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Participative Leadership and Employee Innovative Behaviour

Moderated by pro-active and risk-taking
work climate

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Title

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Abstract

Innovation is crucial for the long-term survival of MNEs. Especially, in small nations like the Netherlands, innovation is important to be competitive in the international market. The innovative capacity of MNEs depends on each employee's ability to act in an innovative type of way, which makes it essential to enhance employee innovative behaviour. A participative leadership style is one way of enhancing employee innovative behaviour. This relationship could be strengthened by different work climates. This thesis investigates a pro-active and risk-taking work climate because those climates have similar characteristics as a participative leadership style.

The purpose of this thesis is to explain the relationship between participative leadership and employee innovative behaviour, and how this relationship is contingent on a risk-taking and pro-active work climate in the context of Dutch MNEs. The research is done through a quantitative method by sending a survey to five Dutch MNEs, active in different branches.

The results show a positive significant relationship between participative leadership and employee innovative behaviour, and a positive significant moderating effect of a pro-active work climate on this relationship. Besides, only when certain departments are selected, a positive significant moderating effect of a risk-taking work climate is found.

This thesis contributes to the literature by showing a positive significant direct effect of participative leadership on employee innovative behaviour. Moreover, this thesis investigated a pro-active and risk-taking work climate as moderating variables on this relationship which has not been done before.

Keywords

Participative leadership, employee innovative behaviour, pro-active work climate, risk-taking work climate, Dutch, MNE

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1 Introduction

The introduction starts with presenting the background of the topic, followed by the problematization. Based on those, the purpose and the research question are presented, followed by the limitations and outline of the research.

1.1 Background

In a world where innovation is growing, evolving and changing so rapidly, innovation in the workplace is crucial for multinational enterprises (MNEs) to build and sustain competitive advantage (Ciabuschi, Dellestrand & Martin Martin, 2011; Anderson, Potočnik & Zhou, 2014). Digitalization and globalization have demolished plenty of entry barriers, causing many MNEs to compete with actors from all over the world (Forbes, 2019; Feng, Huang & Zhang, 2016). The competition for the client's attention and the rapidly changing environments ensures that it is important for organisations to enhance creativity and innovation in order to stay competitive and gain sustainable success (Ciabuschi et al., 2011; Hu, Gu & Chen, 2013). However, the rapidly changing environment causes an information disadvantage for senior leadership, which used to have an information advantage over the rest of the organisation (Forbes, 2019). The traditional way of developing strategy, with the involvement of senior management, is therefore based on an obsolete landscape that experienced less disruption and change (Forbes, 2019). Moreover, innovation is a fundamental determinant of organisational performance and survival in the long-term, as it can help improve the quality of products or help to introduce new products and services (OECD, 2014). This process of idea generation and implementation is therefore a source of distinct competitive advantage (Anderson et al., 2014).

Innovation is especially important for MNEs in small countries who are obligated to expand their market focus, in order to survive and compete in the global market (Walsh, 1988; Narula, 1996, Bellak and Cantwell, 1977 as cited in Benito, Larimo, Narula, & Pedersen, 2002). Therefore, this thesis will focus on the Netherlands; a country characterised by its small domestic market and expanded market focus (Schwab, 2018). The Netherlands has, for example, the third-most competitive European economy and sixth-best globally, according to The Global Competitiveness Report of 2018 (Schwab,

2018). However, looking at the market size, the report shows a 29th place on the domestic market size index (Schwab, 2018). This confirms the motive of Dutch MNEs to expand their market across borders, since the Dutch market is too small (OECD, 2014). Moreover, the high scores of the Netherlands on foreign market size index (7th place) and export (8th place) also indicate the need for a global market focus (Schwab, 2018).

Furthermore, as a result of globalization and internationalization, nowadays Dutch MNEs not only compete with other Western countries, but also with emerging markets like Eastern-Europe, Asia-Pacific and the BRIC-countries in specific (OECD, 2014). The increasing competition and uncertain environments make innovation an essential engine for growth, viability and prosperity of MNEs (Carmeli, Meitar, & Weisberg, 2006). The development towards a more innovation-driven economy (Porter, 2005 as cited in Snowdon & Stonehouse, 2006), makes it more important for Dutch MNEs to foster innovative behaviour of employees since they cannot compete on price, they need to compete with specific competences such as individual innovative behaviour (Carmeli et al., 2006). Which, according to the Global Competitiveness Report of 2018, the Netherlands have access to because of a strong education system and a thriving innovation ecosystem (ranked 6th globally) (Schwab, 2018). Furthermore, innovation can also contribute to increased labour productivity growth, which in return helps to contain unit labour costs and therefore strengthen the international competitiveness of Dutch enterprises (OECD, 2014). This leads to the question: What drives employee innovative behaviour in Dutch MNEs?

1.2 Problematization

There is an increasing interest in the antecedents of innovative performance of MNEs (Hu et al., 2013). Innovation is crucial for MNEs who compete in turbulent and uncertain environments (Carmeli et al., 2006). It is an important source of competitive advantage (Anderson et al., 2014) and drives firm performance and survival on the long-term (Ciabuschi et al., 2011). Moreover, innovative capacity of MNEs is dependent on each individual's ability to behave in an innovative type of way. In other words, employee innovative behaviour in the workplace is the foundation of any high-

performing organisation (Carmeli et al., 2006). Employee innovative behaviour is defined as a process with different stages in which an individual recognizes a problem and generates new ideas and solutions (idea generation), works to promote and build support for the new ideas (idea promotion), and produces a model for the use and benefit of the organisation (idea implementation) (Carmeli et al., 2006; Wang, Fang, Qureshi & Janssen, 2015). Employee innovative behaviour is an important factor for the improvement of organisational outcomes that in return leads to improved competitiveness of MNEs (Xerri & Brunetto, 2013).

Leadership is one of the factors which could drive innovation on organisational, team, or individual level (Hu et al., 2013; Denti & Hemlin, 2012) as leaders could maximize the benefits of improved ways of working (Anderson et al., 2014). Leaders are an essential element in the promotion of innovation in organisations because they encourage intrinsic motivation, facilitate problem solving, encourage a positive team climate and provide support (Denti & Hemlin, 2012; Hammond, Neff, Farr, Schwall, & Zhao, 2011). The research shows different kinds of leadership styles that could influence innovation on organisational, team or individual level (Dinh, Lord, Gardner, Meuser, Liden & Hu, 2014). One leadership style that has been brought forward in the literature is participative leadership (Dinh et al., 2014). It is a leadership style that has been investigated in the past, however, it faded away and has therefore currently received insufficient attention (Dinh et al., 2014). Nevertheless, it is too early to write it off because previous research has shown that participative leadership triggers innovation on different levels (Ogbonna & Harris, 2000; Burpitt & Brignoness, 1997; De Dreu & West, 2001).

Participative leadership is characterised as a leadership style where leaders involve subordinates' suggestions, ideas and opinions in the decision-making process (Ogbeide & Harrington, 2011). By carrying out a participative leadership style, the superior asks for new ideas from his or her subordinates, which reduces barriers and consequently facilitates the open exchange for ideas (Somech, 2006). This contributes to innovative behaviour because it avoids having good ideas overlooked, facilitates opportunity recognition, and is based on transparency of information, knowledge and

decision-making (Ogbeide & Harrington, 2011). The participative leadership style is often related to more happy and productive employees, as participative leadership facilitates the involvement of employees in business activities and decision-making (Bryman, 2013). De Jong and Den Hartog (2010) showed in their review that there is a lot of empirical evidence found of a positive relation between participative leadership and innovation on organisational or team level. Krause (2004) investigated whether granting freedom and autonomy for employees had influence on the innovation process. The study, among 399 middle managers from German enterprises, shed light into the positive relation between freedom and autonomy and various types of innovation behaviour within teams (Krause, 2004). Furthermore, Krause (2004) argues that freedom and autonomy improve the perceptions of being in control and therefore the perception of being able to change situations. In other words, in order to get the employees to be creative and bring up new ideas, a climate where employees will feel that they participate in the decision-making process is necessary (Krause, 2004).

Empirical evidence is also found by Abdolmaleki, Ashloubagh, Shahrabki, Ashlaghi & Safdari (2013) who investigated an Iranian automaker company. Abdolmaleki et al. (2013) found a positive relationship between participative leadership and organisational innovation. Ogbonna & Harris (2000) found a positive relationship between participative leadership and organisational performance with culture as a mediating role in the context of medium and large sized British firms. In line with Krause (2004), other prior research also focused on participative leadership in the context of teams (Burpitt & Brigoness, 1997; Stoker, Looise, Fisscher & de Jong, 2001; De Dreu & West, 2001; Somech, 2006). They all found a positive relationship between participative leadership and team innovation (De Dreu & West, 2001; Burpitt & Brigoness, 1997; Stoker et al., 2001). This shows that participative leadership is important for teams to turn new ideas and individually held knowledge into innovative services and products (Somech, 2006). Moreover, Krause, Gebert & Kearney (2007) found a positive relation between participative leadership and the implementation of innovation. This means that they made a distinction between the phases of the innovation process, as innovation implementation is the final phase.

Even though empirical evidence of a positive relation between participative leadership and innovation on different levels is found by prior research, they often neglect how a certain context affects the relation between leadership and individual outcomes. Leadership can be transmitted through the organisation only when certain structures are of specific quality (Charbonnier-Voirin, El Akremi, & Vandenberghe, 2010). Organisational climate is one aspect of structure that works as an important transmitter (Charbonnier-Voirin et al., 2010). Therefore, the relation between participative leadership and employee innovative behaviour might be contingent on organisational climate. Organisational climate is defined as the collectively shared perceptions about organisational attributes (e.g. practices, procedures, and reward behaviours) among employees in a given work environment (Ehrhart, Schneider, and Macey, 2013 as cited in Kang, Matusik, Kim, and Phillips, 2016).

Especially, a risk-taking and pro-active work climate may strengthen the relationship between participative leadership and employee innovative behaviour. A risk-taking climate is characterised by supporting risk-taking behaviour, including the acceptance of suggesting new ideas (Hammond et al., 2011), in order to achieve firm objectives, exploring new opportunities and the support for high-risk projects (projects that have a high chance of failure and high rate of return) (Kang et al., 2016). A pro-active work climate is characterised by an organisation that supports taking initiative, proactively approaching problems, searching for immediate solutions, and rewarding introducing new business practices by employees (Kang et al., 2016). Such climates affect the relation between participative leadership and employee innovative behaviour because it supports participative leaders in their mission to encourage innovative behaviour. Moreover, as innovative behaviour is characterised by pro-actively suggesting new ideas, such climates strengthen the relation because the employees are enabled to make innovative suggestions without the fear that their suggestion will be rejected based on the complexity of it (Kang et al., 2016). Furthermore, such climates support participative leaders in their aim to encourage employees to take initiative and invent something new (Kang et al., 2016).

The abovementioned prior research shows that the relationship between participative leadership and innovation within firms active in different industries and countries, has been investigated empirically by several authors (Krause, 2004; De Jong & Den Hartog, 2010; Abdolmaleki et al., 2013; Ogbonna & Harris, 2000; Burpitt & Brignoness, 1997; Stoker et al., 2001; De Dreu & West, 2001; Yan, 2011; Somech, 2006; Krause et al., 2007). However, the previous research mainly focused on innovation on organisational or team level and not on the individual level. Moreover, it has not been investigated if this relation could be contingent on risk-taking- and pro-active work climates. This study will focus on participative leadership in relation to employee innovative behaviour moderated by a risk-taking- and pro-active work climate in the context of Dutch MNEs.

1.3 Research purpose

The purpose of this thesis is to explain the relationship between participative leadership and employee innovative behaviour, and how this relationship is contingent on risk-taking and pro-active work climates in the context of Dutch MNEs.

1.4 Research question

The background and problematization leads to the following research question:
How does participative leadership relate to employee innovative behaviour in multinational enterprises, and how this relationship is contingent on pro-active and risk-taking work climate?

1.5 Limitations

This thesis focuses on factors that could influence employee innovative behaviour in the context of Dutch MNEs. As argued, participative leadership is one factor that could influence this concept, which limits this thesis to one factor influencing employee innovative behaviour. Other factors such as personality, company strategy and company structure have not been included in this research.

1.6 Outline

Introduction. The introduction began with presenting the background of the importance of innovative behaviour in MNEs with in specific Dutch MNEs. Thereafter, a problematization followed which ended up in a research purpose- and question, and limitations of the research.

Literature review. The literature review presents the main underlying theories used in this thesis, which are the leadership theory, social-exchange theory and contingency theory. Thereafter, every theory is related to the main concepts in this thesis: participative leadership, employee innovative behaviour, pro-active work climate and risk-taking work climate, in the context of Dutch MNEs.

Method. The method chapter covers the steps undertaken to investigate the research question and hypotheses. It presents the research approach, choice of method and theory, sources of critique, time horizon, research strategy, data collection and sample selection. Thereafter, the operationalisation of the variables is presented followed by how the data is analysed, the validity and reliability of the data, and the ethical considerations.

Results and Analysis. This chapter presents the results from the quantitative data which has been obtained through a statistical data analysis of the online survey. The results will be analysed and discussed in relation to whether the hypotheses are supported or refuted.

Discussion. In the discussion chapter, the gathered results will be discussed in relation to current literature.

Conclusion. In the last chapter, an overall conclusion of the thesis is presented, followed by the contribution and limitations of the thesis. Additionally, suggestions for future research are brought forward.

2 Literature review

The literature review presents the main underlying theories of the thesis, which are the leadership theory, social exchange theory and contingency theory. Thereafter, these theories will be related to participative leadership, employee innovative behaviour, and pro-active- and risk-taking work climate, and will merge into three proposed hypotheses.

2.1 Leadership Theory

Leadership is defined by researchers in many different ways (Yukl, 1989). Leadership definitions mostly involve an influence process, but that is the only aspect the numerous definitions have in common (Yukl, 1989). One major controversy is about the case of leadership as a distinct phenomenon. On the one hand, some theorists view leadership as a social process shared among group relationships, where everyone in a group can influence someone else (Bolden, 2004). The opposing view is that members in a group have specific roles. This means that there is usually one person with a specific set of traits or characteristics who is more influential than the other members (Bolden, 2004). Thus, leadership can be defined broadly which includes: “influencing task objectives and strategies, influencing commitment and compliance in task behaviour to achieve these objectives, influencing group maintenance and identification, and influencing the culture of an organisation (Yukl, 1989, p. 253).”

