

HOW ABOUT MEASURING INTRAPRENEURSHIP?

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ABSTRACT

This study discusses the concept and phenomenon of intrapreneurship as well as its prerequisites and outcomes. This study is a part of a larger research programme aiming at building a model of intrapreneurship and testing the model in different kinds of organisations and contexts. In this paper we present results of the survey of 8 companies and 184 employee responses. Based on these preliminary results we discuss the findings and implications for further research. The study points out that the prerequisites and outcomes of intrapreneurship have a positive dependency relation. Higher levels of the prerequisites of intrapreneurship both in quantity and quality, the more outcomes of intrapreneurship are observed. Measuring intrapreneurship sheds light on some aspects of the phenomenon studied, but it also leaves several questions unanswered. Therefore, in order to better understand it and to benefit from phenomenon, it is suggested to use versatile research approaches and to follow up and analyse intrapreneurial movements within organisations on a longitudinal basis.

Keywords: Intrapreneurship, entrepreneurship, measurement

1. Introduction

Intrapreneurship is a concept linked to the entrepreneurial orientation of an organisation. Intrapreneurship has its roots in entrepreneurship literature, even though intrapreneurship as a concept has lately been positioned also in the management literature (see Antoncic – Hisrich 2003). Intrapreneurship is important for organisational survival, growth, profitability, and renewal (Zahra 1995, 1996),

especially in larger organisations. It seems that different kinds of organisations are eagerly promoting entrepreneurial activities within their staff and management teams.

Different kinds of intrapreneurship have been recognised in the previous research (see e.g. Antoncic – Hisrich 2001, Covin – Miles 1999, Sharma – Chrisman 1999). Innovation broadly defined is the common theme underlying all forms of intrapreneurship. To be more precise, the use of innovation as a mechanism to redefine or rejuvenate the organisation, its position within markets and industries, or the competitive arena in which the organisation competes, seems to form the core of intrapreneurship. (Covin – Miles 1999)

Intrapreneurship i.e. entrepreneurship in existing organisations, includes several focal areas of research. 1) individual intrapreneur emphasising the individual characteristics of an intrapreneur, 2) new venture creation within existing organisation emphasising the different types of new ventures and their fit with the organisational setting, and 3) entrepreneurial organisation emphasising characteristics of such an organisations. (Antoncic – Hisrich 2003)

This study takes these areas of research as a starting point and attempts to integrate these areas in measuring intrapreneurship within an existing organisation. Despite the growing interest in and use of intrapreneurship, little empirical research has been conducted on the prerequisites and outcomes of intrapreneurship in different kinds of organisations and contexts. Several models have been built, but the relationships depicted in, or proposed by these models still need to be tested (Zahra – Jennings et al.1999). This study attempts to contribute to bridging the above-mentioned gap. The study is a part of a larger research programme aiming at building a model of intrapreneurship: its elements and outcomes based on previous studies. Our model tries to incorporate previous and pre-tested models at hand, and then gather empirical data in order to test the model.

The objective of this particular research paper is to discuss the potential elements and outcomes of intrapreneurship based on previous research and to measure these in small business context. This piece of research is a work in progress, indicating that the model of intrapreneurship is under construction and it needs to be tested with larger samples than what we have now in our disposal. Finally, the study discusses managerial implications, and gives direction for further research.

The paper is structured as follows. Firstly, we present the theoretical bases for the model of intrapreneurship under construction. This section also describes the phenomenon and concept of intrapreneurship. Following the methodology section, the results of preliminary analyses are presented. The paper concludes with a discussion on the findings in terms of their implications for research, theory and practice.

2. The model of intrapreneurship

Theoretically the study is based on entrepreneurship research, especially the Intrapreneurship School of it (see Cunningham – Lischeron 1991). Intrapreneurship is a concept closely related to entrepreneurship emphasising the entrepreneurial process (entrepreneurs carry out new combinations) and innovativeness (Guth – Ginsberg 1990). Intrapreneurship, however, takes place within the organisation, in this study in

small companies. The intrapreneur acts like an entrepreneur in that he/she realises his/her own ideas without being the owner of the enterprise (Cunningham – Lischeron 1991). Intrapreneurship is here defined to mean an entrepreneurial way of action in an existing organisation – more specifically, in a small company. This may be the broadest possible definition for intrapreneurship. This broad definition is a kind of an indication of a relatively early stage of development of the field. (see Antoncic – Hisrich 2003). The basis of intrapreneurship is recognising an opportunity, exploiting it and trusting that exploiting an opportunity in a new way that deviates from previous practice will succeed and support the realisation of the organisation’s aims. (Heinonen 1999)

