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Master thesis

Conditions supporting Entrepreneurial Leadership

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Management summary

Situation & complication: Until recently, the scientific field of entrepreneurial leadership has mainly focused on personal characteristics rather than contextual conditions. In cases conditions were studied, contexts were mostly seen as subordinates rather than primary conditions. Nevertheless, recent literature shows the growing importance of different levels of conditions that support entrepreneurial leadership. Therefore, the goal of this study is to gain knowledge about the conditions under which entrepreneurial leadership is likely to be most successful (and under which not).

Research question: In order to research conditions that benefit entrepreneurial leadership, this research question has been developed: *“What conditions support entrepreneurial leadership behaviours?”*

Results: The results show that there are 3 levels of conditions benefitting entrepreneurial leadership: externalities (macro level), organisational (meso level), and human capital (micro level). Externalities involves 2 conditions: *not rigidly regulated sectors* and *unstable time periods* support entrepreneurial leadership better than *rigidly regulated sectors* and *stable periods*. The organisational level involves 4 conditions: *Knowledge organisations*, operating at *strategy levels*, that are *process-oriented* and have *consensus environments* support entrepreneurial leadership better than *production organisations* working at the *executive level*, which are *results-oriented* and have *delegation environments*. The human capital level involves 5 conditions: *Younger* and *skilled/experienced employees*, working in *multidisciplinary teams*, in organisations with *enough personnel* and *without hierarchy* are conditions that support entrepreneurship better than *older* and *less skilled/experienced employees*, working in *monodisciplinary teams*, in organisations with a *personnel shortage* and *hierarchy*. Finally, the results show also some mixed situations.

Practical recommendations: Practitioners who want to lead their employees in an entrepreneurial way should define and develop the following conditions: non-rigidly regulated sector, unstable time period, knowledge organisation, strategy level, process-orientation, consensus environment, younger employees, skilled/experienced employees, multidisciplinary teams, enough personnel, and no hierarchy. Organisational and human capital conditions are easier to develop than external conditions, therefore managers should focus on these first. As a first step in changing the leaders' behaviour towards entrepreneurial leadership, it is useful to apply one antecedent or condition at a time (mixed situation), after which other conditions that support entrepreneurial leadership can be added.

Preface

Dear reader,

This research has been conducted in the scope of a (second) master thesis, for which I would like to thank several people who were involved in and contributed to the process of finalising this study.

First of all, I would like to thank the previous University of Twente graduates whose datasets I could use and Dr. Ehrenhard for providing me the datasets. In line with this, I would also like to thank the respondents who shared detailed information with these interviewers in order to gain in-depth information about the subject.

Finally, I would like to thank Dr. Ehrenhard and Dr. Hatak for taking the time to read the chapters, their constructive and useful feedback, and their supervisory roles in general. It was very pleasant to cooperate with these helpful supervisors, so thank you for your support!

Hopefully this study encourages researchers and practitioners to take a position in the debate, discuss the impact of the findings, and subsequently develop new questions for follow-up research.

If there are any questions or remarks, please feel free to contact me.

Kind regards,

R. Betting

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1. Introduction

1.1 Situation & complication

The entrepreneurship and leadership scientific fields have been studied often separately. Besides, the literature provides a broad range of articles about the contexts of entrepreneurship and leadership fields (see Porter & McLaughlin, 2006, Shamir & Howell, 1999, Osborn et al., 2002). As a consequence, the concept of *entrepreneurial leadership*, as a combined research field, has gained much attention in the past years. Researchers have studied the characteristics, mindsets, and dimensions of entrepreneurial leadership (Covin & Slevin, 1991; Mitchell et al., 2002; Renko et al., 2015; Middlebrooks, 2015). But literature regarding the influence of conditions on entrepreneurial leadership as combined field is lacking. Hence, information about the (contextual) conditions under which entrepreneurial leadership is more likely to be successful than other conditions is not present.

1.2 Research goal

To complement the scientific knowledge about the (contextual) conditions that benefit entrepreneurial leadership as a combined scientific field, the goal of this thesis is to gain knowledge about the conditions under which entrepreneurial leadership is likely to be most successful (and under which conditions it is not).

1.3 Research question

To make the problem statement more concrete, the following research question has been developed:

“What conditions support entrepreneurial leadership behaviours?”

1.4 Theoretical framework

To answer the research question, this study builds on existing entrepreneurial leadership literature and develops the findings of the interviews on top of this literature. The literature review on entrepreneurial leadership, entrepreneurial leadership conditions, and effective leadership shows a gap as regards the particular conditions that support entrepreneurial leadership or not. The gap found in the literature review provides the basis for the analysis of the interview data. To this extent, this study proposes three levels of conditions (macro/external, meso/organisational and micro/human capital) that benefit entrepreneurial leadership. Through the development of propositions, the particular conditions and levels add and build on the existing literature on entrepreneurial leadership.

1.5 Academic relevance & practical relevance

This thesis is relevant for several purposes concerning science and practice. Firstly, the outcomes of this study are useful because previous studies showed the characteristics, mindsets, and behaviours an entrepreneurial leader should possess. However, the literature regarding the conditions that support an entrepreneurial leader remains scarce. By not only focussing on the entrepreneurial leader itself, but also on additional conditions supporting entrepreneurial leadership can be better analysed. This is useful for researchers, but definitely also for practitioners who want to apply entrepreneurial leadership, but do not know when to do so. With the information of this study, practitioners will be better able to shape conditions of their organisation to make them as entrepreneurial leader more successful. Researchers will have a better understanding and basis for future research. Secondly, the results will show that entrepreneurial leadership is not always successfully applicable. This helps the leaders of today to change their selves and their organisations in the way they want to lead; be it in an entrepreneurial way or differently. Thirdly, this research will complement the understanding of the entrepreneurial leadership concept in general, by explaining it from a managers' view through the description of experienced situations and a large sample size. Existing literature focuses mostly on how the entrepreneurial leader has to behave in order to led the employees follow him, however, this thesis focuses on the (contextual) conditions that may, or may not, be applicable to the entrepreneurial

leader himself. At least it is clear that the provided conditions supportS the entrepreneurial leader, apart from the characteristics and capabilities of the leader himself.

1.6 Thesis outline

The structure of this thesis is as follows. Chapter 2 provides the theoretical framework, by describing the literature reviewed (entrepreneurship & leadership as separate concepts and as integrated concepts), the concepts used and the propositions developed. Chapter 3 describes the methodology of the study, by explaining the design, and techniques for data selection, sample, collection, and analysis. Then, chapter 4 describes the results. Finally, chapter 5 discusses the main findings and concludes with the gained knowledge, limitations, and recommendations.

2. Theoretical framework

This subchapter describes what already has been studied by others regarding the subject of this thesis. A literature review is necessary to collect the necessary existing information for this research. Reviewing the literature is one of the most important and indispensable tasks in carrying out a research project (Bryman & Bell, 2015), and therefore important to start with. Besides, Bourner (1996) states the importance of spending effort on a structured literature review before embarking the research project.

This literature review started with a search through the Scopus database to obtain the relevant literature, as those databases are known as useful for articles concerning entrepreneurship and leadership as they include Journals such as The Leadership Quarterly, Journal of Management, and Journal of Leadership & Organizational Studies. Subsequently, literature is found by using the search-words 'entrepreneurial leadership' and 'entrepreneurial leadership conditions' in the abstracts. In total, the databases found 701 results. By reducing the search possibilities to only 'title contains' the search showed 101 results. Of the retrieved articles with the search-words in the title, the abstracts were scanned in order to filter only the relevant and useful articles. This filtering was necessary due to the large amount of articles, but also possible because conditions are a specific part of the entrepreneurial leadership literature, indicating that such aspects would be mentioned in the title of the articles. By doing so, all general articles that only mentioned entrepreneurial leadership once (thus those that did not fully cover the concept) dropped out. If these articles proved to be important at a later stage, they were found by the snowball sampling technique. This technique has been used to find additional literature until information saturation was reached. Due to the snowball sampling technique, effective leadership also seemed to be relevant. Therefore, Scopus was used to find new literature about effective entrepreneurial leadership, of which it showed 65 results with the term in the abstract. Therefore, in total 166 articles were found.

The final sample of articles for the literature review consisted of 64 articles. Thus, 102 articles dropped out as their abstracts did not seem relevant enough concerning entrepreneurial leadership or relevant conditions. The remained papers were thoroughly analysed and assessed on their results and key factors (including conditions). The table with results shown in appendix 1 provides the possibility to compare the different articles as regards the key factors and their publication year. The results were put in chronological order, as the gaps deriving from the recent studies are most important. These gaps formed the basis for gathering and analysing data concerning this thesis at a later stage. Thus, the literature review provides an overview of the literature concerning the concept so far and other relevant theories or concepts that all together form the theoretical framework of this thesis.

2.1 Entrepreneurship & leadership as separate concepts

2.1.1 Entrepreneurship

Entrepreneurship and leadership as separate scientific fields have been studied for many years. Miller (1983) was the first one who researched the entrepreneurial orientations (EO) in this field. Two years later, Gartner (1985) defined *entrepreneur* as 'a founder of a new business, or a person who started a new business where there was none before' (NB: Schumpeter was the first one defining the term 'entrepreneur' in 1965). Later, Covin & Slevin (1991) built on Miller's (1983) definition by arguing that entrepreneurship is particular behaviour of a business owner. In this context, they developed the EO dimensions, which are risk-taking, innovativeness, pro-activeness. Subsequently, Lumpkin & Dess (1996) added aggressiveness and autonomy to the EO dimensions. Later, these dimensions were used to describe the traits of entrepreneurship in general and of individual entrepreneurs; resulting in entrepreneurship being more an individual characteristic than that of a firm (Fernald et al., 2000; Kuratko, 2007). In line with this, Gupta et al. (2004) and Kuratko (2007) consider the three dimensions to be integrative so that they can be combined in a balanced way. Therefore, individual combinations of (levels of) dimensions describe the entrepreneur, making the dimensions more dominant at individual level (Kuratko, 2007). In line with this, it is argued that mental models of entrepreneurial leaders are shaped by knowledge and experience (Hodgkinson & Healey, 2008; Porac & Thomas, 2002), and have been shown to influence the formulation and implementation of organisational strategies (Koryak et al., 2015). Additionally, Gupta et al. (2004) state that a supportive company structure and processes are needed for the company to support the entrepreneurial ideas and activities of the leader. Hence, next to personal characteristics, particular conditions – that lie outside the entrepreneur itself – are necessary in order to become successful as an entrepreneur.

2.1.2 Leadership

The American general, Dwight Eisenhower, once said that the essence of leadership is to make people do what you want them to with as much will, determination and enthusiasm as if they had decided for themselves (Popper & Zakkai, 1994, p. 3). In line with this, leadership has been defined as 'a process of influence and the ability to inspire between leaders and followers where a leader attempts to influence and/or inspire the behaviour of subordinates to achieve organisational goals' (Yukl, 2002). The literature provides two potential sources of leadership: vertical leadership (Gerstner & Day, 1997; Schriesheim et al. 1994) and team (or shared/distributed) leadership (Burke et al, 2003; Gronn, 2005; Pearce & Conger, 2003). Vertical leadership stems from an appointed or formal leader of a team (e.g., the CEO), whereas shared leadership is a form of distributed leadership stemming from within a team (Ensley et al., 2006, p. 217). On the other hand, shared leadership refers to a team property whereby leadership is distributed among team members rather than focused on a single designated leader (Carson et al., 2007, p. 1217). Pearce (2004, p. 48) defines shared leadership as a simultaneous, ongoing, mutual influence process within a team that is characterised by 'serial emergence' of official as well as unofficial leaders. Therefore, shared leadership contrasts with the conventional paradigm (i.e. vertical leadership), which emphasizes the role of the manager who is positioned hierarchically above and external to a team, has formal authority over the team, and is responsible for the team's processes and outcomes (Druskat & Wheeler, 2003; Hackman & Walton, 1986; Kozlowski et al., 1996). Vertical leadership may be viewed as an influence on team processes, whereas shared leadership is a team process where leadership is carried out by the team as a whole, rather than solely by a single designated individual (Ensley et al., 2006, p. 220). To this end, vertical leadership is dependent upon the wisdom of an individual, whereas shared leadership draws from the knowledge of a collective (Ensley et al., 2006, p. 220). Further, vertical leadership takes place through a top-down influence process, whereas shared leadership flows through a collaborative process (Ensley et al., 2006, p. 220). To conclude, vertical leadership is not the way of the past, but future thinking about leadership must

encompass both vertical and shared facets in order to capture a fuller view of leadership processes and outcomes (Day et al., 2004; Pearce & Sims, 2002, Ensley et al., 2006, p. 218).

