Master Thesis

Absorptive Capacity: The influence of team composition variables and its relation to team innovation

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Acknowledgements

After finishing a Bachelor in Engineering and a couple of years of working experience I felt that something was missing. Hence I decided to follow the PTO MScBA program at the RSM Erasmus University, what appeared to be the perfect choice. In two years I learned more about myself then in many years before. Now this Master Thesis means the end of two years of scientific education, which gives me somewhat conflicting feelings.

Working on this Master Thesis for the last seven months in combination with a full-time job appeared to be challenging. On the other hand, it gave me a lot of interesting insights into different aspects of Strategic Management and enriched my knowledge and experience. I will miss the scientific challenges and the projects however, I look forward to some more spare time!

Without the help and efforts of people around me this Master Thesis would not have been possible. Not only with respect to the contents of this document, but also mentally during the more difficult times. First of all I would like to thank my coach, Justin Jansen. Despite his busy schedule and being in Spain for the majority of the duration of this research, Justin managed to provide me with extensive support, both mentally and content-related.

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Summary

In recent years, firms in several markets are confronted with a rapidly changing business environment. Due to the economic crisis and the unstable situation of the world economy, it is important for a lot of firms to foster innovation. To increase innovation in firms, firms depend more and more on the use of teams and innovation within these teams. This results in the concept of what scholars name Team Innovation.

Another concept that has become more popular within firms, in order to increase their level of innovation is what scholars name Absorptive Capacity: the acquisition, assimilation, transformation and exploitation of new external knowledge.

As research on the relations between teams and Absorptive Capacity is limited, this research adds to the existing scholarly literature with an empirical research on the influence of Team Composition on Absorptive Capacity and consequently, the influence of Absorptive Capacity on Team Innovation.

In order to obtain empirical data a survey was conducted amongst departments of the Aon Corporation in the Netherlands. Based on the findings of this research the main conclusions and contributions to science are the following.

Absorptive Capacity in a team appears to have a positive influence on Team Innovation. More specifically it is noted that Realized Absorptive Capacity (the transformation and exploitation of new external knowledge) positively influences Team Innovation. This can be seen as an addition to the existing literature and confirms that Absorptive Capacity not only positively influences innovation in general, but that the same applies within teams. Furthermore it was expected that Potential Absorptive Capacity (the acquisition and assimilation of new external knowledge) would positively moderates this influence, however no significant support was found for this expectation.

The influences of Team Composition on Absorptive Capacity showed mixed results. Relative Team Size and Team Heterogeneity appeared to have no significant influence on Absorptive Capacity. Team Flexibility however positively influences absorptive capacity within a team. Teams were members can take over each other's work have a positive influence on the level of Absorptive Capacity within such team. This can be considered an addition to the existing literature as no earlier support for such findings are found.

Despite that this research is conducted in a relative short time frame and with a limited amount of data it gives valuable insights between the relations of Team Composition, Absorptive Capacity and Team Innovation. This additional information is not only beneficial for scholars but can also be used by managers in their day-to-day practice.

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1. Introduction

In the current economic climate, shortly after the crisis and with the recent situation in the European economy, it is of utmost importance that companies, especially those in turbulent and competitive markets, focus on their competitive advantage.

Competitive advantage can be obtained through various methods. One of the most important factors to establish or maintain your competitive advantage is to be innovative (Escribano, Fosfuri & Tribo 2009). One should only read today's financial and economic papers and most probably an article regarding innovation in one or another company is discussed. Also during my own working career at the Aon Corporation, I see developments relating to innovation, for example, dedicated innovation departments being launched. Innovation in general and especially, management and social innovation is popular in today's management literature as well (Volberda 2010).

The concept of innovation consists out of many segments out of which team innovation is one of the most cited. To successfully innovate organizations increasingly rely on teams nowadays (Miron-Spektor, Erez & Naveh 2011). Teams are considered to have an advantage compared to the individual due to a larger number of resources and backgrounds (Dunphy 1996, DeShon 2004). Hence, the combination of teams and innovation is a hot issue nowadays which results in a lot of attention to the concept.

Team innovation can be defined as "the intentional introduction and application within a job, work team or organization of ideas, processes, products or procedures which are new to that job, work team or the organization" (West 2002). Extensive research is paid to team innovation. Areas as psychology in groups (West 1990), the influence of team decision making to innovation (De Dreu, West 2001) or team structures and innovation (Uzzi 1997, Hansen, Mors & Lovas 2005) are just a few of the areas, which were subject to investigation. The amount of research relating to teams, which will be discussed further in this thesis, supports my previous claim that teams are becoming more and more popular within innovation related research.

An aspect of innovation, which appears to have been neglected up to today when focussing on teams, is the concept of Absorptive Capacity. This can be considered a surprise as the popularity of Absorptive Capacity increased rapidly in recent years (Volberda 2010). Absorptive capacity can be defined as the process of acquiring, assimilating, transforming and exploiting new external knowledge (Todorova 2007). Extensive research already took place on absorptive capacity and its antecedents, mainly on the influence of innovation (Tsai 2001), business performance (Lane, Salk & Lyles 2001) and intra-organizational transfer of knowledge (Gupta, Govindarajan 2000). Also the influence of organizational antecedents on potential and realized absorptive capacity was subject to investigation (Jansen 2005). This amount of antecedents, which is only a brief list, shows the impact of absorptive capacity to science and it's relevance for business.

Considering the above-mentioned popularity of Team Innovation and Absorptive Capacity, I deem the lack of research between these concepts is a missing link. It is surprising to see detailed investigations regarding these concepts on their own, or in relation with other fields, whilst the link between absorptive capacity and team innovation appears to be neglected. Especially when taking into consideration the claim that Team Innovation and Absorptive Capacity both become more popular in organisations in general. Based on these arguments it might be beneficial to know if absorptive capacity also have such an importance on innovation within team as it have on innovation within organisations in general.

