

KNOWLEDGE IN ACTION

# Faculteit Bedrijfseconomische Wetenschappen

master in de handelswetenschappen

# Masterthesis

Voorspellers van intrapreneurship op individueel niveau

#### **Brett Eerdekens**

Scriptie ingediend tot het behalen van de graad van master in de handelswetenschappen, afstudeerrichting ondernemerschap en management

## **PROMOTOR:**

Prof. dr. Pieter VANDEKERKHOF

#### **BEGELEIDER:**

De heer Nils WUYTENS



 $\frac{2020}{2021}$ 



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Deze masterproef werd geschreven tijdens de COVID-19 crisis in 2020-2021. Deze wereldwijde gezondheidscrisis heeft mogelijk een impact gehad op het schrijf- en verwerkingsproces, de onderzoekshandelingen en de onderzoeksresultaten die aan de basis liggen van dit werkstuk.

This master thesis was written during the COVID-19 crisis in 2020-2021. This global health crisis might have had an impact on the (writing) process, the research activities and the research results that are at the basis of this thesis.

Voorwoord

Ik ben Brett Eerdekens, masterstudent ondernemerschap en management aan de Universiteit

Hasselt. Dit onderzoek vormt één van de grote sluitstukken van mijn masteropleiding. Dankzij dit

onderzoek in de wetenschappelijke literatuur heb ik nieuwe en relevante inzichten verworven

omtrent de voorspellers van intrapreneurship op individueel niveau. Bovendien heeft het empirisch

gedeelte mij veel bijgeleerd over hoe data wordt verzameld, geanalyseerd en geïnterpreteerd.

Ondernemerschap bij werknemers (cfr. intrapreneurship) is een onderwerp dat onmiddellijk enorm

veel interesse opwekte. Daarom was ik vanaf de start gemotiveerd om mijn uiterste best te doen

om dit onderwerp verder te onderzoeken, ook indien er zich tegenslagen zouden voordoen. Ik ben

uitermate dankbaar voor deze leerrijke ervaring en ik ben zeer trots dat ik deze opdracht tot een

goed einde kon brengen. De competenties die ik over de afgelopen vier jaar heb verworven, zijn

zowel rechtstreeks als onrechtstreeks verwerkt in deze masterproef.

Graag zou ik van deze gelegenheid gebruik willen maken om een aantal personen te bedanken.

Zonder hen was het eindresultaat nooit hetzelfde geweest. In de eerste plaats gaat mijn dank uit

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deze masterproef nauwgezet op en gaven tijdig feedback waardoor ik mijn vooropgestelde resultaat

heb kunnen behalen.

Deze pandemie is een periode die niemand snel zal vergeten. Als gevolg van de wereldwijde uitbraak

van COVID-19 heeft dit onderzoek volledig off-campus plaatsgevonden. Deze alternatieve manier

van werken vereiste een extra inspanning van iedereen, maar door de goede samenwerking en de

heldere communicatie hebben we samen deze moeilijke periode kunnen overbruggen. Voor u ligt

mijn masterproef "Voorspellers van intrapreneurship op individueel niveau". Ik hoop dat het resultaat

van dit werk zichtbaar mag zijn en u kan bekoren.

**Eerdekens Brett** 

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UHasselt Agoralaan Gebouw D, 3590 Diepenbeek

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#### Samenvatting

Dit onderzoek is geïnspireerd door de snel veranderende en competitieve economische omgeving waarin we vandaag leven. Globalisering, onstabiele arbeidsmarkten en meer frequente economische veranderingen zijn obstakels waar alle bedrijven mee te maken krijgen. Deze moeilijkheden kunnen worden overwonnen door als bedrijf te focussen op innovatie en het behalen van een concurrentievoordeel (Blanka, 2019). Het ondernemende gedrag van de werknemer, ook wel bekend als intrapreneurship, is een van de meest cruciale factoren om deze pijnpunten aan te pakken. Enerzijds stellen Veenker et al. (2008) dat innovatief gedrag van werknemers leidt tot bedrijfsgroei en strategische vernieuwing. Anderzijds stelt Parker (2011) dat human capital een belangrijke rol speelt bij het bepalen van het succes van organisaties.

Zowel intrapreneurship op organisatieniveau als op individueel niveau wonnen aan relevantie in de recente literatuur. Deze studie richt zich op intrapreneurship op individueel niveau aangezien dit onderzoek schaars en gefragmenteerd is (Blanka, 2019). In dit onderzoek formuleer ik een antwoord op de vraag: "Wat zijn de voorspellers van intrapreneurship op individueel niveau?". Om een duidelijk antwoord te kunnen formuleren, werden er zeven hypotheses opgesteld op basis van de reeds bestaande literatuur. Zo werden er op voorhand zeven voorspellers bepaald die een invloed konden hebben op het ondernemende niveau van de werknemer. Deze voorspellers bevinden zich op twee niveaus: het organisatieniveau en het individueel niveau. Met andere woorden, hoe kunnen de organisatie en het individu het ondernemende niveau van de werknemer beïnvloeden? Dit onderzoek resulteert in een holistisch beeld van de voorspellers van intrapreneurship.

Om de dataset voor dit onderzoek te bekomen, nam ik contact op met verschillende bedrijven die actief zijn in verschillende sectoren en voldeden aan de vereisten voor de gegevensverzameling (Fitzsimmons et al., 2005). Deze enquête werd online uitgevoerd via Qualtrics. Deze aanpak resulteerde in 377 antwoorden. Na het controleren van deze vragenlijst bleven er 271 bruikbare antwoorden over. Deze kwantitatieve studie omvat dus 271 werknemers die actief zijn in verschillende industrieën met bedrijven van verschillende groottes en leeftijden. Op basis van het empirisch onderzoek kan ik meerdere bevindingen concluderen.

Ten eerste vindt deze studie dat wanneer organisaties een hogere tolerantie hebben voor het nemen van risico's, dit zal resulteren in een hoger niveau van intrapreneurship op individueel niveau. Het is dus in het voordeel van de organisatie om een veilige omgeving te creëren waarin de werknemer niet bang is om fouten te maken (Lumpkin & Dess, 1996; McCabe et al., 1986). De organisatie zal de werknemer niet moeten straffen indien er risico genomen wordt en er fouten gemaakt worden, maar zal hen net moeten helpen ontwikkelen en hun fouten helpen rechtzetten (Lumpkin & Dess, 1996).

Daarnaast heeft een werknemer met een hoger niveau van intrapreneurial self-capital en autonomie een hoger niveau van intrapreneurship. Een hoger niveau van intrapreneurial self-capital voorziet een werknemer van meer persoonlijke resources, zoals specifieke vaardigheden waarmee men beter kan omgaan met de snel veranderende omgeving en waarmee men sneller innovatieve oplossingen

kan bedenken (Duradoni & Di Fabio, 2019). Intrapreneurial self-capital wordt gedefinieerd als "de positieve zelfevaluatie van het zelfconcept gekenmerkt door het eigen vermogen om geëngageerd te zijn, om belangrijke doelstellingen te identificeren, om het gevoel te hebben controle te hebben over levensgebeurtenissen, om problemen creatief op te lossen, om beperkingen om te zetten in hulpbronnen, om eigen vaardigheden te ontwikkelen, om besluitvormingsvaardigheden toe te passen op elk aspect van het leven en om beslissingen zorgvuldig en rationeel te nemen" (Di Fabio, 2014, p. 100). Deze eigenschappen stellen een individu in staat om te gaan met de voortdurende veranderingen die zich gedurende zijn/haar loopbaan voordoen. Door innovatieve oplossingen te bedenken, kan de werknemer de uitdagingen in zijn/haar omgeving het hoofd bieden door beperkingen om te zetten in hulpbronnen (Di Fabio, 2014). Als een werknemer bovendien gelooft dat hij/zij vrij en onafhankelijk is om zijn job(inhoud) te structureren en te managen, zal dit resulteren in een hoger niveau van intrapreneurship. De organisatie kan het effect van autonomie versterken door duidelijk te communiceren en feedback te geven (Castrogiovanni et al., 2011; Heinonen & Toivonen, 2008).

