

**Rotterdam School of Management  
Erasmus University**

## **Entrepreneurial orientation and Interorganizational Relationship Quality; the moderating role of Resiliency**



Author: A. Emmens - Spierenburg

# Entrepreneurial orientation and Interorganizational Relationship Quality; the moderating role of Resiliency?

A research to investigate the relationship between the concepts of Entrepreneurial Orientation (EO) and Interorganizational Relationship Quality (IRQ) and the moderating role of Resiliency.

Discipline: Part time Master of Science in Business Administration

Author: A. Emmens – Spierenburg  
519264

Graduation Committee: Dr. R. van Wijk (Coach)  
Prof. Dr. L.C.P.M. Meijs (Co-reader)

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## Table of Contents

<b>Preface</b>	<b>4</b>
<b>Abstract</b>	<b>6</b>
<b>1. Introduction</b>	<b>7</b>
<b>2. Theoretical background and Hypothesis development</b>	<b>10</b>
2.1 <i>Interorganizational Relationship Quality</i>	10
2.2 <i>Entrepreneurial Orientation: Innovativeness, Proactiveness, Risk-taking</i>	11
2.3 <i>Entrepreneurial Orientation and Interorganizational Relationship Quality</i>	12
Innovativeness and IRQ	12
Proactiveness and IRQ	13
Risk-taking and IRQ	14
2.4 <i>Entrepreneurial Orientation and Interorganizational Relationship Quality: The Moderating Role of Resiliency</i>	15
Innovativeness, Resiliency and IRQ	15
Proactiveness, Resiliency and IRQ	16
Risk-taking, Resiliency and IRQ	16
<b>3. Methodology</b>	<b>17</b>
3.1 <i>Sample</i>	18
3.2 <i>Data collection</i>	19
3.3 <i>Variables</i>	19
3.4 <i>Methods of analysis</i>	21
<b>4. Results</b>	<b>23</b>
<b>5. Discussion and conclusion</b>	<b>27</b>
5.1 <i>Limitations</i>	30
5.2 <i>Managerial implications</i>	32
<b>Bibliography</b>	<b>33</b>
<b>Appendix: Survey Questionnaire</b>	<b>37</b>

## Preface

Looking back, the last two years have been simply amazing. A journey that has brought many new theoretical (and practical) insights, many new people, absorbing lots and lots of knowledge about very diverse organizations, literally and figuratively broadening my horizon. It has also provided me with the confidence and motivation to switch departments and even get promoted to a senior management function – all in this same timeframe. I could not have imagined that these opportunities would arise so quickly. And on top of everything the trip to South Africa in 2019 was a fantastic experience that I will never forget!

There are a number of people I would like to thank for taking this journey with me that certainly deserve a place in my preface:

- First of all my colleagues and management of Erasmus MC. As a (HBO-V) nurse, I was given every opportunity to develop myself further, until the moment that a step higher would only be possible through higher education. The support I received from the management team at Erasmus MC motivating me and allowing me to complete this education testifies to being a good employer!
- I would like to thank Raymond van Wijk, my graduation supervisor during this process, for his always critical but very constructive feedback. I've set the bar high for myself and Raymond does the same with the students he supervises. This allowed me to get the best out of myself and to add something to my thesis over and over again, which resulted in increased content and quality. After our conversations, which he always took the time for, I was able to dig deeper and extend the research presented in this thesis.
- My sincere appreciation to Lucas Meijs, my co-reader, because he has such a very different view of things and has great knowledge with regard to non-profit organizations. He kept me on my toes by asking questions I hadn't thought about at all. However, I was able to incorporate the acquired insights into my thesis, which made the main theme in my story much clearer.
- Dawn Emmens, my American sister-in-law, whom I could always call for a translation from English into Dutch or vice versa. Only when you are writing you do notice how decisive the right words are to express what you actually mean and what exactly reflects the essence.

Finally, I would like to thank my husband Rolf and children, Rik and Floris. Without them I would never have started the part-time Master Business Administration - and I would never have successfully completed it. Thank you **Rolf** for your help with SPSS and your incredible patience when the analysis results were in my head, but I still had to put a logical story together. In this creative

phase I was not always very pleasant, but you liked to challenge me and help me get the structure and overview back. **Rik**, although I have not been able to help you much, I think it is great that you have graduated and will be able to start your further education in September. **Floris**, next year you will be finished as a junior, what an exciting year it was and despite the fact that I spent a lot of time at my own desk, you managed to get through this very well. You guys are awesome!

## Abstract

This thesis examined the ability of Entrepreneurial Orientation as a driver of Interorganizational Relationship Quality and how resiliency as an internal psychological capability influences this relationship. The research is conducted among business units of a university medical center in the Netherlands (N = 108).

This study provides insights into the application of the concepts of entrepreneurial orientation in a non-profit organization and understanding of an internal variable that could increase the effect of entrepreneurial orientation inside organizations. It was expected that an entrepreneurial orientation in a non-profit context would lead to a higher quality of interorganizational relationships and resiliency could strengthen this relationship to overcome the resistance related to government interference. However, no significant relationships were found between the concepts of EO and IRQ, what could have been caused by the fact that the EO scale was developed for the for-profit context. How entrepreneurship is manifested in non-profit organizations is influenced by the fact that non-profit's are driven by a unique social mission, which effects and shapes motivations, strategy, processes and results. Yet, an interaction effect of resiliency with proactiveness and Interorganizational Relationship Quality was shown. By leaving risk-taking out of the dataset an unexpected positive significant relationship was also shown between resiliency and Interorganizational Relationship Quality.

Keywords: Entrepreneurial Orientation, Interorganizational Relationship Quality, Resiliency, Non-profit, Social mission

## 1. Introduction

In the long term no company can be successful alone. Strategic partnerships have become very important in a competitive environment because many of the skills and resources needed to be competitive for the long term are not located within the own organization, but are actually located outside the organization (Doz & Hamel, 1998). During difficult moments in the life of an organization the need of interorganizational collaborations increases to be able to survive. A lot of different definitions of collaboration exist in literature, in this study collaboration is defined “as a cooperative, interorganizational relationship that is negotiated in an ongoing communicative process, and which relies on neither market nor hierarchical mechanisms of control” (Hardy, Lawrence, & Grant, 2003, p. 323). These interorganizational relationships include multiple forms of collaboration (e.g., consortium, alliances, roundtables, networks, associations) and lead to multiple advantages, such as access to strategic and operational knowledge, but above all it will lead to access to innovative capabilities (Baum, Calabrese, & Silverman, 2000). “These sources of innovation will not be found exclusively inside firms, instead, they are commonly found in the interstices between firms” (Powell, Koput, & Smith-Doerr, 1996, p. 118). Both internal capability and external collaborations are needed to learn about these new opportunities (Powell, Koput, & Smith-Doerr, 1996). A high degree of interorganizational relationship quality (IRQ), a healthy relationship in which both (or multiple) partners are engaged in a long-term working collaboration, could lead to an intensified form of collaboration in which more skills and resources can be shared.

Entrepreneurial orientation (EO) is an internal capability that could play an important role in the quality of relationships and will help in finding sources of innovation outside the firm. Besides strategic partnerships, many scholars have investigated that entrepreneurial orientation (EO) has positive performance implications and is also crucial for the survival of companies in the long-term (Peterson & Lee, 2000). For businesses an entrepreneurial orientation is helpful and focuses on how entrepreneurship is performed to act entrepreneurially, and is different from entrepreneurship itself. Theoretical contributions can be made to investigate when EO is contributing to an improved performance (Rauch, Wiklund, Lumpkin, & Frese, 2009), which would be an addition to earlier studies where relationships between EO and knowledge-based resources were found which in turn complement earlier studies that found relationships between EO and the external environment (Wiklund and Shepherd, 2003). Investigating the relationship between entrepreneurial orientation and the quality of interorganizational relationships has not been discussed in earlier studies and would give valuable insights into whether the dimensions of EO, in addition to performance, also plays an important role in interorganizational collaboration and the quality of its relationships in the external environment. Besides this external aspect, employees within an organization have the task of implementing the strategies of top management and form an essential part in organizational

strategy and performance. As employees in the operational level of the organization are more focused on daily operations instead of mid-level managers and top-level managers a difference in the expression of entrepreneurial orientation can be expected (Wales, Monsen and McKelvie, 2011). Earlier studies show that EO can vary substantially across a large organization (Monsen & Boss, 2009) and contributions can be made to examine EO in smaller more homogeneous organizational subunits (Wales, Monsen, & McKelvie, 2011). Therefore, this study will build upon and add to earlier studies by investigating the manifestation and the ability of EO as a predictor of increased interorganizational relationship quality in business units. This could advance our understanding of how EO is manifested in the operational level of organizations which in turn could contribute to how entrepreneurship as an internal capability can be managed more successfully.