Research into the nature, prerequisites and effects of firm-level entrepreneurial activities has grown over the past 25 years. The seminal study of Peterson and Berger on entrepreneurship in organizations (1972) sought to identify organisational and environmental factors affecting company’s entrepreneurial activities. Miller’s study in 1983 was a key turning point in the research on firm-level entrepreneurship. After that researchers have used Miller’s theory and research instruments to examine the linkages between environmental, strategic, and organisational variables, and a company’s entrepreneurial activities. (Zahra – Jennings et al. 1999)

In this study we have organized the prerequisites and outcomes of intrapreneurship, as well as the phenomenon of intrapreneurship as follows (Figure 1):

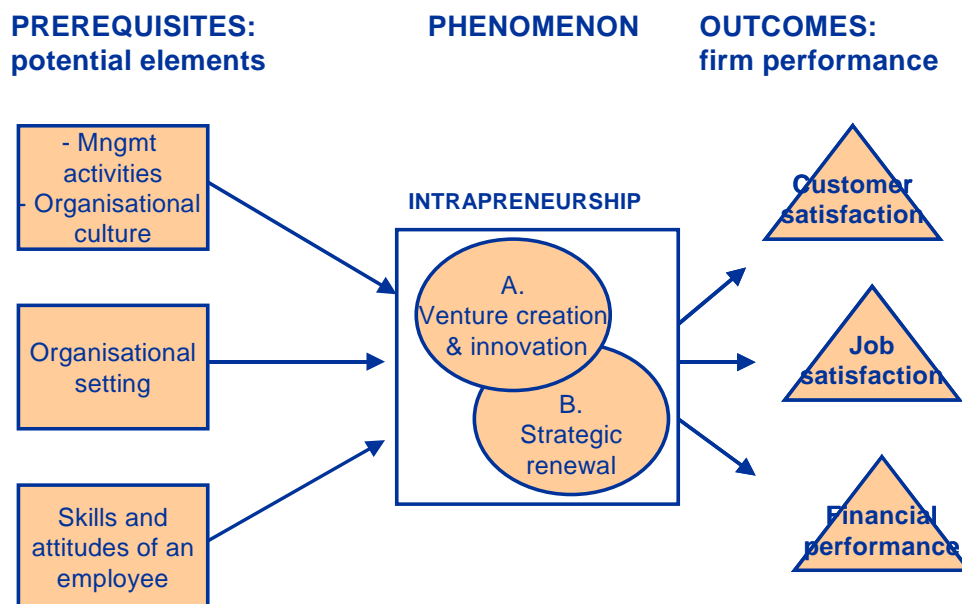


Figure 1 The model of intrapreneurship

The phenomenon of intrapreneurship

This study takes Miller’s (1983) contribution as a starting-point for understanding the phenomenon of intrapreneurship. Miller stresses the company’s commitment to innovation, i.e. three related components: product innovation, proactiveness, and risk

taking. Product innovation refers to the ability of a company to create new products or to modify existing ones to meet the demands of current or future markets. Proactiveness refers to a company's capacity to compete in the markets by introducing new products, services, or technologies. Finally, risk taking refers to company's willingness to engage in business ventures or strategies in which the outcome may be highly uncertain. (Zahra – Covin 1995) Together these components form – as we call it – an A-type manifestation of intrapreneurship, emphasising the creation of innovations and ventures as well as conducting R&D –activities aiming to improve organisation's competitive position and performance.

Another dimension of intrapreneurship is strategic renewal of the existing business – B-type manifestation of intrapreneurship, as we call it. This strategic renewal of an existing organisation entails areas such as mission reformation, reorganisation as well as system-wide changes within the organisation. (Zahra 1991, 1993, 1996). The renewal activities relate to the concept of a firm's business and its competitive approach in the markets. Renewal is achieved through the redefinition of a firm's mission through the creative redeployment of resources (Guth – Ginsberg 1990). Renewal requires developing or adopting new organisational structures that promote innovation and venturing. Renewal also covers system-wide changes, which enhance creative organisational learning and problem solving. These changes usually refocus company's basic values. (Zahra 1993)

The prerequisites of intrapreneurship

As indicated earlier, several researchers have attempted to understand the factors that stimulate or impede intrapreneurship. Areas such as external environment, organisation, its strategy, and management activities have been presented as factors affecting intrapreneurship (see e.g. Guth – Ginsberg 1990, Miller 1983, Kuratko et al. 1990, Heinonen 1999).