Due to the large amount of research relating to the concept of teams in general (Marks, Mathieu & Zaccaro 2001, DeShon 2004, Beersma 2012) it is decided not to focus only on the link between Team Innovation and Absorptive Capacity but to extent this research with the relation between basic team antecedents and absorptive capacity as well. Also links between teams in general and Absorptive Capacity appears to have been overlooked in earlier research. With this addition I aim to give a better understanding of basic team aspects and their influence to absorptive capacity. It is specifically chosen to use basic team aspects, as teams are not linked to the concept of absorptive capacity yet. Hence it makes no sense to go into detail too much.

When discussing team aspects, extensive amount of research took place in the area of team antecedents and characteristics, investigating amongst other the relation of interdependence, composition, job design, processes, etc. to team performance or effectiveness (Campion 1993, Stewart 2006, Cruz, Pil 2011). A concept that pops up in most team literature is team composition or team design. According to Campion (1993), the most cited author in this area, team composition contains amongst others out of the heterogeneity, size and the flexibility of job assignments within a team. Other authors confirm similar views, mentioning that a team composition or design can be dived in amongst others diversity, skills and size (Cohen 1997, Guzzo, Dickson 1996, Janssen, van de Vliert & West 2004, Beersma 2012). As these composition variables are basic team elements and applicable to all kind of teams they will provide valuable insight to the relation between teams and Absorptive Capacity.

In order to stipulate the relevance of this research, I stress that, when talking about absorptive capacity, managers or leaders are not the main representatives of a firm focusing on new business and opportunities. Based on my own experience within Aon Risk Solutions and previous employers, I deem that today's departments, especially of consultancy and advisory firms, but also in other lines of business, contain out of highly educated employees, who next to their 'day-to-day' jobs, are also key players in recognizing innovative opportunities. This is supported by the earlier mentioned literature, which stressed that firms are focussing more on teams instead of on individuals for innovation.

Taking this into consideration, for the purpose of this research, departments are considered as teams. There are many definitions of teams, each suitable for specific areas (Stewart 2006, Beersma 2012). For this research a team is defined as "group of individuals who work together to produce products or deliver services for which they are mutually accountable" (Mohrman, Cohen & Morhman Jr. 1995). This definition is chosen as it is also used within the main articles relating to team composition (Campion 1993, Campion, Papper & Medsker 1996), another key aspect in this thesis. Furthermore this definition can also be applied to departments.

The gap this research is focusing on is the earlier mentioned missing link between team innovation, team variables and absorptive capacity. As previously mentioned, companies aiming on competitive advantage should focus on innovation. One way is innovation through the acquisition of new external knowledge and assimilate, transform and exploit it. This can be captured within the earlier discussed concept of absorptive capacity. Knowing that especially in Western Europe we are focussing more on knowledge-workers and departments contain out of educated teams, knowledge on this link can be beneficial for firms and industries. Based on amongst others these arguments I will investigate the impact of team composition variables to absorptive capacity and consequently the influence of absorptive capacity to team innovation.

My research will take place within the Aon Corporation for reasons, which will be discussed later in this thesis. The Aon Corporation, which head office is based in Chicago, the United States, employs approximately 60,000 employees worldwide and is listed #235 in the U.S. Fortune 500 of 2011. This makes Aon one of the largest financial institutions in the world. Aon mainly focuses on risk management and is the world's largest insurance broker (2011). Other services provided by Aon are risk consultancy and employee benefits. Aon is listed at the New York Stock Exchange.

1.1 Research Question

The above-mentioned particulars result in the following research question: ***Which team composition variables have a positive influence on the absorptive capacity of a team and consequently, which absorptive capacity variables have a positive influence on team innovation.***

1.1.1 Sub questions

- What are the different team innovation variables in an organization?
- What are the variables of absorptive capacity?
- What are the different team composition variables in an organization?

1.2 Brief Theory Overview

Team Innovation

Most probably the most cited scholar as for team and group innovation is Michael West. In his earlier research, West defined team innovation, or group innovation, as a process, which consist out of inputs (amongst others group composition, size and diversity), which via a group process will result in various 'innovative' outputs (West 1990, West, Anderson 1996). Later West's concept was redesigned and group task characteristics, group knowledge, diversity and skills and external demands were mentioned as inputs for groups processes which eventually would result in group creativity and innovation (West 2002, Eisenbeiss, van Knippenberg & Boerner 2008). A similar approach was followed by Janssen who identified Team Member KSA's[1], group processes, external demands and member diversity as moderators of group innovation (Janssen, van de Vliert & West 2004).

Team innovation is a concept used in various fields of science like sociology, psychology and economy. A much cited article which roughly overlaps all these fields of science is related to team innovation, group learning and organizational knowledge creation (Nonaka 1994), which mainly focuses on the relation between tacit and explicit knowledge and its link to team innovation. Also the links and ties within teams relating to team innovation were subject to research in the past years (Hansen 1999, Hansen, Mors & Lovas 2005). A further dive into the world of science relating to team innovation shows researches relating to innovation management (Adams, Bessant & Phelps 2006), the influence of leadership (West et al. 2003) and more specifically transformational leadership (Eisenbeiss, van Knippenberg & Boerner 2008). Further research will be discussed in the second chapter of this thesis.

Absorptive Capacity

Absorptive Capacity was first discussed as a new perspective on learning and innovation in the late eighties (Cohen 1990). This article is still the most cited article in the field of research and mainly focuses on the R&D departments and their absorptive capacity. Twelve years later this article was extended and a split was made between potential and realized absorptive capacity (Zahra 2002), where potential absorptive capacity consists out of the acquiring and assimilation of external knowledge and realized absorptive capacity consists out of the transformation and exploitation of this knowledge.
In 2007 a new conceptualization was reviewed (Todorova 2007) which claims that, instead of what Zahra (Zahra 2002) mentioned, transformation does not follow assimilation but happens simultaneously. Todorova suggests not to make the distinction between potential and absorptive capacity but to investigate all four sub-antecedents independently (Todorova 2007).