Verder zal een werknemer met eerdere ondernemerservaring een lager niveau van intrapreneurship vertonen dan een werknemer zonder deze eerdere ondernemerservaring. De steun van het management voor idee-ontwikkeling en de toewijzing van vrije tijd om aan eigen projecten te werken, leiden evenmin tot een hoger niveau van intrapreneurship. Ondernemers zullen dus minder innovatief gedrag vertonen indien ze actief zijn als werknemer, zelfs indien de organisatie het ondernemerschap stimuleert. Als bijkomende analyse vindt deze studie dat jongere en/of grotere bedrijven leiden tot werknemers met een hoger niveau van intrapreneurship. Eerder onderzoek heeft aangetoond dat jongere bedrijven zich anders kunnen gedragen dan oudere bedrijven en dus meer ondernemend gedrag stimuleren (Kor, 2003). Grotere organisaties kunnen bovendien beschikken over meer kapitaal, schaalvoordelen en de steun van het hoofdkantoor. Deze middelen verbeteren hun mogelijkheden om te innoveren (Tasi, 2001).

Tenslotte kan self-efficacy, afhankelijk van de bedrijfsgrootte, intrapreneurship positief of negatief beïnvloeden. Self-efficacy is de overtuiging van een werknemer dat hij/zij zijn/haar job succesvol kan uitvoeren. Dit onderzoek concludeert dat het effect van het self-efficacy van teken verandert indien het kantelpunt van 329 werknemers bereikt wordt. Dit wil zeggen dat werknemers van organisaties met 329 of meer werknemers een hoger niveau van intrapreneurship zullen vertonen wanneer hun niveau van self-efficacy stijgt. Anderzijds zullen werknemers van organisaties met minder dan 329 werknemers een lager niveau van intrapreneurship vertonen wanneer hun niveau van self-efficacy stijgt. Dit onderzoek bevestigt dat het effect van het vertoonde gedrag zal verschillen tussen werknemers werkzaam in grote en kleine bedrijven. Dit kan veroorzaakt worden door de bureaucratie binnen grotere organisaties. Deze bureaucratie definieert duidelijke doelen voor alle werknemers. Als werknemer kunnen deze duidelijke instructies het makkelijker maken voor het individu om te geloven dat hij/zij het doel kan bereiken en zal dit resulteren in meer ondernemend gedrag. Een andere mogelijke verklaring zou de persoonlijke band met collega's in kleinere bedrijven kunnen zijn. Deze persoonlijke band kan onzekerheid veroorzaken omdat werknemers niet willen falen of teleurstellen in het bijzijn van collega's die men goed kent. Dit leidt tot een lager niveau van self-efficacy, maar zal hen stimuleren om beter te presteren en dus resulteren in een hoger

individueel niveau van intrapreneurship. Dit verband dient echter in toekomstig onderzoek verder onderzocht te worden.

De resultaten uit dit onderzoek kunnen praktisch geïmplementeerd worden en kunnen als leidraad dienen om een meer innovatieve onderneming te ontwikkelen waarin het ondernemend gedrag van het individu kan openbloeien. Daarnaast openen deze resultaten nieuwe mogelijkheden voor toekomstig onderzoek. Zo kan toekomstig onderzoek de link onderzoeken tussen het niveau van intrapreneurial self-capital en de leeftijd van werknemers aangezien eerder onderzoek aantoont dat intrapreneurial self-capital groeit naarmate mensen meer ervaring opdoen. Leidt een hogere leeftijd effectief tot meer intrapreneurial self-capital en uiteindelijk dus ook tot meer ondernemend gedrag van de werknemer?

Tot slot heeft dit onderzoek nog een interessant pad blootgelegd voor toekomstig onderzoek. Dit onderzoek richt zich op twee niveaus van voorspellers: individueel niveau en organisatieniveau. De literatuur concludeert echter dat voorspellers op teamniveau ook een belangrijke rol spelen bij innovatie en intrapreneurship (Peltokorpi & Hasu, 2014). Toekomstig onderzoek zou dit derde niveau van voorspellers kunnen opnemen om een meer holistisch beeld te krijgen van de verschillende niveaus van voorspellers van intrapreneurship op individueel niveau.

#### 1. Introduction

Firms need to look for ways to manage innovation and gain a competitive advantage to overcome difficulties, such as globalization, unstable labor markets, and frequent economic changes (Blanka, 2019). There are different ways to achieve innovation (Johnson, 2001). The employee's entrepreneurial level is seen as an important way for firms to attain innovation in research and practice (Blanka, 2019). This factor is explained by Veenker et al. (2008) as innovative employee behavior leading to firm growth and strategic renewal. Parker (2011) argues that human capital plays a significant role in determining the success of organizations. More specifically, Hart (1992) and Peters and Waterman (1984) argue that employees, more than ever, need to adopt a more entrepreneurial way of working. This entrepreneurial mindset of the employee can improve the firm's direction and performance in a changing environment. Intrapreneurship is widely used to describe the entrepreneurial mindset of an employee (Lambert, 2016).

Intrapreneurship, also known as entrepreneurship in an existing organization, is not easy to define in a single definition (Blanka, 2019; Gawke et al., 2019; Hornsby et al., 2013; Neessen et al., 2019). However, research shows that intrapreneurship can be divided into two main concepts: organizational-level intrapreneurship and individual-level intrapreneurship (Gawke et al., 2019). The majority of the research focuses on intrapreneurship on an organizational level.

Unlike organizational-level intrapreneurship, intrapreneurship at the individual level has hardly been studied. Moreover, the existing literature is scarce and fragmented (Blanka, 2019). There is no overall view of this concept (Neessen et al., 2019). Research nevertheless discussed different predictors to try to determine individual-level intrapreneurship. Like intrapreneurship, these predictors can also be situated at two different levels: the organizational-level and the individual-level (Neessen et al., 2019).

Neessen et al. (2019) state that research should examine the link between individual-level predictors and individual-level intrapreneurship because this link is an essential part of the entire construct of intrapreneurship. Besides that, previous research states that the organization-level predictors of entrepreneurship are often compared to organizational-level intrapreneurship and not to individual-level intrapreneurship (Covin et al., 2006; Neessen et al., 2019; Wiklund & Shepherd, 2005). Moreover, previous research either investigated the relationship between individual-level intrapreneurship and individual-level predictors or between individual-level predictors and organizational-level intrapreneurship. However, research never discussed the influence of both individual- and organizational-level predictors on individual-level intrapreneurship (Blanka, 2019). A combined approach of organizational- and individual-level predictors is an important step towards developing a holistic view of intrapreneurship (Blanka, 2019).

As concluded by the literature, the two different levels have not been combined in one study. Thus, previous literature has created a gap by only including predictors of one level in their study. Considering this gap, it is critical to specify the predictors at both levels in order to improve the

intrapreneurial level of the employee. This study will combine the predictors of the two levels to become a holistic overview of all predictors of individual-level intrapreneurship.

Using a multilevel model that incorporates individual and organizational factors, I will investigate the determinants of individual-level intrapreneurship to establish a holistic view of the predictors of intrapreneurship on the individual level. This study will overcome the gap that past research has developed as it studies the link between the predictors situated at different levels and the level of intrapreneurship. To gain knowledge about the topic and prepare for the empirical research, I will start with a literature review. I will use the existing literature and the empirical study to formulate an answer to the following question: What are the predictors of individual-level intrapreneurship?