Intrapreneurship is a process, which occurs in interaction with *the environment* (see van de Ven 1993). It appears that the environment plays a profound role in influencing intrapreneurship: the more dynamic, hostile and heterogeneous the environment, more emphasis the company puts on intrapreneurial activities (Zahra 1991, 1993).

The intrapreneurship literature highlights the importance of organisational factors for the pursuit of intrapreneurship (e.g. Slevin – Covin 1989, Zahra 1991, Antoncic – Hisrich 2001, Heinonen 1999, Heinonen – Vento-Vierikko 2002). By *management activities* we refer to the role of management as a facilitator and promoter of intrapreneurship (see the charismatic role of management by Thompson 1999). Management activities also affect the *organisational culture*: at what extent the basic assumptions of intrapreneurship (e.g. risk taking, innovation and creativity, learning, change) can be found within the organisation.

Management activities ensure that the organisation has a clear and understood vision and direction. The *organisational setting* also includes the way work is being organised in the company: power and responsibility, division of work, rules etc. Altogether these organisational factors both direct the employees in their intrapreneurial efforts, as well as ensure that employees are empowered and

committed. (Thompson 1999) Previous studies indicate that managerial support, organisational structure as well as reward and resource availability affect intrapreneurial activities within the organisation (e.g. Hornsby et al. 1993, Antoncic – Hisrich 2001).

All the potential elements of intrapreneurship mentioned earlier are factors assumed to affect intrapreneurship on organisational level. Within intrapreneurship, as within entrepreneurship, the individual is the key actor, making it understandable why the intrapreneur her/himself (either her/his personal attributes or her/his roles and functions) is also a focal area of intrapreneurship research (see Carrier 1996). The *individual skills and attitudes* describe the capabilities and willingness of any potential intrapreneur to act intrapreneurially.

The outcomes of intrapreneurship

It is evident that intrapreneurship can give grounds for competitive advantage of an existing organisation. The manifestations of such competitive advantage may be e.g. differentiation or cost leadership in the markets, quick response to any changes, new strategic direction or new ways of working or learning within the organisation. (see Covin – Miles 1999). Prior research proposes that intrapreneurial processes are associated with an organisation's performance (see e.g. Zahra 1991, Zahra 1995, Zahra – Nielsen et al. 1999, Heinonen 1999, Antoncic – Hisrich 2001). Zahra – Nielsen et al. (1999) e.g. raise up the importance of organizational learning and knowledge creation as outcomes of intrapreneurial activities, and, thus, as grounds for competitive advantage and a basis of superior performance of the organisation. In this study organisation performance does not include only financial performance, but also non-financial manifestations, such as customer satisfaction as well as job satisfaction of the employees.

3. Research method

Data and analysis

The aim of this study is to discuss and analyse the potential elements and outcomes of intrapreneurship and to measure these in small business context. Even though this study is of quantitative nature, this research is still very much a work in progress, and, thus no model testing per se can take place at this stage of the research process.

The data used in the analysis consists of an internet-survey from a number of entrepreneurs and their employees attending a training programme, an HRM in SMEs. The programme was organised by Small Business Institute within Turku School of Economics and Business Administration. The number of organisations attending the training programme was 12, and eight of them participated in the research.

Two kinds of questionnaires were used in the research: one to an organisation's entire personnel and other to the organisation's management. The personnel survey contains queries about management activities, organisational culture, individual skills and attitudes, customer satisfaction and job satisfaction. The management survey concerns an organisation's venture activity and innovations, its strategic renewal as well as basic information about its background and industry. Each potential respondent was

sent a personal questionnaire. An invitation was sent by email containing a link to a page with the questionnaire on it. These links were personalised and unique. The answers were stored on a database, accessible only by the researcher. That way the possible social desirability biases were taken into account. The number of personnel responses was 184 and management responses 22.

In this paper we discuss solely the results of the personnel survey and exclude the management survey because of the small amount of data at this time. Due to a naturally smaller number of management level personnel in a firm, the amount of data in the management survey is not sufficient for analysis at this time. Based on these preliminary results more data will be gathered in due course.

The survey gives information about the potential prerequisites and outcomes of an organisation's intrapreneurship. The studied items analysed in this paper are (see Figure 1, the prerequisites and outcomes measured in this study are darkened):

- management activity and organisational culture (structured)
- organisational setting (structured)
- individual skills and attitudes (structured)
- perceived customer satisfaction (structured)
- job satisfaction (structured)

The above-mentioned sectors were divided into two groups. The three first ones describe potential elements of intrapreneurship and the latter two measure company performance. In order to reduce the amount of survey statements, we conducted a factor analysis on both of the two data groups.