[1] Team Knowledge, Skills and Abilities

As previously mentioned in the introduction of this document, extensive research already took place to the concept of absorptive capacity. In addition to the earlier mentioned research, scientists also investigated the influence of absorptive capacity to ambidexterity (Rothaermel 2009), the impact of environmental turbulence (Lichtenthaler 2009) and the role of organizational forms (Van den Bosch, Volberda & de Boer 1999). During my further research I will extensively discuss the current status of research focusing on absorptive capacity.

Team composition

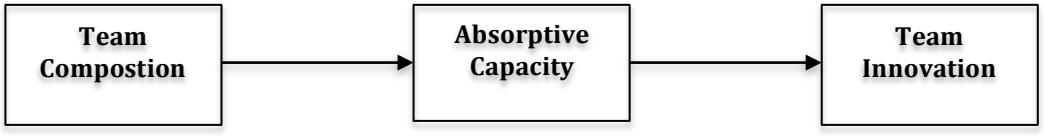
As mentioned in the introduction of this document, I will investigate the influence of team composition to absorptive capacity. I define a team as a "group of individuals who work together to produce products or deliver services for which they are mutually accountable" (Mohrman, Cohen & Morhman Jr. 1995) as this definition is used within the team composition literature (Campion 1993, Campion, Papper & Medsker 1996).
The most cited author within team composition is Campion (1993). Campion described team composition with the following antecedents, (1) relative team size, (2) team flexibility, (3) team heterogeneity and (4) preference for group work.. For this thesis, the first three antecedents are used. He reproduced his research in a later stage (Campion, Papper & Medsker 1996), confirming his findings.

Other scholars show similar views. According to Mooney et al. (2007) team antecedents consists out of team characteristics such as size and diversity and Janssen et al. (2004)confirms a similar view, mentioning team knowledge, skills, abilities and diversity as antecedents. Hence, the first three antecedents of Campion are used within this research.

Most research within the field of team composition (and team design, which can be considered similar) relates to performance (Stewart 2006, Bell 2007) and effectiveness (Campion 1993, Campion, Papper & Medsker 1996, Cohen, Bailey 1997).

1.3 Research Model

The below research model shows the relations between the concepts which will be subject to research in this thesis. The influence of absorptive capacity within teams on team innovation will be investigated as well as the influence of team composition on absorptive capacity.



1.4 Research Methods

A brief overview of the research method is discussed in this chapter. Chapter 3 presents a detailed overview of the methodology used. Theories of Bryman & Bell (2011) are used as a guideline in order to determine the most sufficient methodology.

The method of research is deductive as it will be a theory-testing research. Existing theories will be used for team innovation, absorptive capacity and team composition, as they are widely available. Based on the existing theories and their combination, hypotheses will be developed. These hypotheses will be tested in order to determine if the proposed relations/influences are significant and can be supported.

Data collection

In order to test the hypotheses, data is required. Questionnaires will be used to obtain the data. A combination of validated existing questionnaires is used. Attention is paid to methods used in other to make sure that the antecedents and concepts will be optimally measured in order to maximize the reliability of the data. A Likert scale will be used to measure the concepts on the questionnaire.

The questionnaires will be held at one company, the Aon Corporation, making this a case study. The reason the sample will be held at one company is due to the accessibility of data, making this partly a convenience sample. In addition to the accessibility of the data, with over 60,000 employees worldwide, the Aon Corporation is a major source of data as well, with lots of variety. As the services provided by Aon all have an advisory nature in a competitive environment, there is also a fit with the relevance of this research.

The questionnaire will be held at the operational departments (teams) of Aon at the broking and advisory business units (Aon Risk Solutions and Aon Hewitt). Hence the level of analysis will be on an operational level.

The size of the sample (n) is >50 in order to increase the reliability and validity of the findings and to be able to obtain significant findings.

Data analysis

Once the data is obtained, analysis of the data is required. A quantitative data analysis is used in order to be able to investigate possible relations and their significance.

These relations will be measured via various statistical methods, which are determined based on the questionnaires and the method of data collection. After the data is analysed, the findings and implications, both managerial and for science, are discussed.

1.5 Thesis outline

In the next chapter, chapter 2, the theory and literature of this thesis will be discussed. Chapter 2 also presents the hypothesis and a conceptual model. In chapter 3 methods of methodology are mentioned. Chapter 4 will contain the findings of this research and its conclusion. Chapter 5 presents the discussion, conclusion & implications of this thesis.

2. Literature Review

This chapter aims to provide a deeper inside about the concepts that are subject to research in this thesis. First the concept of team innovation will be discussed and its contribution to science. After that the concept of absorptive capacity is discussed. The last concept that will be subject to discussion is team composition. This chapter ends with the hypotheses, which will describe the suggested relations between all concepts. A theoretical framework aims to visualize these relations.

It is noted that regardless of industry sector, most contemporary organisations must be innovative to retain their competitive position (Gebert, Boerner & Kearney 2010). Especially in todays unstable environment innovation and flexibility is of utmost importance to organisations (Volberda 1999). In that perspective it is worth mentioning that nowadays, to successfully innovate, organizations increasingly rely on teams (Miron-Spektor, Erez & Naveh 2011). As previously mentioned, teams are considered to have an advantage compared to the individual due to a larger number of resources and backgrounds (Dunphy 1996, DeShon 2004). Considering the popularity of teams within organisations, and the importance of innovation for an organisation's competitive advantage, innovation within teams, or as scholars prefer to say, Team Innovation becomes more and more popular.

