic renewal, fostering innovations, gaining knowledge of future revenue streams and international success (Hornsby et al. 2002). This means that the (top) management team actively need to initiate intrapreneurship. Intrapreneurship is therefore a management tool, and when used, it need to be actively supported by top management of the organization. Via objectives (McGrath & MacMillan, 2000), incentives (e.g. Kanter, 1984; Kuratko & Montagnano, 1989; Antoncic & Hisrich, 2004; Fitzsimmons et al, 2005) management shows its involvement and concern. This leads to the hypothesis that when the management promotes and supports intrapreneurship it ought to be perceived as such by its employees.

Research and development (R&D) is inextricably connected to the innovation processes in organizations. The purpose of innovation differs from time to time, from the development of new products or services to the entering of new markets and new organizational concepts. Therefore it is interesting to look at the process of intrapreneurship and R&D. Intrapreneurship can be classified into four dimensions: new business venturing, innovativeness, self-renewal and pro-activeness. Especially, innovativeness refers to (product and service) innovation which is strongly related to R&D processes in the organizations (Antoncic & Hisrich, 2001). This leads to a second hypothesis that the perception of R&D-activities is related to the perception of intrapreneurship.

2. Method

Data are collected via an online questionnaire in one sample of 711 employees working in several levels throughout Dutch organizations. For the sample members of the alumni association “Bekader” were recruited via the Dutch Institute of Knowledge Intensive Entrepreneurship (Nikos) at the University of Twente. The members of this association all studied Industrial Engineering and Management and hold several positions in Dutch organizations. The participation was voluntary, resulting in 156 correct responds (22%). The average age of the respondents was 37.4 year (standard deviation: 8.39; youngest participant was 25 years of age, while the oldest participant was 60). The questionnaire was developed to gauge the background, size, R&D expenditure and interest of the top management team in relation with intrapreneurship. In order to measure intrapreneurship two indicators were developed. The first, INTRA1, is based on the eight of the ten freedoms of Pinchot (1985). These freedoms are widely used to investigate organizational factors for intrapreneurship (e.g. Hornsby et al. 2002, Davis 1999, Zahra 1991, Dess et al. 2003, Antoncic and Hisrich 2001) – see also Table 1. A second indicator, INTRA2, was based on personal characteristics important characteristics for an intrapreneur and whether these characteristics are present in the respondent him/herself and among the colleagues of the respondent in the organization. A list of personal characteristics based on the work of Davis (1999) is shown in Table 1. According to Antoncic and Antoncic (2011) and Menzel (2008) intrapreneurship includes both the organizational conditions of existing organizations as well as entrepreneurial behaviors of its employees. Two variables have been constructed:

- INTRA1 is about the perception of the organizational conditions to stimulate intrapreneurship,
- INTRA2 represent the perception of intrapreneurial behaviour in the organization.

Further, we asked for the size, sector, R&D expenditure and the interest of the top management team (see Table 1 for the operationalisation and measurement).

Table 1 - Operationalization of the variables

variable	Operationalization and measurement
INTRA1 = organizational conditions for intrapreneurship	The organizational conditions (the freedoms as formulated by Pinchot, 1985) that stimulate intrapreneurship: (1) self selection an no hands-off; (2) doer decides; (3) corporate slack; (4)patient money; (5) tolerance of risk, (6) failure and mistakes; (7) freedom of turfiness; (8) cross-functional teams; and (9)multiple options. The measurement of the freedoms is done with statements. Respondents rated the freedoms on a four point Likert-type scale (strongly agree, agree, disagree and strongly disagree). The sum of the scores on each of the freedoms determines the degree the organizational factors are present to encourage intrapreneurship.
INTRA2 = intrapreneurial behaviour	The presence and the importance of intrapreneurial behavior according to Davis (1999) - (1) show courage and ambition; (2) taking initiatives; (3) creativity; (4) seeking opportunities; (5) enterprising/ striving for profit; (6) utilizing opportunities; (7) leadership skills and (8) social skills -- in themselves and in their colleagues. Intra2 indicate the extent to which the respondents themselves and their colleagues experienced intrapreneurship in their organization. The respondent could answer with strongly agree, agree, disagree and strongly disagree. INTRA2 is the product of the presence of the characteristic in the respondent times the presence of the characteristic in colleagues of the respondent and added together for all eight characteristics.
Size	Micro companies (<10 employees), small companies (between 10 and 50 employees), middle (between 50 and 250 employees), and large (>250 employees)
Sector	Technical/technological (all types of manufacturing companies) and service companies
R&D expenditure	The expenditure is questioned by asking the respondent whether he experienced the expenditure on R&D as very high, high, low or very low compared to competitors.
Top Management Support	The interest of the board is questioned by asking the respondent whether the top management team of the business unit or organization was showing any interest in using intrapreneurship in their organization.