Previous studies have not discussed the influence of psychological capabilities, as resiliency, on the effect of entrepreneurial orientation. According to Wiklund & Shepherd (2003) “the relationship between EO and performance is likely more complex than a simple main-effect-only, and scholars benefit from considering the moderating effects of characteristics internal to the firm” (Wiklund & Shepherd, 2003, p.24). However, literature shows little consensus on what constitutes suitable internal moderators. Resiliency is related to improved performance (Luthans, Youssef, & Avolio, 2007) and according to Bartz & Bartz (2017) the level of resilience predicts who succeeds and keeps going on in unforeseen circumstances (Bartz & Bartz, 2017). Organizations need resilient performers to respond to change that is severely disruptive and surprising (Lengnick- Hall & Beck, 2009) and have the ability to adapt when things don't go as planned. They acknowledge the situation, learn from their mistakes, and then move forward again (Hamel & Valikangas, 2003). “Resiliency can be a key success factor for sustained organizational performance” (Luthans, Luthans, & Luthans, 2004, p. 45) by further strengthening or decreasing the effects of entrepreneurial orientation by integrating and reconfiguring them in order to quickly adapt to a changing environment (Teece, Pisano, & Shuen, 1997). Resiliency then develops and strengthens internal competencies and makes sure that integrating, building and reconfiguring resources facilitates the construction of complementary relationships. The moderating effect of resiliency would give new insights about internal moderating variables which could increase the effect of entrepreneurial orientation on the external environment which could lead to more or less interorganizational relationship quality. This leads to the following research question:

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To what extent is entrepreneurial orientation related to interorganizational relationship quality and how does organizational resiliency influence this relationship?

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This study is contributing to the field of research by giving deeper insights in the relationship between entrepreneurial orientation in the business unit and relationship quality in the external environment, but also by expanding our understanding of the internal variables that could in – or decrease the effect of entrepreneurial orientation inside organizations.

## 2. Theoretical background and Hypothesis development

In this chapter the theoretical background of interorganizational relationship quality, entrepreneurial orientation and the relation between these two concepts will be outlined.

### 2.1 Interorganizational Relationship Quality

“Collaboration is a cooperative, interorganizational relationship that is negotiated in an ongoing communicative process, which relies on neither market nor hierarchical mechanisms of control” (Hardy, Lawrence, & Grant, 2003, p. 323). Collaboration between organizations is characterized by the sharing of critical resources and skills; and when these organizations are engaged in relationships of high quality this could lead to an intensified form of collaboration in which more skills and resources can be shared.

“Relationship quality is the extent to which a relationship is healthy and in which both parties in a relationship are engaged in an active, long-term working relationship” (Chu & Wang, 2012, p. 80). This concept initially indicated the collaboration between a customer and a salesman before it was applied in interorganizational relationships. Relationship quality consists of several components that support, reinforce and complement one another (Chu & Wang, 2012). Athanasopoulou (2009) found in existing literature from 1987 to 2007 that trust, commitment and satisfaction are the three major dimensions to describe relationship quality (Athanasopoulou, 2009). “Trust is the willingness to rely on a party in whom one has confidence” (Moorman, Deshpandé & Zaltman, 1993, p. 82) and has been considered an important component in interorganizational collaboration. Trust is supposed to make interorganizational relations function more effectively by curtailing opportunistic behavior; by reducing complexity, and by fostering coordination and cooperation in ways that more formal contracts cannot (Hardy, Phillips, & Lawrence, 1998).

Commitment, besides trust, is important and refers to a partner’s commitment to an interorganizational relationship. “The belief must be that the relationship is so important that it warrants maximum effort to maintain” (Morgan & Hunt, 1994, p.23), and there must be the effort to improve the relationship and to develop it for the long term (Athanasopoulou, 2009). When a firm has confidence in a partner who shows no opportunistic activities, it is willing to commit more to the relationship and work together to reach shared goals. Without commitment, the relationship is doomed to fail. Commitment facilitates information sharing, which in turn facilitates problem solving (Morgan & Hunt, 1994).

Satisfaction is another part of successful relationships (Morgan & Hunt, 1994) (Skarmeas, Katsikeas, Spyropoulou, & Salehi-Sangari, 2008) and describes the personal experience of a service received (Jonsson & Zineldin, 2003) resulting in an appreciation of the existing relationship and the desire to continue it for the long-term (Barry, Dion, & Johnson, 2008). Trust and commitment increase when

partners in a relationship share experiences and the achievement of goals will eventually lead to more satisfaction. Evaluating existing relationships and improving the existing way of working will result in an increase in relationship satisfaction in the long term (Jonsson & Zineldin, 2003).

## **2.2 Entrepreneurial Orientation: Innovativeness, Proactiveness, Risk-taking**

Entrepreneurial orientation (EO) has been the focus of several earlier studies (Lyon, Lumpkin, & Dess, 2000) (Peterson & Lee, 2000) (Covin, Green, & Slevin, 2006) and is seen as an essential feature of high-performing firms (Miller, 1983). Entrepreneurial orientation describes how new entry is undertaken and is different from entrepreneurship which represents new entry and explains what entrepreneurship consists of (Lumpkin & Dess, 1996). Building upon the earlier studies of (Mintzberg, 1973), (Khandwalla, 1977), (Miller & Friesen, 1982), entrepreneurial activities of a firm were operationalized by Miller (1983) along the dimensions of innovativeness, proactiveness and risk-taking.

To solve problems development and implementation of new ideas are needed (Van de Ven, 1986). According to Van de Ven (1986) “an innovation is a new idea, which may be a recombination of old ideas, a schema that challenges the present order, a formula, or a unique approach which is perceived as new by the individuals involved” (Van de Ven, 1986, p. 590). Innovativeness is the willingness to step away from existing technologies and practices consistently over time (Lumpkin & Dess, 1996).

Market proactiveness is needed to anticipate on future needs by seeking and introducing new opportunities or products ahead of competition and letting go of those services or products that no longer deliver or do not deliver enough value. To seize new opportunities a firm has to be a leader rather than a follower (Lumpkin & Dess, 1996).

Firm risk-taking refers to “the degree to which managers are willing to make large and risky resource commitments – i.e. those which have a reasonable chance of costly failures” (Lumpkin & Dess, 1996, p. 144). In a risk-taking oriented firm new ways of thinking are encouraged to contribute to the development of innovative ideas (Lumpkin & Dess, 1996). How firm risk-taking can be further operationalized still remains an area for future development however, risk taking at the firm level can be measured by asking managers to what extent the firm is inclined to cooperate in risky projects to achieve company’s business goals (Miller, 1983) or by asking managers to what extent they are willing to deviate from the normal course of events without knowing what the outcome will be (Lumpkin & Dess, 1996).

### 2.3 Entrepreneurial Orientation and Interorganizational Relationship Quality

Entrepreneurial orientation (EO) is an internal capability that could play an important role in the quality of relationships. EO is sometimes said to be a path to superior performance because the behaviours implied in such an orientation are often closely linked to recognized bases for competitive advantage (Covin, Green, & Slevin, 2006) and will help in finding sources of innovation outside the firm. Individual key-members are essential in identifying new work relationships at a time when organizational resources are scarce (Baum, Calabrese, & Silverman, 2000). To be entrepreneurial you must be able to sense and act upon opportunities by mobilizing resources, especially when conditions are uncertain (Hitt, Ireland, Camp, & Sexton, 2001). Entrepreneurial orientation then means combining existing resources or creating ones in such new ways that they can be commercialized or give the ability to move into new markets (Hitt, Ireland, Camp, & Sexton, 2001). The perception that 'no one can be successful alone' in business units with a strong EO could help in identifying and maintaining new relationships.

#### **Innovativeness and IRQ**

Interorganizational collaboration provides access to new resources that would be unavailable without the collaboration (Powell, Koput, & Smith-Doerr, 1996) and facilitates the organization of these internal and external resources so that a firm can exploit opportunities (Quandt & Ferreira de Castilho, 2017). A firm's internal resources determine whether it would be a valuable partner to work with and collaboration could further develop and strengthen those internal competencies while testing internal expertise and learning capabilities. At the core of this relationships access to relevant knowledge is vital, especially that knowledge which is not easily produced or captured within the walls of the own firm (Powell, Koput, & Smith-Doerr, 1996). Integrating, building and reconfiguring internal and external competences in order to quickly adapt to a changing environment (Teece, Pisano, & Shuen, 1997) leads to innovation. On the other hand, an innovative firm has a greater capacity to learn and contributes more to a collaboration when focused at both internal and external research & development (Powell, Koput, & Smith-Doerr, 1996). Instead of substitutes for one another, internal capability and external collaboration are then complementary. Access to a R&D network proves to be critical. The more centrally connected firms are the more diverse types of collaborations arise. As such, innovativeness can be viewed as an entrepreneurial resource which can strengthen partner collaboration (Richey, Adams, & Dalela, 2012), because competition is no longer seen as one-way collaboration with a zero-sum outcome, but as a positive-sum relationship in which resources and knowledge are exchanged (Powell, Koput, & Smith-Doerr, 1996). The more positive-sum the relationship is, the more it will lead to trust, commitment and satisfaction. From an innovative capability perspective internal cooperation of internal and external resources is a key

aspect to support an efficient external cooperation and facilitates the construction and management of complementary relationships (Quandt & Ferreira de Castilho, 2017). This connection within a collaboration focused on innovation will lead to enhanced levels of trust, commitment and satisfaction. Which leads to the following hypothesis:

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Hypothesis 1: *Innovativeness is positively related to interorganizational relationship quality.*

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### **Proactiveness and IRQ**