2.1 Team Innovation

As the term already suggests, team innovation relates to the level of innovation in teams or groups. When only looking at the amount of research to team or group innovation, teams and groups appear to play key-roles in the innovation process. For the purpose of this research team and group innovation are considered to be similar, which is also common in its field of literature. Team Innovation can be defined as "the introduction of and application, within a group, organization, or wider society, of processes, products or procedures new to the relevant unit of adoption and intended to benefit the group, individual or wider society (West, Farr 1990).

West, being the most cited author in the field of team innovation, specifically mentioned that team innovation should be considered a full process with an input, group process and output. Inputs like group composition and organizational context result in group processes like objectives, participation, task orientation and support for innovation. These processes will have various innovative outputs as results. Not only these outputs but also the total process, starting with the inputs are considered as being Team Innovation (West 1994, West, Anderson 1996).

Most scholars agree upon the definition of West, considering Team Innovation a full process as well, with similar inputs, processes and outputs (Nonaka 1994, Axtell 2000, Drach-Zahavy 2001). In his later research West developed a more extensive model for

team innovation, based on his initial research. This revised model of team innovation is shown in figure 2.1 (West 2002).

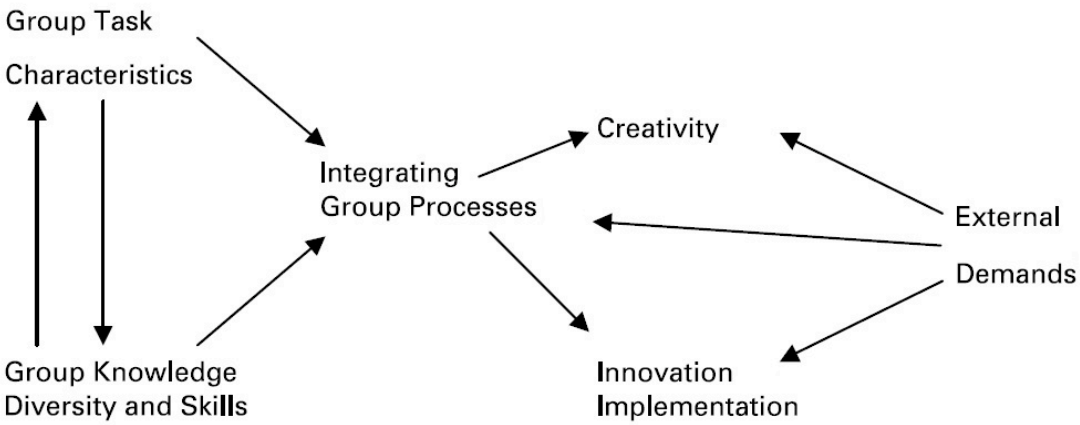


Figure 2.1 – A model of team innovation (West 2002)

Figure 2.1 shows the influence of group task characteristics and group knowledge diversity and skills to the group (team) processes. The group processes will eventually result in creativity and innovation (implementation) outputs. Specific additions to his earlier research are the interaction between group task characteristics and group knowledge diversity and skills. Also external demands are now considered to be essential factors which influence the need (level) for processes, creativity and innovation implementation.

As scholars still use the definition of West in today's research relating to Team Innovation (Charbonnier-Voirin, El Akremi & Vandenberghe 2010, Hüttermann 2011, Miron-Spektor, Erez & Naveh 2011), it is decided to follow West's definition for the purpose of this thesis.

2.1.1 Field of research

As previously mentioned, an extensive amount of research took place on team innovation. The purpose of this paragraph is to provide an overview of the current status of this research and its missing links.

Team aspects like workgroup diversity (van Knippenberg 2004, Van Knippenberg 2007), the relation between individual and team creativity (Pirola-Merlo 2004) and team climate (Bain, Mann & Pirola-Merlo 2001) were subject to research in relation to team innovation. Also leadership and its influence on teams is a popular research field, hence the influence of leadership in general (West et al. 2003) and transformational leadership (Eisenbeiss, van Knippenberg & Boerner 2008, Charbonnier-Voirin, El Akremi & Vandenberghe 2010, Hüttermann 2011) to team innovation is extensive as well.

A further dive into the world of science relating to team innovation shows research focusing on innovation management (Adams, Bessant & Phelps 2006), the influence of

team antecedents to innovation (Marks, Mathieu & Zaccaro 2001) and the effects of geographical dispersion and national diversity (Gibson 2006). Also the influence of participation in decision-making on team innovation (De Dreu, West 2001), learning behaviour (Gibson, Vermeulen 2003), multinational context (Zellmer-Bruhn, Gibson 2006) and effects of employees (Miron-Spektor, Erez & Naveh 2011) were subject to the broad field of research relating to team innovation.

For the purpose of this thesis it is important to know that the concept of Team Innovation is used in various fields of science like sociology, psychology and economy. A much cited article which roughly overlaps all these fields of science is related to team innovation, group learning and organizational knowledge creation (Nonaka 1994), which mainly focuses on the relation between tacit and explicit knowledge and its link to team innovation. More research took place linking team innovation to knowledge sharing (Hansen 1999) and ties within teams (Uzzi 1997, Hansen, Mors & Lovas 2005).

Despite this research linking Team Innovation with knowledge handling, it is worth mentioning that no direct link is found between Team Innovation and Absorptive Capacity, which can be defined as acquiring, assimilating, transforming and exploiting new external knowledge (Cohen 1990). It is especially surprising that this link is missing, as research indicates that Absorptive Capacity positively influences innovation within firms in general (Zahra 2002), so one could ask why should it not have similar effects within teams and on Team Innovation. Based on this line of thought it is decided to focus on Team Innovation and its link to Absorptive Capacity.