The factorability of the variables was evaluated using the Kaiser-Mayer-Olkin measure¹. The number of factors was determined using the eigenvalue –criterion and the interpretability of the factors. The main component analysis was employed, as well as Varimax for the rotating. Factor analysis in this case was a tool for creating aggregate variables from the data. The aggregates formed were handled as means. Their reliability was tested using Cronbach's Alpha method. (Alkula et al. 1999).

The dependency relation between potential elements of intrapreneurship and firm performance was studied by way of correlation analysis. The limit to an acceptable correlation coefficient in the study was defined as 0,4². The utilisation of this correlation coefficient of average is reasonable in that the amount of data used is large enough.

¹ The KMO measure defines for factoring as follows: > 0,90 = excellent premises; > 0,80 = good premises; > 0,70 = moderate premises; > 0,60 = marginal premises; > 0,50 = feeble premises; > 0,40 = not worth factoring (Olkkonen & Saastamoinen 2000)

² The Guilford 5-level interpretative model was employed in interpreting the coefficients: 1) < 0,2 = marginal correlation, nearly non-existent dependence; 2) 0,2 - 0,4 = low correlation, certain but small dependence; 3) 0,4 - 0,7 = moderate correlation, remarkable dependence; 4) 0,7 - 0,9 = high correlation, obvious dependence; 5) > 0,9 = extremely high correlation, extremely reliable dependence (Guilford 1956).

Restrictions

The research has some restrictions: as mentioned earlier, we are dealing only with a part of our data and due to the insufficient number of management surveyed so far we excluded it. Thereby we concentrate on potential elements of intrapreneurship that are influenced upon by the information received from the personnel surveys. The measurement of customer satisfaction also needs to be clarified, since the data contains only employees' perceptions about the customers' opinions. The data, thus, does not include the customers' opinions on the issues analysed.

4. Findings

Prerequisites: potential elements

A factor analysis on potential elements of intrapreneurship brought up ten factors (table on factor loads is in an appendix 1 at the end of the paper). Further analysis was done with the first seven factors. The rest of the factors were excluded, because their degree of an explanation was rather low and any sensible interpretation was not easy to make. The factors left in the analysis explained 54 % of the phenomenon.

Factors were named as follows:

- encouragement by management and organisation
- individual motivation
- transparency, openness and communality
- individual competence
- enabling working environment
- encouragement to innovations
- development

The first factor expresses activities of management, culture of working environment as well as an organisation's attitude climate towards intrapreneurial activities. The second factor describes employees' abilities and willingness toward meaningful work. The third factor represents an organisation's openness and sense of community. The fourth factor sorts out individual motivation elements. The fifth factor brings out chances offered by an organisation's operational environment. The sixth factor is attached to encouraging to innovate. The seventh factor demonstrates development in general.

Aggregate variables composed through a factor analysis are collected into the following table (Table 1). The final number of aggregate variables is seven.

Table 1 Potential prerequisites of intrapreneurship³, scale 1 to 5

	agree strongly or agree somewhat
Aggregate variable 1: encouragement by management and organisation	mean = 3,3
Management activity generates trust in employees	3,7 (n = 183)
Management sees matters also from the employees' point of view	3,4 (n = 181)
Management is able to inspire everyone to work for the good of the company	3,6 (n = 183)
Management encourages the development of new ways of operating	3,4 (n = 183)
At my workplace, individual work methods are valued	3,2 (n = 180)
Innovativeness and creativity are thought of as important at my workplace	3,3 (n = 181)
Change is seen as an opportunity at my workplace	3,5 (n = 181)
Enough feedback is given at my workplace	2,8 (n = 183)
The employees are encouraged to freely air their opinions	3,1 (n = 182)
Suggestions originating from the employees are carried out at my workplace	3,3 (n = 182)
There is a clear division of labour in my workplace	3,7 (n = 183)
My workplace offers good opportunities for training and education	3,2 (n = 181)
My workplace has clear rules of conduct	3,5 (n = 181)
Things are carried out without delay at my workplace	3,0 (n = 181)
The vision at my workplace guides me at my work	3,3 (n = 181)
Knowledge flows openly at my workplace	2,8 (n = 182)
Aggregation variable 2: individual motivation	mean = 4,0
I have confidence in my abilities	4,3 (n = 183)
I want to actualise myself in my work	4,3 (n = 183)
I want to put myself at stake in my work	4,0 (n = 182)
I am ready and willing to make responsible decisions	4,0 (n = 182)
I tolerate uncertainty well	3,2 (n = 181)
Aggregate variable 3: transparency, openness and communality	mean = 3,4
Difficult decisions are discussed openly	3,0 (n = 182)
Employees' productive activities are rewarded	2,9 (n = 181)
Work is carried out in teams at my workplace	3,5 (n = 182)
I know what is expected of me in my work	4,1 (n = 183)
I can easily get help in my work	3,7 (n = 182)
Aggregate variable 4: individual competence	mean = 3,8
I am familiar with the vision of my workplace, i.e. the direction pursued in the future	3,7 (n = 183)
I am eager to present new ideas at my workplace	3,7 (n = 182)
My knowhow is varied	4,1 (n = 183)
I develop myself actively at my work	3,6 (n = 183)
Aggregate variable 5: enabling working environment	mean = 4,2
I have sufficient authority to carry out my duties well	4,0 (n = 182)
I have responsibility for doing my work as well as possible	4,6 (n = 183)
I can work spontaneously	4,1 (n = 182)