#### 2. Literature review

#### 2.1. Intrapreneurship

To understand the concept of intrapreneurship, it is first necessary to clarify the term entrepreneurship. Entrepreneurship occurs at both the individual level and the organizational level and can also be described as the intention to innovate and to change the organizational formation. This behavior distinguishes entrepreneurs from non-entrepreneurs, who manage existing activities (Antoncic & Hisrich, 2003). The term innovation is crucial in determining entrepreneurship.

Innovation also plays a pivotal role in intrapreneurship, as intrapreneurship at its simplest and broadest can be explained as entrepreneurship within existing organizations (Antoncic & Hisrich, 2003). As Antoncic and Hisrich (2003) described, intrapreneurship occurs inside existing firms, no matter their size. Moreover, intrapreneurs can use the company's existing resources, operate within organizations, and work within organizations that already have their policies and bureaucracy (Baruah & Ward, 2015; Camelo-Ordaz et al., 2012). Compared to entrepreneurship, intrapreneurship also refers to creating new business ventures but can be interpreted much broader. For example, the development of new products, services, technologies, administrative techniques, strategies, and competitive postures also comprise intrapreneurship.

Most literature concludes that, in general, intrapreneurship covers concepts like innovativeness and proactiveness, but there is less agreement about the definition (Neessen et al., 2019). The already discussed literature confirms this. Moreover, the definition from Antoncic and Hisrich (2003) is different from the definition of Moriano et al. (2014) and Pinchot III (1987). Moriano et al. (2014) and Pinchot III (1987) say that intrapreneurship consists of bottom-up, proactive work-related activities of individual employees who can turn ideas into business success. In this study, I will follow the definition constructed by Neessen et al. (2019) since it incorporates various definitions into one consistent and reliable definition: "Intrapreneurship is a process whereby employee(s) recognize and exploit opportunities by being innovative, proactive and by taking risks, in order for the organization to create new products, processes, and services, initiate self-renewal or venture new businesses to enhance the competitiveness and performance of the organization" (Neessen et al., 2019, p. 551).

Despite the differences throughout different definitions, intrapreneurship has gained relevance in both academic literature as in practice due to the basic assumption that innovative employee behavior has a direct influence on the firm's performance (Dess et al., 1999; Kuratko & Audretsch, 2013; Veenker et al., 2008). However, the firm does not have control over this human capital as it walks out of the company every evening or when employees choose to switch jobs (Grant, 1996; Roos et al., 1997; Spender, 1996). It is essential to pay attention to this human capital to maintain or gain a competitive advantage.

As mentioned in the introduction, intrapreneurship can be divided into two main concepts: organizational-level intrapreneurship and individual-level intrapreneurship (Gawke et al., 2019). Antoncic and Hisrich (2003) distinguish two main streams in organizational entrepreneurship:

entrepreneurial orientation (EO) and corporate entrepreneurship (CE). The EO approach is based on the vision that innovation is an important factor in the dimension of strategy making (Wales, 2016). The CE approach is very similar to the EO approach but clearly distinguishes two main streams in which CE can result: new venture creations and the transformation of existing organizations through strategic renewal (Guth & Ginsberg, 1990). Both EO and CE are situated at the organizational level of the company (figure 1). Both the top-down as the bottom-up approach is needed because innovation can only be realized by involved individuals, and "it also involves the organization as a given process parameter" (Menzel et al., 2007, p. 734). The top-down approach is also known as organizational-level intrapreneurship, whereas the bottom-up approach is known as individual-level intrapreneurship.

According to Blanka (2019), the bottom-up approach consists of intrapreneurship and entrepreneurship. However, this study makes use of the definition of Neessen et al. (2019) to determine intrapreneurship. Considering figure one, Neessen et al. (2019) state that intrapreneurship is indeed situated at the bottom-up level. However, they state that intrapreneurs can act innovatively in existing organizations as in new ventures. Following the definition of Neessen et al. (2019), we expand the model constructed by Blanka (2019) conform to the relevant definition constructed by Neessen et al. (2019).

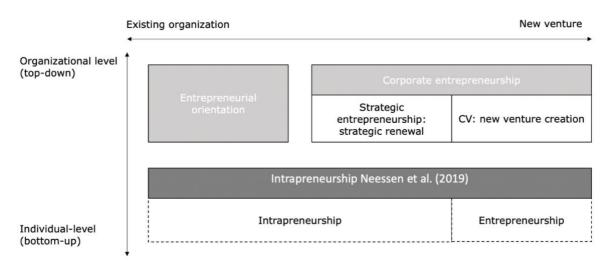


Figure 1: Different levels of intrapreneurship

based on the work of Antoncic and Hisrich (2003); Blanka (2019); Bouchard and Basso (2011); Kuratko and Audretsch (2013); Neessen et al. (2019); Rigtering and Weitzel (2013).

# 2.2. Why is organizational-level intrapreneurship different from individual-level intrapreneurship?

Organizational-level intrapreneurship has already broadly been studied. It is not surprising that much research in the last decades has been done at the organizational level since most literature focuses on entrepreneurship in organizations (Covin & Slevin, 1991). On the other hand, research in individual-level intrapreneurship is much more scarce and fragmented (Blanka, 2019). Furthermore, Neessen et al. (2019) find that individual-level intrapreneurship can be influenced by two different levels: organizational-level and individual-level.

Both these levels can influence the level of intrapreneurship. They act like 'predictors' to recognize when people act intrapreneurial. The predictors on an organizational and individual level need to be clarified. Organizational-level predictors are focused on the measures that an organization can take in order to stimulate intrapreneurship. The individual-level predictors are focused on the measures an individual can take to improve his/her own intrapreneurial level.

Following this thought, it is crucial to do research to specify all the predictors to improve the employee's intrapreneurial level. As already explained, this has many advantages for the organization and its competitive advantage (Antoncic, 2007).

These predictors influence the individual-level intrapreneurship by two levels: the individual level and the organizational level (Neessen et al., 2019). I will dig deeper into these different levels in the follow-up of this literature review. This will result in a holistic view of the concept as a starting point for my empirical study to finally become an answer to the following question: "What are the predictors of intrapreneurship on the individual level?".

#### 2.3. The predictors of individual-level intrapreneurship

Literature has already tried to determine factors that could predict the individual-level intrapreneurship. However, they focused on one dimension, for example, Chuang et al. (2016), M. A. Hernandez (2019) and (Kor, 2003). To ascertain a holistic view, it is necessary to determine the predictors on multiple levels in one study. This will result in a conceptual model that will empirically test the predictors of individual-level intrapreneurship.

### 2.4. Organizational factors

The first predictors are situated at the organizational level. Organizations play an important role in determining the intrapreneurial outcome of the employee (Dess et al., 1999). Human capital and organizational support for intrapreneurial activities have become essential research areas over the last three decades (Alpkan et al., 2010). However, most studies did not include these different models in one study (Alpkan et al., 2010). Based on the research by Alpkan et al. (2010), I will include three different parameters on the organizational level: management support for idea development, allocation of free time to work on own projects, and tolerance for risk-taking.

#### Management support for idea development

Barringer and Bluedorn (1999); Jeong et al. (2006); Slevin and Covin (1990) and Zahra (1991) argue that firms can deal with the rapidly changing market conditions if they implement an internal support climate for their employees so they can seek for and discover difficulties and essential opportunities. When these efforts are supported and coordinated by managers, it will result in sustainable competitive advantages through innovation in the form of new products, services, and processes, or in a combination of the three (Quinn, 1985; Brentani, 2001; Hornsby et al., 2002). This phenomenon is known as management support for idea development and can be described as "encouragement of entrepreneurial idea generation and development" (Alpkan et al., 2010, p. 735).