2.2 Absorptive Capacity

In the late nineteen eighties research on innovation argued that innovation was not only about generating new information but it also enhanced a firm's ability to assimilate and exploit existing information (Cohen, Levinthal 1989). This resulted in the concept of absorptive capacity (ACAP), which was described as "the ability of a firm to recognize the value of new, external information, assimilate it, and apply it to commercial ends" (Cohen 1990, Volberda 2010). A clear distinction was made between three dimensions, namely (1) recognizing new knowledge, (2) assimilate this knowledge and (3) exploit this knowledge. The level of absorptive capacity largely depends on a firm's prior knowledge base and skills according to Cohen. In first instance absorptive capacity was considered an additional product from R&D, however later on the concept was more and more investigated as a more stand-alone concept (Cohen, Levinthal 1994, Cohen 1997).

Further research divided the concept of absorptive capacity in two main pillars, namely Potential Absorptive Capacity (PACAP) and Realized Absorptive Capacity (RACAP) (Zahra 2002). PACAP contains out of the dimensions (1) acquisition and (2) assimilation of new knowledge. RACAP consists out of the dimensions (3) transformation and (4) exploitation of this new knowledge. Figure 2.2 visualizes the concept as described by Zahra.

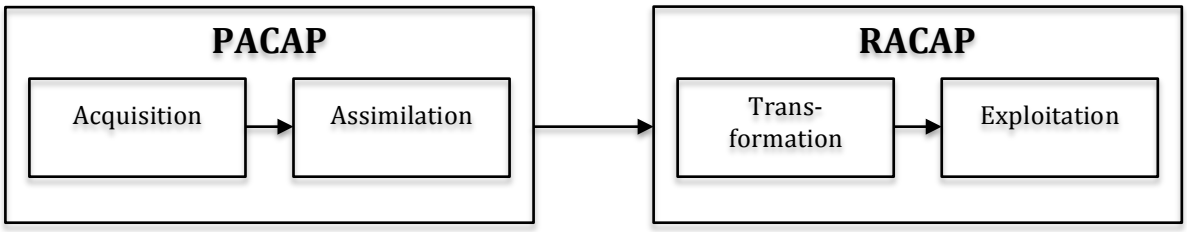


Figure 2.2 – A model of absorptive capacity (Zahra 2002)

Based on this reconceptualization, Zahra defined absorptive capacity as "a set of organizational routines and strategic processes by which firm acquire, assimilate, transform and exploit knowledge for the purpose of value creation" (Zahra 2002). According to Zahra prior knowledge base and skills are not the only key for the evolution and development of absorptive capacity. Absorptive capacity depends on multiple factors, including a firm's past experience, knowledge complementarity and diversity of knowledge sources.

Several scholars argued that the four dimensions as defined by Zahra are partly overlapping and lacking information. More in particular, the dimensions assimilation and transformation are not consecutive but happen simultaneously and the removal of the "recognizing new knowledge" dimension of Cohen is considered as a drawback (Todorova 2007). However, in the most recent research on absorptive capacity, these critics are largely neglected. The earlier mentioned definitions of Zahra and George can nowadays still be considered as the main definition of the process of absorptive capacity (Lichtenthaler, Lichtenthaler 2009, Volberda 2010). Also previous research, focusing on antecedents and models of absorptive capacity refer to these theories(Bosch, Wijk & Volberda 2003, Lane 2006). Taken all this into consideration, Zahra's definition of absorptive capacity, as visualized in Figure 2.2, will be used within this thesis.

As absorptive capacity results in competitive advantage for a firm (Cohen 1990, Cohen, Levinthal 1994, Lane, Lubatkin 1998) it became subject to a wide area of investigation. Recent research still confirms that absorptive capacity positively influences the competitive advantage of firms (Escribano, Fosfuri & Tribo 2009). In the below paragraph I will provide an overview of the main field of research of absorptive capacity.

2.2.1 Field of research

As previously mentioned, extensive research took place within the field of absorptive capacity. Since the concept was defined around 1990 research took place relating absorptive capacity to amongst others learning, innovation, managerial cognition, knowledge-based view, dynamic capabilities and coevolution (Volberda 2010).

The influence of absorptive capacity on organizations in general is researched extensively. Organization forms (Van den Bosch, Volberda & de Boer 1999), organizational antecedents (Jansen 2005), organization dynamics and capabilities (Schreyoegg, Kliesch-Eberl 2007), organizations learning (Lichtenthaler 2009) and dynamic environments (Sirmon, Hitt & Ireland 2007) are all linked to absorptive capacity.

The link between performance and absorptive capacity is analysed from various perspectives as well. Business performance (Lane, Salk & Lyles 2001), financial performance (Kostopoulos 2011) and knowledge performance (Haas, Hansen 2005) were all linked to absorptive capacity.

The more obvious link between absorptive capacity and innovation was also subject to research (Tsai 2001). Other fields of research linked to absorptive capacity are supply chain management (Malhotra, Gosain & El Sawy 2005), joint ventures and strategic alliances (Mowery, Oxley & Silverman 1996, Dhanaraj et al. 2004, Lavie, Rosenkopf 2006, Rothaermel 2009) and knowledge sharing (Szulanski 1996, Cummings, Teng 2003, Quigley et al. 2007).

One concept, which shows limited relations with ACAP, is the concept of teams. In addition to what its noted within Team Innovation, it appears that research between ACAP and teams is neglected in general. This can be seen as a surprise, especially considering today's popularity for teams in relation to innovation (Gebert, Boerner & Kearney 2010). Also more in general, teams are a popular area of research in today's science. A short journey through scientific databases shows over 200.000 hits on 'teams'.[2] Obviously the variance of these articles is enormous. Taking this into consideration, together with (1) the popularity of ACAP and (2) the earlier discussed importance of Team Innovation it is deemed important to obtain more knowledge on the relation between ACAP and teams in general.