As Lumpkin and Dess (1996) explain, proactive firms seize the environment for new opportunities and act upon it as soon as the opportunity arises. The environment will be changed and shaped to be able to introduce new products or services ahead of competitors and to be well prepared for any changes in the future (Dai, Maksimov, Gilbert, & Fernhaber, 2014). Allocating managerial and financial resources for collaboration efforts give proactive firms the ability to sense market opportunities and exploit them so that they fit their capabilities most (Morris, Webb, & Franklin, 2011). However, this is very costly as with each new market entry firms have to obtain market information from suppliers, customers, and partners (Sapienza, De Clercq, & Sandberg, 2005). A highly proactive firm will seek out this information independently. A firm with low proactiveness however, is also able to obtain this information by being “pulled” into other markets via existing networks rather than “pushing” themselves into new markets as a highly proactive firm will do (Dai, Maksimov, Gilbert, & Fernhaber, 2014). Business units have to identify and exploit opportunities that create value with partners that possess complementary resources and capabilities to form synergistic relationships. Business units shape their environments through actions with a proactive approach (Krueger, 1993), but must do this with a certain amount of restraint by phases of carefully selected proactive moves so that the proactive attitude is not at the expense of the quality of the collaboration. Developing the ability to sense and seize valuable external partnering opportunities and take proactive action in response to them may help in diverse environmental conditions. Thus, firms should carefully evaluate their organizational characteristics and market environments to reach informed decisions about how to react in terms of proactive collaboration activity (Leischnig & Geigenmüller, 2017). I propose that the efforts of a highly proactive business unit to identify potentially valuable partnering opportunities and to initiate preemptive actions with carefully selected proactive moves in response to identified opportunities will lead to synergistic

collaborations and will lead to improved relationship quality with more trust, commitment and satisfaction. This leads to the following hypothesis:

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*Hypothesis 2: Market proactiveness is positively related to interorganizational relationship quality.*

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### **Risk-taking and IRQ**

Business units with a high amount of firm-risk taking are willing to make large and risky resource commitments (Lumpkin & Dess, 1996), dare to be different and support projects even when the expected returns are not certain. Firm-risk taking is often associated with opportunism and increases the risks associated with transferring knowledge to outside partners (Shrader, 2000), but collaborations in strategic alliances represent a somewhat paradoxical situation: firms are supposed to represent their own interests, but they are simultaneously required to represent the interests of a partner to make the alliance work (Das & Teng, 1998). Thus, the key is to reach a balance between competition and cooperation (Teece, 1994). A certain minimum level of trust between the collaborating partners is indispensable for any strategic alliance to be successful. However, to trust a partner, risk-taking is necessary and therefore can be considered "mirror images" of each other by forming a reciprocal relationship: trust leads to risk taking, and risk taking, in turn, leads to trust. When a partner realizes that his collaborating partner has taken considerable risk in trusting them, they are more motivated to behave trustworthy themselves. Only if some initial risk is taken it is possible for collaborating partners to demonstrate their trustworthiness. Although reducing risks is needed in the marketplace, it is also necessary that firms take relational risk with their partners to make strategic alliances work (Das & Teng, 1998). While risk taking leads to trust, firms do better not take unjustified risks blindly in the hope of developing a trustful relationship. A gradual approach is more needed, in which partners start with limited investments instead of incremental resource commitment; then trust can be built on the accumulation of satisfactory experiences. Locating a partner with a good reputation of being fair, honest and trustworthy is a good starting point as this would offer evidence to take some initial risk (Barney & Hansen, 1994). Once a trustworthy partner is found, alliance partners rely on the gradual approach in building trust. Trust earned from earlier satisfactory experiences then offers the confidence to justify some risky steps (Das & Teng, 1998). I therefore propose that justified firm-risk taking in business units, when based on building relational trust, will make a positive contribution to the quality of the interorganizational relationship and increases the amount of commitment and satisfaction between the collaborating partners. This leads to the following hypothesis:

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*Hypothesis 3: Firm-risk taking is positively related to interorganizational relationship quality.*

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## **2.4 Entrepreneurial Orientation and Interorganizational Relationship Quality: The Moderating Role of Resiliency**

Resilience is the capability for continuous reconstruction of organizational values, processes and behaviours (Hamel & Valikangas, 2003). It is also an organization's ability and capacity to deal with adversity and the adaptation to risky environments that proofs an organization to be resilient (Starr, 2003). Focusing on personal strengths and good qualities, business units can improve both individual and organizational performance by developing resilience (Luthans, Luthans, & Luthans, 2004). According to Coutu (2002), resilient people accept reality, are prepared to survive when life isn't going the way it should and have a strong belief that life is meaningful. They stay strong under stressful conditions and changing circumstances and show the ability to improvise and adapt (Coutu, 2002). Resiliency is seen as a human psychological capability and can be a success factor for organizational performance in the long-term (Luthans, Luthans, & Luthans, 2004) by further strengthening or decreasing the effects of entrepreneurial orientation and leading to an improved interorganizational relationship quality.

### **Innovativeness, Resiliency and IRQ**

As stated before, to reach innovation the internal organization of resources must be integrated and reconfigured in its internal and external competences in order to quickly adapt to a changing environment (Teece, Pisano, & Shuen, 1997). Internal cooperation of resources is a key aspect to support an efficient external cooperation and facilitates the construction and management of relationships (Quandt & Ferreira de Castilho, 2017). Resiliency develops and strengthens internal competencies and makes sure that integrating, building and reconfiguring resources facilitates the construction of complementary relationships. Although it might seem at first as a collaboration with a zero-sum outcome, resiliency ensures an efficient integration of internal and external competences so the outcome will be a positive sum relationship. Resiliency could help in sensing and seizing the right collaboration in order to combine existing resources or create new ones in such ways that new products are developed. I propose that resiliency has a fundamental role in internal and external coordination of resources and integrating, building and reconfiguring them so that the more positive-sum the relationship will be and the better the quality of the interorganizational relationship will become. This leads to the following hypothesis:

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Hypothesis 4: *Resiliency moderates the relationship of innovativeness and interorganizational relationship quality such that an increased resiliency increases the positive effect of innovativeness upon interorganizational relationship quality.*

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### **Proactiveness, Resiliency and IRQ**

As described earlier business units shape their environments through actions with a proactive approach (Krueger, 1993), but must do this with a certain amount of restraint through phases of carefully selected proactive moves ensuring that the proactive attitude is not at the expense of the quality of the collaboration. Most organizations don't go from success to success, but go from success to failure and then, after a period of time back to success while developing the ability to sense and seize valuable external partnership opportunities in diverse environmental conditions. When business units understand their environment, they will be able to strategically realign their resources faster than their rivals which will lead to a decisive advantage (Hamel & Valikangas, 2003). Resilience reinforces the capacity for continuous reconstruction of proactive actions by anticipating, making adjustments and change to shape their environment in order to reach interorganizational collaborations of more quality. This leads to the following hypothesis:

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Hypothesis 5: *Resiliency moderates the relationship between market proactiveness and interorganizational relationship quality such that an increased resiliency in the business unit strengthens the positive effect of market proactiveness upon interorganizational relationship quality.*

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### **Risk-taking, Resiliency and IRQ**

Although reducing risks is needed in the marketplace, it is also necessary that firms take relational risk with their partners to make strategic alliances work (Das & Teng, 1998) and therefore risk-taking must not always be associated with opportunism. Developing a trust filled relationship is not reached by taking unjustified risks blindly in the hope of reaching a trustful relationship (Das & Teng, 1998). By adopting a gradual approach and reconfiguring prior experiences to adapt to new risk environments (Starr, 2003) resiliency reinforces the capacity to endure systemic discontinuities and strengthens the organization's ability to take some initial risk (Barney & Hansen, 1994) in building and reaching a trustworthy relationship. Therefore I propose that resiliency strengthens the relationship between risk-taking and building interfirm trust by reconfiguring prior experiences and



adopting a gradual approach to apply the right amount of necessary risk-taking in order to reach a trustworthy relationship. This leads to the following hypothesis:

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Hypothesis 6: *Resiliency moderates the relationship of firm-risk taking and interorganizational relationship quality such that an increased resiliency increases the positive effect of firm-risk taking upon interorganizational relationship quality.*

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The hypotheses are shown in the conceptual model in figure 1.

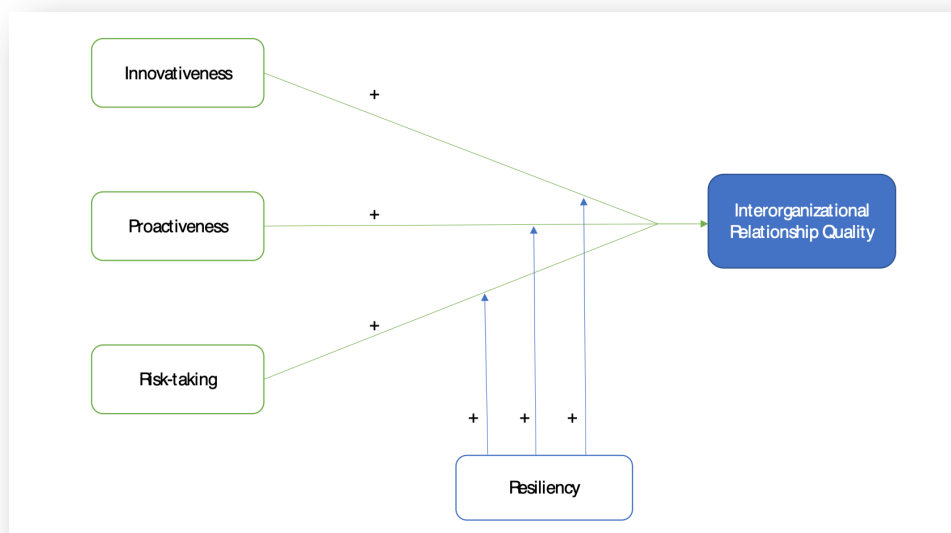


Figure 1. The conceptual model of the relationship between Entrepreneurial Orientation and Interorganizational Relationship Quality and the moderating role of Resiliency.

### 3. Methodology

In this chapter the methodology of this research will be described. Sampling criteria, data collection, variables and the method of analysis, but first the context of a non-profit organization in which this research will be conducted will be described.