Furthermore, the literature provides several leadership styles, such as transactional- (Bryman, 1992), transformational-, laissez-faire- (Burns, 1978), charismatic leadership, and situational leadership. Transformational- and situational leadership are most relevant to this thesis. First, transformational leadership is defined by Burns (1978) as the process through which leaders appeal to the ideals and morals of their followers to inspire them to reach their highest levels of achievement and to take ownership in the goals of the group and becoming enriched in their work (Burns, 1978; Ensley et al., 2006, p. 218). Subsequently, Bass (1985) put the importance of transformational leadership more squarely into the organisational context. The year after, Lawler (1986) focused more on high-involvement management, by flattening the hierarchical structure of organisations and allowing input of workers in the design of their work and the organisational direction (Ensley et al., 2006). Second, situational leadership represents the style that will be best for every manager in all circumstances (Hayes, 2014, p. 179). Hackman (2002) argues that too much attention has been given to the importance of styles and asserts that leaders can be successful using those behaviours or styles that make the most sense to them personally, given the properties of the situation, the state of the team, and their own idiosyncratic skills and preferences (Hayes, 2014, p. 178). In addition, Fiedler & Chemers (1967), Adair (1973), and Hersey & Blanchard (1977) agree that the most effective style depends on situational conditions, such as the people, the task, and the organisational context. This is the basic assumption for the rest of this study.

2.2 Entrepreneurship & leadership as integrated concepts

The *integration of the entrepreneurship and leadership* concepts have been researched for over 20 years now (Gartner et al., 1992; Harrison & Leitch, 1994; Patterson et al., 2012). The explicit concept of *entrepreneurial leadership* was first introduced by McGrath & MacMillan (2000) by suggesting that in dynamic markets (with uncertainty and competitive pressure) a new type of leader was required, as 'such fast changing markets/situations give those with an entrepreneurial approach the ability to exploit opportunities to gain advantage for their organisation faster than others'. Therefore, over the past years, entrepreneurial leadership has been defined (among others) as 'influencing and directing the performance of group members toward achieving those organisational goals that involve recognising and exploiting entrepreneurial opportunities' (Gupta et al., 2004, p. 242). This definition of entrepreneurial leadership is the basic principle used for the rest of this thesis.

Consequently, the vast literature on leadership focuses on the ability of leaders to influence a group of followers and emphasizes the relations among three key factors: the leader, a group of followers, and the landscape (Gupta et al., 2004, p. 245). Therefore, in entrepreneurial leadership the leader cannot themselves demonstrate the extraordinary effort needed to accomplish the entrepreneurial task, but, instead, must rely on the commitment of followers to use their specialised skills to enable the accomplishment of the entrepreneurial task (Gupta et al., 2004, p. 245). Thus, leadership within high-performing groups is often distributed such that those with relevant knowledge, skills or abilities offer their views within specific situations, which are then digested and acted upon by the group as a unit (Ensley, et al., 2006, p. 218). Hence, those who possess the most relevant knowledge to offer regarding the problem or opportunity of the moment are the ones who dominate the conversations, rather than an individual designated leader (Ensley et al., 2006, p. 218). This emerging view of leadership, called *shared* (or distributed) *leadership* (Pearce & Conger, 2003; Gronn, 2005) is the opposite of vertical leadership, and related to entrepreneurial leadership. In the context of shared leadership, Ensley (2006, p. 228) argues that the leadership of the principal founder is only part of the story behind most successful start-ups, because leadership takes an array of talented individuals to

develop and grow new ventures. This is similar to entrepreneurial leadership, in which leaders that execute entrepreneurial leadership want their employees to behave like 'real' entrepreneurs (take responsibility, act innovatively, be creative, risk-taking, etc.) – like if the organisation is their own – reflecting the importance of leading 'together'.

To date, entrepreneurial leadership literature is divided into two distinct views. According to Vecchio (2003), it is an extension of existing leadership (sub-domain), while Kuratko (2007) argues that leadership is a constituent of the field because mindset and behaviours are essential for effective leadership (entrepreneurship as essence of leadership). But there is also a middle way: the interface of entrepreneurial leadership that remains considerable diverse in approach, because there is no agreed definition of entrepreneurial leadership (Cogliser & Brigham, 2004). But, it is not so straightforward according to Middlebrooks (2015, p. 27) as on one hand, leaders want to be like entrepreneurs – displaying a distinctive set of knowledge, skills, and dispositions that maximise innovation, continuous energy and improvement, seeing and pursuing opportunity, and many others that would be highly desirable in a leader in any field or context. On the other hand, successful entrepreneurs want to be effective leaders, often not understanding that *leadership* comprises a discrete field of study that is decidedly *not* entrepreneurship (Middlebrooks, 2015, p. 27-28).

2.3 (Entrepreneurial) leadership characteristics and conditions

Literature about the conditions for entrepreneurial leadership is very scarce, as most studies conducted in the field of entrepreneurial leadership are about personal characteristics of the particular entrepreneurial leader itself, rather than other (contextual) conditions. Nevertheless, both aspects (personal characteristics and conditions) contribute to entrepreneurial leadership behaviour, but are also likely to contribute to leadership behaviour. Because, more recent studies show a concept change going on, by including the broader context of conditions related to entrepreneurial leaders. Hence, recent leadership studies focus less on the individual leader only and more on other factors surrounding the particular entrepreneurial leader.

2.3.1 Personal characteristics (entrepreneurial) leadership

In order to fully clarify the conditions that support entrepreneurial leadership, it is though useful to shortly introduce the literature about the personal characteristics concerning entrepreneurial leadership. To begin with, Fernald et al. (2000) built an overall picture of entrepreneurial leaders' characteristics: risk-taking, vision and goal setting, problem solving, decision-making abilities, and negotiations. Additionally, Swiercz & Lydon (2002) distinguishes self-competencies (characteristics) and functional competencies (operations, finance, marketing, and HR functions). On the other hand, Vecchio (2003) proposes actions, instead of competencies: risk-taking propensity, locus of control, self-efficacy, need for autonomy, and achievement. Finally, Chen (2007) argues on top of that, that the higher presence level of one of the EO dimensions mentioned before, the higher the influence of the entrepreneurial leader.

In addition to personal characteristics and competencies, other activities and the life cycle related to entrepreneurial leadership have been studied (Cogliser & Brigham, 2004). Besides, McGrath & MacMillan (2000) researched personal practices, while Middlebrooks (2015, p. 28) studied the assertion and adoption of specific mindsets among entrepreneurial leaders. Subsequently, Middlebrooks (2015, p. 28) concludes that entrepreneurial leaders are 'individuals who, through an understanding of themselves and the contexts in which they work, act on and shape opportunities that create value for their organisations, their stakeholders, and the wider society'. Consequently, Freeman & Siegfried (2015) state that the entrepreneurial leader faces three challenges, which are developing a vision, achieving optimal persistence, and execution through chaos. This latter challenge requires the necessary mindset for success. Finally, Carson et al. (2007) proposes several internal and external

conditions related to shared leadership. As regards the internal condition, shared purpose, shared responsibilities, and voice are important. Besides, as regards the external condition, external (outside the team) coaching is important. To conclude, the more recent literature shows a shift towards increasingly including contexts and other factors rather than solely the personal characteristics of a leader.

2.3.2 Conditions of (entrepreneurial) leadership

Firstly, literature concerning specific contexts of entrepreneurial leadership is lacking. Besides, the literature that is available on this particular matter, is mostly focused on how context affects leadership types, rather than focusing on the contextual conditions necessary or sufficient for entrepreneurial leadership. Hence, most articles focus on explaining a given type of leadership, and consequently organisational context is merely a secondary or background variable (Porter & McLaughlin, 2006, p. 571). Nevertheless, some articles provide interesting results.

Back again to Carson et al.'s (2007) internal and external conditions. They state that in an *external* team environment coaching by an external team manager is important (Kozlowski et al., 1996; Manz & Sims, 1987). There are different forms of coaching, distinguishing between forms that are more supportive and reinforcing of a team's self-leadership (supportive coaching) and those that focus on identifying team problems and engaging in active task interventions that interfere with the team's autonomy and self-management (active coaching) (Morgeson, 2005; Wageman, 2001; Carson et al., 2007, p. 1223). When teams have a supportive internal environment, team coaching by an external team leader is likely to be largely redundant with this internal environment and therefore less critical to the emergence of shared leadership among team members (Carson et al., 2007, p. 1223-1224). However, for teams that lack a strong shared purpose and do not promote full engagement and participation, and in which team members are able to provide each other with social support, a functional leadership perspective suggests that external leaders' coaching may be particularly important (Carson et al., 2007, p. 1224). In addition, when an internal team environment is supportive, coaching by the external leader is less critical for the emergence of shared leadership; however, when an internal team environment is unsupportive, coaching interventions are important for filling a role that is not being filled by the team (Hackman & Walton, 1986). Thus, a team's internal environment and coaching by an external leader are important precursors for shared leadership (Carson et al., 2007, p. 1228). Therefore, coaching provided by an external team leader is particularly important for the development of shared leadership when teams lack a strong internal team environment (Carson et al., 2007, p. 1228). In line with this, the following proposition has been developed:

P1: If contextual conditions are supportive, employees will be better able to be led in an entrepreneurial way than when contextual conditions are not supportive.

Focused on entrepreneurial leadership in particular, Ripoll et al. (2010, p. 885) indicates the importance of contexts, by arguing that the context in which leaders work moderates the relationship between motives and behaviours perceived by collaborators. According to them, this relationship is stronger for leaders working in entrepreneurial context rather than non-entrepreneurial contexts. In line with this and firstly, human capital plays an important role. Leitch et al. (2013, p. 15) states that human capital and social capital play an important role in the development of entrepreneurial leadership. Hence, entrepreneurial leadership is seen as a social process, in which a reservoir of social capital is developed by communication and group bonding. Unfortunately, 'the social capital of leaders is perhaps the most ignored, under-researched aspect of leadership' (Brass & Krackhardt, 1999, p. 180; McCallum & O'Connell, 2009; Leitch et al., 2013, p. 15). Secondly, the organisational structure plays an important role, as the context for leadership development in the entrepreneurial domain requires the development of institutional capital – formal structures and organisations – which enhances the role

of social capital (Leitch et al., 2013, p. 15). This institutional capital is necessary for developing ties among the employees. Similarly, Porter & McLaughlin (2006) have discovered the potential importance of organisational context regarding leadership (Osborn & Marion, 2009). Moreover, also Shamir & Howell (1999) and Boal & Hooijberg (2000) argue that the organisational context concerning behaviour plays an important role regarding the effectiveness of a leader. Thirdly, externalities play a role. To clarify, context, in the term of leadership, is defined as the set of overall demands, constraints, and choices for leaders and can be characterised as ranging from stability to chaos (Osborn et al., 2002; Osborn & Marion, 2009, p. 193). In line with this, Kirkpatrick & Locke (1991, p. 59) argue that leaders do not have to be intellectual geniuses or omniscient prophets to success, but they do not to have the 'right stuff', but the place matters too. Thus, (environmental) externalities may influence the success of the entrepreneurial leader as well.