Kuratko and Montagno (1989) argue that management support for idea development is essential to stimulate the employee's intrapreneurial level. The top-down support of managers is an important key factor to realize intrapreneurship (Hornsby et al., 2002). It also improves the individual's performance and efficiency for innovative behavior (Alpkan et al., 2010). In general, management support for idea development does influence the intrapreneurial behavior of the employee. This results in the preparedness to implement these new ideas, detect new opportunities, and take more risks (Stevenson & Jarillo, 1990). Therefore, I propose the following hypothesis:

**Hypothesis 1:** The greater the management support for idea development, the higher the level of individual-level intrapreneurship.

#### Allocation of free time to work on own projects

Another predictor that can influence the individual-level intrapreneurship is the allocation of free time to work on own projects. This reflects the availability of free time during the working hours to work on the development of own projects (Brazeal, 1993; Fry, 1987; Kuratko et al., 1990; Pinchot III, 1985; Schuler, 1986). The organization's resources like information and equipment facilitate the intrapreneurial spirit of the employee, but the allocation of free time is far more crucial since most passionate intrapreneurs develop their ideas in their spare time (Van den Ende et al., 2003). Literature thus agrees that this spare time has a major influence on their daily tasks inside the organization and their behavior inside the organization (Fry, 1987; Pinchot III, 1985). Moreover, it stimulates the employees to take risks and to realize innovative ideas inside the organization (Burgelman, 1984; Fry, 1987; Hornsby et al., 2002; Sundbo, 1999). Therefore, I propose the following hypothesis:

**Hypothesis 2:** The greater the allocation of free time to work on own projects, the higher the level of individual-level intrapreneurship.

#### **Tolerance for risk-taking**

The last predictor that will be included in the proposed model and thus can influence the individual-level intrapreneurship on an organizational level is the tolerance for risk-taking. It can be described as the preparedness of employees to take risks and the top-down managers' attitude to encourage this risk-taking mindset and show innovative behavior (Alpkan & Kaya, 2004; Hornsby et al., 1999; Hornsby et al., 2002; Stopford & Baden-Fuller, 1994). On the contrary, a risk-averse approach of higher management will lead to a more risk-averse mentality of the employees. This will be reflected in the innovative performance of the firm (Gupta et al., 2004). The organization's goal is to create a safe environment where employees are not afraid to make mistakes. Therefore, it is necessary not to punish them but help them improve and correct their mistakes (Lumpkin & Dess, 1996; McCabe et al. 1986). Therefore, I propose the following hypothesis:

**Hypothesis 3:** The greater the tolerance for risk-taking, the higher the level of individual-level intrapreneurship.

#### 2.5. Individual factors

Human capital plays a major role in determining the success of organizations (Parker, 2011). However, Rigtering and Weitzel (2013, p. 342) state that the decision to show intrapreneurial behavior still has to be made by the individual. Based on the definition provided by Neessen et al. (2019), it is clear that individual factors influence the employee's innovative performance. This section will focus on four individual-level predictors: self-efficacy, intrapreneurial self-capital, autonomy, and prior entrepreneurial experience.

#### **Self-efficacy**

The first predictor of individual-level intrapreneurship can be defined as self-efficacy. Self-efficacy can be described as "a person's perceived ability to show particular behavior or fulfill certain tasks" (Blanka, 2019, p. 929). It is the person his own belief that he or she can succeed in a job (Kardong-Edgren, 2013). Literature suggests that self-efficacy can be influenced by skills, the application, and the feedback on these skills. This states that self-efficacy is not only the result of performance but also determines the level of performance in the future (Blanka, 2019). Wood and Bandura (1989) conclude that the result of people with the same skill can differ depending on their level of self-efficacy. People with a higher level of self-efficacy will outperform the ones with a lower level. Even if they have the same skill level (Wood & Bandura, 1989). This can be explained by the higher persistence level to complete the task compared to a lower persistence when self-efficacy is low (Bandura, 1977). Most studies conclude that self-efficacy is closely linked to entrepreneurial outcomes (Chen et al., 2001; Hmieleski & Corbett, 2008). Therefore, I propose the following hypothesis:

**Hypothesis 4:** The greater the level of self-efficacy, the higher the level of individual-level intrapreneurship.

### **Intrapreneurial self-capital**

Intrapreneurial self-capital is a concept constructed by Di Fabio (2014). Intrapreneurial self-capital provides employees with personal resources, like specific skills, to deal with the rapidly changing environment and find innovative solutions. It can specifically be defined as "the positive self-evaluation of the self-concept characterized by one's own ability to be committed, to identify significant objectives, to feel in control over life events, to solve problems creatively, to change constraints into resources, to develop one's skills, to apply decision-making skills to every aspect of life, and to make decisions carefully and rationally" (Di Fabio, 2014, p. 100). In contrast to self-efficacy, self-capital focuses on the employee's skills rather than on the behavior an employee displays. Moreover, there is a clear link between the employee's innovative performance and the level of intrapreneurial self-capital (Duradoni & Di Fabio, 2019). More specifically, intrapreneurial self-capital consists of skills obtained by individual intrapreneurs during their life. These skills allow the employee to deal with changes inside the organization by coming up with innovative solutions. This performance reflects the level of individual-level intrapreneurship (Duradoni & Di Fabio, 2019). Therefore, I propose the following hypothesis:

**Hypothesis 5:** The greater the level of intrapreneurial self-capital, the higher the level of individual-level intrapreneurship.

#### **Autonomy**

Recent research by Alireza Feyzbakhsh et al. (2008); Castrogiovanni et al. (2011); Globocnik and Salomo (2015) and Jong et al. (2015) say that autonomy refers to the employee's possibility to make decisions about his work and processes, which he carries out. Therefore, autonomy is essential in developing an intrapreneurial mindset for an employee (Alireza Feyzbakhsh et al., 2008; Castrogiovanni et al., 2011; Globocnik & Salomo, 2015; Jong et al., 2015). In other words, when an employee has the belief that he is free and independent to structure and manage his job, it can result in intrapreneurial behavior (Hernandez, 2019). Communication and feedback are important factors in facilitating this process (Castrogiovanni et al., 2011; Heinonen & Toivonen, 2008). Moreover, autonomy gives the employee the freedom he needs to develop creative ideas and behave proactively within the organization (Jong et al., 2015; Neessen et al., 2019). Therefore, I propose the following hypothesis:

**Hypothesis 6:** The greater the level of autonomy, the higher the level of individual-level intrapreneurship.

# **Prior entrepreneurial experience**

Each person has dealt with difficult situations in their lifetime. Both in their family life, during education, as in their work environment (Miralles et al., 2016). All experiences an employee has had will influence an employee's expectations and perceptions towards intrapreneurial behavior (Carr & Sequeira, 2007; Kautonen et al., 2011). Luchsinger and Bagby (1987) argue that both entrepreneurship and intrapreneurship heavily depend on innovative processes. However, whereas an entrepreneur carries his own financial risks, the intrapreneurs financial risks are carried by the organization (Luchsinger & Bagby, 1987). Literature seem to confirm that prior entrepreneurial experience can be used as an asset by the employee (Politis, 2005). Thus, it will influence their intrapreneurial behavior (Miralles et al., 2016). Cadar and Badulescu (2015) conclude that entrepreneurs have a set of good business practices that gives them the personality to innovate quickly in organizations, not only for the benefit of the latter, but also for the benefit of the clients. Research has consensus that prior experience leads to higher levels of intrapreneurship (Burke et al., 2018; Cadar & Badulescu, 2015; Luchsinger & Bagby, 1987; Zenovia & Maier, 2011). Therefore, I propose the following hypotheses:

**Hypothesis 7:** Prior entrepreneurial experience leads to a higher level of individual-level intrapreneurship.

### 3. Methodology

#### 3.1. Data collection

To conduct the survey, I contacted companies that are active in different industries and fit the requirements for the data collection (Fitzsimmons et al., 2005). This survey was conducted online through Qualtrics. This approach resulted in 377 answers. After correcting for missing values, errors and outliers, 271 answers remained. Thus, the sample used in this study consists of 271 employees. The survey consists of 138 men (50,9%) and 133 women (49,1%), with an average age of 40. All these employees are employed in small, medium or large companies.