According to Waal in Jansen & Bruggeman (2000), the environment of non-profit organizations, as well as profit organizations, is changing enormously. Non-profit organizations are described as a “third” domain (figure 2) which act between community, market, and state (Brandsen, van de Donk,

& Putters, 2005). The government withdraws from unwillingness to cover the full 100% of the financial resources in this third domain. As a result, the management of public services is required to have an increasing market focus and a stronger anticipation of competition. However, it is not always possible to do this adequately because non-profit organizations are actually a remote public service and have the function of a company with a social mission. The social enterprise must then demonstrate sufficient competitive entrepreneurship, whereby the company must shape the identity of the past twenty years and the idea as the government as guardian and apply applied applications to the new modern business enterprise (Jansen & Bruggeman, 2000).

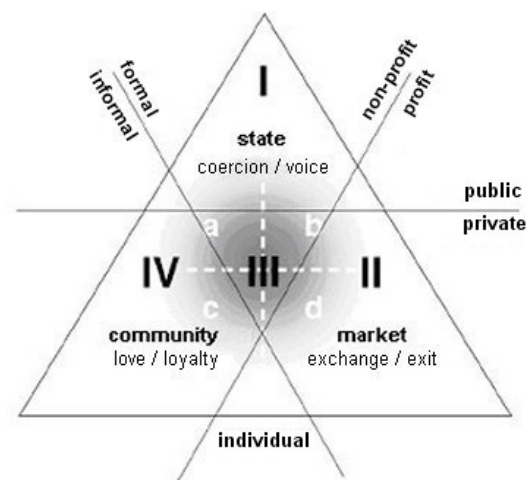


Figure 2. Third domain markets

To investigate whether an entrepreneurial orientation in a third domain context leads to a higher quality of interorganizational collaborations a quantitative research will be conducted in the healthcare sector in a large university medical center in the Netherlands. This study is used to quantify relationships between the concepts of entrepreneurial orientation and the quality of interorganizational relationships. The expectation is that resiliency could strengthen this relationship in order to eventually overcome the resistance related to government interference. It is also expected that an entrepreneurial orientation is more present in the strategic top of a hospital due to an increased market focus in healthcare, therefore the variables in this study refer to actions that may be initiated by a business unit to investigate whether an entrepreneurial orientation is also present at the operational levels of a hospital.

### 3.1 Sample

To create my sample, I used company information available from Human Resources (HR) that contains information on all business units (departments) within this hospital. Starting with 250

business units, leaving all units out who had no interference with other organizations, which resulted in a final sampling frame of 136 business units.

### 3.2 Data collection

To obtain the data with which to test my hypotheses, I administered an online questionnaire using Qualtrics Survey Software. To increase the response rate the questionnaire was translated from English to Dutch and I assured the respondents participation in this study was strictly voluntary and data was processed anonymously ensuring non-traceability while maintaining privacy.

Prior to sending, the questionnaire was discussed with one of the Theme directors, the HR director and a member of the board. Their feedback on content and user-friendliness was used to optimize the questionnaire. Each director of Theme's within the hospital (Sophia, SPIN, Thorax, Daniel, Dijkzigt and Diagnostiek & Advies) sent a cover letter to promote the questionnaire. To further increase the response €1,00 was donated to a foundation of choice after completing the questionnaire.

The questionnaire was administered in three waves. After one week I noticed that many respondents couldn't complete the survey due to an ICT problem. The ICT helpdesk solved this problem and a first reminder was sent. This resulted in a response rate of 34%. This was repeated a week later. After those three weeks, this resulted in an effective response of 108 business units and a response rate of 79%. The results of the completed questionnaires were saved in Qualtrics and eventually as an Excel file uploaded in SPSS to analyze the data.

All respondents were operational-level managers as could best answer the research question by making statements about the quality of interorganizational relationships, entrepreneurial orientation and resiliency of their business units. Average company tenure of respondents was more than 15 years, most of them was female and in the age category of 35-44 years.

### 3.3 Variables

The response format of the twenty-nine-item questionnaire used a seven point Likert scale on which the managers have to indicate the extent to which the items represent their business unit's strategy on a scale ranging from 1 = "strongly disagree" to 7 = "strongly agree".

#### *Dependent variable*

Interorganizational Relationship Quality was measured by the operationalized dimensions of *trust* (Ganesan, 1994); (Coulter & Coulter, 2002) (3 items,  $\alpha .57$ ) an example of the items included in this are: "We are convinced that the organization we are working with performs its tasks professionally".

*Commitment* (Zhao, Huo, Flynn, & Yeung, 2008) (5 items,  $\alpha = .77$ ), example is: “We focus on long-term goals in this relationship” and *Satisfaction* (Barry, Dion, & Johnson, 2008) (4 items,  $\alpha = .73$ ), example, “In general, we are satisfied with the overall performance of the organization we are working with”.

### *Independent variables*

Entrepreneurial orientation was measured by the Entrepreneurial Scale of Covin and Slevin (Covin & Slevin, 1989). This scale consists of nine items: three items measuring *innovativeness* ( $\alpha = .84$ ), example of the items included are: “we strongly emphasize on research and development (R&D), and technological leadership and innovation versus we strongly emphasize on marketing of our present products”. Three items measuring *pro-activeness* ( $\alpha = .82$ ), example, “in dealing with our competitors, we normally initiate changes upon which our competitors react versus we normally react upon initiatives taken by our competitors” and three items measuring *risk taking* ( $\alpha = .60$ ), example, “in general, our company has a strong tendency toward projects with low risk (with normal and secure yield) versus our company has a strong tendency towards getting involved in high risk projects with a chance for high yield”.

The moderator resiliency was measured by The Psychological Capital Questionnaire (PCQ) which is widely recognized as the standard scale for measuring PsyCap. The PCQ was developed as a compound measure consisting of (modified) items from published scales for hope, optimism, resilience, and self-efficacy, but only the scale for resiliency was used. The 6 items ( $\alpha = .93$ ) are closely tied to the work place (i.e. “I feel confident contributing to discussions about the company's strategy.”) (Luthans, Youssef, & Avolio, 2007).

### *Control variables*

There are several factors that can influence the quality of interorganizational relationships. For this reason, a number of control variables have been added to determine whether the statistical relationship is mainly between entrepreneurial orientation, resiliency and interorganizational relationship quality and not influenced by other factors. The control variables also give information about the respondents themselves.

The six individual control variables used are: organization, tenure, theme, educational level, age, gender. *Organization* is coded as follows: 1 = academic hospital; 2 = top clinical hospital; 3 = general hospital; 4 = otherwise. *Tenure* is coded as follows: 1 = less than 1 year; 2 = 1–2 years; 3 = 2–5 years; 4 = 5–10 years; 5 = 10–15 years; 6 = more than 15 years. *Theme* is coded as follows: 1 = Sophia; 2 = Thorax; 3 = Daniel den Hoed; 4 = Dijkzigt; 5 = SPIN; 6 = Diagnostiek & Advies; 7 = otherwise. *Education* is coded as follows: 1 = high school; 2 = college education; 3 = postgraduate education; 4 =

bachelor's degree; 5= master's degree; 6 =other. *Age* (years old) is coded as follows: 1(18-24); 2 (25–34); 3 (35–44); 4 (45–54); 5 (55–6); 6 (>64). *Gender* is coded 1 for women and 2 for men.

In order to use the data for verification of the hypotheses, the internal consistency of the dataset was verified by calculating the Cronbach's Alpha. Before the Cronbach's alpha of this questionnaire could be determined, the scoring of reverse-phrased items were reversed. The Cronbach's alpha calculates the internal consistency and correlations within a scale and must have a minimum value of 0.7 to be considered acceptable (Buijs, 2012) (Mitchell, 1996). The closer to 1 on the Cronbach's Alpha scale, the higher the consistency.

The Cronbach's alpha of the items trust and risk-taking were found to be low. Two questions of the item Trust were removed as they did not correlate well with the other three questions measuring the item Trust. While 3 items remained, the Cronbach's alpha did rise, but remains below 0.7. The items measuring Risk-taking correlate well with each other, removing questions didn't make the Cronbach's alpha rise. The outcome appears to reinforce the conclusions of this study and items have therefore not been removed.

This questionnaire can be considered as reliable, since the total of all items is  $\alpha = 0.87$ . With a response of 79 % (N = 108) this sample is representative for the operational level of this university hospital and may be applicable to other university hospitals and top clinical hospitals but is not directly applicable to profit organizations.

### 3.4 Methods of analysis

As part of descriptive statistics a Pearson's Correlation Coefficient test was done. This test statistics measures the statistical relationship, or association, between two continuous variables and provides information about the magnitude of the association, or correlation, as well as the direction of the relationship. The value of the correlation coefficient is always between -1 and +1. Statistical significance (the probability that a relationship is only determined by chance) is when the p-value ('probability') has a value lower than .05 (Buijs, 2012); De Vocht, 2019).

Regression analysis was used to further test the hypotheses. Regression analysis is a multivariate technique for analyzing relationships between an explanatory, dependent variable Y and various explanatory, independent variables  $X_1, X_2, \dots, X_K$  (van Dalen & de Leede, 2009). Multiple regression assumes a causal relationship between a dependent Y and any independent  $X_i$ . When there is an asymmetrical relationship: the dependent variable is influenced by several independent variables (de Vocht, 2019).