P2: Since the leadership literature shows the importance of people, organisations, and externalities, it is likely that there are levels of contextual conditions in entrepreneurial leadership as well: macro (external), meso (organisational), and micro (human capital) levels.

Firstly, as regards the **macro level**, the **external environment** of a business shows to be important for the success of leadership. When for employees the external environment offers the possibility to spontaneously offer their influence to others in support of shared goals, shared leadership can provide organisations with competitive advantage through increases in commitment, in the personal and organisational resources brought to bear on complex tasks, in openness to reciprocal influence from others, and in the sharing of information (Carson et al., 2007, p. 1217). Organisations with such supportive external environments are shown to be most effective (Katz & Kahn, 1978, p. 332; Carson et al., 2007, p. 1217). Therefore, the following proposition has been developed:

P3: It is likely that if conditions at the macro level (external) are supportive, the environmental structure will enable the organisation to be led in an entrepreneurial way, increasing the facilitation of entrepreneurial leadership.

Secondly, as regards the **meso level**, the **organisational level** seems to be important too. Flatter organisational structures and the pervasive presence of self-managing teams emphasize the need for leadership originating from within a team as opposed to that originating from a single individual elevated by hierarchy (Carson et al., 2007, p.1217). Despite this transition in leadership responsibilities from formal managers to team members, relatively little research has addressed the implications of this evolutionary shift to internally distributed forms and team leadership (Carson et al., 2007, p. 1217). In addition, Popper & Zakkai (1994, p. 6-7) conclude that the analysis of leadership in organisations should relate to organisational psychological contexts, such as the hierarchy (namely, the distance to the leader), the leader's relationship with his/her superiors, the nature of the organisation's tasks (routine versus change) and the conditions in which they function (stability versus crisis). To clarify, transactional leadership works best in circumstances with routine situations without an acute sense of impending changes and anxiety, whereas charismatic leadership works best in situations without a high anxiety level, but where attention to developmental needs of the led is given. Moreover, transformational leadership works best in situations with a high anxiety level and crises that intensify processes of projection. This latter leadership pattern focuses least on the contextual conditions. In line with the literature that indicates organisational conditions to be important, the following proposition has been developed:

P4: It is likely that if conditions at the meso level (organisation) are supportive, the organisational structure will enable the employees better to be led in an entrepreneurial way, increasing the facilitation of entrepreneurial leadership.

Thirdly, as regards the **micro level, human capital** is described to be important too. Most existing research on team leadership has focused narrowly on the influence of an individual team leader (usually a manager external to a team), thus largely neglecting leadership provided by team members (Kozlowski & Bell, 2003; Stewart & Manz, 1995; Carson et al., 2007, p. 1217). However, there is also literature about human capital in organisations as regards leadership. Several trends in team design, use, and structure point to the importance of internal team leadership (Carson et al., 2007, p. 1217). First, the complexity and ambiguity that teams often experience makes it unlikely that a single external leader can successfully perform all necessary leadership functions (Day et al., 2004). Second, current forms of teamwork that emphasize knowledge-based work rely on employees who have high levels of experience and seek autonomy in how they apply their knowledge and skills (DeNisi et al., 2003) and therefore desire greater opportunity to shape and participate in the leadership functions for their teams (Carson et al., 2007, p. 1217). In line with this, it can be assumed that human capital plays an important role in the success of entrepreneurial leadership. Therefore, the following proposition has been developed:

P5: It is likely that if conditions at the micro level (human capital) are supportive, employees will be better able to be led in an entrepreneurial way, increasing the facilitation of entrepreneurial leadership.

3. Method

3.1 Research design

The research design forms the framework to find an answer to the research question. Because the goal of this thesis is to gain knowledge about conditions that support entrepreneurial leadership behaviour, the exploratory nature of this research requires a qualitative method. Qualitative methods offer the possibility to observe a particular phenomenon comprehensively in order to create a deeper and complete understanding of the phenomenon under study (Babbie, 2007). Therefore, a descriptive content analysis is conducted in which interviews are used to obtain the necessary data. In the content analysis, managers are the units of observation and the facilitation of entrepreneurial leadership (thus the presence of conditions) is the unit of analysis in this thesis.

3.2 Selection & sample

The literature review showed that research was mainly focused on personal characteristics and on perceptions of leaders on their own behaviour as regards entrepreneurial leadership. Therefore, this study selected a sample of managers to obtain information about managers applying entrepreneurial leadership behaviour in particular situations and in what particular situations they do not apply entrepreneurial leadership behaviour (experiences). By selecting 85 managers as sample, socially desirable answers are avoided because the behaviour of entrepreneurial leadership application is analysed rather than how the respondent deals with entrepreneurial leadership in general (because of the usage of the critical incident technique). In addition, control questions were asked in order to check whether the respondents were consistent in their answers. Hence, non-probability sampling of managers is used, in which the units to be observed were selected on the basis of the researchers' judgment about which ones are most representative or useful (Babbie, 2007, p. 193). In line with this, selection criteria were set based on a minimum of five employees directly reporting to the manager and a minimum of one year experience.

The sample of respondents was selected by 15 previous Twente University graduate students (bachelor) and one master student – all supervised by Dr. Ehrenhard. Therefore, the sample was directly available for this research, without further selecting respondents due to the already large sample size. However, some additional filtering has been done. Initially, the sample consisted of 98 respondents, but 85 were left after a double check of the amount of employees reporting to the

manager, the years of experience, and the completeness of the interview transcriptions. The final sample consisted of male and female managers, ranging from the age of 25 to 63. Besides, their total experience as managers (not particularly in their current function) varied from 1 to 44 years. The sectors in which the managers operated also varied widely, but most managers worked in the IT and financial sectors.

3.3 Empirical approach

Conducting investigative interviews is a useful technique for topical studies like in this thesis (Rubin & Rubin, 2012). There are different techniques for conducting interviews. Structured interviews provide the opportunity to standardise questions and the recording of answers to minimise differences between respondents, while non-structured interviews provide the opportunity to gain in-depth knowledge about the concept under study (Bryman & Bell, 2015). Due to the large sample size, and the need of in-depth knowledge about the behaviours of respondents, the middle way of semi-structured interviews is taken for this research. Semi-structured interviews offer the possibility to follow an interview protocol (main questions), while additional questions (follow-up questions) can be asked when information is lacking, unclear or insufficient.

As mentioned above, the semi-structured interviews are based on an interview protocol, used by all 16 interviewers (the previous bachelor and master graduate students). The interview protocol is based on the critical incident technique to research the internal communication and behaviour of the respondents to their colleagues. The critical incident technique consists a set of procedures to collect direct observations of human behaviour in such a way as to facilitate their potential usefulness in solving practical problems and developing broad psychological principles (Flanagan, 1954, p. 1). Hence, this technique is useful for measuring entrepreneurial leadership conditions as it can record specific behaviour from those in the best position to make the necessary observations and evaluations (Flanagan, 1954). However, the judgments derived from the interviews depend on the precision with which the characteristic has been defined and the competence of the observer in interpreting this definition with relation to the incident observed (Flanagan, 1954, p. 29). Therefore, all students informed themselves about how to conduct qualitative interviews beforehand, and they received the uniform interview protocol (see appendix 2) of Dr. Ehrenhard to reduce bias among the approaches of different interviewers.

3.4 Data collection

The interviews with 85 managers were conducted in 2014 and located at their homes or their companies. Most interviews were recorded to enable right transcriptions of the interviews and to increase reliability (Flanagan, 1954), but some interviewees made notes due to circumstances. In those cases, the notes were transcribed as soon as possible after the interview in order to prevent forgetting the information. Furthermore, all conversations started with an introduction, in which the scope of the research was explained and background information of the respondent (age, gender, experience, employees directly reporting) was asked. After the introduction, and in line with the critical incident technique, the respondent was subsequently asked to give a situational example in which the respondent showed entrepreneurial leadership behaviour to an employee. By asking for a specific situation/example, the respondent provides information about how and why he/she behaved in that way in the particular situation. Hence, the interview questions were asked in a way that the managers themselves needed to show their own perceptions about their application of entrepreneurial leadership behaviour in particular *experienced* situations. Therefore, the data shows which conditions are according to the respondents (*experienced situations*) the best to apply entrepreneurial leadership behaviour and which conditions are not. By doing so, socially desirable answers are prevented as the questions are not about the particular manager but about situations in which the manager applied

entrepreneurial leadership behaviour or not. This is contrary to previous studies in which entrepreneurial leaders or managers are mostly asked what they *think* are good conditions. In addition to the critical incident technique (in which respondents gave a practical example), control questions have been used in order to check whether the respondents were consistent in answering questions. If things were unclear, follow-up questions were asked in order to be certain that they did not give socially desirable answers.

As the interview transcriptions showed, some respondents did not know the definition of entrepreneurial leadership and therefore directly asked the meaning of the concept. However, the interviewers did not want to bias the interviews and therefore never directly gave a definition, but rather pointed the respondent into the right direction. If this was not enough support for the respondent, the definition as according to the literature was given. Subsequently, questions regarding contingency factors and outcomes were asked in order to obtain a complete picture of the particular example, and of the general behaviour of the manager concerning the application of entrepreneurial leadership behaviour. At that moment, in case the answers to the protocol questions were not sufficient, clear or lacking, the interviewers asked follow-up questions. Finally, the interviews were closed by asking if the respondent had any further comments and by expressing gratitude for their information provision.

3.5 Data analysis

Content analysis is used as method of data analysis. First, the data retrieved from the interview transcripts is filtered to only retain useful/complete data by removing incomplete interviews, respondents that have less than 1 year experience as leader, and respondents that have less than 5 people reporting directly to the respondent. This data is assumed to be useless, as respondents have too little experience or employees to reliably argue on a particular question. Subsequently, the data is coded deductively (deriving from literature) in Atlas TI 7.0 in order to set a basis and find specific aspects that are subject to entrepreneurial leadership conditions (see appendix 3). After that, the codes (and code families) have been added by inductive coding, in order to find missing aspects. Then, the respondents and codes were clustered into three categories: 'application of entrepreneurial leadership (behaviour)', 'no application of entrepreneurial leadership (behaviour)', or 'sometimes applied, depending on situation' (see appendix 3). Both categories are divided into macro (external), meso (organisational) and micro (human capital) level conditions, in line with the findings from the literature. The results of these categories are used as the conditions to choose whether to apply entrepreneurial leadership as leadership style or not. Subsequently, all codes are put into context as regards the levels and used to explain why the proposed conditions (in which EL is applied) are better than the other conditions (in which EL is not applied). However, it should be noted that the data does not specifically show which conditions are best to apply EL, but clustering the answers (and subsequent codes) into the three categories (application of entrepreneurial leadership, no application of entrepreneurial leadership, sometimes application of entrepreneurial leadership), made it possible to count which conditions were mentioned more often positively related to entrepreneurial leadership than other conditions. Thus, when respondents mentioned some conditions more often than other conditions, it is likely that those conditions are – according to them – better to apply entrepreneurial leadership than conditions they did not mention at all (or at least conditions that they did not mention in a positive way).

Finally, the different antecedent and conditions are related to key words mentioned by the respondents and which derived from the coding procedure. By doing so, relations are made between the different conditions to explain why particular conditions are better for entrepreneurial leadership behaviour than others.

4. Results

4.1 Conditions to apply entrepreneurial leadership

After the deductive and inductive coding processes, the data provided 103 codes of 6 code families. Subsequently, the codes were put into relation with each other resulting in 11 conditions – divided over the macro, meso, and micro levels – that are relevant for the facilitation of entrepreneurial leadership (see table 1). The results of the analysis show that leaders choose to lead employees in an entrepreneurial way when several conditions – which can be divided into macro, meso and micro levels – apply. This is also the case for leaders to choose not to lead employees in an entrepreneurial way. Hence, supportive conditions facilitate entrepreneurial leadership; confirming the first proposition. Table 1 schematically shows under which conditions entrepreneurial leadership behaviour is useful or will most likely be successful, and under which conditions not. Hence, the results show three levels of conditions, namely external (2 conditions), organisational (4 conditions), and human capital (5 conditions).