³ A smaller value signifies a divergent opinion and a larger value signifies expressions of concurrent opinion.

Aggregate variable 6: encouragement to innovations	mean = 3,3
People are encouraged to take risks at my workplace	2,6 (n = 181)
Mistakes are regarded as learning experiences	3,5 (n = 182)
I am able to develop my work myself	3,8 (n = 182)
Aggregate variable 7: development	mean = 4,0
Professional development is important to me	4,1 (n = 183)
It is easy for me to seek help in my work	4,1 (n = 183)
I like to work in a team	3,9 (n = 183)

The aggregate variables were handled as means. The aggregates were analysed with a scale of 1-5. A smaller value means a divergent opinion from, and a greater value an opinion concurrent with the statement. The critical value of the scale is defined as three, values below which imply a need for development in the respective statements' areas of intrapreneurship. Likewise, values higher than three point to positive dynamics from an intrapreneurial point of view.

Every variable's values were over the critical value (3,0). Enabling working environment achieved the highest marks (mean 4,2): respondents believe that they have enough authority and responsibility for doing their job in a best possible way, and that they are allowed to work independently.

Individual motivation (mean 4,0) and development (mean 4,0) were also sources of satisfaction. Respondents trust in their abilities and are motivated to work in an intrapreneurial way. Similarly, development in general is expressed as important, for instance professional development is of concern and a request for help is seen as comfortable.

Individual competence (mean 3,8) also settles well in the scale. Respondents feel like multiple skilled persons and they are willing to further advance their professional skills. Employees are also aware of their organisation's vision and are keen on presenting new ideas.

The value of transparency, openness and communality is 3,4. Statements within the aggregate variable scatter: e.g. employees are well aware of expectations they meet in their work, but then rewarding of productive work is minor.

Encouragement by management and organisation (mean 3,3) as well as encouragement to innovations (mean 3,3) split the opinions of respondents. Some elements like confidence in management, clear division of work and management's enthusiasm for encouraging employees seem to be OK. Instead, flow of information and degree of feedback are both of marginal satisfaction.

Outcomes: firm performance

A factor analysis on firm performance produces four factors (table on factor loads is in an appendix 2 at the end of the paper). Further analysis was made with the first three factors and their degree of an explanation was 55 %. The final factor was excluded from the analysis, because its components didn't form in a sensible way.

Factors were named as follows:

- appreciation of work and job satisfaction
- perceived customer satisfaction
- external satisfaction in work

The first factor expresses appreciation of work and job satisfaction. The second factor demonstrates customers' various sources of satisfaction. The third factor describes external satisfaction of work.

Aggregate variables composed through a factor analysis are collected into the following table (Table 2). The final number of aggregate variables is three.

Table 2 Potential outcomes of intrapreneurship⁴, scale 1 to 5

	agree strongly or agree somewhat
Aggregate variable 1: appreciation of work and job satisfaction	mean = 3,9
I feel happy in my work	4,1 (n = 182)
I value my work	4,3 (n = 183)
Others value my work	3,5 (n = 182)
My work is interesting	3,8 (n = 181)
My duties at work are varied	3,8 (n = 181)
I feel I am important to my workplace	3,8 (n = 182)
Aggregate variable 2: perceived customer satisfaction	mean = 4,0
My workplace is a known in the marketplace to be competent	4,1 (n = 182)
Our customers are satisfied with services and/or products purchased from us	4,1 (n = 182)
We respond to our customers' needs better than our competitors	3,8 (n = 182)
We are familiar with our customers' needs	4,0 (n = 182)
Our customer relations are long term	4,4 (n = 182)
Our clients are happy with our price-quality relation	3,8 (n = 181)
Aggregate variable 3: external satisfaction in work	mean = 3,8
My workplace has a good atmosphere	3,7 (n = 183)
My workload is suitable	3,8 (n = 182)

As before with the prerequisites of intrapreneurship, the aggregate variables here were also analysed with a scale of 1-5. Again, a smaller value means a divergent opinion from, and a greater value an opinion concurrent with the statement. The critical value of the scale is defined as three, values below which imply a discontentment with the

⁴ A smaller value signifies a divergent opinion and a larger value signifies expressions of concurrent opinion.

respective statements. Likewise, values higher than three point to positive experiences of outcomes of intrapreneurship. Again, the aggregate variables were handled as means.