Eventually moderated regression analysis was performed. A moderator is defined as a variable that influences the form or magnitude of the relationship between an independent variable and a

dependent variable (Rosenberg, 1968). Testing was performed by assessing the multiplicative interaction of the independent variable and the moderator on the dependent variable. A moderated regression procedure creating multiplicative interaction terms as new variables were performed. This was done for each of the three hypothesized moderation relationships (i.e., Resilience/ Innovativeness, Resilience/ Proactiveness, Resilience/ Risk-taking). In each case, the multiplicative term was regressed against the dependent variable (IRQ).

The results are described in the following section.

## 4. Results

Table 1 provides an overview of the correlations between the study variables. The dimensions of EO all have a significant correlation with Resilience. This is a strong correlation between Innovativeness and Resilience ( $r = .81, p < .01$ ) and Pro-activeness and Resilience ( $r = .52, p < .01$ ) and to a lesser extent Risk – taking and Resilience ( $r = .2, p < .05$ ).

Descriptive Statistics    N = 108														
		M	SD	1	2	3	4	5	6	7	8	9	10	11
1	IRQ	4.80	.579											
2	Inn	4.06	1.43	.124										
3	PA	4.08	1.10	.170	.555**									
4	RT	3.01	.904	.277**	.335**	.347**								
5	Res	5.30	.904	.176	.810**	.522**	.199*							
6	CV1_org	1.11	.569	.120	.050	.047	.144	.012						
7	CV2_tenure	4.16	1.799	.067	.275**	-.0308	.094	.371**	-.346**					
8	CV3_theme	3.61	1.999	.075	.036	-.187	.284**	-.231*	.334**	-.378**				
9	CV4_education	3.85	1.478	-.060	.065	-.028	-.121	.014	.320**	-.533**	.325**			
10	CV5_age	3.44	1.053	-.036	-.021	-.045	.014	.107	-.081	.319**	-.150	-.343**		
11	CV6_gender	1.34	.477	.247*	-0.178	.190	.217*	-.121	.272**	-.434**	.072	.113	.021	
**. Correlation is significant at the 0.01 level (2-tailed).														
*. Correlation is significant at the 0.05 level (2-tailed).														

\*\* Correlation is significant at the 0.01 level (2-tailed).

\* Correlation is significant at the 0.05 level (2-tailed).

Table 1. Descriptive statistics

The results of the regression analyses are portrayed in table 2. The control variables organization, tenure, theme, education, age and gender are outlined in model 1. The control model explains 13,6% of the variance in IRQ ( $R^2 = 0.136$ ;  $F_{6,101} = 2,648$ ;  $p < .05$ ). Two control variables were found to be significant, tenure ( $p < .05$ ) and gender ( $p < .01$ ).

Before entering all three measures of EO, the independent variables were separately added in model 2, 3 and 4, to exclude the effects of the other variables. Of all three dimensions proactiveness contributes most to the variance in IRQ with an additional 3,4% ( $R^2 = 0.170$ ;  $F_{7,98} = 2,866$ ;  $p < .01$ ). The hypotheses (1), (2) and (3) were tested in model 5, which argued that the relationship between the dimensions of EO and IRQ would become more positive as innovativeness, proactiveness and risk-taking increase. This model explains an additional 3,8% of the variance in IRQ ( $R^2 = 0.174$ ;  $F_{9,96} = 2,248$ ;  $p < .05$ ). Although the linear terms of all three dimensions of EO were found to be positive, the effect was non-significant ( $p > .05$ ). The predictor for innovativeness on IRQ contributes least in this model and becomes even less positive ( $b = 0.005$ ).

The moderating variable resiliency was added to the regression analysis (model 6) as an independent variable to exclude a direct relationship between Resiliency and Interorganizational Relationship Quality. This model explains an additional 5,5% of the variance in IRQ ( $R^2 = 0.191$ ;  $F_{10,95} = 2,236$ ;

$p < .05$ ). Although not significant, the results in model 6 seem to suggest there is a direct relationship between resiliency and IRQ which becomes more positive as resiliency increases ( $b = 0.163$ ).

The relationship between resiliency and IRQ appears to be stronger than the relationship between the dimensions of EO and IRQ, but has a negative influence on the predictor for innovativeness on IRQ which becomes in this model even negative ( $b = -0.71$ ).

Moderated regression analysis was used to test hypotheses (4), (5) and (6) which argued that the relationships between the three dimensions of EO would become more positive as resiliency increases. By adding the interaction terms, model 10 explains an additional 17,5% of the variance in IRQ ( $R^2 = 0.366$ ;  $F_{13,92} = 4,080$ ;  $p < .0001$ ). The coefficient for the interaction effect of resiliency with innovativeness and risk-taking was found to be non-significant and even negative, not supporting hypotheses (4) and (6).

Hypothesis (5) postulating that the relation between proactiveness and IRQ would increase as resiliency in the business unit increases is partly supported. The interaction term is, as expected, positive and significant in model 10 ( $b = 0.340$ ,  $p < 0.01$ ). However, including all variables in model 10, the predictor for proactiveness on IRQ becomes negative ( $b = -0,041$ ). Resiliency as a moderator seems to compensate this negative effect. The interaction was plotted in Fig. 3. The relationship between proactiveness and IRQ becomes positive at higher levels of resiliency.

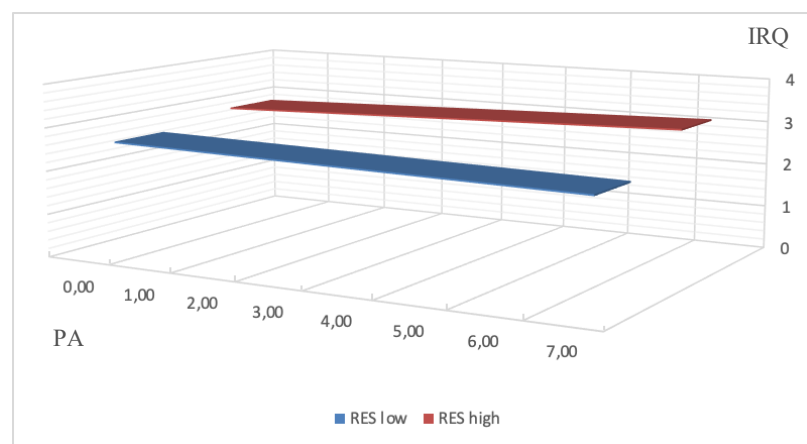


Figure 3. The effect of RES as moderator on PA for IRQ

Since the comparison contains multiple variables, the presence of a linear relationship between each independent variable and the dependent variable after correcting the influences of the other independent variables, was tested in model 7, 8 and 9. Model 9 shows that by entering the multiplicative variable Resilience/ Risk-taking the variance of the model was suddenly less explained compared with the effect of adding the multiplicative variables Resilience/ Innovativeness and



Resilience/ Proactiveness. An additional regression analysis was done in model 11 (see table 2) by leaving out the multiplicative variable Resilience/ Risk-taking. Hypothesis (5) was still partly supported by showing a significant and positive interaction effect of resiliency on the relationship of proactiveness and IRQ ( $b = 0.340$ ,  $p < .01$ ), but the results also show that the predictor for proactiveness on IRQ becomes less negative ( $b = -0.024$ ) and an additional significant effect of resiliency on IRQ arises ( $b = 0.279$ ,  $p < .05$ ). While excluding the multiplicative variable Resilience/ Risk-taking, still 17% of the variance is explained ( $R^2 = 0.361$ ;  $F_{11,94} = 4,818$ ;  $p < .0001$ ).

Implications of these findings and further discussion are provided in the following section.

	Model 1	Model 2	Model 3	Model 4	Model 5	Model 6	Model 7	Model 8	Model 9	Model 10	Model 11
<b>Intercept</b>	<b>3.848 **</b> (.477)	<b>3.699 **</b> (.448)	<b>3.460 **</b> (.489)	<b>3.672 **</b> (.450)	<b>3.479 **</b> (.504)	<b>3.108 **</b> (.569)	<b>1.681 *</b> (.656)	<b>2.471 **</b> (.522)	<b>3.219 **</b> (.579)	<b>2.682 **</b> (.711)	<b>2.553 **</b> (.682)
<b>Control Variables</b>											
Organization	.096 (.107)	.073 (.106)	.076 (.105)	.075 (.106)	.070 (.107)	.064 (.106)	.072 (.100)	.066 (.095)	.055 (.107)	.065 (.096)	.070 (.095)
Tenure	.102 *	.084 (.044)	.101 * (.041)	.085 (.043)	.089 (.048)	.074 (.049)	.100 * (.047)	.118 (.045)	.072 (.049)	.118 * (.045)	.127 ** (.043)
Theme	.039 (.030)	.047 (.031)	.060 (.031)	.034 (.033)	.047 (.037)	.060 (.038)	.063 (.035)	.061 (.034)	.055 (.038)	.060 (.034)	.072 * (.031)
Education	-.018 (.045)	-.032 (.046)	-.021 (.045)	-.014 (.045)	-.017 (.048)	-.031 (.049)	-.012 (.046)	-.046 (.043)	-.044 (.050)	-.052 (.046)	-.054 (.046)
Age	-.065 (.051)	-.053 (.055)	-.051 (.055)	-.052 (.055)	-.049 (.055)	-.062 (.056)	-.082 (.053)	-.097 (.050)	-.069 (.056)	-.098 (.051)	-.099 (.050)
Gender	.427 ** (.130)	.454 ** (.129)	.417 ** (.130)	.393 ** (.137)	.393 ** (.140)	.366 * (.141)	.466 ** (.135)	.342 (.126)	.352 * (.142)	.318 * (.138)	.365 ** (.125)
<b>Independent Variable</b>											
Innovativeness		.046 (.041)			.005 (.056)	-.071 (.078)	-.056 (.074)	-.035 (.070)	-.076 (.078)	-.033 (.071)	-.027 (.061)
Proactiveness			.075 (.051)		.054 (.072)	.041 (.072)	.008 (.068)	-.037 (.066)	.050 (.073)	-.041 (.069)	-.024 (.064)
Risk Taking				.087 (.069)	.052 (.077)	.061 (.077)	.000 (.074)	.052 (.068)	.030 (.066)	.065 (.073)	
Resilience						.163 (.117)	.402 ** (.127)	.297 ** (.108)	.177 (.118)	.264 (.137)	.279 * (.128)
<b>Moderator</b>											
Inn x Res							.144 ** (.039)			-.003 (.075)	-.010 (.061)
PA x Res								.299 ** (.059)		.340 ** (.121)	.314 ** (.101)
RT x Res									.126 (.124)	-.030 (.129)	
<b>F</b>	2.648	2.705	2.866	2.767	2.248	2.236	3.578	4.897	2.128	4.080	4.818
<b>R<sup>2</sup></b>	.136	.162	.170	.165	.174	.191	.295	.364	.199	.366	.361
<b>Δ R<sup>2</sup></b>	.026	.029	.034	.029	.038	.045	.104	.173	.008	.175	.170
<b>N (sample size)</b>	108	108	108	108	108	108	108	108	108	108	108