In order to achieve a realistic sample, employees from start-ups are not included in this research. Start-ups are excluded because innovation is much more often realized by startups than by incumbents (Zhao, 2013). This innovative behavior of startups could impact the dataset and can result in a distorted view. Literature does not have consensus about the definition of a start-up (Skala, 2019). Blank and Dorf (2012) describe a start-up as "a temporary organization in search of a scalable, repeatable, profitable business model" (Skala, 2019, p. 57). Intrapreneurship is defined as a state of the organization and not as a number of employees or firm age because this can give an inaccurate result. A start-up is the initial phase of the business while implementing innovation (Skala, 2019). All the hypotheses and industry-level moderators of this study are displayed in figure 2. This model, which is constructed based on the literature, will be used in the empirical research to determine if the predictors influence the intrapreneurial level of the employee.

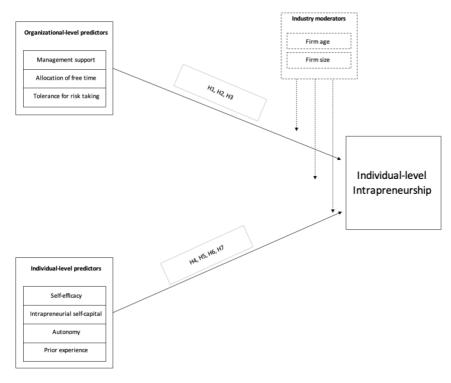


Figure 2: Theoretical model and hypotheses

#### 3.2. Measurements

# 3.2.1. Independent variables

**Management support for idea development** is measured using a 7-point Likert scale using four items derived from Hornsby et al. (2013) with a Cronbach Alpha of 0,841. These four measures are selected based on the study of Alpkan et al. (2010) and represent the willingness of the top management to promote entrepreneurial behavior and risk-taking behavior (Hornsby et al., 2013).

**Allocation of free time to work on own projects** is measured using a 7-point Likert scale using three items derived from Alpkan et al. (2010) with a Cronbach Alpha of 0,813. They derived these measures from Hornsby et al. (1992) and adapted them to specifically measure the allocation of free time to work on their own projects.

**Tolerance for risk-taking** is measured using a 7-point Likert scale using four items derived from Alpkan et al. (2010) with a Cronbach Alpha of 0,864. These items are also derived from Hornsby et al. (1992) in order to measure the tolerance for risk-taking specifically.

**Self-efficacy** is measured using a 7-point Likert scale using fourteen items derived from Sherer et al. (1982). Sherer et al. (1982) constructed the self-efficacy scale, which consists of twenty-three items. However, based on the study of Luthans and Ibrayeva (2006), which studied self-efficacy within an entrepreneurial context, only fourteen items were used that related to entrepreneurial self-efficacy. The focus of this study is in line with Luthans and Ibrayeva (2006) as we also focus on the items related to the entrepreneur's efficacy to start and manage the business, learn, and interact with other entrepreneurs and business partners.

**Intrapreneurial self-capital** is measured using a 7-point Likert scale using the Intrapreneurial Self-Capital Scale (ISCS) with a Cronbach Alpha of 0,843. The ISCS consists of 28 items derived from Di Fabio (2014). It measures all seven specific dimensions of intrapreneurial self-capital (Di Fabio, 2014). Namely, core self-evaluation, hardiness, creative self-efficacy, resilience, goal mastery, decisiveness and vigilance (Di Fabio, 2014).

**Autonomy** is measured using a 7-point Likert scale using nine items derived from Breaugh (1999) with a Cronbach Alpha of 0,889. The Work Method Autonomy Scale (WMA), constructed by Breaugh (1999), contains items that cover three dimensions of autonomy. Namely, work method, work scheduling and work criteria. Although the WMA scale is not frequently used, the three dimensions: work method, work scheduling, and work criteria autonomy are often seen as key elements to determine autonomy (Denton & Kleiman, 2001; Lumpkin et al., 2009; Stavroulakis, 1997).

**Prior entrepreneurial experience** is measured by asking individuals if they had ever started a business (Farmer et al., 2011). This is measured using a dummy variable where yes is coded with a 1 and no is coded with a 0.

#### 3.2.2. Dependent variables

There are different methods to measure intrapreneurship. Various studies tried to determine individual-level intrapreneurship (Blanka 2019; Di Fabio, 2014; and Gawke et al., 2019). Blanka (2019) focuses on the behavior of employees and Di Fabio (2014) focuses on the skills of employees. The measurement constructed by Gawke et al. (2019), is called the employee intrapreneurship scale (EIS) and distinguishes between three approaches to identify employee intrapreneurship: the entrepreneurial orientation approach, the intrapreneurial outcomes approach, and the behavior-based approach. In their study, they use the behavior-based approach, which focuses, as the name suggests, on the employee's behavior. Gawke et al. (2019) include two concepts, employee venture behavior and strategic renewal behavior. Employee venture behavior aims to develop new products for example, whereas strategic renewal behavior aims to improve the existing products or services, for example. The method constructed by Gawke et al. (2019) includes different approaches in one method. This will result in a more realistic and more correct measurement of individual-level intrapreneurship. Because of the extensive measurement of the EIS, this measurement method covers more aspects of intrapreneurship than the measurement methods of Blanka (2019) and Di Fabio (2014).

Thus, individual-level intrapreneurship is measured using a 7-point Likert scale using fifteen items derived from Gawke et al. (2019).

#### 3.2.3. Moderators

The firm-level moderators firm age and firm size are related to intrapreneurship (Kanter, 1984; Medase, 2020; Miles & Arnold, 1991; Pinchot III, 1985). Firm age can be explained as the number of years since the firm's inception. This moderator is included since prior research has established that younger firms can act differently compared to other firms (Kor, 2003). Moreover, the different stages in which a firm is situated at a moment influence its behavior (Kor, 2003). On the other hand, firm size is included because larger firms may have benefits over smaller firms. This is measured by the number of employees of a firm. For example, they may have more capital, economies of scale, and scope. These resources improve their possibilities to innovate (Tasi, 2001). Moreover, large firms have advantages in gaining the headquarters' support for their innovative activities. This stimulates their innovative performance and so intrapreneurship (Soriano et al., 2012).

#### 3.2.4. Control variables

This model involves a number of control variables that may have an effect on the dependent variable. The control variables are added to the regression model not only because they can have an effect on the result of the dependent variable, but also because they are related to the independent variable and thus can provide a more accurate result. This study includes five control variables: gender, degree, number of years of experience, number of months of experience in the current job and age.

The control variables are based on the studies from Lee et al. (2011), Dobrev and Barnett (2005) and Gawke et al. (2019). The control variable gender is measured using a dummy variable where man is coded as 0 and woman is coded as 1. Degree is measured on a scale from 1 until 6 (1=PhD, 2=master, 3= academic bachelor, 4= professional bachelor, 5= high-school degree, 6= other). Number of years of experience, number of months of experience in the current job and age are measured as absolute numbers.