Leadership has been studied in various different ways, depending on the researcher’s perception and conception of leadership. The different leadership conceptions can be aggregated based on their primary focus: leader power-influence, leader behaviour, leader traits, or situational factors that interact with behaviour, traits, or power (Yukl, 1989; Bolden, Gosling, Marturano and Dennison, 2003). The first leadership conception is the power-influence approach, which tries to explain leadership effectiveness in terms of power possessed by a leader, because it is important for influencing subordinates, peers, superiors and external stakeholders. One major addressed question by research and theory within this conception is determining how much power a person has based on the sources of power, individual characteristics and the situation the leader acts in (Yukl, 1989). The second conception is the trait approach that focuses on the personal

attributes of leaders. The major addressed question within this conception is how leadership traits are related to leadership behaviour and effectiveness (Yukl, 1989). The research shows that high self-confidence, energy, initiative, emotional maturity and stress tolerance relate most consistently to leadership effectiveness (Yukl, 1989; Bolden, 2004). In other words, this approach assumes that leaders have a set of characteristics which are needed to influence followers (Bolden et al., 2003; Uslu, 2019), however, none of these traits are sufficient in themselves to serve as the foundation of the development of superior leaders (Bolden, 2004). The third conception within the leadership theory is the situational approach. This approach focuses on the importance of contextual factors such as the nature of the work of the leader, attributes of subordinates, and the nature of the external environment which could have a moderating effect on the relationship between leadership behaviour and effectiveness (Yukl, 1989; Bolden, 2004; Bolden et al., 2003). This approach assumes that there is no optimal leadership style because different environments require different leadership styles (Fiedler, 1964 as cited in Bolden, 2004). According to this approach, a person may be an effective leader in a certain environment, but this same person may not be effective in another environment (Bolden et al., 2003; Uslu, 2019). The fourth conception within the leadership theory is the behaviour approach, which focuses on what leaders actually do on the job, and the relationship between leader behaviour and effectiveness (Bolden et al., 2003). Compared to the trait approach, this approach argue that effective leadership is not related to personality characteristics but related to how leaders behave (Uslu, 2019). It is not innate, and can be learned by training the way of communicating with subordinates, authority delegation and planning. Research shows that task-oriented and relationship-oriented behaviour are required for leadership effectiveness, however, the leadership effectiveness is contingent on the situation in which the leader acts (Yukl, 1989).

2.1.1 Participative Leadership

Participative leadership is an aspect of the behavioural approach within the leadership theory which has been a topic in many studies (Yukl, 1989). Participative leadership is about the extent to which a leader involves subordinates' suggestions and ideas in the decision-making process (Bryman, 2013; Ogbeide & Harrington, 2011). It is defined

by Kahai, Sosik & Avolio (1997, as cited in Miao, Newman & Huang, 2014, p. 2797) as “a leadership style which involves the sharing of problem solving by a supervisor through consultation with their subordinates before a decision is made.” In other words, in this leadership style, the superior asks for new ideas from his or her subordinates and consequently facilitates the open exchange for ideas (Somech, 2006). Statements such as “My immediate supervisor encourages me to express ideas/suggestions” and “My immediate supervisor makes decisions that are only based on his/her own ideas” are used to measure perceived participative leadership by employees (Arnold, Arad, Rhoades & Drasgow, 2000). The idea that a participative management style enhances the performance of subordinates, was first suggested by Barnard (1938, as cited in Huang, Iun, Liu & Gong, 2010) and has been developed subsequently by many researchers. Two theoretical models are used to explain participative leadership effectiveness (Huang et al., 2010). On the one hand, the motivational model argues that the more a subordinate gets opportunities in the decision-making process, the greater the intrinsic rewards the subordinate gets from their work, which may result in improved work performance (Conger & Kanungo, 1988 as cited in Huang et al., 2010). On the other hand, the exchange-based model focuses on the fact that by carrying out participative leadership behaviour, the leader sends a message to the subordinates that the superior has confidence in, and concern and respect for the subordinates. This fosters high levels of trust which may lead to a higher level of work performance (Dirks & Ferrin, 2002, p. 614 as cited in Huang et al., 2010). Both motivation and trust are important in the context of innovation, as motivation on its own is not enough in the absence of trust (Rossberger & Krause, 2015).

2.2 Social-Exchange Theory

This research uses the social-exchange theory (SET) as the underlying theory to explain innovative behaviour of employees in the context of MNEs. The SET state that when employees and supervisors have a good workplace relationship, a mutual arrangement develops that benefits both the individuals and the organisation as a whole (Cole, Schaninger & Harris, 2007). Using SET as a theoretical perspective, it is argued that under ideal circumstances, the outcome of the effective relationships in the workplace will be that employees feel supported and therefore develop a desire to give back to the

organisation (e.g. innovative behaviour). A critical factor in the motivation to give back to the organisation, is the benefit the employee receives themselves, which can be both extrinsic and intrinsic (Shally, Gilson, and Blum, 2009 as cited in Zhang, Zhang, Sun, Lytras, Ordonez de Pablos, & He, 2018). Extrinsic benefit refers to gaining rewards or benefits from others by carrying out an activity (Deci and Ryan, 1985; Davenport and Prusak, 1998 as cited in Zhang et al., 2018). Intrinsic benefits are driven by individual goals such as self-efficacy (Zhang et al., 2018). In other words, SET can be used to understand the role of supervisors and organisations on impacting the employee's feeling of being obligated to show certain behaviour and positive work attitudes (Blau, 1964 as cited in Ko & Hur, 2014).

Literature about SET can be traced back to the work of Blau (1964). Following Blau (1964), "the ideology of SET within an organisational environment suggest that employees may feel obligated to a colleague, supervisor or employing organisation if they have benefited from an exchange with the actor/organisation in question (as cited in Xerri & Brunetto, 2013, p. 3165)." The social exchange can take place between more than one actor within an organisation, and can have both positive and negative outcomes. In other words, if an employee feels that a colleague has benefited from an exchange but the benefit has not been given back within an appropriate time (as perceived by the employee who provided the benefit) this could have a worse effect on the development of the relationship in the workplace (Cropanzano & Mitchell, 2005; Molm, Collett & Schaefer, 2007; Lin & Huang, 2010 as cited in Xerri & Brunetto, 2013). On the other hand, if an employee feels that a colleague has benefited from an exchange and this has been given back in an appropriate time, this has a positive effect on the workplace relationship (as cited in Xerri & Brunetto, 2013). Generally, the mechanism within the SET shows that the actors think in maximizing the benefits (e.g. gaining support, empowerment) and minimizing the costs (e.g. put in money, time, effort) (Blau, 1964). Positive relationships occur when benefits outweigh the costs, negative relationships occur when costs are greater than the benefits (Blau, 1964).

As mentioned, SET is used to identify potential outcomes when ideal workplace relationships are present. In ideal workplace conditions, employees would perceive high

levels of support from supervisors and the organisation and therefore would reciprocate by returning positive actions to supervisors and the organisation (Brunetto, Farr-Wharton, Nelson & Shacklock, 2008 as cited in Xerri & Brunetto, 2013). One of these positive actions is carrying out innovative behaviour which is expected within organisations active in uncertain, rapidly changing environments.

2.2.1 Employee Innovative Behaviour

Global competition and environmental uncertainty caused that innovation is recognised as a critical factor in the long-term survival of organisations (Agarwal, Datta, Blake-Beard, & Bhargava, 2012). Traditionally, individual creativity has been identified as the basis of innovation within organisations (e.g. Amabile et al., 1996; hunter et al., 2007 as cited in Lukes and Stephan, 2017). Furthermore, literature shows the importance of the contribution of flexible and open-minded individuals (Woodman, Sawyer, & Griffin, 1993; Yukl, 2002 as cited in Reuvers, Van Engen, Vinkenbunrg, and Wilson-Evered, 2008). Therefore, organisations are in need of employees who exceed their formal job requirements with innovative behaviour (Janssen, 2000 as cited in Agarwal et al., 2012). Innovative behaviour is a complex process that aims to improve organisational performance (Janssen 200. 2005 as cited in Yidong and Xinxin, 2012). The process of innovation can be divided in two main phases, initiation and implementation (Zaltman, Duncan, & Holbek, 1973; Axtel et al., 2000 as cited in De Jong and Den Hartog, 2007). The first phases of the innovation process involve the behaviour of individuals within the organisation towards the introduction of new ideas, processes, products, or procedures (De Jong, 2006 as cited in Yidong and Xinxin, 2012). The second phase concerns the implementation of the ideas within the organisation (King and Anderson, 2002 as cited in De Jong and Den Hartog, 2007). In this thesis, the definition of innovative behaviour from Farr and Ford (1990), “behaviour directed towards the initiation and application (within a work role, group or organisation) of new and useful ideas, processes, products or procedures”, is used (as cited in De Jong and Den Hartog, 2007, p.43).

Employee innovation behaviour can be influenced by contextual factors (Lukes and Stephan, 2017). One of these contextual factors is the immediate manager and their

specific leadership style (Lukes and Stephan, 2017). The effects of different leadership styles are widely explored, where one consistent supported finding is the support from leaders/managers on employee innovative behaviour (Lukes and Stephan, 2017). A leadership style that enhances the innovative ideas of employees is participative leadership. This leadership style is characterized by the involvement of employees in the decision making and joint influence (Fatima, Majeed, & Saeed, 2017) To sum it up, leadership that is perceived as supportive, physical empowering, and includes good communication, will have positive influence on innovate behaviour of employees which is important for the competitiveness of an organisation (Ciabuschi et al., 2011).

2.3 Participative leadership and Employee Innovative Behaviour

As mentioned in Miao et al. (2014), there is a significant volume of empirical work that shows a positive impact of participative leadership on work outcomes, such as increased job performance, organisational citizenship behaviour, voice behaviour and organisational commitment. Regarding innovation on organisational, team or individual level, several researchers have found a positive relation between participative leadership and innovation (Krause, 2004; De Jong & Den Hartog, 2010; Abdolmaleki et al., 2013; Ogbonna & Harris, 2000; Burpitt & Brignoness, 1997; Stoker et al., 2001; De Dreu & West, 2001; Yan, 2011; Somech, 2006; Krause et al., 2007), which is the focus in this thesis because employee innovative behaviour is important for MNEs in small nations to stay competitive in the long-term (Ciabuschi et al., 2011). Following Krause (2004), participative leadership has a positive impact on team innovativeness because as members get a certain degree of freedom and autonomy, they have the feeling of being in control that enables them to change situations with bringing up new ideas. Moreover, when employees believe that they have influence, they are more likely to put energy and effort into generating, promoting and implementing innovative ideas (Janssen, 2005). Also, when employees feel that they have a significant role in the organisation, they will perceive more job satisfaction which in return increases the commitment to the organisation (Brown and Trevino, 2006; De Hoogh & Den Hartog, 2008 as cited in Yidong & Xinxin, 2012; Fatima et al., 2017). As a result, the willingness of employees to think about improvements in existing work processes and methods, sharing knowledge with others, and finding new ways of dealing with problems increases (De Jong & Den Hartog, 2007 as cited in Yidong & Xinxin, 2012). In other words, by

carrying out a participative leadership style, the leader creates an environment, based on transparency of information and knowledge, where subordinates feel that they participate in the decision-making process (Ogbeide & Harrington, 2011). This in return, gives subordinates a sense of self-efficacy and self-determination which strengthens their belief to engage in “out-of-the-box” thinking (Somech, 2005).

Following Yan (2011), participative leaders utilize empowerment and engagement among subordinates, which improves intrinsic motivation to foster the feeling of competence and belongings. As a result, this contributes to employee innovative behaviour because subordinates have increased motivation to come up with new ideas, as they perceive more empowerment from and engagement of the leader (Yan, 2011). Moreover, a setting is created in which superiors ask for ideas, which facilitates the open exchange for ideas, as it reduces barriers for subordinates to come up with new ideas and suggestions (Yan, 2011; Somech, 2006).

In other words, in this leadership style, participative decision making and the open communication process are present, which creates an atmosphere where innovative ideas are proposed and critiqued, with a minimum level of social risk (West, 2002 as cited in Somech, 2005). This means that subordinates are not afraid to come up with new innovative ideas because it is expected from the superiors that they exhibit this kind of behaviour (West, 2002 as cited in Somech, 2005). Furthermore, subordinates under a participative leader are likely to come up with opinions and propose solutions because they reckon that their leader expect them to contribute to this task (Somech, 2005). Thus, participation is critical to turn new ideas and knowledge held by individuals into innovative procedures, services and products (Somech, 2006) which is essential when responding to rapidly changing environments (Ciabuschi et al., 2011; Anderson et al., 2014) and to gain sustainable success in the long-term (Ciabuschi et al., 2011; Hu et al., 2013). Based on previous literature, the following hypothesis is proposed:

H1: Participative leadership is positively related to employee innovative behaviour.

2.4 Contingency Theory

The contingency theory consists of different forms of contingency fit between context and structure (Pennings, 1987; Gerdin & Greve, 2004). At the top level, a distinction is made between a Cartesian approach and a Configuration approach. A Cartesian approach state that the fit between context and structure is a continuum that needs frequent, small movements by organisations from one state of fit to another. The focus of this approach lays on how single factors affect single structural attributes and how this in return affects performance (Gerdin & Greve, 2004). On the other hand, the Configuration approach argues that there are only a few states of fit between context and structure, with organisations having to make “quantum jumps” from one state of fit to another (Gerdin and Greve, 2004). The focus of this approach is holistic and the research task is to identify the feasible set of organisational structures and processes that are effective for different context configurations and to understand which patterns of organisational structure and process are internally consistent and inconsistent. Within the Cartesian approach there can be made a distinction between congruence and contingency. The congruence approach argues that only the best-performing organisation can survive and therefore, research explores the nature of context-structure relationships. A contingency approach assumes that an organisation may have varying degrees of fit between context and structure. This means that the researcher must show that a higher degree of fit is associated with higher performance (Gerdin and Greve, 2004). The contingency theory suggests that an organisation’s structure is contingent upon contextual factors such as environment, strategy and size (Gerdin & Greve, 2004). In this approach, “a conditional association of two or more independent variables with a dependent outcome is hypothesized (Drazin & Van de Ven, 1985 as cited in Gerdin & Greve, 2004). Moreover, this approach state that the fit is understood as a positive impact on performance due to certain combinations of context and structure (Gerdin & Greve, 2004). Within this approach, there are two variations of fit: moderation and mediation. Moderation states that the effects of an independent variable on a dependent variable are a function of a moderating variable. In other words, the theory specifies that the third variable moderates the effect that the independent variable has on the dependent variable. On the other hand, mediation specifies the existence of a mechanism between an independent variable and the dependent variable.

2.4.1 Work climate

In the context of organisational processes, work climate may affect the results of the operations within an organisation (Ekvall, 1996). Work climate refers to “a set of attributes which can be perceived about a particular organisation, and that may be induced from the way that the organisation deals with their members and environment (Hellriegel & Slocum, 1974).” This variable has a moderating power because it influences organisational processes such as problem solving, communicating and individual creativity (Ekvall, 1996). Moreover, prior research has shown that work climate has an impact on the relationship between certain leadership styles and individual work-related outcomes (Wang & Rode, 2010). As mentioned in Wang & Rode (2010), several studies have found evidence that work climate enhance this relationship (i.e. Liao and Chuan, 2007 as cited in Wang & Rode, 2010), while others found that work climate mitigated the effects of effective leadership on work-related outcomes (i.e. Hui et al., 2007, as cited in Wang & Rode, 2010). In specific, this research will focus on a pro-active work climate and risk-taking work climate because they could facilitate the participative leaders’ mission to enhance employee innovative behaviour. Moreover, a pro-active and risk-taking work climate has many similarities with participative leadership, and could therefore strengthen the relationship between participative leadership and employee innovative behaviour. As the present study focuses on predicting employee innovative behaviour, it is argued that the boundary conditions associated with participative leadership’s effects should be related to the extent to which subordinates are exposed to certain norms and practices. In this case, those norms and practices are related to coming up with new ideas to reach firm objectives, and pro-actively seeking for solutions on problems (Gumusluoglu & Ilsev, 2006). The former refers to a risk-taking work climate, the latter to a pro-active work climate. Moreover, as the core action of participative leaders involves joint decision-making and taking into account different suggestions of subordinates, such core actions should be facilitated by a pro-active and risk-taking work climate. Furthermore, when employees perceive such climates, they will be encouraged to take initiative and risks. Employees might respond better to participative leadership when they perceive that the provided resources and support are adequate (Gumusluoglu & Ilsev, 2006).