For this thesis I aimed to focus on a team-concept that can be applied to the whole field of team-related research, which makes it relevant for a broad spectrum. As ACAP is not related to team before, it is decided to use a general concept as well, instead of going too much into detail. A journey through the world of team literature brought me to the concept of Team Composition, which will be discussed in the next paragraph.

2.3 Team Composition

Team Composition can be seen as a part of team themes/characteristic (Campion 1993, Guzzo, Dickson 1996). As the term already suggest, it can be seen as the composition or design of a team.

[2] Source: Web of Knowledge, http://www.webofknowledge.com. (Accessed: 28 March 2012)

Campion, being the most cited author in the field of Team Composition, mentioned that team composition consisted of (1) Team Heterogeneity, (2) Team Flexibility, (3) Relative team size and (4) Preference for group work. Other authors confirmed similar views. Size, knowledge, skills, abilities and diversity are all antecedents mentioned as part of team composition (Mooney, Holahan & Amason 2007, Janssen, van de Vliert & West 2004). Other popular research relating to team composition contained the antecedents of size and heterogeneity/diversity (Stewart 2006). Taking this into consideration it is decided to stick with the validated approach and antecedent of Campion, as it captures recent ideas as well. It is worth mentioning that based on critics to his first article Campion extended his research and validated his findings in later research (Campion, Papper & Medsker 1996). This later research also took place with knowledge workers, similar as this thesis.

The first variable of Team Composition is Team Heterogeneity. With heterogeneity is meant the member heterogeneity of a group in terms of abilities and experience by Campion. This strokes with the similar antecedents like knowledge and diversity out of previous researches (Stewart 2006).

The second variable is Team Flexibility. According to Campion (1993) this can be defined as the flexibility in terms of job assignments. The higher the flexibility, the easier it is for employees to take over each other's work.

The third variable mentioned by Campion is Relative Size. Specifically is chosen for Relative Size instead of Absolut size as Relative Size relates to groups needing to be large enough to perform their tasks. Absolut size is hard to compare when teams have different workloads whilst Relative Size is always relative compared to the workload of a group or team.

The last variable mentioned by Campion is Preference for Work Groups. With Preference for Work Groups is meant the level employees who prefer working in groups instead of individual. It is not related to a specific group but to working in groups in general. It is decided not to use this variable in this thesis as only Campion refers to it. Other scholars neglect this variable most of the times (Stewart 2006).

Researches in areas as team design or team structures, which can be considered similar definitions as team composition, provide similar variables (skills, size, diversity, etc.) as team composition (Wageman 2001).

For the purpose of this research, the following paragraph shows a deeper insight in the field of research relating to Team Composition and its limitations.

2.3.1 Field of research

As previously mentioned, the research focussing on teams is enormous. Surprisingly, the research focusing on team composition is rather limited. Campion already noticed the same situation in 1993, however, it appears not much has changed. In total 246 articles were found in this area, which is approximately 0.1% of the total articles related to teams.[3]

The most extensive field of research for composition is the link between team composition with performance (Stewart 2006, Bell 2007) and effectiveness(Campion 1993, Campion, Papper & Medsker 1996, Cohen, Bailey 1997). Noticeable is that in these articles team composition is considered as a part of total team characteristics, where team characteristics can be described as amongst others Cohesiveness, Leadership, Interdependence and Group Goals (Guzzo, Dickson 1996).

Also within the field of team characteristics research took place between these characteristics itself. Research took place were team composition was linked to interdependence and autonomy (Cruz, Pil 2011). Also the previous discussed articles from Bell (2007), Campion (1993, 1996), Stewart (2006) and Guzzo (1996) aim to cross-link team characteristics.

Contrary to the wide range of research relating to team composition and performance/effectiveness, limited research was found focusing on the link between team composition and innovation. The little research in this area was mainly relating to project teams and how their composition relates to innovation (McDermott, O'Connor 2002, Hulsheger, Anderson & Salgado 2009). The same applies for team composition relating to the handling of knowledge. Scholars do discuss the relations between (Team) Flexibility and knowledge (Yli-Renko, Autio & Sapienza 2001) and Team Diversity and knowledge (van Knippenberg 2004, Van Knippenberg 2007), however, no articles relate to Team Composition and for example (the variables of) ACAP. Obviously this is in line with the theory as discussed in paragraph 2.2.

It is worth mentioning that research defining team composition as team design or team dimensions show similar results as mentioned above.

2.4 Hypotheses

The previous paragraphs already suggest relations between the concepts subject to this research. In order to support and clarify these relations, hypotheses are developed based on the existing literature. First relations between ACAP and Team Innovation are discussed as Team Innovation can be considered the main dependent variable of this research. After that, hypotheses between Team Composition variables and ACAP are discussed. Paragraph 2.5 aims to visualize the hypotheses for a better understanding and in order to provide an overview of the research context.

[3] Source: Web of Knowledge, http://www.webofknowledge.com. (Accessed: 4 May 2012)

Research indicates that an organizational unit's absorptive capacity is positively related to its innovation (Tsai 2001), hence a similar situation might be expected within teams. However, as within this thesis ACAP is divided in PACAP and RACAP it is decided to link these two variables separately with Team Innovation instead of ACAP as a whole.

First RACAP will be subject to discussion. As previously mentioned, the definition of RACAP can be defined as the transformation and exploitation of new knowledge. By means of internalization and conversion new knowledge is transformed in such a way that it can be used an implemented (Cohen 1990, Van den Bosch, Volberda & de Boer 1999, Zahra 2002). Between PACAP and RACAP, RACAP is considered the primary source of performance improvements (Zahra 2002). In general PACAP supports RACAP whilst RACAP in its turn influences the company performance. Zahra proposes that firms with well-developed capabilities of knowledge transformation and exploitation are more likely to achieve a competitive advantage through innovation and product development than those with less developed capabilities. Hence a positive influence between RACAP and innovation is expected.