## 4. Empirical study

### 4.1. Descriptive statistics

This sample, with an N of 271, consists of nearly an equal number of men (50,9%) and women (49,1%). Moreover, the sample consists of a variety of employees between 21 and 67 years old and an experience between 0 and 50 years. The firms included in this sample vary from 3 to 127 years old and a number of employees between 10 and 5437. Because of the large variety in total months of experience in current job, firm age and firm size, I will continue with the ln(x) of these variables in order to take into account these large differences. This is common used in research (Evans, 1987; Yasuda, 2005).

Table 1: Descriptives

	Ν	Minimum	Maximum	Mean	Std. Deviation
Gender	271	0	1	0,49	0,501
Degree	271	1	6	3,01	1,319
Total years of experience	271	0	50	16,88	11,37
Months of experience in current job*	271	1	595	61,63	80,530
Age	271	21	67	39,94	11,093
Firm age*	271	3	127	79,70	46,050
Firm Size*	271	10	5437	683,23	1013,889
Management support for idea development	271	1	7	2,57	1,050
Allocation of free time to work on own projects	271	1	7	4,10	1,385
Tolerance for risk-taking	271	1	7	3,58	1,194
Self-efficacy	271	4	7	5,74	0,727
Intrapreneurial self-capital	271	2	4	2,80	0,534
Autonomy	271	1	6	2,68	0,861
Prior entrepreneurial experience	271	0	1	0,18	0,382
Intrapreneurial orientation	271	1	7	3,66	1,127

Notes: \* In the linear regression, the Ln of the variable is taken.

#### 4.2. Correlation

Correlation is the statistical relationship between two quantities. The strength of this correlation is expressed as a correlation coefficient (Asuero et al., 2006). However, a certain degree of statistical correlation does not necessarily mean that there is indeed a causal relationship between the two variables. Thus, it is not possible to define cause and effect on the basis of this correlation (Taylor, 1990). Table 2 concludes that there is no multicollinearity between the variables. Multicollinearity is the linear relationship between two variables (Alin, 2010). This benefits the different regression models because the variables involved do not have large variances (Mansfield & Helms, 1982). Moreover, interaction terms were not added in Table 2, this is because interaction terms consist of two variables already included in the correlation table. Thus, interaction terms automatically have a chance of being more correlated with certain other variables.

Table 2: Correlations

	Intraprene urial orientation	Management support for idea development	Allocation of free time to work on own projects	Toleranc e for risk- taking	Self- efficacy	Intrapren eurial self- capital	Autonomy	Prior entrepreneuri al experience	Ln(Firm age)	Ln (Firm size)	Gende r	Degree	Years of experienc e	Ln(month s of experienc e in current job)	Ag e
Intrapreneuria I orientation Management support for idea	0,216**	1													
development Allocation of free time to work on own	0,189**	0,312**	1												
projects Tolerance for risk-taking	0,296**	0,572**	0,296**	1											
Self-efficacy	-0,276**	-0,096	-0,170**	-0,036	1										
Intrapreneuria I self-capital	0,481**	0,360**	0,311**	0,241**	- 0,611* *	1									
Autonomy	0,319**	0,415**	0,225**	0,387**	- 0,181* *	0,410**	1								
Prior entrepreneuri al experience	-0,287**	-0,058	-0,097	0,022	0,060	-0,169**	-0,028	1							
Ln(Firm age)	0,001	0,050	-0,037	-0,039	0,068	-0,041	-0,063	-0,234**	1						
Ln(Firm size)	0,068	-0,009	-0,104	0,023	0,042	-0,091	-0,038	-0,152*	0,475* *	1					
Gender	0,167**	-0,029	0,148*	0,063	-0,036	0,107	0,101	-0,030	0,028	0,033	1				
Degree	-0,094	0,010	0,056	0,005	-0,064	-0,015	-0,047	0,012	-0,079	0,043		1			
Years of experience	-0,040	-0,048	-0,061	0,044	0,149*	-0,166**	-0,084	0,128*	0,134*	0,040	-0,062	- 0,164* *	1		
Ln(months of experience in	0,070	0,057	0,134*	0,036	0,005	0,052	0,012	-0,042	0,282* *	0,151 *	0,034	- 0,221* *	0,446**	1	
current job) Age	-0,033	-0,003	-0,045	0,076	0,141*	-0,154*	0,027	0,138*	0,146*	0,054	-0,079	-0,146*	0,963**	0,453**	1

### 5. Results

To test the hypotheses that were constructed based on the literature, I used multiple regression analyses (see Table 3 and 4). The intrapreneurial level of the employee is used as the dependent variable throughout all the regression analyses. Table 3 measures the effect of the organizational-level variables on individual-level intrapreneurship and table 4 measures the effect of the individual-level variables on individual-level intrapreneurship. For both organizational- and individual-level, the four same models were tested. The first model only includes the five control variables. Model two includes the independent variables. The third model adds two moderators, firm age and firm size. Last, the fourth model finally includes the different interactions between the independent variables and the moderators. All models are significant, which means that the constructed models are adequate and correct.

#### 5.1. Organizational-level predictors

The first regression model, displayed in table 3, tests hypotheses 1 to 3. These hypotheses are based on the three organizational-level predictors: management support for idea development, allocation of free time to work on own projects and tolerance for risk-taking. This linear regression tests the effect of the different organizational-level predictors, the moderators and their interactions on the dependent variable, individual-level intrapreneurship. The R-square indicates the level of variability of the model. Table 4 shows that this ranges from 4,4 percent in model 1 to 17,1 percent in model 4.

The first hypothesis shows a contradictory result to the proposed hypothesis. Management support for idea development has a p-value of 0,425 which means that management support for idea development does not statistically influence individual-level intrapreneurship. Hypothesis two also shows a contradictory result. This study finds no statistical proof that the allocation of free time to work on own projects positively influences the individual-level intrapreneurship. Allocation of free time to work on own projects has a p-value of 0,237.

Model 2 indicates that hypothesis 3 can be confirmed. With a p-value of 0,001, tolerance for risk-taking significantly influences the intrapreneurial level of an employee. More precise: the higher the tolerance for risk-taking, the higher the level of individual-level intrapreneurship.

Finally, models 3 and 4 were constructed as additional analyses but show no significant results. No interaction shows a significant result. This means that firm age and firm size do not significantly influence the effects of the organizational-level predictors on individual-level intrapreneurship.

Table 3: Linear regression organizational-level predictors

Variables	Model 1	Model 2	Model 3	Model 4
Gender	0,359**	0,298**	0,294**	0,227**
Degree	-0,074	-0,081	-0,089**	-0,080
Total years of	-0,019	-0,003	-0,002	-0,003
experience				
Ln(months of	0,067	0,050	0,045	0,065
experience in current				
job)				
Age	0,011	-0,005	-0,006	-0,006
Management support		0,062	0,070	-0,682**
for idea development				
Allocation of free time		0,061	0,069	-0,284
to work on own				
projects				
Tolerance for risk-		0,223**	0,212**	0,858**
taking				
Ln(firm age)			-0,058	-0,187
Ln(firm size)			0,080	0,012
Ln(firm age) x				0,066
Management support				
for idea development				
Ln(firm size) x				0,087
management support				
for idea development				
Ln(firm age) x				-0,011
Allocation of free time				
to work on own				
projects				
Ln(firm size) x				0,065
allocation of free time				
to work on own				
projects				
Ln(firm age) x				-0,007
tolerance for risk-				
taking				
Ln(firm size) x				-0,108
tolerance for risk-				
taking				
Notes: *n<0 1: **n<0 (	95. Unstandardized regr	ession coefficients are di	isnlaved	

Notes: \*p<0,1; \*\*p<0,05; Unstandardized regression coefficients are displayed

# Model performance

R Square	0,044	0,134	0,141	0,171
ANOVA p-value	0,035	<0,001	<0,001	<0,001

#### 5.2. Individual-level predictors

The second regression model, displayed in table 4, tests hypotheses 4 to 7. These hypotheses are based on the four individual-level predictors: self-efficacy, intrapreneurial self-capital, autonomy and prior entrepreneurial experience. This linear regression tests the effect of the different individual-level predictors, the moderators and their interactions on the dependent variable, individual-level intrapreneurship. The R-square indicates the level of variability of the model. Table 4 shows that this ranges from 4,4 percent in model 1 to 35,3 percent in model 4.