2.4.2 Pro-active work climate

The existence of a pro-active work climate at individual level should facilitate the action of participative leadership on promoting employee innovative behaviour. A pro-active work climate is characterised by the organisational support for taking initiative, coming up with immediate solutions and rewarding employees who introduce new business practices (Kang et al., 2016) which is important for responding to changing environments and gain competitive advantage for MNEs (Ciabuschi et al., 2011). Employees in a pro-active work climate share the perception that self-starting action is encouraged (Sebora and Theerapatvong, 2010 as cited in Kang et al., 2016) and are not afraid to come up with suggestions and immediate solutions in order to contribute in a creative manner to the organisation's objectives. Participative leadership contributes to this pro-active environment by involving subordinates in the decision-making process (Ogbeide & Harrington, 2011). In a pro-active climate, employees interpret the actions of participative leaders as legitimate, supported and rewarded by the organisation (Charbonnier-Voirin et al., 2010). Several researchers (e.g. Baer and Frese, 2003; Frese et al., 1996; Michaelis et al., 2010) claim that a pro-active climate stimulates a sense of personal initiative that allows employees to take care of unexpected problems in the organisations (as cited in Kang et al., 2016). In short, a pro-active climate contributes to the functioning of participative leaders because within a strong pro-active climate, employees will feel more eager to come up with new ideas, think out of the box, and have a higher intrinsic motivation to contribute (Yan, 2011). This fits with the participative leadership style, where empowerment and autonomy among subordinates is critical (Krause, 2004). This contributes to the competitiveness of MNEs in small countries like the Netherlands because by suggesting new ideas and products MNEs respond to rapidly changing foreign markets, which is the focus of MNEs in the Netherlands (Ciabuschi et al., 2011; Schwab, 2018). Therefore, the following hypothesis is proposed:

H2: Increasing a pro-active work climate has a positive moderating effect on the relationship between participative leadership and employee innovative behaviour.

2.4.3 Risk-taking work climate

The presence of a risk-taking work climate at individual level should facilitate the action of participative leaders on enhancing employee innovative behaviour. A risk-taking work climate is characterised by the support for suggesting new ideas, exploring opportunities and coming up with high-risk projects (Kang et al., 2016). This is in line with characteristics of participative leadership (open communication and joint decision-making) and the appurtenant environment where there is place for innovative ideas with a minimum level of social risk (West, 2002 as cited in Somech, 2005). Employees in a risk-taking work climate have a shared perception concerning the tolerance of uncertainty (Ekvall, 1996 as cited in Kang et al., 2016). Within organisations with a strong risk-taking climate, employees are permitted and feel free in coming up with new risky ideas, even without the desired certainty and information, in order to creatively contribute to reaching organisation's objectives (Isaksen and Ekvall, 2010 as cited in Kang et al., 2016). This is important for the competitiveness and sustainable success of MNEs in a country like the Netherlands, because MNEs in such countries need to compete with specific competences such as employee innovative behaviour (Carmeli et al., 2006). Within a risk-taking work climate, employees interpret the actions of participative leaders as legitimate, supported and rewarded by the organisation (Charbonnier-Voirin et al., 2010). The risk-taking climate contributes by creating a creative environment that enables employees to develop and share their innovative suggestions (Ettlie and Vellenga, 1979 as cited in Kang et al., 2016). One can argue, that organisations who only want to avoid risks, would be in conflict with an innovative climate where innovation is often associated with taking risks (Kang et al., 2016). To summarise, within a strong risk-taking climate, participative leaders are more likely to successfully enhance subordinates' exploratory thinking process and the courage to suggest risky ideas (which are characterized by a high chance of failure and a high rate of return) that is essential for the competitiveness of MNEs (Carmeli et al., 2006). Therefore, the following hypothesis is proposed:

H3: Increasing a risk-taking work climate has a positive moderating effect on the relationship between participative leadership and employee innovative behaviour.

2.5 Research model

The thesis consists of the following concepts: participative leadership, employee innovative behaviour, pro-active work climate and risk-taking work climate. The participative leadership concept is tested to which extent it relates to employee innovative behaviour. This relationship is further investigated by testing if a pro-active and risk-taking work climate has a contingent effect on this relationship. The research model is illustrated in Figure 1.

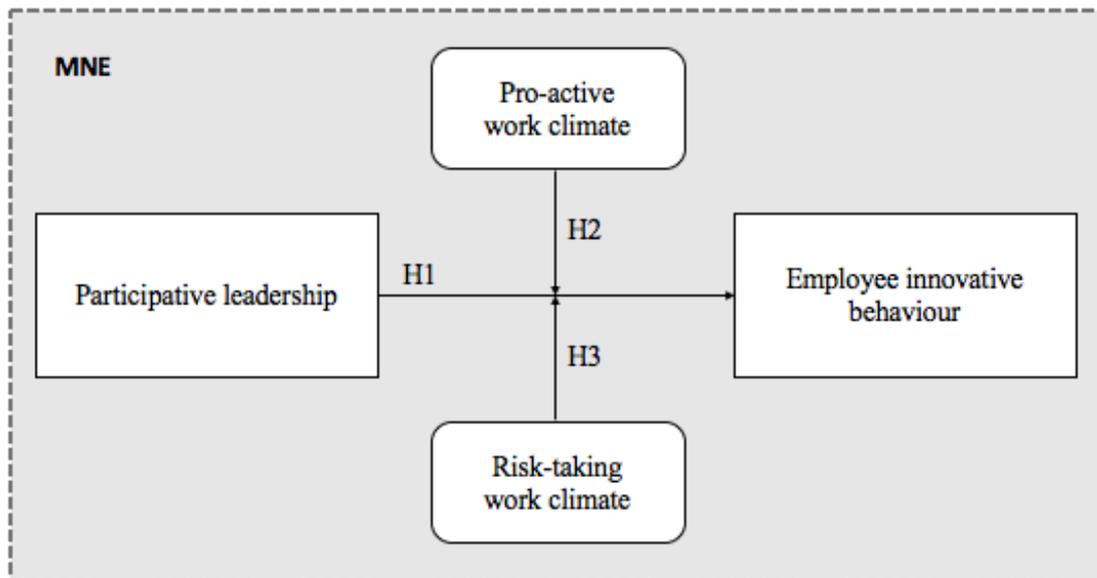


Figure 1 Research model

3 Method

This chapter will start with presenting the research approach, followed by the choice of method and theory. Thereafter, the used literature will be critically analysed which is displayed under sources of critique, followed by the time horizon. Consequently, the research strategy, data collection and sample selection will be presented, followed by the operationalisation of the variables. Thereafter, it is explained how the data will be analysed, followed by the validity and the reliability of the data. Lastly, the ethical considerations will be presented.

3.1 Research approach

In this thesis, the research model is based on already existing literature. It tests the theory and relations between different variables based on available knowledge up to now, which is known as a deductive research approach (Bryman & Bell, 2011). A deductive approach entails a process in which theory leads to certain observations or findings. In other words, this approach explores a known theory and test if this theory is valid in given circumstances (Bryman & Bell, 2011). A deductive research approach is used in this thesis because the research model consists of established relations, but those relations have not been researched in total in the context of Dutch MNEs. Therefore, the deductive research approach is applicable in this thesis because the aim is to explain an established relationship in a given circumstance. Besides, this approach fits in this thesis because it allows to gain a deeper understanding of the causal relation between different concepts (Bryman & Bell, 2011), which are in this thesis participative leadership and employee innovative behaviour, and a pro-active and risk-taking work climate. Moreover, a deductive research approach allows the researchers to test theories through hypotheses that in return leads to more standardized and objective outcomes of the results (Bryman & Bell, 2011). It is also often associated with measuring concepts through a quantitative research which is the method used in this thesis. Finally, it also fits in this thesis because of the short time available to complete the thesis (Bryman & Bell, 2011).

3.2 Research Methodology

In this thesis, the aim is to explain the relation between the concept participative leadership and employee innovative behaviour, and how this relation is contingent on a pro-active and risk-taking work climate. This is explained through the development and testing of different hypotheses. For this study, a quantitative method is more suitable than a qualitative, due to a deductive theory development based on testing of hypothesis (Bryman & Bell, 2011). Besides, this study focuses on an existing relationship which fits better to a quantitative method rather than a qualitative (Bryman & Bell, 2011). With a quantitative research method, a large amount of data can be simultaneously gathered which is positive in the means of money and time (Bryman and Bell, 2015). Furthermore, a quantitative method offers a more holistic view that may be representable for the whole population, which increases the generalisability of the results (Saunders et al., 2009). Quantitative method decreases the possibility of different interpretations among researchers compared to qualitative method (Bryman & Bell, 2011). However, with the quantitative method there is lack contact between researcher and respondents. That limits the possibility to gain deeper knowledge and reduces the amount of questions (Bryman & Bell, 2011).

3.3 Choice of Theory

The overarching concepts used in this thesis are participative leadership, employee innovative behaviour, pro-active work climate and risk-taking work climate. In order to understand the relation between those concepts, the following three main theories are used: leadership theory, social exchange theory (SET) and contingency theory. The leadership theory is applied in this thesis because it explains how different leadership styles with their specific behaviour affect certain individual outcomes, such as employee innovative behaviour (Yukl, 1989; Bolden et al., 2003). Participative leadership, the independent variable in this thesis, is an aspect of the behavioural leadership approach (Yukl, 1989). This theory explains how participative leaders behave, by influencing subordinates in the decision-making process, and how this behaviour has an effect on employee innovative behaviour (Ogbeide & Harrington, 2011; Somech, 2006; Yan, 2011).

The social-exchange theory is used in this thesis because our research model deals with a certain interaction between leader and follower. The SET state that when employees and supervisors have good workplace relationships, a mutual arrangement develops that benefits both the individuals and the organisation as a whole (Cole et al., 2007). Moreover, using SET as a theoretical perspective, it is argued that under ideal circumstances, the outcome of the effective relationships in the workplace will be that employees feel supported and therefore develop a desire to give back positive actions to the organisation (Xerri & Brunetto, 2013). One of these positive actions is carrying out innovative behaviour that is expected within organisations active in uncertain, rapidly changing environments. In short, the SET explains how and when employees show expected behaviour (e.g. innovative behaviour) through relations in the workplace (Xerri & Brunetto, 2013).

The contingency theory is relevant for this thesis because the aim of the study is to find out how the relationship between participative leadership and employee innovative behaviour might be contingent on certain work climates. The contingency theory fits with this because it claims that the fit between structure and context might be contingent on other factors (Gerdin & Greve, 2004). In this case, the other factors are a pro-active and risk-taking work climate where the relation between participative leadership and employee innovative behaviour might be moderated by, which is a variation in the contingency theory (Gerdin & Greve, 2004).

This thesis could have chosen the upper echelon theory because it explains how and based on what individuals make their decisions. However, this theory is not used because it is mainly focusing on the highest decision-makers in an organisation and their specific demographics (Hambrick, 2007). As the data sample in this thesis does not include the highest leaders and decision-makers in the organisation and is not focusing on demographics of leaders, this theory does not fit. This thesis looks at leader behaviours and the relationship with certain individual outcomes, which is the reason why the upper echelon theory is not used.

3.4 Critique of the Sources

The summon database of Kristianstad University and the database of Google Scholar are used in the search to find the right articles to be included in this thesis. Furthermore, recognised business/science articles are used in the introduction to be able to show the relevance of the topic. This thesis is based on existing literature and therefore, the use of older and recognised academic literature was necessary. To present a more critical and reliable view on the literature used, there has been chosen to select articles based on the amount of citations. Furthermore, the ABS-ranking system of journals is used as criteria for the selection of the literature. The aim of the ABS Academic Journal Guide is to guide the range and quality of the journals (Academix Journal Guide, 2018). In Table 1, the different ratings of the journals within the ABS-ranking system are presented and explained.

ABS Rating	Meaning of Quality Rating
4*	World leading journals in the field, ranked among the highest in terms of impact factor.
4	Top journals in their field with high submission and low acceptance rates, papers which are heavily refereed.
3	Highly regarded journals with good submission rates and are very selective in what they publish with a medium citation impact factor.
2	Well-regarded journals publish original research of an acceptable standard with a modest citation impact factor.
1	Recognized journals publish recognized but more modest standard papers in their field with a low citation impact factor.

Table 1 *Ratings of articles from ABS ranking system (Academic Journal Guide, 2018)*

In this thesis, 69 articles are used of which 50 have been published in recognised journals. The other 19 articles are not evaluated in the ABS ranking system and therefore not labelled as recognised journals. The ABS-ranking of the articles is presented in Table 2.

ABS Rating 2018	Number of articles	Percentage
4*	13	18.8%
4	12	17.4%
3	12	17.4%
2	10	14.5%
1	3	4.3%
Not recognised in ABS	19	27.5%
Total	69	100%

Table 2 *ABS Ranking 2018 (Academic Journal Guide, 2018)*

Of all 50 articles published in recognised journals, 74% have been published in either word-elite, top-journals or highly regarded journals. This suggest that the majority of these articles are from highly quality journals. Concerning the articles that are not covered in the ABS rating, on one hand the using could bring some risks because of the possibility of inadequate quality, however, on the other hand the potential effect and consequences of the theoretical framework are not certain and it is difficult to draw a conclusion on.

3.5 Time Horizon

The aim of this thesis is to explain the relation between different variables and how the relation between these variables might be contingent on other variables. As a cross-sectional design entails the collection data at a single point in time in order to collect quantitative data in connection with two or more variables (Bryman & Bell, 2011), it has been used in this thesis. Besides, a cross-sectional research design is often used when time is limited (Bryman & Bell, 2011), which is the current case as this thesis has to be written in 10 weeks. Even though the cross-sectional design fits with this thesis, and identifies the relatedness between variables, it does not show certain patterns (Bryman & Bell, 2011). Patterns could be discovered in a longitudinal design which increases the credibility of causal findings. As a result, a cross-sectional research lacks the internal validity (Bryman & Bell, 2011).

3.6 Research Strategy

It is critical to take into consideration the aim of the study and thereby developed research question, when developing the research strategy. The aim of this thesis is to explore the relationship between participative leadership, employee innovative behaviour, and risk-taking and proactive work climate. In the study of Saunders et al. (2009), several different research designs are described, these can be used for studies with an explanatory-, ethnography, and descriptive purpose. The different designs are; action research, archival research, case study, ethnography, experimental study, grounded theory, and survey study (Saunders et al., 2009). The deductive nature of the thesis and the analysis of a certain population at a specific point in time makes a survey the most suitable (Saunders et al., 2009). Surveys offer the possibility to gather data simultaneously in an efficient and time-/ money saving way

(Bryman & Bell, 2011). A survey allows the researchers to ask the same questions and therefore findings about a certain population can be formulated (Bryman & Bell, 2011). However, the questionnaire has to be made preliminary and offers no possibility to ask additional questions to be able to gather deeper knowledge (Bryman & Bell, 2011). Thereby, this survey will gather sensitive information and will therefore, be anonymous. This gives the researcher only one chance to collect data from this population (Bryman & Bell, 2011). For these reasons, the survey will be based on already used measurements of several studies. Measurement for participative leadership and Employee Innovative Behaviour is found in Arnold et al. (2000) and Scott & Bruce (1994) respectively. For the moderators, risk-taking and proactive work climate the study of Kang et al. (2016) is used to secure the right measurements and questions/statements.