EL applied conditions/situations	EL not applied conditions/situations
Macro level conditions (external)	Macro level conditions (external)
Not rigid regulated sectors	Rigid regulated sectors
Uncertain/unstable periods	Certain/stable periods
Meso level conditions (organisation)	Meso level conditions (organisation)
Knowledge organisations	Production organisation
Strategy level	Execution level
Process oriented organisations	Result oriented organisations
Consensus environment	Delegation environment
Micro level conditions (human capital)	Micro level conditions (human capital)
Younger employees	Older employees
Multidisciplinary teams	Monodisciplinary teams
Enough personnel	Personnel shortage
Less hierarchy	Hierarchy
Skilled/experienced personnel	Less skilled/experienced personnel

Table 1: Overview of conditions influencing the success and no-success of entrepreneurial leadership

To start with, appendix 4 provides a schematic overview of the respondents and their categorisation of applying entrepreneurial leadership behaviour or not (or sometimes). That table shows the following. Of the total 85 respondents, 38 applied entrepreneurial leadership behaviour at a daily basis when leading employees (knowledge intense organisations at strategy level), while 25 respondents did not apply entrepreneurial behaviour at all (production oriented organisations at executive level). The other 22 respondents applied entrepreneurial leadership to a certain extent, depending on the amount of conditions that were present. To clarify, the organisations of some of these respondents had external conditions that were not supportive to entrepreneurial leadership behaviour (rigidly regulated financial and health sectors), while other organisations had organisational structures that did not support such leadership (too large organisations or too specific tasks). Moreover, some respondents argued that their human capital was not sufficient for leading in an entrepreneurial manner (lower skilled or older employees who having a hard time to cope with change). Finally, others showed entrepreneurial leadership behaviour if the particular situation provided to do so, while other situations did not (situations in which tasks are clearly specified, but crisis situations offer the possibility for entrepreneurial leadership; and the other way around). Thus, as regards the overall findings and in line with proposition two, there are many conditions that benefit or do particularly do

not benefit entrepreneurial leadership, which can be divided into three broad levels: the macro, meso, and micro levels. The macro level consists of the extent of the regulation in the sector and the stability of time periods. The meso level consists of the knowledge organisations, strategy level, process-orientation, and consensus environment conditions. Finally, the micro level consists of younger employees, multidisciplinary teams, amount of personnel, less hierarchy, and skills/experienced personnel conditions.

Remarkably, 8 of the 14 respondents working in the (semi-)public sector (municipalities, governmental organisations, NGO's, hospitals, schools, etc.) applied entrepreneurial leadership behaviour. Contrary, less than half of the respondents working in the private sector (commercial businesses) applied entrepreneurial leadership behaviour (30 of the 71 respondents). The explanation for this is that organisations working in the (semi-)public sector often acquire public funding, indicating that the money is from all people and no single leader should decide about that. Besides, (semi-)public organisations decide about (semi-)public aspects which are relevant to the whole public, again indicating that not one leader should decide about that. Hence, such organisations are more led in an entrepreneurial way so that more people (experts) can decide about particular issues. In line with this, respondent 49 argued the following:

“Our current organisational structure is not based on velocity and targets, but rather on creating a harmonious atmosphere in which all employees can perfectly cooperate so that efficiency can be achieved by combining all knowledge.”

As regards the private sector, businesses working at a strategic level (mostly knowledge intensive companies, such as consultancies, IT businesses, creative companies, constructing firm at management level) do all apply entrepreneurial leadership behaviour. However, the lower average than entrepreneurial leadership application in (semi-)public organisations can be explained because of the many production organisations that are present in the private sector, while they are not present in the (semi-)public sector. Such production organisations (gardening company, textile production, hotel, eatables sales companies, order picking companies, mash production, etc.) are more oriented on execution of specific routine tasks, making entrepreneurial leadership almost impossible.

4.2 External conditions (macro level)

All respondents agree that sector regulations and (un)certainity are the two external conditions that influence the application of entrepreneurial leadership mostly. When the conditions of non-rigidly regulated sectors and unstable time periods apply, entrepreneurial leadership is argued to be most effective. When the rigidly regulated sector and stable time period conditions apply, entrepreneurial leadership is argued to be less effective. Therefore, in line with proposition three, do supportive external conditions (at macro level) enable the organisation to be better led in an entrepreneurial way, and thus to increase entrepreneurial leadership. This will be explained in the following sections.

4.2.1 Not rigidly regulated sectors vs. rigidly regulated sectors

As regards the regulations applicant to different sectors, respondents (11 out of 85) argue that businesses that are not, or barely, regulated experience more ‘freedom’ to act in an entrepreneurial way than businesses which operate in rigidly regulated sectors. The feeling of not being bound to specific rules increases the security of leaders and employees to take more initiatives, be more responsible and think out of the box. Hence, there are many opportunities to act differently than competitors in order to gain advantage. Thus innovation, creativity, and initiative-taking are mentioned as to be stimulated in not rigidly regulated sectors. Contrary, businesses in sectors that are rigidly regulated (health care, financial) experience less ‘freedom’ to take risks or new initiatives as

they are often bound to strict rules and procedures (according to 26 out of 85 respondents). Respondent 30 argues for example:

“Developing and implementing own ideas is hard because we are in the financial sector; a sector that is continuously saddled with more rules and regulations, decreasing our flexibility. Therefore we are constantly considering the usefulness of taking risks with subsequent responsibilities or hiding behind the existing rules in the sector.”

Thus, such sectors mostly work with rules and procedures that are provided by law, discouraging them – and the possibility – to work in an entrepreneurial way. Respondents argue that this increases the anxiousness of employees to act independent, creative, and innovative as they do not oversee the possible consequences of legal actions if things go wrong. The fact of leaders not getting support because employees are reticent to work in a way as if the business would be their own business, decreases the success of that leader to lead in an entrepreneurial way. Besides, some tasks in such sectors just need to be performed and can be seen as more ‘executive’ work. Hence, those tasks need to be performed in the same ways according to strict rules (accounting for example).

4.2.2 *Uncertain periods vs. certain periods*

17 of the 85 respondents argue that in uncertain time periods (for example crisis periods or reorganisations), more innovative, creative and risky actions are needed in order to get into more stable waters. For example, respondent 2 argued the following:

“Uncertain circumstances provide room to deviate from the beaten paths. Threatening situations for organisations do for example also provide many opportunities and chances.”

Additionally, 14 of the 85 respondents argue that entrepreneurial leadership should not be applied in stable time periods. To clarify, in uncertain circumstances, leaders who dare to take consensus solutions from the employees are needed in order to get support and to make risky decisions when necessary. But the most given argument for the success of entrepreneurial leadership in uncertain times, is that employees experience the need for change under such conditions, while those employees are often reticent to change in stable periods or if it is not necessary to change. Therefore, leaders acting in certain periods apply less entrepreneurial leadership in their leading styles as employees are less willing to participate by being creative, innovative, independent, and risk-taking because they do not see the direct need of doing so (why change a winning team?). Subsequently, it is hard for leaders to get support from the staff to carry through change or to give them independency and responsibility, as the employees do not feel the need to excel as there will be not much competition among employees in stable periods (no one will get fired if business is going well).

4.3 *Organisational conditions (meso level)*

The findings, which will be explained in the sections below, show that the knowledge organisation, strategy level, process-orientation, and consensus environment conditions benefit entrepreneurial leadership. Contrary, it is argued that the production organisation, execution level, result-orientation, and delegation environment conditions do less benefit entrepreneurial leadership. Hence, if the conditions are supportive at organisational level (meso level), entrepreneurial leadership is more effective because those conditions enable employees better to be led in an entrepreneurial way than when such conditions do not apply. Therefore, proposition four has been confirmed, which will be clarified in the next sections.

4.3.1 *Knowledge organisations vs. production organisations*

As argued by 25 of the 85 respondents, organisations of which the key resource is the knowledge of human capital (for example consultancy or municipalities/governmental organisations) are more likely

to apply entrepreneurial leadership than organisations that are focussed on production. Respondent 87 clarifies this with the following statement:

“There is a significant difference in companies focused on production or knowledge. In a knowledge intensive company, the manager can give employees more responsibilities as they are often highly skilled. Because such employees are skilled and used to think in a more abstract or strategic way, they are more efficient and deliver better results if they can do it their way. Therefore, they perform best when led in an entrepreneurial way in which they can work independently. This is contrary to production companies.”

4.3.2 Strategic level & process-orientation vs. executive level & results-orientation

The main reason for the difference is that knowledge organisations mostly operate at more strategic levels, while production organisations operate at the executive level. In line with this, the respondents argue that production organisations are result-oriented and therefore focussed at the most efficient output as possible. Contrary to that, knowledge organisations are more focussed on consensus and the total process, as their final output should be qualitative rather than quantitative. This means that such organisations also pay more attention to sustainability and employee well-being compared to production organisations. The reason why knowledge organisations pay more attention to these aspects is that they often work in multidisciplinary teams, enabling all employees to give their own opinion, and consequently no aspect will be forgotten. Because, the leader may not think sustainability is that important, but if the majority of the employees think so, the leader should take the consensus opinion into account, as without the knowledge of employees the company is not that valuable anymore. In line with this, respondent 53 states the following:

“I think my employees understand that we are all in the same boat, therefore I do not have to specifically ask them to take some risk or be innovative. They know what is at stake, but that is exactly the reason why we choose them and they choose to join an innovative start-up like ours.” P53.

4.3.3 Consensus environment vs. delegation environment

Thus, through a consensus approach, in which each employee has a say and is taken seriously, not one single issue will be forgotten and everyone will feel responsible. This is especially the point in governmental organisations, as it applies public money increasing the importance of a consensus agreement instead of one leader agreeing about other people’s money. So there is a main difference with commercial organisations and non-profit organisations. Nevertheless, knowledge organisations, operating at the strategic level, are mostly process oriented (taking into account the whole picture), in which *all* employees participate. Because such an environment is created by the leader, employees are more likely to be innovative, creative and independent, because they are expected to behave like that.

However, according to 22 of the 85 respondents, production organisations (such as a call centre, gardening company, catering business (*horeca/hotel*), or cattle-fodder producer) often operate at a more executive level in which the key focus is efficiency. Thus, such organisations are more results-oriented by providing tasks to employees with targets that need to be made. This is explained by respondents 92 and 88:

“Less skilled or experienced employees get a list with tasks they have to perform that day to achieve the targets. If such an employee does not understand something I have to accompany him or her intensively in order to obtain the same (efficient) results.” (P92)

“Some people need a style of leadership in which they get tasks delegated to them, as such people often work at an executive level.” (P88)

By creating such a delegation environment, in which employees execute tasks, staff will get less initiative taking, innovative, creative and able to take risks, as the efficiency and/or results may suffer from such experimenting behaviour.

4.4 Human capital conditions (micro level)

Respondents argued that the conditions of younger employees, multidisciplinary teams, enough personnel, less hierarchy, and skills/experienced personnel are supportive to entrepreneurial leadership. They also argued that the conditions of older employees, monodisciplinary teams, personnel shortage, hierarchy, and less skilled/experienced personnel are not supportive to entrepreneurial leadership. Thus, in line with proposition five, entrepreneurial leadership is most effective when human capital conditions are supportive. Because, younger employees, multidisciplinary teams, enough personnel, less hierarchy, and skilled/experienced personnel are conditions that enable employees better to be led in an entrepreneurial way than the non-supportive conditions at human capital level. The reasons why will be explained in the next sections.