The fourth hypothesis shows a contradictory result to the proposed hypothesis. Self-efficacy has a p-value of 0,750, which means that self-efficacy does not statistically influence individual-level intrapreneurship. Whereas the hypothesis predicted a positive effect, this study finds a negative effect.

The seventh hypothesis considering prior entrepreneurial experience shows a contradictory result to the proposed hypothesis. The negative unstandardized B value (-0,662) and p-value of <0,001 mean that an employee with no prior entrepreneurial experience has a higher level of individual-level intrapreneurship than an employee with prior entrepreneurial experience. On average, an employee with no prior entrepreneurial experience scores 0,662 higher on individual-level intrapreneurship. Finally, hypotheses five and six are both accepted with a respective p-value of 0,015 and <0,001. This means that the higher the level of intrapreneurial self-capital and/or autonomy, the higher the level of individual-level intrapreneurship.

Models 3 and 4 were constructed as additional analyses. Model 3 indicates that the moderator firm age has a negative significant effect on the dependent variable, individual-level intrapreneurship and firm size has a positive significant effect. This means that the larger the firm (more employees) and/or the younger the firm, the higher the level of individual-level intrapreneurship. Firm age and firm size have a p-value of respectively 0,096 and 0,043.

Finally, table 4 shows that there is one significant interaction with a p-value of 0,035. This interaction measures the effect of self-efficacy on individual-level intrapreneurship and how it is influenced by firm size. To interpret this interaction, I constructed the following formula:

 $Intrapreneurship = intercept + b\`{e}ta \ ln(firm \ size) * ln(firm \ size) + (b\`{e}ta \ self \ efficacy + b\`{e}ta \ interaction \\ * ln(firm \ size)) * self \ efficacy$ 

 $Intrapreneurship = 6.95 - 0.570 * \ln(firm size) + (-6.95 + 0.120 * \ln(firm size)) * self efficacy$ 

This formula permits to visualize the effect of self-efficacy on intrapreneurship for a specific firm size. More concrete, this formula demonstrates that when In(firm age) is greater than 5,79, a higher level of self-efficacy leads to a higher level of individual-level intrapreneurship. This effect is visualized in figure 3. Three different firm sizes are visualized: minimum, maximum and mean. Figure 3 indicates that firms with few employees (minimum firm size) will experience declining intrapreneurial behavior when self-efficacy rises. On the contrary, firms with many employees (maximum firm size) will experience increasing intrapreneurial behavior when self-efficacy rises.

I can conclude that in larger organizations with more than 329 employees, a higher level of self-efficacy has a positive impact on individual-level intrapreneurship. On the contrary, in smaller organizations with less than 329 employees, a higher level of self-efficacy has a negative effect on individual-level intrapreneurship.

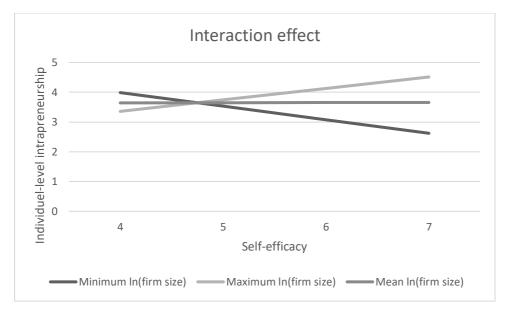


Figure 3: Interaction effect

Table 4: Linear regression individual-level predictors

	Model 1	Model 2	Model 3	Model 4
Gender	0,359**	0,244**	0,240**	0,231**
Degree	-0,074	-0,059	-0,068	-0,069
Total years of experience	-0,019	0,004	0,004	7,283E-6
Ln(months of experience in current job)	0,067	-0,008	-0,004	0,015
Age	0,011	0,003	0,003	0,006
Self-efficacy		-0,032	-0,020	-0,991**
Intrapreneurial self- capital		0,777**	0,806**	-0,413
Autonomy		0,193**	0,185**	0,596*
Prior entrepreneurial experience		-0,662**	-0,675**	-1,111
Ln(firm age)			-0,116*	0,200
Ln(firm size)			0,103**	-1,535
Ln(firm age) x Self- efficacy				-0,055
Ln(firm size) x Self- efficacy				0,120**
Ln(firm age) x Intrapreneurial self- capital				0,125
Ln(firm size) x Intrapreneurial self- capital				0,131
Ln(firm age) x Autonomy				-0,139
Ln(firm size) x Autonomy				0,022
Ln(firm age) x prior entrepreneurial experience				0,026
Ln(firm size) x prior entrepreneurial experience				0,053
Notes: *n<0 1: **n<0 1	05: Unctandardized	regression coefficients	are displayed	

Notes: \*p<0,1; \*\*p<0,05; Unstandardized regression coefficients are displayed

Model performance				
R Square	0,04	0,316	0,329	0,353
ANOVA p-value	0,035	<0,001	<0,001	<0,001

#### 6. Discussion and paths for future research

Based on a thorough literature review, seven hypotheses were established. Two different regression models were used to test these hypotheses. Table 5 gives a summary of all the hypotheses.

Table 5: Hypthoses

No	Hypothesis	Regression model	Effect
1	Management support for idea development	Table 3	Negative
2	Allocation of free time to work on own projects	Table 3	Negative
3	Tolerance for risk-taking	Table 3	Positive**
4	Self-efficacy (interaction)	Table 4	Negative / Positive**
5	Intrapreneurial self-capital	Table 4	Positive**
6	Autonomy	Table 4	Positive**
7	Prior entrepreneurial experience	Table 4	Negative**

*Notes:* \* *p*<0,1; \*\* *p*<0,05

Barringer and Bluedorn (1999); Jeong et al. (2006); Slevin and Covin (1990) and Zahra (1991) argue that firms can deal with the rapidly changing market conditions if they implement an internal support climate for their employees so they can seek for and discover difficulties and essential opportunities. Thus, the literature has consensus that management support for idea development leads to a higher level of individual-level intrapreneurship. However, this study finds a contradictory result. This result is in contrast with all the discussed literature but supports the other findings in this study. Hypothesis 7 also shows a contradictory result to the proposed hypothesis. Prior entrepreneurial experience has a negative significant effect on individual-level intrapreneurship. This means that people with a prior entrepreneurial experience will show a lower intrapreneurial behavior. This clearly indicates that entrepreneurs put their efforts in their own businesses and ideas and do not continue to show this behavior as an employee. Moreover, hypothesis 2 shows a contradictory result to the proposed hypothesis. This concludes that employees that get free time to work on own projects, will show lower intrapreneurial behavior. It is essential to say that this is not statistically confirmed.

It is remarkable that these hypotheses show a contradictory result. However, they all indicate and support one essential finding: stimulating entrepreneurship and entrepreneurial experience will not result in higher individual-level intrapreneurship. On the contrary, this research even states that it lowers the intrapreneurial behavior of an employee. It makes clear that being an entrepreneur and stimulating entrepreneurship will not create an advantage for the organization, but on the contrary will lead to lower innovative output as a result of the lower level of intrapreneurship.