3.7 Data Collection

Primary data has been collected using a quantitative data collection technique to further explore this relationship. It is primary data because it has not been used for research purposes before and is collected by the researchers themselves (Bryman & Bell, 2011). The data for this thesis was collected through the use of an online self-completion questionnaire with demographic questions and 25 statements according to the seven-point Likert scale (1=strongly disagree, 7=strongly agree) (Bryman & Bell, 2011). Before sending the questionnaire to the respondents, it has been pre-tested in order to check if the required answers would be collected. The questionnaire is sent via e-mail to employees of five Dutch internationally active MNEs. In total, the questionnaire has been sent out to 247 employees, of which 125 answers are received. This is a response rate of 50.6%. Six answers were incomplete, which means that the sample for the analysis has 119 respondents. The questionnaire can be found in Appendix I.

3.8 Sample Selection

Uncertain environments, increasing competition, and globalisation have caused a switch towards a more innovation-driven economy (Carmeli et al., 2006). Especially MNEs in smaller countries are dependent on specific competences such as innovative behaviour

(Carmeli et al., 2006). For example, the Netherlands, a country with a global market focus, however, active in a small market and not able to compete on price with MNEs from emerging countries (OECD, 2014). Therefore, this thesis will focus on Dutch MNEs because of the international market focus, small domestic market and the need for employee innovative behaviour. Important for this thesis is to carefully select and gather information of the population, therefore a survey is used because it allows to investigate a certain population (Bryman & Bell, 2011). The data was gathered from five different Dutch companies, active in various branches: e-commerce, fashion, insurances, software/IT, and technology, to be able to generalise across branches in the Netherlands. According to Lee (2001), e-commerce is a disruptive innovation. The industry is moving so fast and companies need to be able to identify and implement these disruptive attributes of e-commerce innovation, when developing strategies and business models (Lee, 2001). Companies, active in the fashion industry, have to be able to deliver a high variety and volume of products or services that have a short lifecycle at a relatively low and acceptable price (De Felice & Petrillo, 2013). The insurance market is of particular interest because of the importance of customer orientation and service quality through the involvement of tangible products (Lado & Marydeu-Olivares, 2001). The software industry is often described by the characteristics market uncertainty and technological uncertainty (Moriarty and Kosnik, 1989 as cited in Ruokonen, Nummela, Puumalainen & Saarenketo, 2008). The changing nature and uncertainties make it difficult to keep up and respond to the customer needs and thereby competitive advantages (Ruokonen et al., 2008). Regarding technology companies, Zakrzewska-Bielawska (2010) argues that companies active in the high technology sector should be a source of new knowledge, inventions and innovations. Therefore, employee innovative behaviour is a critical factor for the sustainable long-term success of these companies. In Table 3, an overview of the companies is presented.

Company	Branch	Size	Age
Company A	Software/IT	450 employees	23 years
Company B	Insurance	150 employees	28 years
Company C	Technology	100 employees	37 years
Company D	Fashion	100 employees	19 years
Company E	E-commerce	300 employees	15 years

Table 3 *Overview of the companies*

3.9 Operationalisation

3.9.1 Independent variable – Participative Leadership

A six-item seven-point scale, adopted from the Empowering Leadership Questionnaire developed by Arnold et al. (2000), was used to measure perceived participative leadership behaviour (1 = strongly disagree; 7 = strongly agree). This scale has been widely used in prior research (Huang et al., 2010) and includes the following statements:

- My immediate supervisor encourages me to express ideas/suggestions.
- My immediate supervisor listens to my ideas and suggestions.
- My immediate supervisor uses my suggestions to make decisions that affects me.
- My immediate supervisor gives me a chance to voice my opinions.
- My immediate supervisor considers my ideas when he/she disagrees with me
- My immediate supervisor makes decisions that are only based on his/her own ideas (revers).

Participative leadership passed the reliability tests (Cronbach's alpha = 0.868) and the mean value is used to measure participative leadership.

3.9.2 Dependent variable – Employee Innovative Behaviour

Six items derived from Scott & Bruce (1994) was used to measure perceived employee innovative behaviour by employees themselves (1=strongly disagree, 7=strongly agree). The higher the value, the more innovative behaviour. The following items have been stated:

- I search for new ideas and opportunities
- I generate creative ideas
- I promote ideas to others
- I investigate and secure funds needed to implement new ideas
- I develop adequate plans and schedules for the implementation of new ideas
- I am innovative

Employee innovative behaviour passed the reliability tests (Cronbach's alpha = 0.852) and the mean value is used to measure employee innovative behaviour.

3.9.3 Moderating variables – Pro-active and risk-taking work climate

A six-item seven-point scale questionnaire adopted from Kang et al. (2016) was used to measure perceived company work climate (1 = strongly disagree; 7 = strongly agree). Kang et al. (2016) based their questionnaire on previous research (e.g. Covin & Slevin, 1989; Scott & Bruce, 1994; Patterson et al., 2005; Baer & Frese, 2003; Hughes & Morgan, 2007) and modified them into six items per category. In this questionnaire, the items were reduced to three per category, to make the questionnaire not too time constraining which may increase the response rate. With the following items, employees assessed their respective company climates:

Pro-active work climate

- My organisation encourages proactively approaching problems
- My organisation supports searching for an immediate solution.
- My organisation has processes in place that allows me to use opportunities quickly in order to attain goals

Pro-active work climate passed the reliability tests (Cronbach's alpha = 0.819) and the mean value is used to measure pro-active work climate.

Risk-taking work climate

- People in my organisation are encouraged to take calculated risks with new ideas
- My organisation supports exploring new opportunities
- Risk avoiding attitude and/or behaviour is typically encourages by my organisation (revers)

Risk-taking work climate passed the reliability tests (Cronbach's alpha = 0.590) and the mean value is used to measure risk-taking work climate. A lower reliability score is accepted because this concept is not tested in this context before and translations were used which could influence the reliability. In addition, the concept consists of three statements that makes it not possible to remove one to improve the reliability.

3.9.4 Control variables

Company

Company was chosen as a control variable because the companies are active in different branches that could indicate differences in employee innovative behaviour (Lee, 2001; De Felice & Petrillo, 2013; Lado & Marydeu-Olivares, 2001; Ruokonen et al., 2008; Zakrewska-Bielawska, 2010).

Gender

Gender was chosen as a control variable because previous research has indicated that there are some differences between males and females regarding their level of creativity (Carmeli et al., 2006). For instance, a research by Amabile et al. (2003, as cited in Carmeli et al., 2006) found that females are less creative than males in displaying creativity behaviour. Gender was measured as a dichotomous variable where 1 was male and 0 was female.

Age

Age has been used as a control variable because previous research found that age has a certain influence on employees' innovative behaviour (Jung et al., 2003; Mumford et al., 2002 as cited in Yidong & Xinxin, 2013). Age was measured by subtracting the year of birth from 2019 to determine the respondent's age.

Education

Education level was chosen as a control variable because previous research has shown individual intelligence and intellectuality plays a significant role in the development of creative contributions (Mumford & Gustafson, 1988). The research states that that subordinates with a higher educational background are able to think in solutions on complex problems, which is key for innovative behaviour (Mumford & Gustafson, 1988). Education was measured by asking the respondents what their highest completed education is. The following answers were predefined: High school, Bachelor, Master or higher and Other.

Nationality

Nationality was chosen as a control variable because several researchers have provided insights of the importance of culture for organisations (Brown, 1998; Hofstede, 2001; 1994; Schein, 1985; Trompenaars and Hampden-Turner, 1997) as the researchers relate differences in culture to differences in the approach of solving common human problems (as cited in Siakas and Georgiadou, 2006). Nationality was measured by asking the respondents to fill in their nationality.

Job position

Job position was chosen as a control variable because the extent to which an employee has access to organisation resources for conducting innovative behaviour might be different between job positions (Yuan & Woodman, 2010). Moreover, the employees' position in the organisation also deals with job demand. This demand varies between positions because managers experience a higher level of job demand than their subordinates do. In order to fit with higher job demand, the individual may behave more innovatively by generating, promoting and realizing ideas (Janssen, 2000). Job position was measured by asking if the respondent is responsible for a group of employees. The respondent could answer this with yes (=1) or no (=0). If yes, the respondent is perceived as a manager. Moreover, it is also asked in which department the respondent is currently working as innovative behaviour might be different between departments (Yuan & Woodman, 2010). The departments have been predefined to gather consistent data, which makes it easier to analyse (Bryman & Bell, 2011).

Organisational tenure

Organisational tenure is defined as the length of employment in an organisation (Ng & Feldman, 2013). Previous literature has shown that there might be differences in innovative behaviour between employees with a short organisational tenure and long organisational tenure in a specific company (Ng & Feldman, 2013; Yuan & Woodman, 2010). As found by Carmeli et al. (2006) on-the-job specific experience may increase employees' innovative behaviour because of the employees' specific knowledge and expertise about their work and the company. Thus, the employee with a long organisational tenure has more knowledge to draw on to innovate (Yan & Woodman,

2010). On the other hand, Ng & Feldman (2013) argue that the longer the organisational tenure of an employee, the more likely the employee gets bored and less motivated to perform. Organisational tenure was measured by asking the respondent in which year they start working at the company. Consequently, this year was subtracted from 2019 to determine the respondent's organisational tenure.

Job tenure

Job tenure is defined as the length of employment in an organisation in a specific job (Ng & Feldman, 2013). In line with organisational tenure, there might be differences between employers with a short and long job tenure (Ng & Feldman, 2013; Yuan & Woodman, 2010). The more an employee works in a specific job, the more knowledge and expertise the employee has, which enables the employee to respond to changes or come up with solutions on problems more easily (Yan & Woodman, 2010). On the other hand, a longer job tenure could also lead to biased thinking where employees are too used to current organisational processes (Ng & Feldman, 2013).

3.10 Data Analysis

To be able to analyse the quantitative data, gathered via eSurvey Creator, it has been imported to the statistical programme SPSS. Within SPSS, the data is divided into various codes and categories and several tests have been conducted. In order to measure the level of reliability of the variables, the Cronbach alpha test has been run. Also, to check for common method bias, a Harman's single factor test is conducted. Next, a descriptive statistics test has been run on all the variables, independent-, dependent-, moderating-, and control, to obtain an overall picture of the data sample. Moreover, the Kolmogorov-Smirnov test is chosen to find out if the population is normally distributed or not. A large deviation equals a low p-value ($p < .05$) and means that the variable does not follow a normal distribution. The Kolmogorov-Smirnov test showed that the variables were not significant and thereby indicated normality in the population. The normal distribution allows the authors to use the Pearson's correlation test to be able to find potential correlations between the variables. Thereafter, the multiple linear regression analysis is conducted in order to find out if there is a significant relationship between participative leadership and employee innovative behaviour, in combination

with a set of control variables, and thereby if H1 is supported or not. Finally, the hierarchical multiple moderating linear regression analyses is conducted to see if there is any support for H2 and H3 and thereby to test if there is a moderating effect of proactive and risk-taking work climate on the relationship between participative leadership and employee innovative behaviour.

3.11 Reliability and Validity

It is essential to consider the reliability and validity of the data and measures in order to assess the quality of the research (Bryman & Bell, 2011). Reliability refers to the repeatability of the study and if the study shows consistent findings when it is performed in another occasion and is stable over time (Saunders et al., 2009; Bryman & Bell, 2011). To determine the reliability of the variables, a Cronbach alpha test has been run on all variables. A Cronbach's alpha coefficient will vary between 1 and 0, where 0.70 is typically employed as a rule of thumb to denote an acceptable level of internal reliability (Bryman & Bell, 2011). Validity of the data refers to the question of whether a measure devised of a concept does reflect the concept that it is supposed to be denoting (Bryman & Bell, 2011). In this thesis, the focus lays on construct validity because this refers to deducing hypothesis from a theory that is relevant to the concepts (Bryman & Bell, 2011). All proposed hypotheses have been deduced from existing literature that strengthens the validity of the thesis. Moreover, the statements used in the survey to measure several concepts, were retrieved from previous existing literature. The participative leadership statements were adopted from the Empowering Leadership Questionnaire developed by Arnold et al. (2000). According to Google Scholar, the article in which this questionnaire is presented is cited 1008 times. Next, the employee innovative behaviour statements were derived from Scott & Bruce (1994) which has been cited 5084 times according to Google Scholar. The pro-active and risk-taking work climate statements were adopted from Kang et al. (2016). According to Google Scholar, the article in which the questionnaire is presented is cited 26 times. This is significantly lower than the dependent and independent variables, however, the statements in their article are based on previous questionnaires which are cited very often (Baer & Frese, 2003: 1429 times cited; Hughes & Morgan, 2007: 765 times cited). The response rate of the data was 50.6% which provides a high level of accurate survey results.

3.12 Ethical Considerations

The gathering of quantitative data entails responsibilities for the researchers. The researchers are both aware of the several ethical considerations that are necessary because of the questionnaire that is used in this thesis. Diener and Grandall (1978) claim that there are four main areas, whether there *is harm to participants, a lack of informed consent, an invasion of privacy and if deception is involved* (as cited in Bryman & Bell, 2011). To meet these requirements, the researchers have been in contact with the Human Research (HR) departments of the companies. The HR departments informed the participants that participation is voluntary and confidential. The respondents therefore gave their consent and are informed that the information will only be used in this research. The confidential approach assures that there is no invasion of the privacy of the participants.

4 Results and Analysis

This chapter presents the findings of the data which has been acquired through a statistical analysis of the survey data.

4.1 Descriptive statistics

Descriptive statistics are used to give a clear overview of the empirical findings. The dependent, independent, moderating and control variables are all covered with their own table to provide an overview per variable.

4.1.1 Dependent Variables

Employee innovative behaviour is the dependent variable which was measured through six statements. The dependent variable passed the reliability test (Cronbach's $\alpha=0.852$), there, the statements were merged together into the same variable.

Descriptive Statistics	N	Minimum	Maximum	Mean	Std. Deviation
Employee Innovative Behaviour	119	2.00	7.00	4.99	.94

Table 4 *Descriptive Statistics Employee Innovative Behaviour*

Table 4 shows to which extent the respondents perceive their behaviour at work to be innovative. The mean value of 4.99 indicates that the respondents perceive themselves as innovative, as it is above the middle point on a seven-point Likert-scale.

4.1.2 Independent Variables

Participative Leadership is the independent variable which was measured through six statements in the survey. The independent variable passed the reliability test (Cronbach's $\alpha=.868$), therefore, the statements were merged together into the same variable.

Descriptive Statistics	N	Minimum	Maximum	Mean	Std. Deviation
Participative Leadership	119	1.83	7.00	5.28	1.05

Table 5 *Descriptive Statistics Participative Leadership*

Table 5 shows to which extent the respondents perceive the leadership style of their immediate supervisor as being a participative leadership style. The mean value indicates that the respondents perceive their immediate supervisor as participative, as it is highly above the middle on a seven-point Likert-scale.

4.1.3 Moderating Variables

Pro-active work climate and risk-taking work climate are the moderating variables which were measured through three statements per moderating variable in the survey. Pro-active active work climate passed the reliability test (Cronbach's alpha=0.819), therefore, the statements were merged together into the same variable.

Descriptive Statistics	N	Minimum	Maximum	Mean	Std. Deviation
Pro-active work climate	119	1.67	7.00	4.85	1.16

Table 6 *Descriptive Statistics Pro-active Work Climate*

Table 6 shows to which extent the respondents perceive their work climate as being a pro-active work climate. The mean value indicates that the respondents perceive their work climate as pro-active, however, it is slightly above the middle point on a seven-point Likert-scale.