All three aggregate variables of the outcomes of intrapreneurship settle in the scale very well, all of them were over the critical value (3,0). Customer satisfaction (mean 4,0) is seen as rather high, respondents believe that their customer relationships are long lasting and customers are pleased with the provided services and/or products. Respondents also estimated, that organisations they represent are well known and recognised, that they are well aware of the needs of their customers, and customers are satisfied with the price-quality relation.

Appreciation of work and job satisfaction (mean 3,9) is also seen as a source of contentment. Respondents enjoy their work as well as both themselves and others value their work. Employees also express their work as interesting, versatile and important for their organisation.

The external satisfaction in work (mean 3,8) is at an adequate level. Workload appears to be reasonable and climate is good among employees.

Correlations

The potential correlation between prerequisites of intrapreneurship (encouragement by management and organisation, individual motivation, transparency, openness and communality, individual competence, encouragement to innovations, development) and outcomes of intrapreneurship (appreciation of work and job satisfaction, perceived customer satisfaction, external satisfaction in work) were examined with a correlation analysis. The aggregate variables formed earlier were placed in a correlation matrix (Table 3).

Table 3 Correlations between intrapreneurial prerequisites and outcomes of intrapreneurship

	Appreciation of work and job satisfaction	Perceived customer satisfaction	External satisfaction in work
Encouragement by management and organisation	r = ,407**	r = ,410**	r = ,472**
Individual motivation	r = ,587**	r = ,256**	r = ,166*
Transparency, openness and communality	r = ,348**	r = ,403**	r = 417**
Individual competence	r = ,557**	r = ,343**	r = ,179*
Enabling working environment	r = ,474**	r = ,226**	r = ,233**
Encouragement to innovations	r = ,461**	r = ,232**	r = ,298**
Development	r = ,263**	r = ,132	r = ,304**

Correlation analysis indicates, that nearly every aggregate variable has a mutual correlation with a statistical significance. However, a focus of interest was especially on relations between prerequisites and outcomes of intrapreneurship, as mentioned

earlier. The expected strength of correlation relations also narrowed down the number of variables being of interest here.

Generally speaking appreciation of work and job satisfaction stood out from the rest of the outcomes of intrapreneurship with more positive correlation relations than others. Individual characteristics, management and organisational activities were quite strongly linked with appreciation of work and job satisfaction. A correlation with perceived customer satisfaction was in many cases lower. However, management activities as well as organisational activities and culture correlated positively with customer satisfaction. External satisfaction in work correlated positively and strongly enough with managerial and organisational issues. The examined correlation relations are discussed in more detail in the following sections.

Encouragement by management and organisation correlates positively with every one of the aggregate variables outcomes of intrapreneurship. The strongest correlation is between external satisfaction in work and encouragement by management and organisation ($r = ,472$). This indicates, that, somewhat expectedly, management as well as organisational activities that are intrapreneurially favourable by nature, are linked with a general job satisfaction and job appreciation and customer satisfaction.

Individual motivation also correlates positively with every outcome of intrapreneurship. This time correlation relations are not very strong, actually only appreciation of work and job satisfaction correlates to an extent that was relevant in the study ($r = ,587$). Those employees with a trust in their own abilities and willingness for doing and investing in their job, appreciate their work and are satisfied with their job.

Likewise, transparency, openness and communality correlates positively with all outcomes of intrapreneurship. The highest rates of dependency are between external satisfaction in work ($r = ,417$) as well as between perceived customer satisfaction ($r = ,403$). This points to the fact, that those organisations with an open and communal culture are recognised as a cosy workplace, which also their customers value.

Individual competence correlates positively especially with appreciation of work and job satisfaction ($r = ,557$). This indicates, that when employees are active and capable, they are happy in work and proud of it. The correlations between the rest of the outcomes of intrapreneurship were marginal and thus not of interest.

Enabling working environment correlates positively with appreciation of work and job satisfaction ($r = ,474$). The result describes an interrelation between an authority together with a sufficient responsibility and the positive feelings of one's own work. The correlation between enabling working environment and customer satisfaction as well as external satisfaction in work was rather weak.