Companies should focus more on enhancing the intrapreneurial mindset of an employee and should focus less on the entrepreneurial mindset. Managers should focus on attaining intrapreneurs instead

of entrepreneurs. This study finds that letting intrapreneurs make mistakes, take risks and deal with them, will lead to far more innovative and intrapreneurial behavior than letting them focus on their own entrepreneurial activities. However, if companies create an ownership feeling between the entrepreneur and the organizations, it could lead to higher innovative behavior as entrepreneurs want to be accountable for their work. Luchsinger and Bagby (1987) state that companies need to combine the best of both worlds. They need to attract intrapreneurs, but learn them to follow principles of entrepreneurship, like risk-taking. Future research could further explore the link between entrepreneurship and intrapreneurship as this study shows a contradictory result to previous research.

Hypothesis 3 is accepted and thus supports the discussed literature (Burgelman, 1984; Fry, 1987; Hornsby et al., 2002; Sundbo, 1999). A higher level of tolerance for risk-taking leads to a higher level of individual-level intrapreneurship. To accomplish this, it is necessary not to punish the employees but instead help them improve and correct their mistakes.

Also, hypotheses 5 and 6 are accepted and both support the discussed literature (Alireza Feyzbakhsh et al., 2008; Castrogiovanni et al., 2011; Di Fabio, 2014; Duradoni & Di Fabio, 2019; Globocnik & Salomo, 2015; Jong et al., 2015). This means that a higher level of intrapreneurial self-capital and autonomy result in higher level of intrapreneurial behavior. In other words, when an employee has the belief that he is free and independent to structure and manage his job, it results in intrapreneurial behavior (Hernandez, 2019). Communication and feedback are key factors to realize this higher level of individual-level intrapreneurship (Castrogiovanni et al., 2011; Heinonen & Toivonen, 2008). On the other hand, a higher level of intrapreneurial self-capital provides employees with more personal resources, like specific skills, to deal with the rapidly changing environment and find innovative solutions. These skills are obtained during the lifetime of the intrapreneur (Duradoni & Di Fabio, 2019). As self-capital is obtained from experience, future research could investigate the link between an employee's age and the level of intrapreneurial self-capital.

As an additional analysis, this study finds that firm age negatively influences intrapreneurship and firm size positively influences intrapreneurship. Employees from younger and/or larger firms will show a higher level of individual-level intrapreneurship. Prior research has established that younger firms can act differently compared to other firms and thus show more intrapreneurial behavior (Kor, 2003). Larger organizations may have more capital, economies of scale, and scope and the support of the headquarters. These resources improve their possibilities to innovate (Tasi, 2001).

Whereas self-capital focusses on the skills of the employee, self-efficacy focusses on the behavior employees show. It is the person his own belief that he or she can succeed in a job (Kardong-Edgren, 2013). The interaction effect from figure 3 shows the effect from the moderator firm size on the effect of self-efficacy on individual-level intrapreneurship. I can conclude that self-efficacy can positively influence intrapreneurship. However, this is only true from a particular firm size. Employees will show lower intrapreneurial behavior when they score higher on self-efficacy if they are employed in firms with less than 329 employees. From 329 employees, the effect of self-efficacy on intrapreneurial behavior is positive and increases with the firm size.

I can conclude that in larger organizations with more than 329 employees, it is essential to let people focus on their self-efficacy. In other words, it is vital that they belief that they can succeed in their job. Self-efficacy focuses on the behavior of the employee. This research confirms that the effect of the shown behavior will vary between employees employed in large or small firms. This can be caused by the bureaucracy larger organizations have. This bureaucracy clearly defines goals for all employees. As an employee, these straightforward instructions may make it easier for the individual to belief that he/she can attain this goal and will result in higher intrapreneurial behavior. Another possible explanation could be the personal bonds with colleagues in smaller firms. This personal connection can cause uncertainty because people may not want to disappoint or fail in front of people they know well. This leads to a lower level of self-efficacy but will stimulate them to improve and show a higher individual-level of intrapreneurship. These possible causes could be further investigated in future research.

Finally, this study has discovered an interesting path for future research. This research focuses on two levels of predictors: individual-level and organizational-level. However, the literature concludes that team-level predictors also play an important role in innovation and intrapreneurship (Peltokorpi & Hasu, 2014). Future research could incorporate this third level of predictors to get a more holistic view of the different levels of predictors of intrapreneurship at the individual level.

#### 7. Conclusion

This research is inspired by the rapidly changing and competitive economic environment we live in today. Globalization, unstable labor markets, and more frequent economic changes are obstacles all firms have to deal with. These difficulties can be managed by focusing on innovation and gaining competitive advantage (Blanka, 2019). The entrepreneurial behavior of the employee, also known as intrapreneurship, is one of the most crucial factors to tackle these difficulties. Both organizational-level and individual-level intrapreneurship gained relevance in recent literature. This study focuses on individual-level intrapreneurship as this research is scarce and fragmented (Blanka, 2019). This study answers the questions: "What are the predictors of individual-level intrapreneurship?". This research includes 271 employees who are active in different industries with different firm sizes and firm ages. Based on the empirical research, I will review the most important findings.

First, this study finds that if organizations have a higher tolerance for risk-taking, it will result in a higher level of individual-level intrapreneurship. The organization must create a safe environment in which employees are not afraid to make mistakes (Lumpkin & Dess, 1996; McCabe et al., 1986).

Moreover, an employee with a higher level of intrapreneurial self-capital and autonomy shows a higher level of individual-level intrapreneurship. A higher level of intrapreneurial self-capital provides an employee with more personal resources, like specific skills, to deal with the rapidly changing environment and find innovative solutions (Duradoni & Di Fabio, 2019). Moreover, if an employee has the belief that he is free and independent to structure and manage his job, it will result in a

higher level of individual-level intrapreneurship. The organization can enhance this by communicating and giving feedback (Castrogiovanni et al., 2011; Heinonen & Toivonen, 2008).

Furthermore, an employee with prior entrepreneurial experience will show a lower level of intrapreneurship than an employee without this prior entrepreneurial experience. Management support for idea development and allocation of free time to work on own projects also do not lead to a higher level of intrapreneurship. Therefore, entrepreneurs will show lower innovative behavior as employees, even if the organization stimulates entrepreneurship. As an additional analysis, this study finds that younger and/or larger firms have employees with a higher level of intrapreneurial behavior. Larger firms have more resources, like economies of scale and scope that can enhance the entrepreneurial level of the employee. Younger firms act differently compared to older firms which results in more intrapreneurial employees.

Finally, depending on the firm size, self-efficacy can positively or negatively influence intrapreneurship. Self-efficacy is the belief that an employee can succeed in his/her job. Employees from organizations with 329 or more employees will show a higher level of intrapreneurship when their level of self-efficacy rises. On the other hand, employees from organizations with less than 329 employees will show a lower level of intrapreneurship when their level of self-efficacy rises.

All these findings can be used as a guideline to improve the entrepreneurial level of the employee and consequently the entrepreneurial level of the organization. Intrapreneurship is a topic that is studied more frequently in recent literature. However, research only studied intrapreneurship in general. Past research mainly focuses on organizational-level intrapreneurship or one level of predictors. However, this study fills this gap and concludes that both the organization and the individual can influence the intrapreneurial level of the employee and thus can stimulate the innovativeness of the organization. Future research can use this study as a base to further explore this topic. I suggest future research to include a third level of predictors: the team-level predictors of intrapreneurship. This will result in a more holistic view of this concept and can provide organizations with even more knowledge to enhance the entrepreneurial level of the employee.

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