4.4.1 Younger versus older employees

As regards 55 of the 85 respondents, organisations with younger employees are more likely to be led in an entrepreneurial way, as younger people are more used to work independently than older employees. Respondents argue that it is not because they are older (though, 19 out of 85 do think because they are older), but because younger employees are taught to be innovative, creative and take initiatives, compared to older people who have been taught to execute tasks and leave the analysis and thinking to the leader, or 'boss'. This often applies to start-ups, as showed respondents 53, 56 and 7:

"Then there are companies, which I would think are mostly start-ups, that need a looser more inclusive leadership style such as entrepreneurial leadership." (P53)

"We are in a young environment, our company is relatively new, our customers, investors and personnel are young and energetic. So we have come at a point to make critical decisions about the direction we want to go to. Besides, most people we hired came directly from university, therefore they have a special motivation to prove themselves in their own innovative projects, but may need more regular feedback." (P56)

"I have a much younger generation of employees at the moment, their nature is to be more innovative and creative." (P7)

Therefore, respondents indicate that younger employees can deal better with independency than older employees, increasing the likeliness of leading younger people in an entrepreneurial way, compared to older employees.

4.4.2 Multidisciplinary versus monodisciplinary teams

According to the situations described by the respondents, organisations with multidisciplinary teams are more likely to have leaders that behave in an entrepreneurial way than organisations with monodisciplinary teams (according to 59 of 85 respondents). The reason for this is that people in multidisciplinary teams have different backgrounds, increasing the likeliness that each person knows most of its own field. Because the employees know that they are experts in their own fields, they feel more secure about providing their opinion and creative ideas. In line with this, respondents 48, 53 and 2 argue:

"That a team works closely together with intense interaction is important." (P48)

“As a manager, you cannot try to solve every single problem by yourself, that is exactly the reason why you hire a team with skills that you do not possess.” (P53)

“Those are highly educated and skilled people who exactly know their field of work, I should not interfere in that.” (P2)

On top of that, the respondents argue that they as leader would be more likely to accept the comments and input of such expert employees. This is contrary to employees in monodisciplinary teams, as most team members have similar knowledge. Therefore, the combined knowledge of monodisciplinary teams only adds to the total amount of knowledge, but does not synergize the final result as it does in multidisciplinary teams.

4.4.3 Enough personnel versus personnel shortage

The respondents argue the amount of personnel as important too when a leader has to decide whether to lead in an entrepreneurial way or not (37 out of 85 respondents). Because, if there is plenty of personnel, employees do actually have time to be innovative, take initiatives and be creative. Besides, they have the time to think twice about ideas and to discuss them with colleagues. According to 14 of the 85 respondents, in organisations where there is a personnel shortage, employees are too busy finishing their own tasks, decreasing the likeliness that they will think creative or innovative because they are just too stressed due to the time pressure.

4.4.4 Hierarchy versus less hierarchy

Hierarchy is a key condition for entrepreneurial leadership as well. According to 47 of the 85 respondents, organisations with a flat hierarchy are more likely to apply and accept entrepreneurial leadership, as employees are (more or less) equal and have the same opportunities to provide ideas. Additionally, 53 of the 85 respondents argue that entrepreneurial leadership application is less likely in situations with strong hierarchies. Respondents 82 and 83 for example argues:

“I do not lead my staff in an entrepreneurial way. It is more like an ‘island culture’ in which I make all the decisions.” (P82)

“I say: ‘this is how we do it’. And then they just have to accept it. After some time, employees will accept it anyway.” (P83)

In cases without hierarchies, the ideas of the leader are equally important as the ideas of a fellow employee, increasing the satisfaction of employees and subsequently their courage to provide ideas. Hence, *all* personnel is respected in the same way, through which the personnel feels to be taken seriously. Moreover, according to the respondents, employees feel that they add more value and are more committed to the organisation in cases they feel that they are taken seriously. Smaller companies or start-ups approve to be more often less hierarchical than larger companies according to the respondents. This confirms the statements of the respondents that production companies are more hierarchical, as such companies are often larger in order to efficiently use a high turnover to earn more profits. In line with this, respondent 82 argued the following, indicating that employees have to be as efficient as possible without having real influence in the tasks they have to do:

“No, I am not here to discuss personal matters, employees just have to achieve targets and deliver results as how I have asked them to.”

Besides, such production companies are more likely to be hierarchical as they employ lower skilled people who are led by a higher skilled leader. Therefore, there is a difference between the leaders (managers) and employees in terms of intelligence, which is not the always case in knowledge

organisations where most likely the leader has almost the same education as the employees. This directly indicates the last condition: skilled or experienced personnel.

4.4.5 *Skilled/experienced employees versus less skilled/experienced employees*

The analysis shows, and agreed by all respondents, that skilled or experienced employees are better able to work under entrepreneurial leadership than lower skilled or experienced employees. This is argued by respondents 67 and 2 for example:

"I have experienced that lower educated people do not dare or are not willing to take responsibility. Such people do need more supervision and are not independent enough." (P67)

"In general, my organisation employs highly skilled people; I do not want to patronise them." (P2)

However, it has to be noted that there is a difference between the level of skilled employees and experienced employees. Because, someone working in a production company who is new, will not be able to work under entrepreneurial leadership as such a person does not know what to do. However, if this person works there for several years, he will probably still not be able to take out of the box initiatives because of lower intelligence (and also because the environment does not lead him to do so), but he will be able to be led in a bit more entrepreneurial way due to he is familiar with his tasks. Respondent 47 clarifies this:

"My leadership style is situation-dependent. When I see that someone is not task-mature, I will show them the behaviours that fit with the directive leadership style. When someone is task-mature, I do not have to do a lot. Therefore, I switch easily between leadership styles as entrepreneurial leadership is situational dependent."

Additionally, someone who works in a knowledge organisation, but who is new, probably does not know the exact barriers in which he or she can be innovative or creative. However, such a person will be intelligent or skilled enough to behave entrepreneurial and to be led in such a way, he only needs a bit more experience to know to what extent he can do so. Therefore, skills and experiences are two different conditions, but according to the respondents they are closely related to each other. To conclude, the most useful condition is having skilled *and* experienced employees as they provide the best basis for successful entrepreneurial leadership.

4.5 Mixed situations

So far, respondents clearly divided the conditions as regards the application of entrepreneurial leadership behaviour or not (hence, the conditions are opposites). However, there are some of the conditions where it is not all black or all white.

4.5.1 *Certain vs. uncertain periods: the other way around*

Firstly, some respondents argue that it is useful to lead employees in an entrepreneurial way in unstable times, as such times are likely to impact the need for change more than stable periods. However, others argue that unstable times create unstable situations and anxiousness among employees, reducing their ability to stay creative or innovative. To this extent, respondent 66 argued:

"If people do not feel safe it is hard to lead in an entrepreneurial way as they do not feel confident to act as independently as I desire."

Therefore, in unstable times employees need strong leaders instead of being independent and responsible by themselves. Besides, approaching deadlines can also be seen as unstable and stressful periods, in which it is not desirable that employees are trying out and experimenting with new features for example. In line with this, respondent 5 argued the following:

“If there is time pressure, for example in terms of approaching deadlines, I give my employees more steering as such things just need to be handled quickly.”

Thus, the (un)certain time periods is also argued from the other way around: employees that are used to executing delegated tasks may be led in an entrepreneurial way in crisis situations for example. An example is a hotel employee who gets faced with a double entry accounting. Hence, in such circumstances they are led in an entrepreneurial way and are allowed to think in an innovative and creative way, work independently, and be responsible. However, under normal circumstances they have to execute their delegated tasks. However, this is quite obvious as uncertain periods (crisis situations) ask for a different approach as before, because apparently the used approach does not work (anymore). Therefore, respondents argue that it is not always true that uncertain periods request entrepreneurial leadership and certain periods do not request entrepreneurial leadership. But the main point is that during unstable times, people are inclined to change their behaviour, in the hope situations will become stable again.

4.5.2 Public vs. commercial organisations

Secondly, entrepreneurial leadership is sector dependent too. Some (semi-)public organisations argue to lead their staff in a very entrepreneurial way, while other (semi-)public organisations argue not to. The reason for this is that they often use public money for their operations, indicating that consensus agreement about expenditure is likely (so no single leader can decide). However, it is argued that such organisations are very sensitive to negative publicity, just because they deal with public money. Therefore, there is some disagreement among the respondents about the position of (semi-)public organisations and their conditions applicable to entrepreneurial leadership. Nevertheless, it is clear in this context that commercial businesses have more freedom to act in the way they want, because they only have their own reputation to hold and their own money to gain or lose. This is also confirmed by the findings of Ruvio et al. (2009), who argue that there is a significant difference in the visions of entrepreneurial leaders from non-profit and for-profit organisations because of the above mentioned reasons.

4.5.3 Present vs. history

Thirdly, the conditions under which entrepreneurial leadership is more successful is time dependent as well. As mentioned before, younger employees are often more used to independency at the work floor than older employees. In other words: several years ago, the leadership style to delegate tasks was common. Nowadays, people are used to independency and are more creative as they are taught so at school. Therefore, the external conditions that influence the success of entrepreneurial leadership under particular conditions change over the years. This can also be explained by the gender difference. In history, women were not leaders. However, nowadays it is getting more normal that women have leading or managing positions. But as the analysis shows, men still find it hard to get used to a female leader, especially in production organisations with delegation environments. It is not clear if this is because of the leadership skills of the female leader or not, but it is definitely clear that it is – for whatever reason – still hard for employees to listen to a female leader. The analysis shows that this is especially the case in organisations with a strong hierarchy, production and results oriented and where the leader delegates tasks. Thus, it is not confirmed as regards knowledge institutions. Nevertheless, this does show that even though female leaders have become more common, employees still find it hard to get used to be delegated by a female leader. Therefore, times have changed employees' perception of leaders, but probably not enough to accept female leaders being at a similar level as male leaders.

4.5.4 *skilled/experienced vs. less skilled/experienced employees: situation dependent*

Fifthly and finally, the conditions for the success of entrepreneurial leadership very much depend on the level of skills of employees. (Entrepreneurial) leadership is about leading people, individuals. Since each individual is different, the possibility of applying entrepreneurial leadership to a particular employee is also situation dependent. Because, it will be dependent on the specific tasks or project, on the level of education and skills of the employee, and on the experience level of the employee. So, categorising conditions to indicate the success of applying entrepreneurial leadership is possible. However, the real success of applying such behaviour is situation and employee dependent as all respondents agree. In addition, the real success of applying entrepreneurial leadership behaviour is – obviously – also dependent on the leaders' capabilities. Because, a leader should possess the right capabilities to execute entrepreneurial leadership. However, this is a discussion that is outside the scope of this research.

5. Discussion & conclusion

5.1 Key findings

After the literature review showed the importance of conditions for the success of entrepreneurial leadership behaviour, the empirical part of this study showed an analysis of 85 qualitative interviews. The respondents were all leaders who described situations (critical incident technique) in which they applied entrepreneurial leadership behaviour or not and why they did so. The results showed that important conditions support entrepreneurial leadership. Therefore, in line with proposition one, it is stated that supportive contextual conditions do enable employees better to be led in an entrepreneurial way, increasing the effectiveness of entrepreneurial leadership. The mentioned supportive conditions at macro level (external) are non-rigidly regulated markets and uncertain time periods. The mentioned supportive conditions at meso level (organisational) are knowledge organisations, strategy level, process-orientation, and consensus environment. Finally, the argued supportive conditions at micro level (human capital) are younger employees, multidisciplinary teams, enough personnel, less hierarchy, and skilled/experienced personnel. These conditions, at three different levels, enable employees better to be led in an entrepreneurial way than the other non-supportive conditions, and therefore do facilitate entrepreneurship. Besides and as mentioned, the results showed conditions at three levels, external (macro level), organisational (meso level), and human capital (micro level). Thus, in line with proposition two, externalities, organisational structures, and human capital are argued to be the three key levels to which conditions can be divided. To shortly summarise the different levels, the following paragraphs provide a retrospective view regarding the findings.