Table 2. Regression Results

## 5. Discussion and conclusion

To further our understanding of contingent relationships between internal organizational capabilities and the external environment (Wiklund & Shepherd, 2003), this thesis focused on the extent to which the concepts of entrepreneurial orientation and the interaction of resiliency influence interorganizational relationship quality. Specifically, the concept of entrepreneurial orientation in a large university hospital was examined, as social enterprises must demonstrate sufficient competitive entrepreneurship to increase market focus and a stronger anticipation of competition (Jansen & Bruggeman, 2000). Focused at the business-unit level to advance our understanding of how EO is typically manifested within organizations could in turn contribute to how entrepreneurship as an internal capability can be managed more successfully. A resource based perspective was chosen with focus on the internal resources within the organization in an effort to identify those capabilities and competencies with the potential to deliver superior competitive advantages in reaching strategic partnerships of high quality. Theoretical arguments were developed as to how the concepts of EO and Resiliency shape the effects on IRQ. Overall, the findings do not entirely confirm the developed theoretical framework, except for a significant positive interaction effect of resiliency on proactiveness and IRQ and an unexpected side effect of a significant positive relationship between resiliency on IRQ when the concept of risk-taking is excluded from the dataset. This thesis adds to earlier studies by providing enhanced insights in the application of the concepts of entrepreneurial orientation in a non-profit context at business-unit level and the influence of resiliency as an internal psychological capability.

Even though the effect of the interaction of resiliency on the relation with proactiveness and IRQ is small, this indicates that firms should carefully evaluate their organizational characteristics and market environments to react in terms of proactive collaboration activity (Leischnig & Geigenmüller, 2017) by stages of carefully selected moves. Too much proactiveness will lead to a decrease of the quality of interorganizational collaborations, but resiliency is able to shape the environment by continuous anticipating, making adjustments and eventually reconstruction of proactive actions which contributes to a higher quality of interorganizational relationships. Realigning the internal capabilities proactiveness and resiliency in relation to the external environment could then lead to competitive advantage (Hamel & Valikangas, 2003). How managers should coordinate this alignment between proactiveness and resiliency is an avenue for future research as from a dynamic capabilities perspective success requires that managers behave entrepreneurially and build into their organization the capacity to sense and seize opportunities, and then transform and reconfigure them to stay ahead of competition (Augier & Teece, 2009). Dynamic capabilities allow a firm to create new processes and as the concepts of entrepreneurial orientation can also be seen as dynamic

capabilities managers must be able to respond to changing environments and switch routines when necessary (Tushman, Smith, Wood, Westerman, & O'Reilly, 2003).

Another theoretical implication of this study involves the unexpected positive relation between resiliency and IRQ. This could mean that resiliency as an internal psychological capability could play an important role in the internal cooperation of resources to support an efficient external cooperation which facilitates the construction and management of relationships (Quandt & Ferreira de Castilho, 2017). This result also suggests that resiliency as an independent variable could be an important component in the search for the right partner to collaborate with. While an entrepreneurial orientation is needed to find the right partner and combine forces, resilience seems to represent some kind of strategic orientation (Morais-Storz, Platou, & Norheim, 2018) which could interpret when more or less the concepts of entrepreneurial orientation are needed and is able to influence them.

It was expected that as hospitals are increasingly confronted with market forces they should increasingly behave like for-profit organizations. The elements of entrepreneurial orientation therefore should also be applicable in a non-profit context and could help achieve higher levels of trust, satisfaction and commitment which could in turn result in higher levels of interorganizational relationship quality. Since this is a third domain context, the interaction of resilience could play an extremely important role in dealing with government interference. However, no significant relationships were found between the concepts of EO and IRQ, what could have been caused by the fact that the EO scale was developed for the for-profit context and particularly with regard to motivations, processes and outcomes these two contexts differ (Morris, Webb & Franklin, 2011). How entrepreneurship is manifested in non-profit organizations is influenced by the fact that non-profit's are driven by a unique social mission, which effects and shapes motivations, strategy, processes and results. The questions related to proactiveness and innovativeness were answered fairly positive regarding the managers own business unit. This could have been due to the fact that university hospitals also serve as a research center- and therefore often are the first to introduce new treatment and research methods, which also is a predominant emphasis on serving the social mission (Moss, Short, Payne, & Lumpkin, 2011). Unique competitive processes and mechanisms distinguish players in the non-profit sector. With the existence of multiple hospitals operating in the same "market" you expect a certain level of competition, however, the dynamics of competition in the non-profit context do not aim to capture market share from one another or put the other out of business (Austin, Stevenson, & Wei-Skillern, 2006), but it is not unusual that they find a collaborative spirit because of their shared social purpose. The positive scores on proactiveness and innovativeness are likely inherent to the work in a university hospital and perhaps less directly related to market forces. Innovativeness is focused then on innovation related to social-mission achievement, either by increasing efficiencies, serving more individuals, or enhancing what is done for these

individuals and proactiveness on enactment of change in how social purpose is achieved relative to organizations with the same social missions (Morris, Webb & Franklin, 2011).

Also, no significant relationship was found between risk-taking and IRQ, but in contrast to innovativeness and proactiveness the questions concerning this item were answered largely negative. This could either indicate that risk-taking as a concept focused on business topics does not fit well with the operational level of a university hospital or the concept was misinterpreted. While taking risks is part of the daily care for the individual patient, where treatment is often experimentally oriented otherwise you would not have been admitted to a university hospital, another risk-taking is currently also needed in healthcare. Not all patients are admitted to an academic hospital just like that, this means that sometimes you have to dare to leave a patient in a top clinical hospital and work together remotely. This leads to efficiency and cost savings, and gives the trustee, in this case the top clinical hospital, the possibility to demonstrate their trustworthiness. As earlier said, in order to develop trust, one needs to take risk first-as if the collaborating partner deserves the trust. Although strategic alliances are often motivated by a need to reduce risk in the marketplace, the university hospital also invites the top clinical hospitals to take relational risk with them as partners (Das & Teng, 1998). This would also suit the social mission by giving the right care in the right place. The respondents were able to translate the concepts innovativeness and proactiveness to fit the social mission of their hospital and core social business, but were not able to do this with the concept of risk-taking. It almost seems as if the ultimate risk in a non-profit concerns an inability, or reduced ability, to achieve the social mission (Morris, Webb & Franklin, 2011), making this concept more associated with a profit-driven organization. Therefore, several recommendations for further research can be made. First, this research can be repeated, but with adapted questions in the questionnaire regarding risk-taking that better suit the context of a hospital environment which would increase the validity of this research. Second, given the interaction effect on the relation proactiveness and IRQ and the unexpected positive relationship between resilience and IRQ without the concept of risk-taking would be interesting to test in future research. Suggestions for this conceptual model can be found in Fig. 4. These two recommendations can also be combined directly, see Fig. 5.