3. Results

The data was analysed via an analysis of variance. The results are in Table 2 and show the sector – technical and service – do not lead neither to significant differences in the organizational conditions for intrapreneurship (INTRA1: $F(1,81) = .610$; $p = ns$) nor in the perception of intrapreneurial behaviour (INTRA2: $F(1,75) = .308$, $p = ns$). Size, however does have a significant influence on the organizational factors (INTRA1: $F(3,149) = 5,633$, $p < .05$) that stimulates intrapreneurship – the smaller the company the higher the score on INTRA1 - but there is no effect of size on entrepreneurial behaviour (INTRA2: $F(3,132) = 1.413$, $p = ns$). Opposite results are shown for R&D expenditure: the more a company spend on R&D compared to others in the sector, the higher the score on the organizational conditions (INTRA1: $F(3,128) = 6.514$; $p < .01$); there is no effect on intrapreneurial behaviour (INTRA2: $F(3,116) = 1.29$, $p = ns$). Further, the support of the top management team is significant on both indicators (INTRA1: $F(1,148) = 4.801$, $p < .05$); INTRA2: $F(1,133) = 4.806$, $p < .05$)

Table 2 - Results of the ANOVA for INTRA1 and INTRA2

		INTRA1: organizational conditions for intrapreneurship				INTRA2: intrapreneurial behaviour			
		F-value	Mean	N	SD	F-value	Mean	N	SD
Size	Micro	F(3,149) = 5.633*	3.04	17	.23	F(3,132) = 1.413	1,80	16	.40
	Small		2.86	19	.39		1,95	17	.34
	Middle		2.86	24	.46		1,68	22	.42
	Large		2.68	93	.36		1,90	81	.56
Sector	Service	F(1,81) = .610	2.85	26	.41	F(1,75) = .308	1.92	24	.45
	Technical		2.83	57	.38		1.86	53	.50
R&D expenditure	Strongly agree	F(3,128) = 6.514**	2.43	12	.36	F(3,116) = 1.29	1.85	11	.49
	Agree		2.69	40	.34		1.80	38	.46
	Disagree		2.81	45	.38		1.83	40	.51
	Strongly disagree		2.93	35	.38		2.01	31	.44
Interest top	Yes	F(1,148) = 4.801*	2.65	38	.36	F(1,133) = 4.806*	1.69	31	.67
	No		2.81	112	.39		1.91	104	.43

* $p < .05$; ** $p < .01$

4. Discussion

From the data it can be deduced that intrapreneurship takes place in all kinds of organizations regardless size, but also that size matters – intrapreneurship is more likely to happen in larger companies rather than in micro-companies. An explanation could be that in smaller companies there is hardly a difference between intrapreneurship and entrepreneurship as behaviour, and that the difference between entrepreneurship and intrapreneurship for employees is not always clear, hence also the discussion in the research community (Martiaarena, 2013; Parker, 2011). Employees in smaller companies have a better overview of the activities going on in the organization than in larger organizations.

Intrapreneurship is not restricted or bound to a specific (industrial) sector. Technical and service orientated companies both use intrapreneurship and intrapreneurial behaviour occurs in both types of organizations. It seems that the type of organization has no effect on the level of intrapreneurial spirit. Following Martiaarena (2013) there is a difference between an entrepreneur and an intrapreneur; the intrapreneur remains an (entrepreneurial) employee, nevertheless the similarities are larger than the differences (see e.g. Jones-Evans, 2000). The organizational factors that stimulate intrapreneurship and the perception of intrapreneurial behaviour are not different for the two sectors in this study.

The results show that there is a significant difference between organizations in which the management shows an interest in intrapreneurship and those who don't: the respondents score higher on both the conditions and the behaviour in the organizations that show an interest. This means that the view (and the behaviour) of management is important: 'You cannot just talk the talk; you have got to walk the talk' (Nicholson, 1998). Employee's enthusiasm to exhibit entrepreneurial behaviour is not increased by greater budgets on research and development. Propagating intrapreneurship in an enthusiastic way and removing obstacles are key elements for boosting the entrepreneurial behaviour throughout the organization: management should champion intrapreneurship (Markham, 2002). Nevertheless, R&D is important and in organisations that, according to the respondents, have higher R&D expenditure the conditions for intrapreneurship are perceived as more favourable, although it does not necessarily lead to more intrapreneurial behaviour.

5. Conclusions

This study contributes to the literature on intrapreneurship by exploring the effect of organizational size, sector, expenditure on R&D and the interest of top management on intrapreneurial behaviour and the organizational conditions for intrapreneurship. The study confirms that size matters – intrapreneurship happens more in larger companies, although in future research this should be explored further and related to the type of organizations. In micro- and small companies the boundaries between entrepreneurship and intrapreneurship are blurred. Further it confirms the role of management: leadership is important and a tool of management. Further research should focus on the role of management or rather the (founding) entrepreneur or entrepreneurial team in small companies and his/her role in intrapreneurship. R&D in this study is operationalised via the perception of the respondents; in future studies R&D could be operationalised as the real amount of R&D expenditure, or as the increase in R&D expenditure over a certain period. Also, if the conditions for intrapreneurship in organizations that have a higher budget for R&D than its competitors are perceived as conducive for intrapreneurial behaviour, then this study indicates that there is no effect on the employee's behaviour. This almost sounds as a paradox and needs to be explored further

6. References

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