The moderating variable Risk-taking work climate has a Cronbach alpha score of 0.590. This is below the rule of thumb of 0.70. However, as this concept has not been researched often in this context and translations were used which could influence the reliability, this reliability score is accepted. Consequently, the statements were merged into the same variable.

Descriptive Statistics	N	Minimum	Maximum	Mean	Std. Deviation
Risk-taking work climate	119	2.33	7.00	4.79	1.04

Table 7 *Descriptive Statistics Risk-taking Work Climate*

Table 7 shows to which extent the respondents perceive their work climate a being a risk-taking work climate. The mean value indicates that the respondents perceive their work climate as risk-taking, however, it is slightly above the middle point on a seven-point Likert-scale.

4.1.4 Control Variables

Several control variables have been used in the analysis. In this section, the control variables are presented to give an overview of the characteristics of the sample.

Company

Company is used as a categorical variable, in which five different companies have been separated into different columns in SPSS. Table 8 presents the percentages of the amount of responses per company.

Company	N	% of total
Company A	20	16.8%
Company B	27	22.7%
Company C	21	17.6%
Company D	19	16.0%
Company E	32	27.0%

Table 8 *Frequency Table Companies*

Gender, Age, Nationality, Education

Gender is measured through a dummy variable, where 1=male and 0=female. Table 9 indicates that 64% of the sample is male. Looking at age, the data shows that the youngest participant is 21 and the oldest 63. The average age is of all respondents is 38 (38.74) years old. Furthermore, the majority, 95%, of the respondents is Dutch and have their education completed at High school- (18%), Bachelor- (34%), Master or higher- (35%), or Other-level (13%).

Descriptive Statistics	N	Minimum	Maximum	Mean	Std. Deviation
Gender	119	.00	1.00	.64	.48
Age	119	21.00	63.00	38.74	11.10
Nationality: Non-Dutch/ Dutch	119	.00	1.00	.95	.22
Ed.: High school	119	.00	1.00	.18	.38
Ed.: Bachelor	119	.00	1.00	.34	.48
Ed.: Master or higher	119	.00	1.00	.35	.48
Ed.: Other	119	.00	1.00	.13	.33

Table 9 *Descriptive Statistics Gender, Age, Nationality, Education*

Organisational tenure, Job tenure, Responsible Job, Department

Organisational tenure explains how long (in years) the respondent has been working in the company. Table 10 indicates that the average organisational tenure is 7 years and 8 months. Job tenure explains how long (in years) the respondent has been working in their current job position. Table 10 indicates that the average job tenure is 3 years and 11 months. Moreover, of all the respondents 18% is responsible for a group of employees. Looking at the departments, Table 10 shows that 29% is working on a marketing-focused department, 27% sales-focused, 21% Customer Support-focused,

10% Other focus, 5% design/development focused, 4% finance focused and 3% management focused.

Descriptive Statistics	N	Minimum	Maximum	Mean	Std. Deviation
Organisational tenure	119	.00	40.00	7.69	8.44
Job tenure	119	.00	24.00	3.91	4.63
Responsible Job	119	.00	1.00	.18	.38
Dep.: Marketing focus	119	.00	1.00	.29	.46
Dep.: Customer Support focus	119	.00	1.00	.21	.41
Dep.: Finance focus	119	.00	1.00	.04	.20
Dep.: Sales focus	119	.00	1.00	.27	.45
Dep.: Management focus	119	.00	1.00	.03	.18
Dep.: Development/Design focus	119	.00	1.00	.05	.22
Dep.: Other focus	119	.00	1.00	.10	.30

Table 10 *Descriptive Statistics Organisational tenure, Job tenure, Responsibility job, Department*

4.1.5 Common Method Bias

To test on common method bias, the Harman's single factor test has been run. The test included all the dependent, independent, moderating and control variables. The test shows a percentage of 18.5% at the first variable, which is below the cut-off of 50% (Pallant, 2013). This indicates a low risk of bias in the data (Pallant, 2013).

4.2 Pearson Correlation Matrix

The data has been tested on normality through the Kolmogorov-Smirnov test. This test shows non-significance which means that the data is considered to be normally distributed (Pallant, 2013). As a result, a Pearson correlation test is allowed to be done. The Pearson correlation matrix tests if there is a significant positive or negative relation between two variables (Bryman & Bell, 2011). The significance levels are as follows: *** $p < 0.001$ = very strong significance; ** $p < 0.01$ = strong significance; * $p < 0.05$ moderate significance; † $p < 0.1$ = weak significance. The correlation coefficients are presented in Table 11.

The Pearson Correlation matrix shows a variety of significant correlations. Firstly, the matrix shows a very strong positive significant correlation between participative leadership and employee innovative behaviour (0.300***). This indicates that the more

a participative leadership style is perceived by the respondents, the higher the employee innovative behaviour. Another noticeable correlation is the very strong positive significant correlation between the both moderating variables pro-active – and risk-taking work climate and Participative Leadership (0.514*** and 0.397*** respectively). The correlation indicates that both work climates have a positive significant impact on participative leadership, which means that they enhance the effect of the participative leader. Furthermore, the matrix show that the moderating variable Pro-active work climate has a very strong positive significant correlation with Employee Innovative Behaviour (.316***). Notable is the less significant correlation between the moderating variable risk-taking work climate and Employee Innovative Behaviour (0.186*). This is only a moderate positive significance in contrast to the very strong positive significance correlation of the pro-active work climate towards Employee Innovative Behaviour. The matrix further shows a very strong positive significance correlation between the moderating variable risk-taking work climate and the other the moderating variable pro-active work climate (.629***). Furthermore, “age” and “job tenure” are found to have a very strong negative significance correlation towards the moderating variable Pro-active work climate (-0.360*** and -0.300*** respectively). Finally, the matrix shows other, however less relevant, relationships in connection to the research purpose.

Variables	1	2	3	4	5	6	7	8	9	10	11	12	13	4	15	16	17	18	19	20	21	
1. Participative Leadership																						
2. Employee Innovative Behaviour	,300***																					
3. Pro-active work climate	,514***	,316***																				
4. Risk-taking work climate	,397***	,186*	,692***																			
5. Gender	.046	-.028	.168†	.107																		
6. Age	-.113	-.223*	-.360***	-.437**	.019																	
7. Nationality: Dutch/Non-Dutch	.026	.018	.060	-.121	.067	.213*																
8. Ed.: High school	-.049	-.164†	-.101	-.205*	.027	,408***	.107															
9. Ed.: Bachelor	-.062	.003	.051	.119	.140	-.116	.005	-.336***														
10. Ed.: Master or higher	.119	,206*	.150	.162†	-.140	-.377**	-.151	-.342***	-.535***													
11. Ed.: Other	-.027	-.113	-.172†	-.168†	-.031	,240**	.088	-.176†	-.275**	-.280**												
12. Organisational tenure	-.041	-.171†	-.190*	-.170†	.049	,617***	.170†	,261**	-.072	-.270**	.192*											
13. Job tenure	-.150	-.212*	-.300***	-.173†	.046	,506***	.129	,201*	-.093	-.195*	,183*	,644***										
14. Responsible Job	.124	,274**	,237**	.030	.027	.001	.006	.017	-.104	.119	-.043	-.009	-.144									
15. Marketing focus	-.026	.143	.098	,191*	-.206*	-.464***	-.188*	-.299***	.153†	.179†	-.134	-.384***	-.271**	-.009								
16. Customer support focus	.028	-.105	.143	,252**	.044	.020	.119	.032	.060	-.036	-.072	.159†	-.030	-.022	-.333***							
17. Finance focus	-.064	-.095	-.058	-.079	-.017	,338***	.048	.123	.024	-.155†	.047	,491***	.177	.013	-.135	-.108						
18. Sales focus	.007	-.008	-.280**	-.244**	.062	,253**	.140	-.032	-.041	.028	.055	.101	,280**	-.181*	-.391***	-.313***	-.127					
19. Management focus	.068	.043	.051	-.067	-.054	.169†	.043	-.086	-.037	.057	.070	.062	.054	.158†	-.120	-.096	-.039	-.113				
20. Development /Design focus	-.020	.009	-.060	-.127	.173†	-.012	.053	,196*	-.086	-.170†	.144	-.078	.005	,196*	-.149	-.119	-.048	-.140	-.043			
21. Other	.007	-.032	.123	-.085	.078	-.015	-.178	,284**	-.184*	-.072	.041	-.091	-.114	.065	-.216*	-.173†	-.070	-.203*	-.062	-.077		

***p < 0.001; **p < 0.01; *p < 0.05; †p < 0.

Table 11 *Pearson Correlation Matrix*

4.3 Multiple Linear Regression Analysis

The hypotheses are tested through conducting multiple linear regression analyses. This analysis is used to explore a potential relationship between one continuous dependent variable and a set of independent variables or predictors (Pallant, 2013). The analysis indicates how well a set of variables is able to predict an outcome and provides information about the model as a whole and the contribution of each variable (Pallant, 2013). In a multiple linear regression analysis, it is important to look at the collinearity diagnostics to check for multicollinearity. Multicollinearity refers to the relationship among the independent variables and exists when the independent variables are highly correlated, which is not in favour of a good regression analysis (Pallant, 2013). To check on multicollinearity, the VIF-value is used. The VIF-value explains whether the independent variables are correlated to each other. If this value is above 10 it would indicate multicollinearity (Pallant, 2013).

To test H1, participative leadership is positively related to employee innovative behaviour, the multiple regression analysis is conducted and presented in Table 12. Model 1 has a VIF-value of 4.789, which is below the cut-off of 10 (Pallant, 2013). This means that the analysis did not violate the multicollinearity assumption. Considering the adjusted R Square value, a value that tells how much of the variance in the dependent variable is explained by the model (Pallant, 2013), the model shows a quite low value of 0.106. This means that Model 1 explains 10.6% of the variance in employee innovative behaviour. To assess the statistical significance of Model 1, the significance score in the ANOVA table is used, which is for Model 1 0.042. This score means statistical significance with N=119. Model 1 in Table 12 shows a positive moderate significant relationship between participative leadership and employee innovative behaviour which means that H1 is supported. The model also indicates a positive strong significant relationship between job responsibility and employee innovative behaviour. In order to attempt to find a stronger significant relationship between participative leadership and employee innovative behaviour more tests have been conducted. Therefore, in Model 2 the control variable companies have been kept out. This variable has been removed because Model 1 does not show significance on this variable. Moreover, the VIF-value is below the cut-off of 10, however, the value still indicate that multicollinearity might

exist which could distort the model (Pallant, 2013). Also, as the data consist of a small sample (n=119), the control variables have been reduced to test on robustness, which means testing whether estimated effects are sensitive to changes in the model specifications (Pallant, 2013). The VIF-value decreased to 2.498, which means that the analysis did not violate the multicollinearity assumption. The adjusted R² is .106, which means that Model 2 explains 10.6% of the variance in employee innovative behaviour. To assess the statistical significance of Model 2, the ANOVA-significance score is used, which is 0.028. This score means statistical significance with N=119. Model 2 in Table 12 shows a positive strong significant relationship between participative leadership and employee innovative behaviour which means that H1 is supported. This is a stronger significance compared to Model 1. Therefore, in the following models the companies will be kept out. The model also indicates a positive moderate significant relationship between job responsibility and employee innovative behaviour.

Direct effect	Model 1		Model 2	
Participative Leadership	Employee Innovative Behaviour <i>All</i>		Employee Innovative Behaviour <i>All without companies</i>	
Variables	Std. B	Std. E	Std. B	Std. E
Participative Leadership	.234*	.082	.247**	.081
Gender	-.069	.186	-.035	.182
Age	-.075	.014	-.112	.012
Nationality	.082	.421	.075	.399
Ed. High school	-.085	.329	-.128	.321
Ed. Bachelor	-.026	.211	-.037	.208
Ed. Other	-.088	.318	-.109	.316
Organisat. tenure	-.035	.014	-.017	.014
Job tenure				
Responsible Job	.268**	.236	.243*	.231
Dep. Marketing	.212	.386	.135	.260
Dep. Finance	.016	.589	.025	.493
Dep. Sales	.188	.399	.136	.248
Dep. Management	.076	.563	.036	.507
Dep. Design	.131	.519	.050	.458
Dep. Other	.156	.401	.063	.351
Company A	.267	.411		
Company B	.209	.378		
Company D	.105	.366		
Company E	.162	.404		
Constant	3.191***	.890	3.748***	.737
F-value	1.736*		1.933*	
Adj. R2	.106		.106	
VIF value. highest	4.789		2.498	
T-value, lowest	.209		.400	
	N=119		N=119	

Note: ***p < 0.001; **p < 0.01; *p < 0.05; †p < 0.

Table 12 *Linear Regression Model: Model 1 and 2*

In order to do an exploration of the data, more models have been created. All the models present the results of the multiple regression analysis based on certain selected cases. Those selected cases are based on the control variables the authors argued for. The additional models can be found in Appendix II.

Model 3 in Appendix II includes only respondents which are not responsible for a group of employees because they may experience the pressure to behave in an innovative type of way to carry out an image of themselves which is expected by their manager (Yuan & Woodman, 2010). The model has a highest VIF value of 2.278, which indicates that the model did not violate the multicollinearity assumption. The adjusted R^2 is .085, which means that the model explains 8,5% of the variance in employee innovative behaviour. Furthermore, the model has a weak statistical significance with $N=98$. The model shows a positive moderate significant relationship between participative leadership and employee innovative behaviour which means that H1 is supported. The model also indicates a positive weak significant relationship between marketing department and employee innovative behaviour.

Model 4 in Appendix II covers the results of selected cases with higher education (Bachelor and Master or higher). This selection is chosen because previous research has shown that employees with higher education carry out more innovative behaviour because they have the ability to deal with complex problems (Mumford & Gustafson, 1988). Model 4 has a maximum VIF-value of 2.469, thus the model did not violate the multicollinearity assumption. Looking at the adjusted R Square, the model shows a value of .108 which means that model 4 explains 10.8% of the variance in employee innovative behaviour. To assess the statistical significance of Model 4, the significance score in the ANOVA table is used, which is for Model 4 0.058. This score means statistical significance with $N=84$. Model 4 in Appendix II shows a positive moderate significant relationship between participative leadership and employee innovative behaviour.

Model 5 in Appendix II covers the results of selected cases with an organisational tenure lower than 8 years. This selection was chosen because research shows that the

longer the organisational tenure, the more it is likely that employees get bored and less motivated to perform (Ng & Feldman, 2013). Model 5 has a VIF-value of 2.931, which means that the model did not violate the multicollinearity assumption. The adjusted R^2 has a value of .138 which means that the model explains 13,8% of the variance in employee innovative behaviour. To assess the statistical significance of Model 5, the ANOVA significance is used which indicates statistical significance with $N=82$. Model 5 in Appendix II shows a positive strong significant relationship between participative leadership and employee innovative behaviour.

Model 6 in Appendix II covers the results of selected cases with a Dutch nationality. This selection was chosen because research has shown that there might be cultural differences in innovative behaviour (Siakas and Georgiadou, 2006). Model 6 has a highest VIF-value of 2.421, which indicates that the model did not violate the multicollinearity assumption. The adjusted R Square is .108 which means that model 6 explains 10,8% of the variance in employee innovative behaviour. Furthermore, the model has a strong statistical significance with $n=113$. In addition, with this selection of cases, the model shows a positive strong significant relationship between participative leadership and employee innovative behaviour.