As regards the external (macro) level, rigidly regulated sectors and (un)certain periods of time are argued to be important conditions for the success of an entrepreneurial leader. Sectors that are strictly regulated and have to comply to specific rules are less successful in applying entrepreneurial leadership behaviour than sectors that are not regulated (for example: financial sector and creative sector, respectively). In addition, most respondents argued that uncertain time periods are better for entrepreneurial leadership than stable periods, as employees would be more open for change as the current approach apparently does not work. However, there is no consensus about these conditions among the respondents, as some also argue that in such uncertain times employees are more anxious, decreasing their 'freedom' of thinking and imitative-taking. The existing literature states that supportive external environments are most effective for entrepreneurial leadership (Carson et al., 2007), however, the findings suggest that this differs per respondent as apparently other conditions play a role in relation to this too. A reason for this is that conditions are seen as secondary aspects in existing research, while they are used as primary aspects in this study. Nevertheless, in line with

proposition three and in the abstract sense, the supportive external conditions (as provided in table 1) support entrepreneurial leadership as they enable employees better to be led in an entrepreneurial way.

The organisational (meso) level provides four conditions that are highly related to each other. As the results show, knowledge organisations work more often at a strategic level, are therefore more process-oriented (by including additional aspects such as sustainability and employee welfare), and take thus a consensus approach in which each employee participates to the same degree. In such organisations, entrepreneurial leadership is more useful and successful as employees can provide their personal input which is afterwards accepted as consensus solution. Because each employee can provide its opinion, no aspects are forgotten. Besides, employee commitment and engagement is higher because all employees feel involved and equal part of the organisation. This is all in line with the existing literature about shared leadership and knowledge organisations as described by DeNisi et al. (2003). Contrary, production organisations are more results-oriented and focused on efficiency. This approach is more likely to lead to a delegation environment in which employees execute specific tasks as there is less time or 'freedom' to take initiatives, be innovative, or take risks. Because of the total focus on output and profits, such organisations are less useful for applying entrepreneurial leadership, as the context does not create enough commitment and security to motivate the employees being innovative and entrepreneurial. Therefore, in line with proposition four, the supportive organisational conditions (as provided in table 1) support entrepreneurial leadership as they better enable employees to be led in an entrepreneurial way than conditions that are not supportive.

The last level, human capital at micro level, provides five conditions indicating that personnel is important for the success of entrepreneurial leadership. This is obvious, as leadership is about leading people as mentioned before. According to the respondents, younger employees are more open for being led in an entrepreneurial way, as they are taught to be more independent and open-minded. Besides, they like to work in multidisciplinary teams so they can learn from each other. Due to the multidisciplinary teams, each team member is expert of its own field increasing the social cohesion of the team as there is less competition than in monodisciplinary teams. This increases the usefulness of entrepreneurial leadership, as there remains more time to innovate, take risks and be creative since employees complement each other in the multidisciplinary teams. This finding builds on the work of Carson et al. (2007) and Day et al. (2004) about the positive effect of team design on entrepreneurial leadership. Hence, less personnel will be necessary for the same amount of work, because not everyone needs to reinvent the wheel. Moreover, because of the multidisciplinary teams – and each member being expert in its own field – there is less hierarchy in such organisations, providing a better basis for entrepreneurial leadership. This is confirmed by the study of Popper & Zakkai (1994) who argue that a smaller distance to a leader benefits entrepreneurial leadership. Finally, most people working in such organisations are skilled, and/or are experienced in the field they are working. Contrary, older employees are often not used to independence, as they were – years ago – taught to listen and execute tasks. Hence, they more often work in monodisciplinary teams as this was more common years ago. Besides, respondents argued that older employees are more reticent to change than younger employees. Due to the monodisciplinary teams, there is more hierarchy as every team member is equal, but not equal to their leaders. In addition, people working in monodisciplinary teams are often less skilled or experienced, as they apparently cannot be 'experts' in their fields. Hence, there are many more other employees executing the same tasks in the same organisation, indicating an organisation to be more oriented on results and production, including a delegation environment. These conditions prove to be less useful for entrepreneurial leadership behaviour. Because, employees will be less stimulated to act in an entrepreneurial way as the circumstances – thus conditions – are not made for being creative, innovative, and entrepreneurial. Therefore, in line with proposition five,

supportive human capital conditions support entrepreneurial leadership as they enable employees better to be led in an entrepreneurial way than non-supportive human capital conditions.

Nevertheless, it has to be noted that the conditions are not all that black or all white. Some conditions as shown in the table can be swapped. In other words: the most important finding is that people *want* change if things are not going well, but they *do not want* change if things are stable. Hence, the success of an entrepreneurial leader seems to be influenced by the conditions discussed above, however, it is also situational dependent. Because, entrepreneurial leadership is still about leading people, and people are not the same. In addition, entrepreneurial leaders are also not the same. Some respondents argued entrepreneurial leadership to be delegating tasks to their employees on which turn the employees can think for themselves how to solve those tasks. This happened more often at the execution levels in organisations. Contrary, other respondent argued that their employees had a function description in which they were free to innovate and create together with their colleagues. Hence, there was minimum delegation of tasks as they could almost choose their own tasks together with the multidisciplinary teams. But the one thing all respondents agreed on, is that the entrepreneurial leader should act as a safety net. A well-functioning leader facilitates the right instruments, circumstances, and environments for its employees, so the employees can excel in their functions with creative and innovative solutions for the companies' clients. Moreover, an entrepreneurial leaders stands by in case of questions or problems, but generally leaves the employees work freely and independently. But to what extent this behaviour is desirable depends on the conditions that are present, the situation and the employees themselves.

5.2 Limitations

This research design has some limitations. First, it uses an interview-database not originally intended for researching conditions of entrepreneurial leadership only. The interview protocol has been used for other studies, indicating that not all questions were relevant. However, considering that the critical incident technique is used, the described situations would not have been different if the interviews were solely based on sampling data as regards the conditions. Secondly, the respondents interviewed were mostly managers, instead of also entrepreneurs. The theory of entrepreneurial leadership assumes that everyone can be a leader, so in a follow-up study it is important that entrepreneurs are also taken into account. In line with this, also employees of the managers/entrepreneurs should be interviewed to that extent, because those are the ones that are being led. Thirdly, the successfulness of entrepreneurial leadership conditions reflect the perceptions of situations of the respondents, rather than performance data. However, this is not a big problem as it provides a qualitative study rather than a quantitative study that tests the exact performance of the conditions.

5.3 Future research (scientific recommendations)

Several recommendations for follow-up studies derive from this thesis. First, the results showed that there are differences in male and female entrepreneurial leaders. At the moment, literature about gender differences as regards entrepreneurial leadership is mainly based on the social intelligence of women compared to men, rather than on the backlog of women as regards leading positions. The latter has been researched as regards leadership as particular field, however, it would be interesting to study whether (if so, how and why) this is different from normal leadership.

Second, the analysis showed that skilled or experienced employees are better to be led in an entrepreneurial way than lower skilled or experienced employees. It is important to research whether it is the education, or the intelligence of an employee that influences the usefulness/success of entrepreneurial leadership of the leader. In other words: are more experienced (and therefore older) employees used to a particular style and less eager to change, and therefore less cooperative as regards entrepreneurial leadership then less experienced and younger employees? Or is it really mainly

because their intelligence is different? If we can obtain this knowledge, it can be researched what the specific boundary line of intelligence/education/experience is in which entrepreneurial leadership is most effectively.

Third, despite the fact that many respondents argued their leadership style was entrepreneurial, the behaviour they showed in the situations they described were not actual entrepreneurial leadership behaviours (as described in the literature). Therefore, it is assumable that many respondents did not exactly know what entrepreneurial behaviour is or that they had different thoughts about how they applied it. Thus, the level of entrepreneurial leadership used in different situations described differs. Therefore, it would be useful to research if there is a relationship between the educational level of the entrepreneurial leader and their thoughts about the amount of – or level of – own entrepreneurial leadership applied to their employees. Because, often leaders of lower skilled employees are also lower skilled themselves as they grow further into the business. Also, leaders of higher educated employees are also higher educated themselves. In this respect, their visions of entrepreneurial leadership may differ as they apply it in different circumstances (production oriented or strategy oriented) and among different employees (high or low educated). It would be useful to research this difference, as it would indicate that entrepreneurial leadership itself could also be distinguished into different levels of application for example.

5.4 Practical implications (practical recommendations)

Next to the scientific recommendations, also some recommendations for practitioners have derived from the study. First, leaders who want to lead their employees in an entrepreneurial way should, first of all, create the conditions that benefit the success of the entrepreneurial leader as described above. Hence, such leaders should focus on the social cohesion, composition and performance of the teams, as this is feasible. Contrary, environmental conditions are not always able to be created or adjusted. Nevertheless, it is possible to act as an entrepreneurial leader by providing the time and space for employees to act as an entrepreneurial in the spare time when working in rigidly regulated sectors. Choose for a mixed solution in such circumstances, rather than not applying entrepreneurial leadership at all. Besides, by taking into account all levels of employees when running the business, employees will be more committed, engaged, supportive and motivated to do whatever it takes to make the business or organisation successful – and thus also the leader. By decreasing the hierarchy, providing employees more freedom, security, trust and ability to behave like real owners of the business, they will end as happier employees increasing the success of the entrepreneurial leader and the organisation.

Second, organisations may further support these conditions by institutionalising an organisation charter process whereby employees, upon their information, collectively identify and agree upon a common goal and set of priorities, team roles and responsibilities, and norms (Carson et al., 2007, p. 1229). Also, leaders should engage in supportive coaching of employees to facilitate the development of entrepreneurial leadership. According to Carson et al. (2007) and Hackman & Wageman (2005) this can be done in terms of encouraging, reinforcing, and rewarding instances in which employees demonstrate leadership/entrepreneurship, assisting employees when internal conflicts arise, providing general encouragement to employees as a team, and being available for suggestions or input into the team's task strategies as needed. Most important, entrepreneurial leaders should pay particular attention to teams that may have weaker internal environments in order to provide additional motivation, guidance, and support (Carson et al., 2007, p. 1229). However, for organisations with supportive internal environments, stronger coaching may not provide much additional assistance in developing entrepreneurial leadership (Carson et al., 2007).