Encouragement to innovations correlates positively with appreciation of work and job satisfaction ($r = ,461$). The dependence relation with the rest of the outcomes of intrapreneurship wasn't strong enough and thereby not of interest here. The result goes to show, that workplaces where individuality is valued, employees are feeling satisfied with their work.

Correlation rates among the development aggregate variables were lower than the limit defined to sufficient dependency relation in the study.

5. Discussion

This study has theoretically discussed the phenomenon on intrapreneurship as well as its prerequisites and outcomes. Empirically the study has shed some light on some of the potential prerequisites and outcomes of intrapreneurship. The phenomenon of intrapreneurship has been excluded from the empirical analysis as the number of respondents has this far been too small for statistical purposes.

The results point to the fact, that the surveyed prerequisites of intrapreneurship are related with the surveyed outcomes of intrapreneurship. In future, the surveyed prerequisites of intrapreneurship can be further separated into finer groups. That way, and also with a larger sample, it is possible to better understand and bring forth the relations between the prerequisites and the outcomes of intrapreneurship. The question of an intervening phenomenon remains still unanswered: is the intervening phenomenon intrapreneurship or something totally different? The possible relations between here surveyed issues and intrapreneurship need also to be clarified. This discussion is an extensive one and merits a new paper. However, the study points out, that the prerequisites and outcomes of intrapreneurship have a positive dependency. This indicates, that the more the prerequisites of intrapreneurship are present both in quantity and quality, the more outcomes of intrapreneurship are observed.

The ultimate aim of this larger research programme is to create and validate a model of intrapreneurship. The basic idea from the very beginning has been to benefit from the existing models as much as possible. This study is our first attempt in this process. Even though our work is on its preliminary phases some conclusions can be drawn.

At this stage the largest restriction for conclusions is the small amount of companies analysed, even though the number of respondents in the personnel survey is at least adequate. After these preliminary findings more extensive and intensive data gathering is to follow. However, increasing the number of companies involved does not solve all the problems foreseen. Firstly, it is very unlikely that antecedent variables affect the entrepreneurial behaviour of the company instantly, and that intrapreneurship improves company performance in the very short term. (Zahra – Jennings et al. 1999) Intrapreneurship is long-term in nature, which calls for studies of a longitudinal nature. Secondly, intrapreneurship is not likely to evolve from any particular element, but is rather a matter of balancing certain types of elements with one another. It is a question, of how well organisational, environmental and individual issues fit to each other in certain situations.

These restrictions mentioned above call for versatility in research approaches. Even though measuring intrapreneurship may give us useful information and knowledge on the phenomenon studied, it leaves many other questions unanswered. Therefore, it is suggested that the processes of intrapreneurial movements within organisations should be followed up and analysed more in detail and on a longitudinal basis. The research and development activities within Small Business Institute present us with good possibilities for both measuring intrapreneurship at different stages of the different kinds of organisations, and then also following up and assessing the

processes before, during and after training and development. Triangulation between these sources of information is likely to deepen our understanding of the phenomenon of intrapreneurship. As this process takes some time, patience is needed, and also a certain passion for intrapreneurship.

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Appendix 1 Table on factor loads for the prerequisites of intrapreneurship