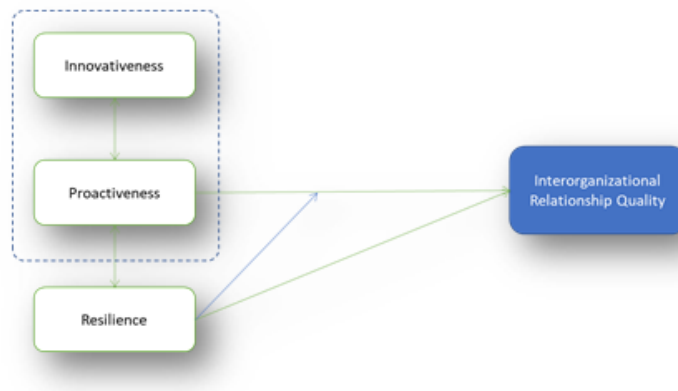


Figure 4. Conceptual model for future research

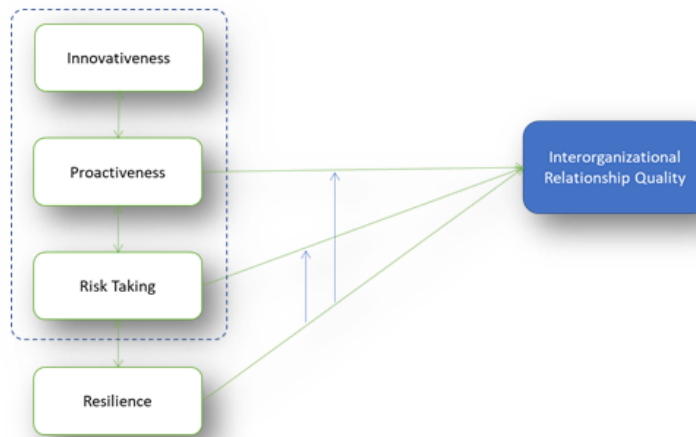


Figure 5. Alternative conceptual model for future research

## 5.1 Limitations

Several limitations of this study merit discussion. First, it is important to ask whether the outcome of the study would have been different if the context of a non-profit organization had been taken into account more explicitly. The definition of risk-taking should have been described and detailed out differently, factoring in the fact this research is conducted in a non-profit context, specifically a hospital. By gearing the questions in the questionnaire more to the non-profit context, it would perhaps have provided a different answer and a different result from this study. Now risk-taking has not been methodologically accounted for a relation with IRQ. It might be interesting to investigate whether risk-taking in two different concepts (profit oriented vs non-profit oriented) may uncover significant differences in how risk-taking enhances the effect on IRQ. The negative answers concerning the item risk-taking could also mean that the concept of risk-taking is irrelevant in the operational level of a non-profit organization and appears to be something more for the strategic top

of the organization. This would explain why the HR director, the theme director and the member of the board of directors did not comment on questions related to risk-taking when discussing the questionnaire. A study in the strategic top of a university hospital may uncover whether the concepts of EO, specifically risk-taking, will demonstrate a relationship between risk-taking and IRQ. Second, when assessing the quality of an interorganizational collaboration, it would be beneficial to have data from both or multiple participating organizations in that collaboration. This research was only conducted in a university hospital; the intention was to distribute the questionnaire at both a university hospital and a top clinical hospital however, due to the Covid-19 virus this was unfortunately not possible. By design, a university hospital and a top clinical hospital in the same region are not competitors and working together could improve the competitive position of both facilities. Innovativeness and proactiveness could be capabilities that suit an employee of an academic hospital different than an employee of a top clinical hospital - even though both hospitals have a social mission. However, we cannot safely assume this difference and follow-up research is needed to assess whether this is really the case. Third, the fact that the item resilience was scored very high may be related to the timeframe in which the questionnaire was sent. During Covid-19, the resilience of health care workers in general was very much appealed to. The collective feeling that arose within health care may have influenced the answering of the questions and thus the possible outcome. Now resiliency has been methodologically accounted for a positive relation with IRQ and a positive interaction effect on proactiveness and IRQ. It would be interesting to discover if re-sending the questionnaire ("after the Covid-19 outbreak") would yield less positive answers to the questions about resiliency and consequently have a different effect on proactiveness and IRQ. Fourth, to increase representation, the questionnaire could also have been sent to other academic hospitals. Competition is increasing and it would be interesting if managers in the operational levels of other academic hospitals provide similar responses concerning their business units. Comparisons could then have been made between multiple university hospitals. With a larger sample, statements about the concepts of entrepreneurial orientation, resilience and IRQ could have been made for all university hospitals in the Netherlands and not just one. Fifth, this model demonstrates only 36% of the effect of the variables on IRQ. This means there are other factors that have an influence on IRQ and therefore offers enough possibilities for future research. Sixth, the outcome of this research is based on only 2 questions that measure Trust. Two questions were removed to increase reliability. In future research it will have to be examined whether the reliability can be increased by adding more or other questions.

## 5.2 Managerial implications

This study also bears important implications for managers. Entrepreneurship is one of the core values of this university hospital, but the exact interpretation of this concept might slightly differ between the strategic top and the operational level of the organization. This should receive more attention within the organization, as developments demand that in the near future an increase in collaboration at patient level with other hospitals will be expected. More insight into what the concepts of entrepreneurial orientation mean could help in developing a more business-oriented mindset without losing track of the social aspects of the hospitals mission. Resilience in the business unit now seems high and well developed. The questions concerning resilience were positively answered which could mean that this university hospital consists of a very resilient operational workplace. The organizational level of this university hospital appears to have developed skills to overcome resistance in their work, perhaps not market oriented, but to ensure the best care for their patients to fit their social mission. In top management the negotiations to collaborate with other organizations are often financially driven and it should yield something to both parties. Lower in the organization this seems to play a less important role. Currently, there is collaboration between hospitals in the direct environment and because it concerns the patient they work together to increase patient care. Employees don't see their work as a product on which profit can be made. While top management may be more market oriented and the operational level more patient oriented, by better aligning these two provides awareness about different perceptions of collaborations which could affect the eventual improvement of the quality of cooperation between organizations. Perhaps this internal alignment would lead to higher IRQ and could be a good subject for follow-up research.



## Bibliography

- Athanasopoulou, P. (2009). Relationship quality: a critical literature review and research agenda. *European Journal of Marketing*, 43(5/6), 583-610.
- Augier, M., & Teece, D. (2009). Dynamic Capabilities and the Role of Managers. *Organization Science*, 20(2), 410-421.
- Austin, J., Stevenson, H., & Wei-Skillern, J. (2006). Social and Commercial entrepreneurship: Same, different, or both? *Entrepreneurship Theory and Practice*, 30(1), 1-22.
- Barney, J., & Hansen, M. (1994). Trustworthiness as a source of competitive advantage. *Strategic Management Journal*(15), 175-216.
- Barry, J., Dion, P., & Johnson, W. (2008). A cross-cultural examination of relationship strength in B2B services. *Journal of Services Marketing*, 22(2), 114-135.
- Bartz, D. E., & Bartz, C. (2017). The Resilient and Focused Manager. *International Journal of Business and Social Science*, 8(9).
- Baum, J. A., Calabrese, T., & Silverman, B. S. (2000). Don't go it alone: Alliance Network Composition and Startups' Performance in Canadian Biotechnology. *Strategic Management Journal*(21), 267-294.
- Brandsen, T., van de Donk, W., & Putters, K. (2005). Griffins or Chameleons? Hybridity as a Permanent and Inevitable Characteristic of the Third sector. *International Journal of Public Administration*, 28, 749-765.
- Chu, Z., & Wang, Q. (2012). Drivers of relationship quality in logistics outsourcing in China. *Journal of Supply Chain Management*, 48(3), 78-96.
- Coulter, K., & Coulter, R. (2002). Determinants of Trust in a Service Provider: The Moderating Role of Length of Relationship. *Journal of Services Marketing*, 16(1), 35-50.
- Coutu, D. (2002). How resilience works. *Harvard Business Review*.
- Covin, J., & Slevin, D. (1989). Strategic Management of small firms in hostile and benign environments. *Strategic Management Journal*(10), 75-87.
- Covin, J., Green, K., & Slevin, D. (2006). Strategic process effects on the entrepreneurial orientation-sales growth rate relationship. *Entrepreneurship: Theory and Practice*, 30(1), 57-81.
- Crosby, L., Evans, K., & Cowles, D. (1990). Relationship Quality in Services Selling: An interpersonal Influence Perspective. *Journal of Marketing*, 54, 68-81.
- Dai, L., Maksimov, V., Gilbert, B., & Fernhaber, S. (2014). Entrepreneurial Orientation and International Scope: The Differential roles of Innovativeness, Proactiveness, and Risk-Taking. *Journal of Business Venturing*, 29(4), 511-524.
- Das, T., & Teng, B. (1998). Between trust and control: Developing confidence in partner cooperation in alliances. *Academy of management review*(123), 491-513.

- de Vocht, A. (2019). In Basishandboek SPSS 25: Voor SPSS 25 en SPSS. Bijleveld Press.
- Doz, Y. L., & Hamel, G. (1998). Alliance advantage: The Art of Creating Value through Partnering. Harvard Business Press.
- Floyd, S., & Lane, P. (2000). Strategizing throughout the organization: Managing role conflict in strategic renewal. *Academy of Management review*, 25, 154-177.
- Ganesan, S. (1994). Determinants of Long - Term orientation in Buyer - Seller Relationships. *Journal of Marketing*, 58, 1-19.
- Hamel, G., & Valikangas, L. (2003). The Quest for Resilience. *Harvard Business Review*(September).
- Hardy, C., Philips, N., & Grant, D. (2003). Resources, knowledge and influence: the organizational effects of interorganizational collaboration. *Journal of Management studies*, 40(2), 321-347.
- Hardy, C., Phillips, N., & Lawrence, T. (1998). Distinguishing Trust and Power in Interorganizational Relations: Forms and Facades of Trust. In C. Lane, & R. Bachmann (eds), *Trust in and between organizations*. Oxford: Oxford Press.
- Hitt, M., Ireland, D., Camp, S., & Sexton, D. (2001). Guest editors' introduction to the special issue strategic entrepreneurship: entrepreneurial strategies for wealth creation. *Strategic Management Journal*(22), 479-491.
- Jansen, M., & Bruggeman, J. (2000). CDV in gesprek met Steven de Waal: Diskwalificatie van Maatschappelijk Ondernemen Riskant. *Boom Tijdschriften*.
- Jonsson, P., & Zineldin, M. (2003). Achieving high satisfaction in supplier - dealer working relationships. *Supply Chain Management: An International Journal*, 8(3), 224-240.
- Khandwalla, P. (1977). *The design of organizations*. New York: Harcourt Brace Jovanovich.
- Krueger, N. E. (1993). The Impact of Prior Entrepreneurial Exposure on Perceptions of New Venture Feasibility and Desirability. *Entrepreneurship Theory and Practice*, 18(1), 5-21.
- Leischnig, A., & Geigenmüller, A. (2017). When does alliance proactiveness matter to market performance? A comparative case analysis. *Industrial Marketing Management* InPress.
- Lengnick- Hall, C. A., & Beck, T. E. (2009). Resilience Capacity and Strategic Agility: Prerequisites for Thriving in a Dynamic Environment.
- Lumpkin, G., & Dess, G. G. (1996). Clarifying the Entrepreneurial Orientation Construct and Linking It to Performance. *The Academy of Management Review*, 21(1), 135-172.
- Luthans, F., Luthans, K., & Luthans, B. (2004). Positive psychological capital: Beyond human and social capital. *Business Horizons*, 47(1), 45-50.
- Luthans, F., Youssef, M. C., & Avolio, J. B. (2007). *Psychological Capital: Developing Human Competitive Edge*. Oxford University Press.