Model 7 in Appendix II covers the results of selected cases with a job tenure lower than 4 years. This selection was chosen because a longer job tenure could lead to biased thinking where employees are too used to current organisational processes (Ng & Feldman, 2013). Model 7 has a highest VIF value of 2.950, which shows that the model did not violate the multicollinearity assumption. The adjusted R^2 is .200 which means that the model explains 20% of the variance in employee innovative behaviour. Moreover, the model has a strong statistical significance with $n=88$. Again, with this selection of cases, the Model shows a positive strong significant relationship between participative leadership and employee innovative behaviour.

Model 8 in Appendix II covers the results of selected cases with the departments Marketing, Design and Customer. This selection was chosen because Meyer & Schwager (2007) state that those departments are important to optimise the customer

experience. Customer experience is becoming essential for companies because consumers have plenty of choices today due to globalization. This makes it important for MNEs to focus on customer experience (Meyer & Schwager, 2007). The model has a highest VIF value of 2.155, which indicates that the model did not violate the multicollinearity assumption. Considering the adjusted R Square value, the model shows a value of 0.122, which means that Model 8 explains 12.2% of the variance in employee innovative behaviour. Furthermore, the model has a weak statistical significance with $n=66$. Model 8 in Table 14 shows a positive moderate significant relationship between participative leadership and employee innovative behaviour.

The models present a continuous significance of the relationship between participative leadership and employee innovative behaviour. In all the selected cases, this relationship is either moderately or strongly significant. Also, the VIF-value, ranging between 2.155 and 2.950, which indicates that the models do not violate the multicollinearity assumption. Analyses have also been done on the control variables Gender and Age, whereby either Male or Female cases were selected, or cases older than 39 years old (the mean value). However, the multiple linear regression did not show a significant relationship between participative leadership and employee innovative behaviour if these cases were selected.

4.4 Hierarchical Moderating Multiple Regression Analysis

To test hypothesis 2 and 3, a Hierarchical Moderating Multiple Regression analysis has been done to investigate if a pro-active and risk-taking work climate has a moderating effect on the relationship between participative leadership and employee innovative behaviour. In a hierarchical regression, the independent variables are put into the equation based on theoretical grounds. The set of variables are entered in steps, with each independent variable being assessed to see what it adds to the prediction of employee innovative behaviour (Pallant, 2013). In step 1, all the control variables have been added. Thereafter, the variables participative leadership and either pro-active or risk-taking work climate has been added. Lastly, in the final block, the variable participative leadership X pro-active or risk-taking work climate has been inserted, to see if the specific work climate has influence on the relationship between participative leadership and employee innovative behaviour.

4.4.1 Moderating effect Pro-active Work Climate

In order to test the moderating effect of pro-active work climate on the relationship between participative leadership and employee innovative behaviour, a hierarchical moderating multiple regression analysis has been done.

Moderating effect	Model 9		Model 10		Model 11	
Pro-active Work climate	Employee Innovative Behaviour <i>All</i>		Employee Innovative Behaviour <i>All without companies</i>		Employee Innovative Behaviour <i>Customer experience departments</i>	
Variables	Std. B	Std. E	Std. B	Std. E	Std. B	Std. E
Participative Leadership (PLS)	.273*	.101	.270*	.100	.258	.165
Pro-active work climate (PAWC)	.170	.103	.202†	.100	.292†	.138
PAWC X PLS	.235*	.074	.235*	.073	.343*	.102
Gender	-.099	.185	-.073	.182	.001	.242
Age	-.003	.014	-.014	.012	-.217	.017
Nationality	.046	.421	.039	.397	.035	.482
Ed. High school	-.167	.334	-.202	.324	-.132	.452
Ed. Bachelor	-.063	.209	-.072	.205	-.010	.253
Ed. Other	-.132	.318	-.150	.315	-.164	.495
Organisat. Tenure	-.018	.014	.004	.014	.122	.022
Responsible Job	.229*	.239	.198	.232	.168	.277
Dep. Marketing	.226	.379	.147	.256		
Dep. Finance	-.007	.582	-.002	.485		
Dep. Sales	.239	.394	.197	.251		
Dep. Management	.068	.555	.035	.496		
Dep. Design	.198	.522	.131	.467		
Dep. Other	.173	.399	.088	.346		
Company A	.230	.410				
Company B	.189	.372				
Company D	.068	.363				
Company E	.113	.398				
Constant	2.285*		2.637		2.953**	.996
F-value	1.925*		2.190**		2.572*	
Adj. R2	.141		.146		.210	
VIF value. highest	4.843		2.751		2.421	
	N=119		N=119		N=66	

Note: ***p < 0.001; **p < 0.01; *p < 0.05; †p < 0.

Table 13 Hierarchical Linear Regression Model: Model 9, 10 and 11

Model 9 in Table 13 shows the result if all cases are selected. The model itself has a moderate significance with n=119. Moreover, the VIF value show that the model did not violate the multicollinearity assumption. The adjusted R Square shows that the model explains 14,1% of the variance in employee innovative behaviour. Looking at the numbers, the model shows that pro-active work climate has a positive moderate significant effect on the relationship between participative leadership and employee innovative behaviour. This means that H2 is supported. In order to interpret the

significant interaction, the model has been plotted by inserting the results into an Excel worksheet created by Aiken & West (1991), Dawson (2014) and Dawson & Richter (2006). Figure 2 shows that when there is a high pro-active work climate, participative leadership has a steep effect on employee innovative behaviour, with a maximum score of approximately 2.9. When there is a low pro-active work climate, there is a positive impact of participative leadership on employee innovative behaviour, however, this impact is less strong.

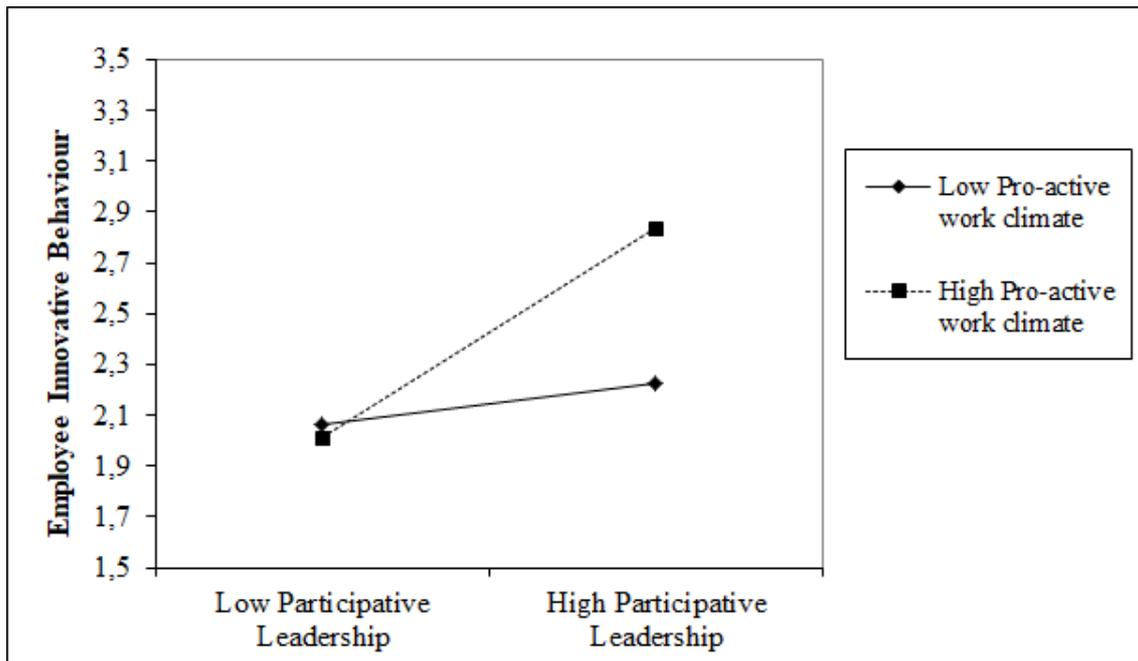


Figure 2 *Standardised Two-Way Interaction Effects Pro-active Work Climate Model 9*

In order to attempt to find a stronger significant moderating effect, more models have been created. Model 10 has kept out the companies, as it might generate hidden multicollinearity that could distort the model (Pallant, 2013). The model shows no multicollinearity because the VIF-value does not cross the cut-off. Moreover, the model itself is of statistical strong significance with $n=119$. The adjusted R Square shows that the model explains 14.6% of the variance in employee innovative behaviour. Looking at the results, the table indicates that pro-active work climate has a positive moderate significant effect on the relationship between participative leadership and employee innovative behaviour. This means that H2 is supported. Model 10 has also been plotted to interpret the interaction, which is presented in Figure 3. Figure 3 shows that when there is a high pro-active work climate, participative leadership has a steep effect on employee innovative behaviour, with a maximum score of approximately 3.3. However,

when there is a low pro-active work climate, there is a positive impact of participative leadership on employee innovative behaviour but this impact is less strong. This is in line with Model 9, however, the score of employee innovative behaviour in Model 10 is overall higher.

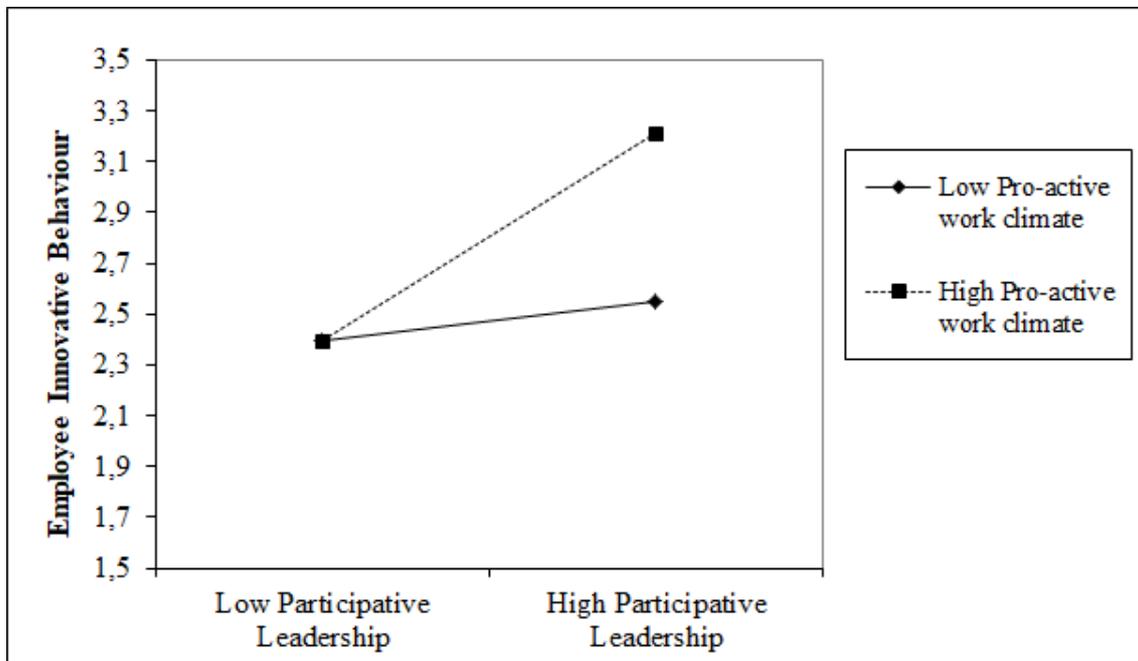


Figure 3 Standardised Two-Way Interaction Effects Pro-active Work Climate Model 10

Model 11 covers the results of selected cases with the departments Marketing, Design and Customer. This selection is chosen because literature argues that those departments are important in the optimisation of the customer experience (Meyer & Schwager, 2007). Customer experience is becoming an essential part of companies because of the plenty of choices customers are confronted with today. This makes it important for MNEs to focus on customer experience (Meyer & Schwager, 2007). Moreover, as Model 9 and 10 show no significance on the different companies, this control variable has been kept out. Also, as the data consist of a relatively small sample (n=119), control variables have been reduced. Model 11 has a highest VIF value of 2.421, which shows no multicollinearity. Moreover, the model has a moderate statistical significance with n=66. The adjusted R Square shows that the model explains 21.0% of the variance in employee innovative behaviour. The results indicate that pro-active has a positive moderate significant effect on the relationship between participative leadership and employee innovative behaviour. This means that H2 is supported. Model 11 has also been plotted to interpret the interaction, which is presented in Figure 4 In line with

Model 9 and 10 presented in respectively Figure 2 and 3, Figure 4 shows that when there is a high pro-active work climate, participative leadership has a steep effect on employee innovative behaviour, with a maximum score of approximately 3.7. However, when there is a low pro-active work climate, there is a positive impact of participative leadership on employee innovative behaviour but this impact is less strong. Compared to Model 9 and 10, the employee innovative behaviour score is overall higher.

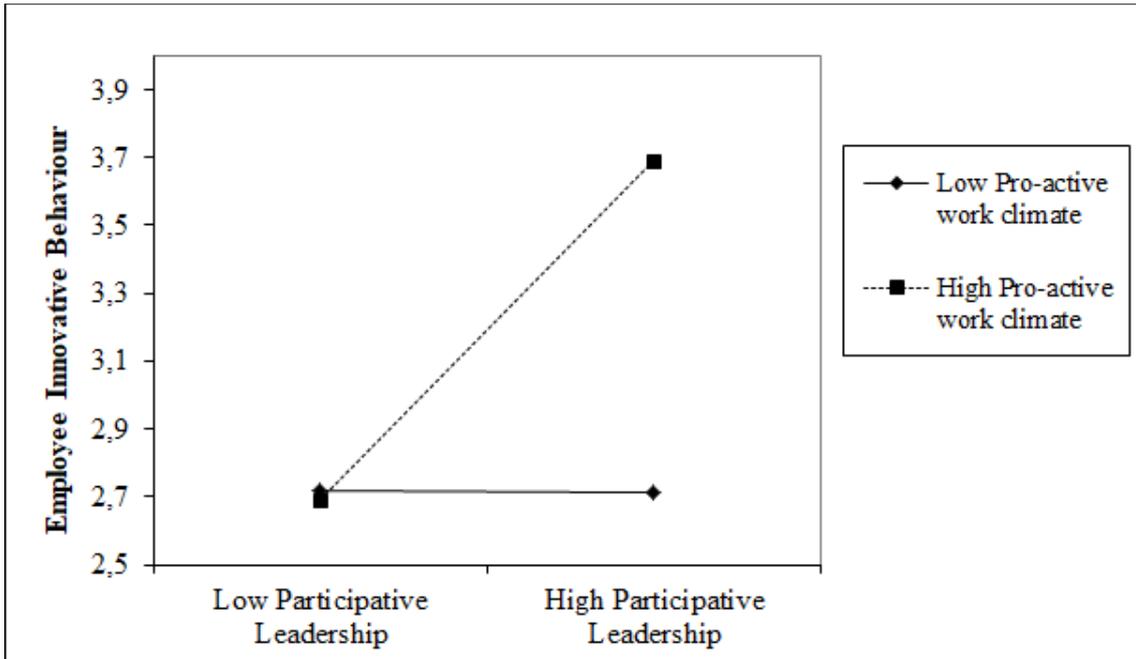


Figure 4 *Standardised Two-Way Interaction Effects Pro-active Work Climate Model 11*

4.4.2 Moderating effect Risk-taking Work Climate

To be able to test the moderating effect of risk-taking work climate on the relationship between participative leadership and employee innovative behaviour, a hierarchical moderating multiple regression analysis is conducted. In order to measure the effect of both moderating variables, the same case selection used in the pro-active work climate regression model is implemented here.