It makes sense that team innovation can be considered similar as innovation general, however, only focussing on teams and groups. Therefore there are no reasons not to believe that RACAP has no positive influence to Team Innovation as well. This is also supported when taking into account the definition of Team Innovation: "the introduction of and application, within a group […] of processes, products or procedures […]" (West, Farr 1990). This definition closely relates with the innovation and product development as stressed by Zahra. Also the term 'application' comes back in in both the definitions of RACAP and Team innovation. Also the earlier research of Tsai (2001), mentioning that ACAP within business units has a positive influence on innovation of such units can be considered a support of this hypothesis.

Taking the above into consideration a positive influence of RACAP on Team Innovation is expected which results in the first hypothesis.

Hypothesis 1: "A high level of RACAP has a positive influence on team innovation."

As previously discussed, PACAP relates to the acquisition and assimilation of new external knowledge. In other words, the main purpose of PACAP is to obtain new external knowledge and assimilate it in such a way that it can be used by RACAP (Zahra 2002, Volberda 2010). Hence, PACAP can be considered the concept that feeds RACAP with the new knowledge it needs to transform and exploit. This consideration links PACAP to RACAP and provides limited room to link PACAP with any other concept. Therefore it is decided not to link PACAP with any other (external) concept and investigate such a relation.

However, Zahra (2002) proposes that firms with well-developed capabilities of knowledge acquisition and assimilation (PACAP) are more likely to sustain a competitive advantage because of a greater flexibility in reconfiguring their resource bases […]. Meaning that in essence, a higher level of PACAP does influence the performance of a firm. Such arguments provide room for the opinion, which is also supported by Zahra, that a higher level of PACAP positively moderates the relation between RACAP and a firm's competitive advantage.

It is now proposed that PACAP positively moderates the link between RACAP and the performance of a firm. This gives reasons to believe that PACAP also might moderate the relation between RACAP and innovation (and for the purpose of this thesis, team innovation) as discussed at hypothesis 1. This also makes sense when taking into consideration the findings of Tsai (2001) who found support that ACAP in general, within a unit, positively influences the unit's innovation. In other words, with this addition to Zahra's arguments it can be said that a high level of PACAP positively influences the relation between RACAP and Team Innovation.

Other arguments support this line of thoughts as well. As shown in figure 2.2, PACAP and RACAP are part of one concept (ACAP). PACAP feeds the concept of RACAP. However, in addition to 'feeding' RACAP, firms with a high level of PACAP track changes in their industry more effectively and therefore facilitates the deployment of necessary capabilities (Zahra 2002). Meaning, a high level of PACAP increases the level of innovation of such firm. Hence PACAP does not only positively relate to RACAP, but also the level of innovation. This is in line with what Tsai mentioned. In other words, if teams have a high level of PACAP, there will not only be more knowledge that can be used within RACAP but it gives also more possibilities for more innovations. Hence it makes sense that the influence of PACAP is not only on RACAP or innovation but also on the link between them. As mentioned earlier, it also makes no sense to link PACAP with any concept outside the concept of ACAP. Therefore for the purpose of this thesis and based on the earlier mentioned arguments, it is deemed that PACAP positively moderates the relation between RACAP and Team Innovation. This brings us to the second hypothesis of this thesis.

Hypothesis 2: "A high level PACAP positively moderates the influence of RACAP on team innovation."

The third hypothesis of this thesis relates to the link between Team Composition and ACAP and more specifically, the link between relative size of teams and PACAP. First of all it is important to make a distinction between absolute team size and relative team size. Absolute size relates to exact size of a team without any comparison or relation to whatsoever where Relative Team Size relates to the proposition that groups need to be large enough to accomplish work assigned to them (Campion 1993). It is noted however that when too large, groups may be dysfunctional due to heightened coordination needs

or reduced involvement (Campion 1993). Thus, according to Campion, groups should be staffed to the smallest number needed to do their work. Significant support was found that teams, which are too large to perform their task, are less effective (Campion, Papper & Medsker 1996).

When focussing more on knowledge handling instead of effectiveness, research indicates a slightly different perspective about the relative size of teams. Within that perspective support is found that teams need to have sufficient members to be able to obtain and provide knowledge to complete their tasks (Stewart 2006). This gives reason too believe that a relative larger team gives more possibilities of acquiring (and assimilate) new external knowledge.

This knowledge related perspective appears to be contradictious with the earlier proposed statement that a relative large team is considered negative due to a possible increase of coordination needs or reduced involvement. However, when following definitions of Campion one could say that in such situations the smallest number of team members should be based on the number of team members needed to obtain an optimal knowledge acquisition and assimilation. Taking this into consideration a team, which is relatively too large, is still expected to negatively influence knowledge acquisition and assimilation due to especially reduced involvement. Therefore the following hypothesis is established.

Hypothesis 3a: "Relative team size has a negative influence on PACAP."

As discussed, mixed results are found relating to relative team size and its knowledge handling. It is noted that larger teams may have greater knowledge resources available than smaller teams but also may face additional process challenges (Zellmer-Bruhn, Gibson 2006).

The line of thought that is followed within this thesis, is Campion's (1996) claim that teams need to have the smallest number of people needed to do the work in order avoid heightened coordination needs or to be faced with reduced involvement. Research does indicate that larger teams in general have a positive influence on innovation (Tsai 2001) or knowledge handling (Stewart 2006) however, this does not reject the claim of Campion that a team with relatively too much members have a negative effect on business. Especially the reduced involvement as proposed by Campion may negatively influence the transformation and exploitation of new external knowledge. If team members lose their focus because of being with too much of them, it makes sense that this will negatively affect the transformation and exploitation of such knowledge (RACAP).