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7. Appendices

7.1 Appendix 1: Final selection literature review in chronological order

Literature before 2000			
Author	Year	Content/results	Key factors (characteristics/conditions)
Fiedler & Chemers	1967	Effective leadership style depends on situation	Condition: Effective leadership, situational, structured tasks/unstructured tasks, groups
Adair	1973	Action-centred leadership: leadership is based on situational context	Conditions: Situation, people, tasks, context, organisation
Hersey et al.	1977	Effective leadership style depends on situation	Effective relationships, situation, people, organisational context
Burns	1978	Transformational- and laissez-faire leadership	Personal characteristics: Ideals/morals of leaders, engaging followers, achievement, ownership in goals, group goals, becoming enriched in work
Katz & Kahn	1978	Supportive external environment increases leadership effectiveness	Organisational context, supportive, external environment
Miller	1983	Entrepreneurship is influenced by personal factors, organisational structure and strategy making	Innovation, risk-taking, personal factors, organisational structure, strategy, EO dimensions
Gartner	1985	Entrepreneurship as organisational emergence process	Organisational behaviour, emergence, entrepreneurship
Bass	1985	Transformational leadership in organisational context	Conditions: Transformational leadership, context, organisation, ideals, morals, ownership, group goal
Hackman & Walton	1986	Leader is responsible for team's outcomes & processes	Groups, leaders' responsibility, teams' output
Lawler	1986	Participation leads to organisational effectiveness in financial and psychological terms	Participation, high-involvement management, employee levels, organisational structure, effectiveness
Manz & Sims	1987	External leaders' most important behaviours is that what facilitates self-management, observation, evaluation & reinforcement	External leader effectiveness, self-managing work teams, leader behaviour, coaching
McGrath & MacMillan	1987	First to propose entrepreneurial leadership, new leader was required in uncertain markets	Entrepreneurship, uncertainty, new type of market requires new leader
Author	Year	Content/results	Key factors (characteristics/conditions)
Covin & Slevin	1991	Organisational level elements influencing entrepreneurial behaviour in large and small firms (EO dimensions)	Conditions: organisational level, firms' risk-taking propensity, tendency to act, reliance on product innovation, EO dimensions
Kirkpatrick & Locke	1991	Key leader traits help leader acquire necessary skills, formulate organisational vision & effective plan, and take steps to implement vision	Traits, effective leaders differ from normal people, drive, leadership motivation, honesty & integrity, cognitive ability, knowledge of business
Gartner et al.	1992	Personal characteristics, environment, process and organisation are relevant for new venture creation	Entrepreneurship, differences, new venture creation, personal characteristics, organisational characteristics, environment, process
Bryman	1992	Transactional leadership in organisations	Conditions: Charisma, group, managerial leadership
Harrison & Leitch	1994	Increased importance of being placed on team-based approaches in entrepreneurship and leadership & changes	Entrepreneurship education, teams, organisational structures, environmental changes

		in nature and understanding of business organisation	
Popper & Zakkai	1994	Leadership patterns in relation with organisational conditions and psychological contexts	Transactional, charismatic, transformational leadership, patterns, organisational conditions, hierarchy
Schriesheim et al.	1994	Leadership effectiveness regarding vertical leadership	Leadership effectiveness, vertical leadership
Stewart & Manz	1995	Leaders have to lead others to lead themselves, depending on organisational characteristics	Self-managing work teams, leaders' supervision, team leader behaviour, organisational characteristics
Author	Year	Content/results	Key factors (characteristics/conditions)
Kozlowski et al.	1996	Dynamic team leadership aspects: shifts in leaders' role and leaders' use of natural variations in team's tasks	Work teams, team experience, effective teams, team leadership, task and learning cycles, team coherence
Lumpkin & Dess	1996	EO construct and firm performance relationship	EO dimensions, firm performance
Gerstner & Day	1997	Leader-member exchange in vertical leadership and correlations	LMX, job performance, satisfaction with supervision, overall satisfaction, commitment, role conflict/clarity, competence, turnover intentions
Brass & Krackhardt	1999	Leaders' social capital is undervalued	Social capital
Shamir & Howell	1999	Charismatic leadership' emergence and effectiveness is facilitated by some contexts and inhibited by others	Charismatic leadership, organisational context, effectiveness, emergence

Literature after 2000			
Author	Year	Content/results	Key factors (characteristics/conditions)
Boal & Hooijberg	2000	Capacities and wisdom as essence of strategic leadership, emergent theories including cognitive & behavioural complexity	Conditions: Capacity to learn, capacity to change, managerial wisdom, social intelligence, context behaviour
Wageman	2001	The influence of design choices & hands-on coaching as leader behaviours on the effectiveness of self-managing teams	Effectiveness, self-managing teams, coaching, relationships quality in team, satisfaction, task performance
Hackman	2002	Leadership styles less important than choosing the style depending on the situation	Situation, state, team, skills, preferences, situational leadership approach
Mitchell et al.	2002	Overview of five articles about characteristics/personality/cognition	Entrepreneurial personality, cognition, perspective
Osborn et al.	2002	Macro view to supplement existing literature: interplay of leadership in stability, crisis, dynamic equilibrium and edge of chaos	Stability/unstability influence for leadership, contextual leadership, network, pattern
Pearce & Sims	2002	Vertical vs. shared leadership as predictors of effectiveness	Formal leader, team leader, team effectiveness
Porac & Thomas	2002	Mental models shaped by knowledge & experience	Knowledge, experience, mental models
Swiercz & Lydon	2002	Need of different leadership competencies as it should fit organisation	Personal characteristics: differentiation among leaders & organisations
Yukl	2002	The leader should influence and inspire its followers to achieve organisational goals	Organisational structures, leadership effectiveness, inspire, influence, achieve organisational goals, followers

Burke et al.	2003	Distributed/shared/team leadership engages people but need for particular organisation	Conditions: Team leadership, shared leadership, mental models, situation
DeNisi et al.	2003	Knowledge-based work employs higher levels of skilled people that request autonomy	Knowledge-based work, autonomy, skilled people, experienced people, teamwork
Druskat & Wheeler	2003	Effective external leaders move between boundaries to scout information, build relationships, persuade teams, and empower teams	Self-managing work teams, external leader, effective leader behaviours, strategies
Kozlowski & Bell	2003	Team's life cycle from formation to disbanding	Work organisations, work teams, dynamics, team training, team leadership
Pearce & Conger	2003	Team/shared/distributed leadership as emerging type	Team, effective leadership, shared responsibilities
Author	Year	Content/results	Key factors (characteristics/conditions)
Vecchio	2003	Specific contextual leadership (situational)	Autonomy, self-efficacy, risk-taking, achievement, locus of control
Cogliser & Brigham	2004	Intersection between entrepreneurship & leadership, historical perspective of both fields	Mixed: Activities & life cycle related to entrepreneurial leadership.
Day et al.	2004	Team leadership is teamwork and learning: one leader cannot perform all leadership functions	Conditions: distributed leadership, teamwork, team learning, processes, performance, outcomes
Gupta et al.	2004	EL is cultural based: high power distances less adapt EL	Condition: creativity, stimulation, intelligence
Pearce	2004	Vertical & shared leadership combined transforms knowledge-based work: vertical leader is critical to success of shared leadership approach	Knowledge work, team, traditional leadership models, skills, abilities
Fernald et al.	2005	Personal and firm characteristics influencing entrepreneurial leadership	Entrepreneurial leadership, individual/firm characteristics: risk-taking, vision and goal setting, problem solving, decision-making abilities, and negotiations
Gronn	2005	Shared leadership	Shared/distributed/team leadership
Hackman & Wageman	2005	Model of functions, times, conditions to explain team coaching	Team coaching, functions, leader behaviour/styles, times, conditions
Morgeson	2005	Coaching differences: active and supportive coaching	External leader, self-managing teams, functional leadership, effectiveness, supportive coaching
Ensley et al.	2006	Vertical leadership is top-down/shared leadership collective process, more shared/transformational in new ventures rather than transactional as regards development & growth	Conditions: Team/collective knowledge, vertical top-down, shared bottom-up
Porter & McLaughlin	2006	Organisational context affects leaders' behaviour and effectiveness	Organisational context, leaders' behaviour, effectiveness, interaction
Carson et al.	2007	Shared leadership increases team performance and leadership effectiveness	Conditions: Team property, no single leader, team performance, internal and external team environment, shared purpose, social support, voice, external coaching
Chen	2007	Entrepreneur's leadership influencing team members' creativity	Personal characteristics: Pro-activity, creativity, risk-taking, innovation, capability, entrepreneurs' leadership, EO dimensions
Author	Year	Content/results	Key factors (characteristics/conditions)

Kuratko	2007	Entrepreneurial activity as basis, high risk is opportunity efficacy/low risk is relationship efficacy	Personal characteristics: risky, innovative, change, vision, entrepreneurial activity, proactivity
Hodgkinson & Healey	2008	Cognition in organisations, mental models are shaped by experience	Cognition, organisational traditions, human factors
Osborn & Marion	2009	The appropriate leadership is embedded in the context (stability/chaos, etc.)	Contextual leadership, performance, alliance innovations, strategic contributions to sponsors, knowledge-information based leadership, transformational leadership
McCallum & O'connell	2009	Focus on human capital capabilities and social capital skills as personal characteristics set	Social capital, human capital, personal characteristics, orientation
Ripoll et al.	2010	Leadership motives in non-entrepreneurial & entrepreneurial environments. Entrepreneur: power, affiliation, achievement, autocratic, motive	Motives, behaviours, collaborators, contexts
Ruvio et al.	2010	Vision, risk-taking, communication, innovation + for profit entrepreneurs more conservative than non-profit entrepreneurs	Personal characteristics: vision, risk-taking, innovativeness, non-profit/profit
Patterson et al.	2012	Female leaders experience role incongruity and should balance between femininity and masculinity	Gender, social role incongruity, credibility, legitimacy, entrepreneurship & leadership
Author	Year	Content/results	Key factors (characteristics/conditions)
Leitch et al.	2013	Leaders' human capital enhancement occurs due to development of social capital	Personal characteristics: knowledge, capabilities, skills, social capital, human capital, organisational structure & context
Freeman & Siegfried	2015	Three capabilities of start-up leaders: strategic thinking, self-evaluation & coaching to grow	Start-up leaders, vision, achieving persistence, executing through chaos, strategic thinking, coaching, self-evaluation
Koryak et al.	2015	Entrepreneurial leadership capabilities influences on enterprise development and growth	Processes, routines, resources, cognitions, motivations, decisions to invest, dynamic capabilities to support new opportunities
Middlebrooks	2015	Creating common framework for entrepreneurial leadership: between entrepreneur & leader	Entrepreneur characteristics, leadership characteristics, contexts, mindsets
Renko et al.	2015	Entrepreneurial leadership influences & directs group performance to achieve organisational goals	Environment, organisational structure, entrepreneurial leadership success, group performance

7.2 Appendix 2: Interview protocol

INTERVIEW PROTOCOL ENTREPRENEURIAL LEADERSHIP

English Version 10-05-2014

-- Before you start your interviews, make sure you know the protocol and preferably test drive it on a friend or family member (I know that might be awkward) --

Introduction of yourself and the study

First introduce yourself and thank the respondent for taking the time to be interviewed

Explain briefly why you are doing this study:

- your final project to obtain your bachelor degree, and
- because you would like to learn more about leadership, in particular in relation to how leaders/managers encourage employees to behave entrepreneurially in organizations (ondernemend gedrag in organisaties / unternehmerisch verhalten in organisationen)

Introductory information on the respondents background

- Name of organization

- Type of industry / generally what type of product(s) or service(s)
- Name of respondent
- Gender
- Age
- Name of function / position in the organization / main task-responsibility
- Experience in this specific position,
- Total experience in any managerial position
- Approximately, how many direct reports (=people that directly report to the manager in the formal hierarchy of the organization)
- What type of work do people under the manager do (direct reports and others in the hierarchy below manager)

Main interview question (critical incident technique)

1. Could you mention an example in your career of when you led your employees in an entrepreneurial way? If you have multiple examples please take the most recent one. Please take your time to choose and describe one example.
 - i. What happened in this situation or project? What was it about?
 - ii. Which specific behaviors did you demonstrate in this example? How did you show them?
 - iii. Could you describe in greater detail what you did or said exactly?
 - iv. Why did you show these behaviors?
 - v. What kind of behaviors did your employees show in this example? Could you describe them exactly?
2. **BACKUP** IN CASE RESPONDENT FINDS IT HARD TO ANSWER **OR** TALKS ABOUT OTHER ISSUES THAN ENTREPRENEURIAL LEADERSHIP (=OTHER TOPICS THAN THOSE RELATED TO RISK-TAKING, PRO-ACTIVENESS, INNOVATIVENESS, AUTONOMY, OWNERSHIP, OR COMPETITIVE AGGRESSIVENESS OR ENCOURAGING THESE)
 - i. Can you mention an example in your career of when you encouraged your employees to take risks or take ownership; be autonomous, pro-active or innovative; or learn from competitors?

!!! -> If question 2 not necessary: explain here that in the literature entrepreneurial leadership is characterized by risk-taking, pro-activeness, innovativeness, autonomy, ownership and competitive aggressiveness and encouraging these in employees

Contingency factors

3. How often do you lead your employees in an entrepreneurial way (regularly or occasionally)? Could you give a rough percentage?
4. In which circumstances do lead your employees in an entrepreneurial way, when do you think it is most useful? Too what extent is such behavior useful?
5. In which circumstances do you think it is not useful?
6. How important is social intelligence – empathy, social awareness and skills – for leading employees in a entrepreneurial way?
7. How has your past experience influenced you in leading your employees in an entrepreneurial way? Has your opinion changed over time on this matter and if so why / when?
8. Could you also give a recent example of when you did not behave in an entrepreneurial manner towards your employees and why?
9. How would you describe your leadership in general?