In model 12, the result of the all cases selection is shown. The model itself has a weak significance with $n=119$. Furthermore, the VIF-value did not violate the multicollinearity because the highest VIF-value is below 10 (4.995) (Pallant, 2013). The model explains 10.5% of the variance in employee innovative behaviour, which is based on the adjusted R square. The model shows that risk-taking work climate has no significant effect on the relationship between participative leadership and employee

innovative behaviour. Therefore, no support for H3 is found. Since the hypothesis is not supported the model has not been plotted, instead, there are more tests, based on literature and the models, conducted to find a significant moderating effect.

Moderating effect	Model 12		Model 13		Model 14	
Risk-taking Work Climate	Employee Innovative Behaviour <i>All</i>		Employee Innovative Behaviour <i>All without companies</i>		Employee Innovative Behaviour <i>Customer experience departments</i>	
Variables	Std. B	Std. E	Std. B	Std. E	Std. B	Std. E
Participative Leadership (PLS)	.291**	.095	.281**	.094	.390*	.149
Risk-taking work climate (RTWC)	-.029	.113	.036	.105	-.010	.145
RTWC X PLS	.138	.083	.138	.082	.314*	.100
Gender	-.068	.187	-.040	.184	.017	.246
Age	-.070	.014	-.081	.012	-.307	.017
Nationality	.074	.423	.071	.401	.107	.471
Ed. High school	-.132	.342	-.176	.332	-.134	.462
Ed. Bachelor	-.043	.213	-.057	.210	-.007	.258
Ed. Other	-.118	.325	-.141	.322	-.221	.496
Organisat. Tenure	-.020	.014	-.001	.014	.146	.022
Responsible Job	.266	.237	.239	.231	.222†	.273
Dep. Marketing	.213	.386	.144	.264		
Dep. Finance	.011	.591	.020	.494		
Dep. Sales	.198	.399	.159	.260		
Dep. Management	.088	.566	.054	.513		
Dep. Design	.157	.527	.088	.481		
Dep. Other	.179	.406	.100	.367		
Company A	.270	.440				
Company B	.209	.378				
Company D	.090	.368				
Company E	.162	.413				
Constant	3.029**	.986	3.299***	.922	5.691***	
F-value	1.661†		1.828*		2.355*	
Adj. R2	.105		.107		.187	
VIF value. highest	4.995		2.789		2.233	
	N=119		N=119		N=66	

Note: ***p < 0.001; **p < 0.01; *p < 0.05; †p < 0.

Table 14 *Hierarchical Linear Regression Model: Model 12, 13 and 14*

Model 13, therefore, excluded the different companies in the analysis as it might generate hidden multicollinearity that could distort the results of the model (Pallant, 2013). The model shows a moderate significance with n=119. The VIF-value improved compared to model 12 and are not in violation with the multicollinearity. The Adjusted R square shows that the model explains 10.7% of the variance in the dependent variable employee innovative behaviour. Table 14 indicates that risk-taking work climate does not have a significant effect on the relationship between participative leadership and

employee innovative behaviour. This means that H3 is not supported and that model 13 has not been plotted.

Finally, Model 14 is presented in Table 14, and only includes the customer experience departments (Marketing, Design, and Customer). This selection is chosen because of the importance of customer experience for MNEs in a globalizing world (Meyer & Schwager, 2007). In addition, reducing the control variables allows to test on robustness. Model 13 shows a weak significance with $n=66$, the VIF-value improved compared to Model 12 and 13, and do not violate the multicollinearity. Furthermore, the Adjust R square shows that the model explains 18.7% of the variance in employee innovative behaviour. Model 13 indicates that risk-taking work climate has a positive moderate significant effect on the relationship between participative leadership and employee innovative behaviour. The model supports H3 and is plotted in order to interpret the significant interaction, which is presented in Figure 5.

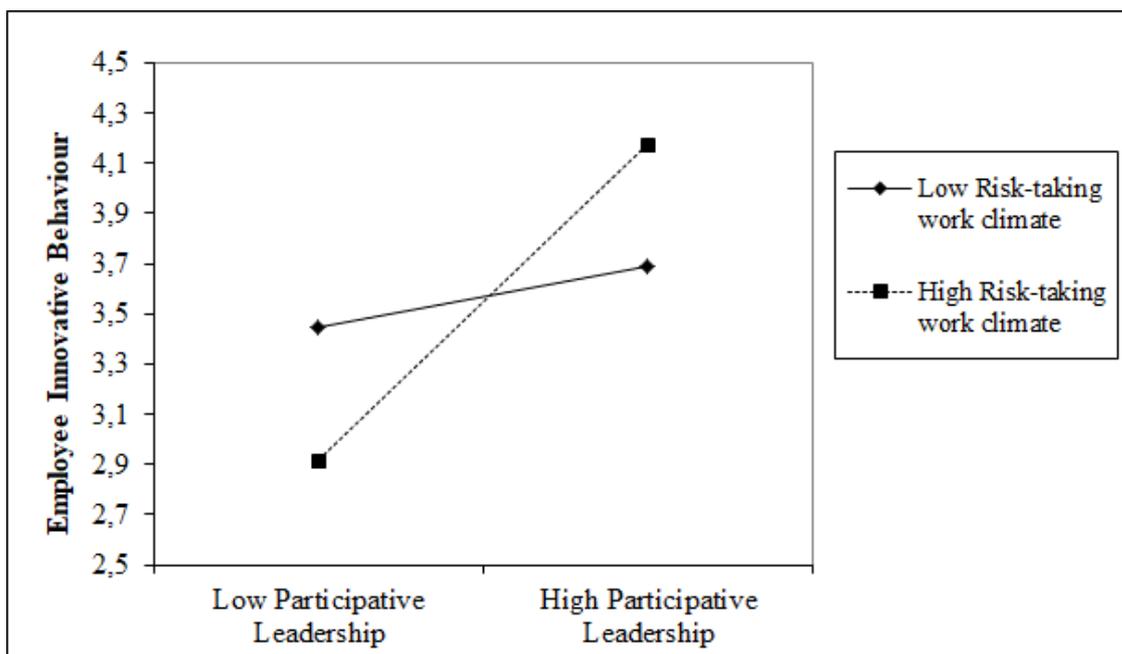


Figure 5 Standardised Two-Way Interaction Effects Risk-taking Work Climate Model 14

Figure 5 shows that when there is a high risk-taking work climate, participative leadership has a steep effect on employee innovative behaviour, with a maximum score of approximately 4.2. A low risk-taking climate has still a positive impact, however, this is less strong with a maximum score of approximately 3.7.

4.4.3 Hypotheses

- *H1: Participative leadership is positively related to employee innovative behaviour.*
- *H2: Increasing a pro-active work climate has a positive moderating effect on the relationship between participative leadership and employee innovative behaviour.*
- *H3: Increasing a risk-taking work climate has a positive moderating effect on the relationship between participative leadership and employee innovative behaviour.*

In order to support or not support the hypotheses, the multiple linear regression and hierarchical moderating multiple regression analysis have been used. Table 12, 13 and 14 show support for H1. All composed models (Model 1 to Model 8) indicate a positive significant relationship between participative leadership and employee innovative behaviour. The positive significance is either moderate (Model 1, 3, 4, 8) or strong (Model 2, 5, 6, 7). Table 15 shows support for H2. All the created models (Model 9, 10 and 11) indicate a positive moderate significant effect of pro-active work climate on the relationship between participative leadership and employee innovative behaviour. Regarding H3, only Model 14 in Table 16 shows support for H3. This means that only when certain departments are selected, a risk-taking work climate has a positive moderate significant effect on the relationship between participative leadership and employee innovative behaviour. If all cases are selected, a risk-taking work climate does not have a significant effect on this relationship.

	H1	H2	H3
Supported	•	•	
Not supported			
Partly supported			•

Table 15 *Hypotheses overview*

5 Discussion

This chapter discusses the findings which are presented in the previous chapter. In this chapter, the results will be further discussed in relation to the hypotheses.

The purpose of this thesis is to explain the relationship between participative leadership and employee innovative behaviour, and how this relationship is contingent on risk-taking and pro-active work climates in the context of Dutch MNEs. The results presented in the previous chapter will be discussed in its meaning for employee innovative behaviour, the relationship between participative leadership and employee innovative behaviour, and the results of pro-active work climate and risk-taking work climate as a moderating variable.

5.1 Employee innovative behaviour

Innovation is crucial for MNEs active in turbulent and uncertain environments (Carmeli et al., 2006). It is an important source of competitive advantage (Anderson et al., 2014) and drives firm survival on the long-term (Ciabuschi et al., 2011). Moreover, the innovative capacity of MNEs is dependent on each individual's ability to behave in an innovative type of way. This means that employee innovative behaviour is the foundation of any high-performing organisation (Carmeli et al., 2006). Employee innovative behaviour is measured through six statements, where the respondents indicated to which extent they behave in an innovative type of way. This means that in their work behaviour, they carry out idea generation, idea promotion and idea implementation (Carmeli et al., 2006; Wang et al., 2015). The findings indicate that the respondents perceive their behaviour at work to be innovative with a mean value of 4.99 on a seven-point Likert-scale. This value is in line with Carmeli et al. (2006) and Xerri & Brunetto (2013), who found a mean value of respectively 3.62 on a five-point Likert-scale and 4.52 on a six-point Likert scale. However, Wang et al. (2015) presents a mean value of 3.37 on a seven-point Likert-scale, and Yuan & Woodman (2010) indicate a mean value of 3.17 on a five-point Likert-scale. Those results are significantly lower than this research and the research from Carmeli et al. (2006) and Xerri & Brunetto (2013). This could be due to the fact that Wang et al. (2015) and Yuan & Woodman (2010) investigated employee innovative behaviour by asking the supervisors to rank

the behaviour of their subordinates. Whereas, this research, Carmeli et al. (2006) and Xerri & Brunetto (2013) included the subordinate being asked to provide a rating of their own innovative work behaviour. Thus, there is a difference between employee innovative behaviour perceived by the subordinate and the supervisor. Nevertheless, employee innovative behaviour in the context of Dutch MNEs is a critical factor in the sustainable success (Agarwal et al., 2012). It is important that employees are flexible and open-minded (Reuvers et al., 2008) and carry out behaviour that is directed towards the initiation and application of new and useful ideas, processes, products or procedures (De Jong & Den Hartog, 2007).

5.2 Relationship between participative leadership and employee innovative behaviour

Literature shows that participative leadership is a positive factor regarding innovation on organisational, team or individual level (Krause, 2004; De Jong & Den Hartog, 2010; Abdolmaleki et al., 2013; Ogbonna & Harris, 2000; Burpitt & Brignoness, 1997; Stoker et al., 2001; De Dreu & West, 2001; Yan, 2011; Somech, 2006; Krause et al., 2007). By carrying out a participative leadership style, the employees perceive a certain degree of autonomy and freedom (Krause, 2004), which creates an environment where employees feel that they have a significant role in the organisation (Janssen, 2005). The feeling of being in control enhances the job satisfaction and the commitment to the organisation (Brown and Trevino, 2006; De Hoogh & Den Hartog, 2008 as cited in Yidong & Xinxin, 2012), which would increase the likeliness of employees to put more energy and effort into generating, promoting, and implementing innovative ideas (Janssen,2005). For this thesis, one of the aims is to find out if participative leadership could be positively related to employee innovative behaviour.

The findings from the analysis show that there is a positive significant relation between participative leadership and employee innovative behaviour. The analysis indicates that participative leadership is positively related to employee innovative behaviour. The positive relation could be explained by the behaviour of the leader. This leadership behaviour creates an environment which is based on transparency of information and knowledge, where employees feel that they participate in the decision-making process

(Ogbeide & Harrington, 2011). This increases the sense of self-efficacy and self-determination of employees, which enhances the “out-of-the-box” thinking (Somech, 2005). This is in line with Yan (2011), who argues that participative leaders improve the intrinsic motivation of employees to come up with new ideas. Moreover, in a participative leadership style, joint-decision making and open communication process are present. This creates atmosphere with a low level of social risks that allows employees to share their opinions and generate new ideas (Somech, 2005). The needs of a rapidly changing world require a quick response from MNEs which makes it important to foster innovative behaviour of employees to gain sustainable success of MNEs in the long-term (Ciabuschi et al., 2011; Anderson et al., 2014; Hu et al., 2013).

5.3 Work climate

In the context of organisational processes, work climate may affect the results of organisational operations (Ekvall, 1996). It could have a moderating power because it influences organisational processes such as problem solving and individual creativity (Ekvall, 1996). Moreover, prior research has shown that work climate has an impact on the relationship between certain leadership styles and individual work-related outcomes (Wang & Rode, 2010). Wang & Rode (2010) argue that work climate both enhances and mitigated the impact of effective leadership on work-related outcomes. This research investigated whether a pro-active or risk-taking work climate facilitates the action of participative leader in promoting employee innovative behaviour.

5.3.1 Pro-active climate as a moderator

Within a pro-active work climate, there is organisational support for taking initiative and coming up with new immediate solutions (Kang et al., 2016). Leaders in this work climate encourage the self-starting action of employees and sharing of suggestions and solutions (Sebora and Theerapatvong, 2010 as cited in Kang et al., 2016). The results from the analysis show that pro-active work climate has a positive significant effect, in all the three models, on the relationship between participative leadership and employee innovative behaviour. It could be argued that a pro-active work climate has a positive moderating effect on the relationship between participative leadership and employee innovative behaviour. The positive moderating effect could be explained because of the

matching characteristics of a participative leadership style and a pro-active work climate. A participative leader strives to create an atmosphere where employees perceive autonomy and empowerment (Krause, 2004). This fits with the pro-active work climate, in which employees are allowed and encouraged to come up with new ideas and “out-of-the-box” thinking (Yan, 2011). Moreover, the autonomy and empowerment will increase the intrinsic motivation of the employees’ innovative behaviour (Yan, 2011). In short, a participative leadership style in a pro-active work climate will strengthen the innovative behaviour of employees (Krause, 2004) which is critical for the competitiveness of MNEs.

5.3.2 Risk-taking climate as a moderator

A risk-taking work climate is characterized by the support for suggesting new ideas and coming up with high-risk projects (Kang et al., 2016). The presence of a risk-taking work climate should facilitate the action of participative leaders on enhancing employee innovative behaviour, because with such climate employees feel free to come up with new risky ideas, even without the desired certainty and information (Kang et al., 2016). The results show that only when certain departments are selected, a risk-taking work climate has a positive moderating effect on the relationship between participative leadership and employee innovative behaviour. A possible explanation is that those departments (Marketing, Design and Customer focus) are characterised by coming up with risky creative ideas (Kang et al., 2016), exploratory thinking of employees (Carmeli et al., 2006) and the expected behaviour to take initiative and invent something new (Kang et al., 2016). Moreover, if all cases are selected, there is no significant effect of a risk-taking work climate on the relationship between participative leadership and employee innovative behaviour. A possible explanation could be that the risk-taking work climate measurement is not capturing the “Dutch idea” of risk taking, as Dutch people only have a slightly preference for avoiding risks, according to Hofstede’s culture dimension model (Hofstede, 2001). Furthermore, The Netherlands score low on the dimension “Power distance” which indicates that the Dutch working climate is characterized by decentralized power, disliking of control, and communication is direct and perceptive (Hofstede, 2001). The informal attitude towards managers and accessibility towards superiors could therefore not be in line with the conception of risk avoidance in the measurement of this thesis.