- Lyon, D., Lumpkin, G., & Dess, G. (2000). Enhancing entrepreneurial orientation research: Operationalizing and measuring a key strategic decision making process. *Journal of Management*, 26(5), 1055-1085.
- Miller, D. (1983). The correlates of entrepreneurship in three types of firms. *Management Science*(29), 770-791.
- Miller, D., & Friesen, P. (1982). Innovation in conservative and entrepreneurial firms: Two models of strategic momentum. *Strategic Management Journal*(3), 1-25.
- Mintzberg, H. (1973). Strategy making in three modes. *California Management Review*, 2(16), 44-53.
- Mitchell, V. (1996). Assessing the reliability and validity of questionnaires: an empirical example. *Journal of Applied Management Studies*, 5(2), 199-208.
- Monsen, E., & Boss, R. (2009). The Impact of Strategic Entrepreneurship inside the Organization: Examining job stress and employee retention. *Entrepreneurship: Theory and Practice*, 33, 71-104.
- Morais-Storz, M., Platou, R., & Norheim, K. (2018). Innovation and Metamorphosis towards strategic resilience. *International Journal of Entrepreneurial Behaviour & Research*, 7(24), 1355-2554.
- Morgan, R., & Hunt, S. (1994). The commitment-trust theory of relationship marketing. *Journal of Marketing*, 58(3), 20-38.
- Morris, M., Webb, J., & Franklin, R. (2011). Understanding the manifestation of Entrepreneurial Orientation in the Nonprofit Context. *Entrepreneurship Theory and Practice*, 35(5), 947-971.
- Moss, T., Short, J., Payne, G., & Lumpkin, G. (2011). Dual identities in social ventures: An exploratory study. *Entrepreneurship Theory and Practice*(35), 805-830.
- Naudé, P., & Buttle, F. (2000). Assessing relationship quality. *Industrial Marketing Management*, 29(4), 351-361.
- Peterson, S. J., & Lee, S. M. (2000). Culture, Entrepreneurial Orientation, and Global Competitiveness. *Journal of World Business*, 35(4), 401-416.
- Powell, W. W., Koput, K. W., & Smith-Doerr, L. (1996). Interorganizational Collaboration and the Locus of Innovation: Networks of learning in Biotechnology. *Administrative Science Quarterly*, 41(1), 116-145.
- Quandt, C., & Ferreira de Castilho, M. (2017). Relationship between collaboration and innovativeness: a case study in an innovative organization. *Int. Journal of Innovation and Learning*, 21(3), 257-273.
- Rauch, A., Wiklund, J., Lumpkin, G., & Frese, M. (2009). Entrepreneurial Orientation and business performance: Cumulative empirical evidence. *Entrepreneurship Theory and Practice*, 33(3), 761-788.

- Reivich, K., & Shatte, A. (2002). *The resilience factor: 7 essential skills for overcoming life's inevitable obstacles*. New York: Random House.
- Richey, R., Adams, F., & Dalela, V. (2012). Technology and Flexibility: Enablers of Collaboration and Time-Based Logistics Quality. *Journal of Business Logistics*, 33(1), 34-49.
- Rosenberg, M. (1968). *The logic of survey analysis*. New York: NY: Basic Books.
- Sapienza, H., De Clercq, D., & Sandberg, W. (2005). Antecedents of international and domestic learning effort. *Journal of business venturing*, 20(4), 437-457.
- Shrader, R. (2000). Collaboration and Performance in foreign markets: The case of young high-technology manufacturing firms. *Academy of Management Journal*.
- Skarmas, D., Katsikeas, C., Spyropoulou, S., & Salehi-Sangari, E. (2008). Market and supplier characteristics driving distributor relationship quality in international marketing channels of industrial products. *Industrial Marketing Management*, 37, 23-36.
- Starr, R. N. (2003). Enterprise resilience: managing risk in the networked economy. *Strategy and Business*(30), 70-79.
- Teece, D. (1994). Information Sharing, Innovation and Antitrust. *Antitrust Law Journal*, 62, 465-481.
- Teece, D., Pisano, G., & Shuen, A. (1997). Dynamic capabilities and strategic management. *Strategic Management Journal*, 18(7), 509-533.
- Tushman, M., Smith, W., Wood, R., Westerman, G., & O'Reilly, C. (2003). *Innovation streams and ambidextrous Organizational Designs: ON building Dynamic Capabilities*. Working Paper.
- van Dalen, J., & de Leede, E. (2009). *Statistisch onderzoek met SPSS voor Windows (Tweede druk)*. Lemma.
- Van de Ven, A. (1986). Central problems in the management of innovation. *Management Science*, 32(5), 590-607.
- Wales, W., Monsen, E., & McKelvie, A. (2011). The Organizational Pervasiveness of Entrepreneurial Orientation. *Entrepreneurship: Theory and Practice*, 35(5), 895-923.
- Wiklund, J., & Shepherd, D. (2003). Knowledge-based resources, entrepreneurial orientation, and the performance of small and medium-sized businesses. *Strategic Management Journal*, 24, 1307-1314.
- Zhao, X., Huo, B., Flynn, B., & Yeung, J. (2008). The impact of power and relationship commitment on the integration between manufacturers and customers in a supply chain. *Journal of Operations Management*, 26(3), 368-388.

## Appendix: Survey Questionnaire

### Trust

1. Organisaties waar wij mee samenwerken hebben oog voor het welzijn van mijn team bij het nemen van belangrijke beslissingen.
2. Wanneer nodig kan mijn team rekenen op ondersteuning van organisaties waar wij mee samenwerken.
3. Organisaties waar mijn team mee samenwerkt gedragen zich professioneel naar ons.
4. Organisaties waar wij mee samenwerken zijn niet altijd eerlijk tegenover mijn team.
5. Mijn team kan vertrouwen op toezeggingen die zijn gedaan door organisaties waar wij mee samenwerken.

### Commitment

6. In de relatie met organisaties waar wij mee samenwerken richt mijn team zich op lange termijn doelstellingen.
7. Mijn team is bereid om tijd en andere middelen te investeren in de relatie met organisaties waar wij mee samenwerken.
8. In de relatie met organisaties waar wij mee samenwerken stelt mijn team lange termijn voordelen boven korte termijn winst.
9. In de toekomst breidt mijn team activiteiten met de organisaties waar wij mee samenwerken uit.
10. Wanneer een buitenstaander kritiek heeft verdedigt mijn team de relatie met organisaties waarmee wij samenwerken.

### Satisfaction

11. Over het algemeen is mijn team tevreden met de algehele prestaties van de organisaties waar wij mee samenwerken.
12. Mijn team is tevreden over de kosten van de geleverde dienstverlening door organisaties waar wij mee samenwerken.
13. Mijn team is tevreden over de kwaliteit van de geleverde dienstverlening door organisaties waar wij mee samenwerken.
14. Over het algemeen is mijn team tevreden over de prijs-kwaliteitsverhouding van de geleverde dienstverlening door organisaties waarmee wij samenwerken.

### Innovativeness

- 15. Mijn team heeft de afgelopen 3 jaar veel nieuwe producten/ diensten geïntroduceerd.
- 16. Mijn team legt sterk de nadruk op R&D (Research & Development) en Innovatie in plaats van op marketing van huidige producten/ diensten
- 17. Binnen mijn team volgen nieuwe producten/ diensten elkaar snel op.

### Proactiveness

- 18. Over het algemeen introduceert mijn team nieuwe producten/ diensten als eerste.
- 19. Mijn team gaat normaal gesproken over tot strijdlustige acties tegen concurrenten wanneer de concurrentie toeneemt.
- 20. Mijn team heeft over het algemeen een competitieve houding ten aanzien van haar concurrenten.

### Risk-taking

- 21. Mijn team richt zich vooral op projecten met een hoog risico waarbij onzeker is wat het rendement zal zijn.
- 22. Om haar doelstellingen te bereiken neemt mijn team sterke en onverschrokken maatregelen.
- 23. In onzekere situaties neemt mijn team een agressieve houding aan om potentiële kansen te vergroten.

### Resiliency

- 24. Mijn team kan goed omgaan met moeilijke situaties
- 25. Normaal gesproken is mijn team stressbestendig.
- 26. Wanneer mijn team te maken krijgt met tegenslag probeert zij hier alsnog een succes van te maken.
- 27. Wanneer binnen mijn team de druk om te presteren hoger wordt kunnen zij hier goed mee omgaan.
- 28. Mijn team is bereid om door te zetten wanneer moeilijkheden optreden.
- 29. Wanneer mijn team wordt geconfronteerd met tegenslag herpakt zij zich snel weer.