Outcomes

10. What is in your opinion the effect of leading your employees in an entrepreneurial way on employee commitment? Please explain
11. What is in your opinion the effect of leading your employees in an entrepreneurial way on economic performance of the firm?
12. What is in your opinion the effect of leading your employees in an entrepreneurial way on the social performance of the firm? E.g. employee wellbeing (people) or environmental sustainability (profit)?

Closure of the interview

13. Do you have any final comments or thoughts on this matter you would like to share?

Don't forget to thank the respondent and tell them that you will send your final paper when you are done and in case of questions they can contact you or your supervisor at the university (in other words: me)

7.3 Appendix 3: Code lists from Atlas TI 7.0

Code-Filter: All HU: Scriptie BA Rhodé 2 File: [C:\Users\Rhodé\Dropbox\Afstuderen BA\Scriptie BA Rhodé 2.hpr7] Edited by:Super Date/Time: 2016-03-16 14:38:20 EL MIXED: crisis/nocrisis difference EL MIXED: situation dependent EL NO: Delegation environment (tasks)	Factor - Clear processes Factor - Control & no control balance Factor - Creativity time & environment Factor - Effectivity Factor - Efficiency Factor - External environment (market) Factor - Failures are possible Factor - Independence Factor - Initiative taking environment	Mindset - Risk-taking Mindset - Trust Mindset - Visionary Skill - Accepting/providing critical feedback Skill - Ambidexterity: creativity & normal business Skill - Ambidexterity: risks & safety Skill - Anticipation: Necessity & chances Skill - Coaching Skill - Combined faith (creation) Skill - Commitment (creation)
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EL NO: Execution level EL NO: Hierarchy EL NO: Monodisciplinary teams EL NO: No experienced/skilled personnel EL NO: Older employees (delegating) EL NO: Personnel shortage (no time to innovate) EL NO: Production organisations EL NO: Results oriented (efficiency) EL NO: Rigid regulated markets/tasks/systems EL NO: Stable periods EL YES: Consensus environment (participatory) EL YES: Enough personnel (time to innovate/create) EL YES: Experienced/skilled personnel EL YES: Knowledge organisations EL YES: Multidisciplinary teams EL YES: No hierarchy EL YES: No rigid regulated markets/tasks/systems EL YES: Process oriented (sustainability) EL YES: Strategy level EL YES: Uncertain periods EL YES: Younger employees (independence) Factor - Bilateral communication Factor - Bilateral cooperation Factor - Challenging environment	Factor - Innovative time & environment Factor - Loyalty Factor - Mobility (encouragement) Factor - Multidisciplinary Factor - No certainty Factor - No hierarchy Factor - No reorganisation Factor - No rigid patterns Factor - Participatory environment Factor - Personal growth opportunities Factor - Prosper & welfared employees Factor - Question asking environment Factor - Respect Factor - Responsibility environment Factor - Safe working environment Factor - Satisfactory environment Factor - Self-development (employees) Factor - Skilled employees Factor - Social cohesion Factor - Transparency & honesty Factor - Work & life balance Mentality - Results-oriented Mindset - Change Mindset - Entrepreneurial drive Mindset - Leader could be missed Mindset - Mentality	Skill - Communicative Skill - Connecting people Skill - Continuity (creation) Skill - Creativity Skill - Decisive Skill - Delegating Skill - Dose Skill - Empathy/Sympathy (Social Intelligence) Skill - Engagement (creation) Skill - Enthusiasm/positivity Skill - Experience Skill - Great talks/sales Skill - Innovative Skill - Insight into human characters Skill - Inspire Skill - Leadership Skill - Listening Skill - Manners Skill - Multitasking Skill - Networking Skill - Patience Skill - Perseverance Skill - Persuasiveness Skill - Prioritise Skill - Rewards (giving) Skill - Risk-taking Skill - Stimulative Skill - Stress (immune to) Skill - Support (getting) Skill - Win-win situations (creation) Skills - Expectation management
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7.4 Appendix 4: List of respondents, sector & level of entrepreneurial leadership applied

RX	PX	Sector	EL YES	EL MIDDLE	EL NO	Most relevant codes
1	P1	Consultancy	X			Skilled employees, together more knowledge
2	P2	<u>Public</u> : Government	X			Skilled employees, particular employee knowledge
3	P3	<u>Education</u>		X		Rigid regulated sector, depending on employee intelligence
4	P4	Architecture	X			Multidisciplinary teams, skilled employees
5	P5	<u>Public</u> : Government	X			Skilled employees, public money = not 1 leader
6	P6	Architecture	X			Skilled employees, EL NO when specific tasks
7	P7	Logistics		X		Depending on intelligence employees + tasks
8	P8	IT Online learning platform	X			Team spirit, more knowledge together, start-up
9	P9	IT event app provider	X			Start-up, few employees + many tasks
10	P10	Oline watch dealer		X		Depending on tasks (executive/strategy)
11	P11	Carsharing	X			Younger personnel, independence, skilled employees
12	P12	Self-publishing book platform	X			Not rigid regulated sector, creative, independent author customers
13	P13	Online marketing	X			Multidisciplinary teams, skilled employees, innovative
14	P14	Catering wholesale		X		Small company so EL YES, but executive tasks EL NO
15	P15	Eatables sales			X	Specific rigid tasks, lower educated people
16	P16	Venture capital (technology)	X			Multidisciplinary teams, educated people, strategy level, independency, leader could be missed
17	P17	Financial	X			Start-up, IT, young employees, knowledge
18	P18	Metal industry, basic resources			X	Hierarchy, rigid tasks, production, lower skilled employees
19	P20	Mobility service provider	X			Multidisciplinary teams for strategy, skilled employees

20	P21	Telecom		X	Crisis situation, depending on tasks
21	P22	Consultancy	X		Innovative, skilled employees, multidisciplinary teams, strategy
22	P23	Graphic industry		X	Only in crisis situations (business on fire)
23	P24	<u>Hospital</u>		X	Specific tasks, so only in some tasks. Rigid regulated sector
24	P25	Paper processing		X	Production, executive, delegation, lower skilled employees
25	P26	Paper processing		X	Production, executive, delegation, lower skilled employees
26	P27	Gameshop		X	Low skilled employees, delegating, executive
27	P28	Events/promotion		X	Executive, delegating tasks, lower skilled employees
28	P29	IT (order picking)		X	Executive, delegating tasks, lower skilled employees
29	P30	Financial Marketing/creative sector		X	Task dependent, rigid regulated sector
30	P31		X		Small company, multidisciplinary teams, family, no hierarchy
31	P32	Pharmacy		X	Rigid regulated sector
32	P33	Horeca		X	Lower skilled employees, executive tasks, delegating
33	P34	Hotel		X	Executive tasks, only in crisis situations (double reservations)
34	P35	Production & sales of mash		X	Production, executive tasks, lower skilled employees, monodisciplinary teams
35	P36	<u>Hospital</u>		X	Rigid regulated sector, though high skilled people
36	P37	<u>Public</u> : non-profit aid	X		No rigid regulated sector, creative, independence, multidisciplinary teams
37	P38	<u>Municipal administration</u>		X	Depending on skills of employees, administrative EL NO, strategy EL YES
38	P39	<u>Health service provider</u>	X		Skilled employees, multidisciplinary teams, experts, knowledge
39	P40	Children association		X	Executive tasks, delegating, rigid regulated market (children)
40	P42	Dental technique	X		Experts, multidisciplinary teams, educated employees
41	P43	Financial	X		EL YES, not in crisis situations only in stable periods
42	P44	Energy		X	Depending on tasks
43	P45	Financial service provider		X	Rigid regulated market, hierarchy, results oriented
44	P46	Insurance		X	Rigid regulated markets, but EL YES when possible
45	P47	<u>Health care</u>	X		Knowledge, rigid regulated sector, multidisciplinary teams, educated employees
46	P48	Cooling systems		X	Depending on tasks, executive EL NO, strategy EL YES, no hierarchy, independence, innovative, creativity
47	P49	<u>Governmental service provider</u>		X	EL YES, but rigid regulated, depending on level of skills of employees, but yes, public money
48	P50	Window decoration		X	Hierarchy, executive tasks,
49	P51	Car sales		X	As far as particular tasks provide opportunity to do so, but low skilled employees
50	P52	E-commerce	X		Knowledge, young employees independence, multidisciplinary teams, strategy
51	P53	Soft + Hardware development	X		No hierarchy, knowledge, young independent employees, multidisciplinary teams, strategy, consensus
52	P54	App developer (pet service)	X		No hierarchy, creative, no rigid market, young independent employees
53	P55	App developer (financial)		X	Rigid regulated market, but knowledge, multidisciplinary teams, consensus
54	P56	Clothing/asssecories		X	Executive, delegating tasks, lower skilled employees, hierarchy
55	P57	Clothing shop		X	Situation dependent, low/high skilled personnel
56	P58	Financial		X	Hierarchy, delegation, rigid regulated market
57	P59	<u>Health care</u>		X	Results oriented, hierarchy, situation dependent, high/low skilled employees
58	P60	Legal		X	Rigid regulated market, hierarchy, but skilled people, so dependent on tasks
59	P61	Financial	X		Yes, but rigid regulated market so as far as tasks create possibility
60	P62	Catering		X	Hierarchy, monodisciplinary teams, low skilled, delegating, executive
61	P63	<u>Government social security</u>	X		Rigid regulated market, but multidisciplinary teams, knowledge, independency
62	P64	Installation service		X	Production, executive, delegation, lower skilled, hierarchy
63	P65	Callcenter		X	Delegating tasks, executive, results oriented, targets
64	P66	<u>Health care</u>	X		Not in crisis periods, dependent on rigid tasks/rules

65	P67	Civil infrastructure services	X			Knowledge, strategy, multidisciplinary teams, skilled employees
66	P68	Horeca		X		Depending on level of skills of employees: strategy & executive
67	P69	<u>Municipality</u>	X			Skilled employees, experts, multidisciplinary teams, strict rules
68	P70	Accountancy/consultancy	X			Yes, but not in crisis situations, skilled people, knowledge
69	P71	Insurance	X			Knowledge, strategy, skilled employees, consensus, multidisciplinary teams, process oriented
70	P77	Consumer products	X			Knowledge, strategy department, skilled people, production: EL NO
71	P78	Logistics	X			Strategy, knowledge, skilled people, planning department
72	P82	Contracting firm			X	Executive, delegating tasks, lower skilled people, older employees no independence
73	P83	Debtor management			X	Executive, delegating tasks, results oriented, rigid regulations
74	P84	Textile production			X	Low skilled people, executing tasks, production
75	P85	Gardeners firm			X	Low skilled, executing tasks, no independence, production
76	P86	Real estate firm	X			Strategy level, knowledge, skilled people, independent, process oriented
77	P87	Staffing & recruiting/HR	X			Skilled employees, strategy, knowledge, process oriented
78	P88	Technical textile		X		Executive/strategy levels & skills/no skilled employees
79	P89	IT consultancy	X			No hierarchy, knowledge, young independent employees
80	P90	Financial			X	Only in crisis situations
81	P91	Event service provider	X			Freelance project leaders
82	P92	Production & sales (farming)			X	Production, lower skilled/intelligent employees
83	P93	Virtual reality developer	X			Start-up, few employees + many tasks
84	P95	Manuele & fysiotherapie	X			Sell yourself/service
85	P96	Storage & real estate			X	Only in crisis situations (personal fights)

RX = Respondent number, PX = Atlas document number, EL YES = entrepreneurial leadership applied, EL MIDDLE = entrepreneurial leadership situationally applied, EL NO = entrepreneurial leadership not applied, underlined = non-profit organisations/public organisations.