Variables	Factors						
	1	2	3	4	5	6	7
Management activity generates trust in employees	,801	1,923E-02	5,172E-02	4,997E-03	1,043E-02	-4,598E-02	-6,480E-02
Management sees matters also from the employees' point of view	,790	,150	3,719E-02	-6,122E-03	7,686E-02	,181	5,222E-02
Management is able to inspire everyone to work for the good of the company	,824	-3,766E-02	-6,122E-03	7,686E-02	,193	1,931E-02	-2,638E-02
Management encourages the development of new ways of operating	,661	-,156	3,696E-02	9,928E-02	,158	,369	,145
At my workplace, individual work methods are valued	,456	,261	,208	9,917E-02	,315	,437	-6,947E-02
Innovativeness and creativity are thought of as important at my workplace	,618	3,612E-02	-6,113E-02	,146	,267	,432	9,66E-02
Change is seen as an opportunity at my workplace	,682	-6,607E-02	-6,808E-02	9,815E-02	,286	,273	,184
Enough feedback is given at my workplace	,659	9,703E-02	,364	-4,960E-02	-2,349E-02	8,192E-02	2,286E-02
The employees are encouraged to freely air their opinions	,643	7,025E-02	,245	-3,744E-02	-9,013E-02	,374	5,385E-02
Suggestions originating from the employees are carried out at my workplace	,501	,182	,238	-2,169E-02	,155	,458	-,108
There is a clear division of labour in my workplace	,510	1,028E-02	,346	-,136	,133	8,138E-02	,266
My workplace offers good opportunities for training and education	,458	1,885E-02	,187	,268	,401	,179	,103
My workplace has clear rules of conduct	,584	9,170E-02	,141	1,131E-02	,361	-8,590E-02	,110
Things are carried out without delay at my workplace	,576	8,848E-02	,238	,333	,173	-,160	-7,446E-02
The vision at my workplace guides me at my work	,489	,157	,218	,466	,100	,123	-3,687E-02
Knowledge flows openly at my workplace	,624	4,159E-03	,395	,305	8,928E-02	,113	3,371E-02
I have confidence in my abilities	6,344E-02	,493	1,170E-02	9,722E-02	,273	-,225	,134
I want to actualise myself in my work	4,562E-02	,759	2,873E-02	,195	,199	3,560E-03	,012
I want to put myself at stake in my work	5,068E-02	,779	-3,111E-02	,153	-4,904E-03	7,681E-02	-3,972E-02
I am ready and willing to make responsible decisions	-4,331E-02	,545	3,933E-02	,447	,137	,112	1,488E-02
I tolerate uncertainty well	,108	,523	1,166E-02	,122	-1,473E-02	8,967E-02	,226
Difficult decisions are discussed openly	,510	6,046E-02	,527	6,335E-02	7,287E-03	,225	9,486E-02
Employees' productive activities are rewarded	,467	6,813E-02	,479	,172	-9,392E-02	-3,680E02	-,124
Work is carried out in teams at my workplace	,103	2,941E-02	,682	-1,841E-02	4,123E-02	,207	5,654E-02
I know what is expected of me in my work	,240	,321	,438	-,160	,179	,238	5,582E-02
I can easily get help in my work	,254	-,171	,610	7,933E-02	,204	6,972E-02	,160
I am eager to present new ideas at my workplace	7,907E-02	,258	1,445E-02	,679	9,275E-02	-1,949E-03	7,234E-02
My knowhow is varied	-4,310E-02	,306	,103	,530	-1,191E-03	,110	,118
I develop myself actively at my work	,150	,268	-,104	,678	5,609E-02	,185	,199
I am familiar with the vision of my workplace, i.e. the direction pursued in the future	,391	3,030E-02	,134	,480	8,150E-02	6,206E-02	2,237E-02
I have sufficient authority to carry out my duties well	,233	4,141E-02	,275	,132	,608	,215	-,229
I have responsibility for doing my work as well as possible	4,417E-02	,159	-1,608E-02	9,894E-02	,724	3,549E-02	,183
I can work spontaneously	,323	,109	2,175E-02	-2,455E-02	,657	,253	3,004E-05
I am able to develop my work myself	,278	,268	,121	3,544E-02	,411	,575	-,133

People are encouraged to take risks at my workplace	7,258E-02	-,112	,185	,167	,230	,635	-1,662E-02
Mistakes are regarded as learning experiences	,398	,125	,192	5,806E-02	-3,743E-02	,545	8,199E-02
Professional development is important to me	6,356E-02	,359	-,135	,233	-1,810E-03	,230	,498
It is easy for me to seek help in my work	,197	-,115	,427	-5,426E-03	,158	-3,282E-02	,587
I like to work in a team	4,604E-02	,191	,141	,215	7,074E-03	-8,795E-02	,760
<i>Cronbach's Alpha</i>	,93	,72	,72	,70	,67	,61	,60

Appendix 2 Table on factor loads for outcomes of intrapreneurship

Variables	Factors		
	1	2	3
My workplace is a known in the marketplace to be competent	6,951E-02	,707	4,432E-03
Our customers are satisfied with services and/or products purchased from us	,283	,746	5,902E-02
We respond to our customers' needs better than our competitors	1,894E-02	,737	7,918E-02
We are familiar with our customers' needs	-,116	,711	,295
Our customer relations are long term	7,412E-02	,681	-2,636E-02
Our clients are happy with our price-quality relation	,152	,701	,151
I feel happy in my work	,581	,207	,459
I value my work	,729	,145	,226
Others value my work	,458	,182	,439
My work is interesting	,870	9,925E-02	-3,303E-02
My duties at work are varied	,850	6,090E-02	-4,307E-02
I feel I am important to my workplace	,800	2,152E-02	,121
My workplace has a good atmosphere	5,161E-02	,141	,852
My workload is suitable	,140	5,511E-02	,602
<i>Cronbach's Alpha</i>	,85	,82	,47