6 Conclusion

In this chapter, an overall conclusion of the thesis is presented, followed by the theoretical and empirical contributions. Thereafter, the limitations and suggestions for future research are brought forward.

6.1 Overarching conclusion

The purpose of this thesis is to investigate the relationship between participative leadership and employee innovative behaviour, and how a risk-taking and pro-active work climate could influence this relationship, in the context of Dutch MNEs. This thesis' findings provide some interesting conclusions.

The literature shows the importance of innovation for the long-term survival of Dutch MNEs (Carmeli et al., 2006; Anderson et al., 2014; Ciabuschi et al., 2011). In order to be innovative, MNEs are dependent on the employee's individual ability to act in an innovative type of way (Carmeli et al., 2006). A participative leadership style has been found as an influencing factor on innovation on individual level by several researchers (e.g. Krause, 2004; Ogbonna & Harris, 2000; De Dreu & West, 2001). Therefore, it is investigated if participative leadership is positively related to employee innovative behaviour. The results show a positive significant relation between participative leadership and employee innovative behaviour, which indicates support for Hypothesis 1. This finding is partly in line with the studies of Janssen (2005) and Fatima et al. (2017), and shows the importance of the behaviour of leaders in organisations.

Another focus of this thesis was the influence of a work climate on the relationship between participative leadership and employee innovative behaviour. Literature shows that work climates could have an impact on the relationship between certain leadership styles and individual work-related outcomes (Ekvall, 1996; Wang & Rode, 2010). Therefore, it is investigated if work climate has a moderating effect on the relationship between participative leadership and employee innovative behaviour. This thesis focuses in specific on the possible impact of a pro-active and risk-taking work climate. The results show a positive significant effect of a pro-active work climate on the relationship between participative leadership and employee innovative behaviour, which

indicates support for H2. It can be argued that a pro-active work climate positively facilitates the action of a participative leader in promoting employee innovative behaviour. This finding supports the study of Janssen (2005), and indicates the importance of autonomy and empowerment in order to promote employee innovative behaviour. Moreover, there is no significant moderating effect found of a risk-taking work climate on the relationship between participative leadership and employee innovative behaviour. The results show that only with the selection of certain departments, within Dutch MNEs, a positive significant moderating effect is found. This indicates that there is no support found for hypothesis 3 when all cases are selected. A possible explanation could be that the risk-taking work climate measurement is not capturing the “Dutch idea” of risk taking.

6.2 Theoretical contributions

This thesis contributes to the field by shedding more light on the concept of participative leadership in relationship with employee innovative behaviour. Where prior studies primarily focus on participative leadership in relationship with innovation on team level (Burpitt & Brignoness, 1997; De Dreu & West, 2001; Somech, 2005,2006; Stoker et al., 2001) or organisational level (Abdolmaleki et al., 2013; Krause et al., 2007; Yan, 2011), this thesis enriches the literature by investigating the relationship between participative leadership and innovation on individual level. Moreover, this thesis contributes to the literature by finding evidence of a positive significant relationship between participative leadership and employee innovative behaviour in the context of Dutch MNEs. The findings of the positive direct relationship between participative leadership and employee innovative behaviour are partly in line with previous literature (e.g. De Jong & Den Hartog, 2007; Janssen, 2005; Fatima et al., 2017; Krause, 2004). However, De Jong & Den Hartog (2007) did not investigate participative leadership as a solely concept, but either as a part of the concept ‘leadership style’ as a whole. Besides, Janssen (2005) and Krause (2004) investigated the concept of ‘perceived influence’ and ‘influence-based leadership’ in relationship with innovativeness on individual level. Fatima et al. (2017) did investigate the relationship between participative leadership and employee innovative behaviour, however, the mediating variable ‘employee commitment to change’ was added in this study. Therefore, compared to prior research, this thesis contributes to the literature by

investigating the relationship between participative leadership and employee innovative behaviour.

This thesis also found evidence that a pro-active work climate strengthens the relationship between participative leadership. To the authors' knowledge, this has not been investigated before. Additionally, it is found that a risk-taking work climate strengthens the relationship as well, however, only when certain departments are selected. This finding contributes to the existing literature because, in line with a pro-active work climate, this concept has not been investigated before in this relationship. Prior research has investigated both climates (e.g. Kang et al., 2016) but not in the relationship between participative leadership and employee innovative behaviour. In other words, the different measures have been used in previous research, but they have not been combined in total. Besides, where prior research mostly investigated participative leadership in relationship with innovativeness on different levels in non-European countries (e.g. Fatima et al., 2017; Miao et al., 2014; Somech, 2005, 2006; Yan, 2011), this research is focused on MNEs from the Netherlands.

6.3 Empirical contributions

This thesis empirically contributes to the field of innovation within MNEs by providing a mechanism in which it is shown how innovative behaviour is enhanced. The research contributes to the literature by showing that within Dutch MNEs, employees perceive their supervisor as participative and rank their own behaviour at work to be innovative. This means that within Dutch MNEs, supervisors to a certain extent carry out a participative leadership style by involving subordinates' suggestions, ideas and opinions in the decision-making process (Ogbeide & Harrington, 2011). In addition, within Dutch MNEs active in different branches, employees to a certain extent behave in an innovative type of way by generating, promoting and implementing ideas (Carmeli et al., 2006; Wang et al., 2015). Moreover, the climate in which they work in is perceived as more pro-active than risk-taking, where a pro-active work climate has a significant positive effect on the relationship between participative leadership and employee innovative behaviour. This means that within Dutch MNEs, the work climate is to a

certain extent characterized by the support for taking initiative, searching for immediate solutions, exploring opportunities and suggesting new ideas (Kang et al., 2016).

6.4 Practical implications

The results of this thesis can help managers understand and enhance employee innovative behaviour, since the aim of this thesis is to gain a better understanding of how participative leadership relates to employee innovative behaviour. The significant effect of the relationship between participative leadership and employee innovative behaviour indicates that managers should try to implement this type of leadership style in their organisation.

Furthermore, managers should allow more empowerment and autonomy to their subordinates in order to enhance the intrinsic motivation of employees to generate, promote, and implement innovative ideas (Janssen, 2005). The results also show a significant moderating effect of a pro-active work climate on the relationship between participative leadership and employee innovative behaviour. This indicates that managers should create an environment which allows and encourage employees to come up and share new ideas and "out-of-the-box" thinking (Yan, 2011). A pro-active work climate contributes to the participative leadership style, since the combination strengthen each other. It creates a work environment where it is expected and possible to show innovative employee behaviour.

6.5 Limitations and future research

One limitation of this thesis is the relatively low number of respondents. Following Pallant (2013), the sample size is dependent on the number of independent variables used in the study. The formula by Tabachnick & Fidell (2007, as cited in Pallant, 2013) could be used to determine the sample size. They argue for the following formula: $N > 50 + 8m$ (where m =number of independent variables). As this thesis investigates eleven independent variables, a minimum of 138 cases is required, however, this thesis has a maximum of 119 cases. Therefore, future research should investigate a larger sample size in order to increase the reliability of the study.

Moreover, this study investigated employee innovative behaviour by letting respondents rank their own behaviour at work. This might not give an honest observation of the innovativeness of an employee, as an employee could have ranked their behaviour more innovative than it truly is. Therefore, in line with prior research, employee innovative behaviour could have been investigated by letting supervisors rank their subordinates. However, letting respondents rank their own behaviour at work was chosen because of the complexity of getting supervisors coupled with subordinates. It has also been done this way in prior research, in which it showed an acceptable reliability score. Nevertheless, future research could investigate employee innovative behaviour by ranking employee innovative behaviour by both the supervisor and the employee. This may give a better result of the real individual innovativeness in MNEs.

Another limitation is that the moderating variable risk-taking work climate has not been investigated properly. Since a lower reliability score of this concept has been accepted, it shows that the statements did not completely measure what it should measure. In this thesis, three statements have been used to measure a risk-taking work climate. It was chosen to include three statements to reduce the time needed to complete the survey that could have increased the responsibility among the target group. Nevertheless, future research should include more statements to better measure the concept of a risk-taking work climate. The use of more statements to measure this concept makes it also possible to remove statements afterwards to increase the reliability score.

It would also be interesting to investigate which other factors could influence employee innovative behaviour, and what influence these factors have on the different stages (idea generation, idea promotion, idea implementation) of innovative behaviour. Therefore, future studies could research the relationship between factors such as personality, leadership, culture, company structure and company strategy, and the different phases of innovative behaviour. Thereby, it is interesting to see which factor has influence in which innovation-phase, to draw a clear picture of how innovative behaviour can be enhanced.

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Appendix

Appendix I: Questionnaire

Dear *Company X*-employee,

Thank you for taking the time to fill in our survey!

The survey will investigate certain activities of employees in an international active company. The data is used for an independent study and will only be presented in summative form, where no individual answer will be taken out. All information is highly anonymous and confidential and will not be passed in individual form to the management. The survey will take not more than 5 minutes.

Thanks in advance!

Sam Beekwilder & Daan Endlich

Page 1

I am *

- Male
- Female

In which year are you born? *

(e.g. 1974)

(...)

What is your nationality? *

(e.g. Dutch, French)

(...)

What is your highest level of education completed? *

- High school
- Bachelor

- Master or higher
- Other

In which year did you start working at your current company?

(e.g. 2010)

(...)

In which year did you start working in your current job position? *

(e.g. 2010)

(...)

In your current job position, are you responsible for a group of employees? *

- Yes
- No

In which department are you currently working? * (predefined, differs per company)

Company A	Company B	Company C	Company D	Company E
Marketing & Communication	Marketing	Managing Board	Marketing	Marketing
Sales	Billing	Sales	Sales	Marketing (International)
Product Development	Broking	Engineering	Research and Innovation	Category and Sales
Human Resource	Intern Account management (back office)	Research and Development	Product Design	Category and Sales (International)
ICT/Support	Account management (front office)	Work preparation	Product Development	Category and Sales Products (International)
Product management	Business Development	Production	Human Resource	IT
Finance	Consultancy Risk management	Customer Support	Supply Chain & Warehouse	Finance
Customer Operations	Management / Managing Board	Finance	Other	HR
Other	Claims department	Supply Chain		Customer Service
	Other	Other		Other

Page 2

In the following section, the statements will discuss your immediate manager/supervisor. Your immediate manager/supervisor is the person you accountable to/need to report to

Please rate to which extent you agree with the following statements. *

1=totally disagree, 7=totally agree

- My immediate manager/supervisor encourages me to express ideas/suggestions.
- My immediate manager/supervisor listens to my ideas and suggestions.
- My immediate manager/supervisor uses my suggestions to make decisions that affects me.
- My immediate manager/supervisor gives me a chance to voice my opinions.
- My immediate manager/supervisor considers my ideas when he/she disagrees with me. My immediate manager/supervisor makes decisions that are only based on his/her own ideas

Page 3

In the following section, you have to give your opinion about your own behaviour at work.

Please rank to which extent you agree with the following statements. *

1=totally disagree, 7=totally agree

- I search for new ideas and opportunities.
- I generate creative ideas.
- I promote ideas to others.
- I investigate and secure financial resources needed to implement new ideas.
- I develop adequate plans and schedules for the implementation of new ideas.
- I am innovative.

Page 4

In the following section, you have to give your opinion about your work environment.

Please rank to which extent you agree with the following statements. *

1=totally disagree, 7=totally agree

- My organisation encourages proactively approaching problems.
- People in my organisation are encouraged to take calculated risks with new ideas.
- My organisation supports searching for immediate solutions.
- My organisation supports exploring new opportunities.
- My organisation has processes in place that allows me to use opportunities quickly in order to attain goals.
- Risk avoiding attitude and/or behaviour is typically encouraged by my organisation.

Appendix II: Multiple Linear Regression Models

Multiple Linear Regression Model 3, 4 and 5

Direct effect	Model 3		Model 4		Model 5	
Participative Leadership	Employee Innovative Behaviour <i>Non-responsibles</i>		Employee Innovative Behaviour <i>Higher educated</i>		Employee Innovative Behaviour <i>Organisational tenure <= 8 years</i>	
Variables	Std. B	Std. E	Std. B	Std. E	Std. B	Std. E
Participative Leadership	.206*	.088	.245*	.097	.337**	.097
Gender	.207	.205	-.151	.211	-.068	.214
Age	-.046	.013	-.054	.016	-.087	.015
Nationality	-.177	.437	.121	.409	.114	.392
Ed. High school	.113	.372			-.282	.461
Ed. Bachelor	-.143	.230			-.054	.239
Ed. Other	-.091	.354			-.238†	.401
Organisat. tenure	-.148	.016	-.217	.023		
Job tenure					.093	.054
Responsible Job			.188†	.267	.164	.283
Dep. Marketing	.246†	.289	.012	.281	.201	.303
Dep. Finance	.027	.554	-.052	.761	.013	1,019
Dep. Sales	.195	.261	.022	.297	.148	.324
Dep. Management	-.022	.699	.039	.591	.019	.695
Dep. Design	.027	.615	-.112	.653	.246†	.528
Dep. Other	.047	.405	.014	.549	.169	.408
Company A						
Company B						
Company D						
Company E						
Constant	3.945***	.802	4.014***	0.839	3.212***	.842
F-value	1.645†		1.841†		1.865*	
Adj. R2	.085		.108		.138	
VIF value. highest	2.728		2.469		2.931	
	N=98		N=84		N=82	

Note: ***p < 0.001; **p < 0.01; *p < 0.05; †p < 0.

Multiple linear regression model 6, 7 and 8

Direct effect	Model 6		Model 7		Model 8	
Participative Leadership	Employee Innovative Behaviour <i>Dutch nationality</i>		Employee Innovative Behaviour <i>Job tenure <=4 years</i>		Employee Innovative Behaviour <i>Customer experience departments</i>	
Variables	Std. B	Std. E	Std. B	Std. E	Std. B	Std. E
Participative Leadership	.261**	.088	.323**	.089	.292*	.120
Gender	-.043	.188	-.078	.209	-.020	.248
Age	-.096	.012	-.250	.015	.280	.018
Nationality	-.125	.332	-.003	.426	.122	.488
Ed. High school	-.053	.218	.122	.228	-.083	.460
Ed. Bachelor	-.112	.324	-.100	.368	.053	.259
Ed. Other	-.019	.014	.491	.029	-.153	.477
Organisat. tenure	.261	.088	.323**	.089	.079	.022
Job tenure						
Responsible Job	.232*	.241	.243*	.265	.191	.282
Dep. Marketing	.145	.269	.355	.304		
Dep. Finance	.024	.503	-.381	1,175		
Dep. Sales	.132	.253	.257	.305		
Dep. Management	.033	.519	.152	.957		
Dep. Design	.052	.468	.216†	.526		
Dep. Other	.033	.376	.194	.375		
Company A						
Company B						
Company D						
Company E						
Constant	3.911***	0.695	3.425***	0.761	4.021***	.968
F-value	1.972**		2.550**		2.008†	
Adj. R2	.108		.200		.122	
VIF value. highest	2.421		2.950		2.155	
	N=113		N=88		N=66	

Note: ***p < 0.001; **p < 0.01; *p < 0.05; †p < 0.