Furthermore it is reasonable to say that a team that is exactly at the right size is most preferable (not too big and not too small). Despite the arguments that large teams have

larger pools of resources (knowledge), the same principle is followed as with hypothesis 3a. For the purpose of this thesis the claim of Campion is followed that teams need to be at exact the right size. Also in order to acquire and optimize it's knowledge handling. Especially in order to avoid reduced involvement. This brings us to the following hypothesis.

Hypothesis 3b: "Relative team size has a negative influence on RACAP."

Another variable of Team Composition is Team Flexibility. Within this thesis, the definition of Team Flexibility used by Campion (1993) is followed. If members can perform each other's jobs a team is considered to be flexible.

When focussing on the link between flexibility and ACAP it is noted that flexibility and PACAP are positively related to each other in general. Research indicates that it is important to be flexible in order to acquire (and assimilate) new external knowledge (Volberda 1999, Lichtenthaler, Lichtenthaler 2009). Research relating to knowledge acquisition also confirms that if partners are flexible about changes in circumstances, the scope of (relational) learning broadens (Yli-Renko, Autio & Sapienza 2001).

For this thesis it is proposed that the above line of thought can also be used within teams. As team members can fill in for each other, they automatically are also aware of each other's jobs, assignments and circumstances. Consequently flexible team members are expected to have a wider spectrum of knowledge and business understanding than team members who only focus on their own job, giving them a broader area to obtain new external knowledge from.

Taking the above into consideration it is expected that a flexible team have a positive influence on PACAP. This line of thought results in the following hypothesis.

Hypothesis 4a: "Team flexibility has a positive influence on PACAP".

When focussing on the relation between flexibility and RACAP it is noted that flexibility not only positively relates to the effectiveness (Campion 1993) but also to the effectiveness of knowledge implementation (Okhuysen 2002). For the purpose of this thesis, knowledge implementation can be seen as the transformation and exploration of such knowledge. When further analysing (1) the transformation of new external knowledge and (2) the exploitation of new external knowledge more positive relations are found with flexibility.

It is noted that one reason why organizations are creating team-based structures is that this form of working provides the flexibility needed to respond effectively, appropriately and quickly to the constantly changing demands in the organization's environment (Zaccaro 2001, West et al. 2003). In other words, teams are used in general to be flexible

as an organization and transform (within teams) whenever needed. Other research also provides similar insights but then focussing more within teams. For example Dunphy (1996) stresses that the team attribute "multi-skilling" has a high contribution to innovation (i.e. transformation) within teams. Multi-skilling can be defined as possessing multiple skills, which can directly be linked to the definition of team flexibility: being able to fill in for each other as a team member.

It is also deemed that Campion's (1993) claim, stressing that a flexible team increases effectiveness of such team, positively supports the relation between flexibly and the exploration of knowledge, especially as effectiveness is considered a necessary aspect of exploitation (Volberda 1999).

Considering the above it is expected that a flexible team have a positive influence on RACAP. This results in the following hypothesis.

Hypothesis 4b: "Team flexibility has a positive influence on RACAP."

The third team composition aspect that is used within this thesis is Team Heterogeneity. A heterogeneous team can be defined as a team with a large diversity of its members in all aspects, for example different backgrounds, experience or education. In other words, a heterogeneous team is a divers team (Campion 1993).

Surprisingly limited research appears to be available regarding knowledge acquisition (or PACAP) and team/group heterogeneity or diversity. Therefore it was decided to focus on learning as a form of knowledge acquisition. Research indicated that variety and diversity are positively related to learning and obtaining new knowledge (Yli-Renko, Autio & Sapienza 2001). A variety of people and contacts will increase new knowledge integration skills, and, thereby, the speed and depth of subsequent learning. Other research also mentions that a difference in contacts, or in other words, a diversity of interactions, is essential for learning (Zahra 2000). Without a diverse group of persons, a diversity of contacts is obviously not possible.

Based on the above it can be expected that diversity, difference in contacts and variety within teams is essential to learning and consequently to obtaining new knowledge. For the assimilation of new external knowledge few support is found, however, for the purpose of this thesis I deem learning to contains the concept of assimilation of new external knowledge as well. It makes sense that obtaining knowledge without 'storing' cannot be described as learning. Therefore the following hypothesis is established.

Hypothesis 5a: "Team heterogeneity has a positive influence on PACAP."

When analysing the concept of RACAP, the focus is on the transformation and exploitation of new external knowledge. Heterogeneity (or diversity) appears to be positively related with the handling of knowledge within an organisation.

It is noted that diverse group are able to better handle knowledge, mainly due to a larger pool of resources. The need to reconcile conflicting viewpoints may force the group to more thoroughly process information, or in other words, knowledge perspectives (van Knippenberg 2004, Van Knippenberg 2007). It is also stressed that exposure to diverging and potentially surprisingly perspectives may lead to more creative solutions (De Dreu, West 2001, van Knippenberg 2004). It can be expected that this provide more possibilities for transforming and exploiting new knowledge.

More generally speaking, similar support can be found within team literature in general, where scholars argue that teams have an advantage compared to the individual due to a larger number of resources and backgrounds (Dunphy 1996, DeShon 2004). This is supposed to increase creativity.

Taking into consideration these findings, it is supposed that a heterogeneous team has a positive influence on the transformation and exploitation of new external knowledge. Hence the following hypothesis is established.

Hypothesis 5b: "Team heterogeneity has a positive influence on RACAP."

2.5 Theoretical Framework

In order to visualize the main structure of this research a conceptual framework is issued. Based on the hypotheses the model on the following page indicates the suggested relations between the antecedents of Team Composition and Absorptive capacity and its relation to Team Innovation.

Where a (+) is mentioned, a positive influence is expected. A (-) suggest a negative influence.

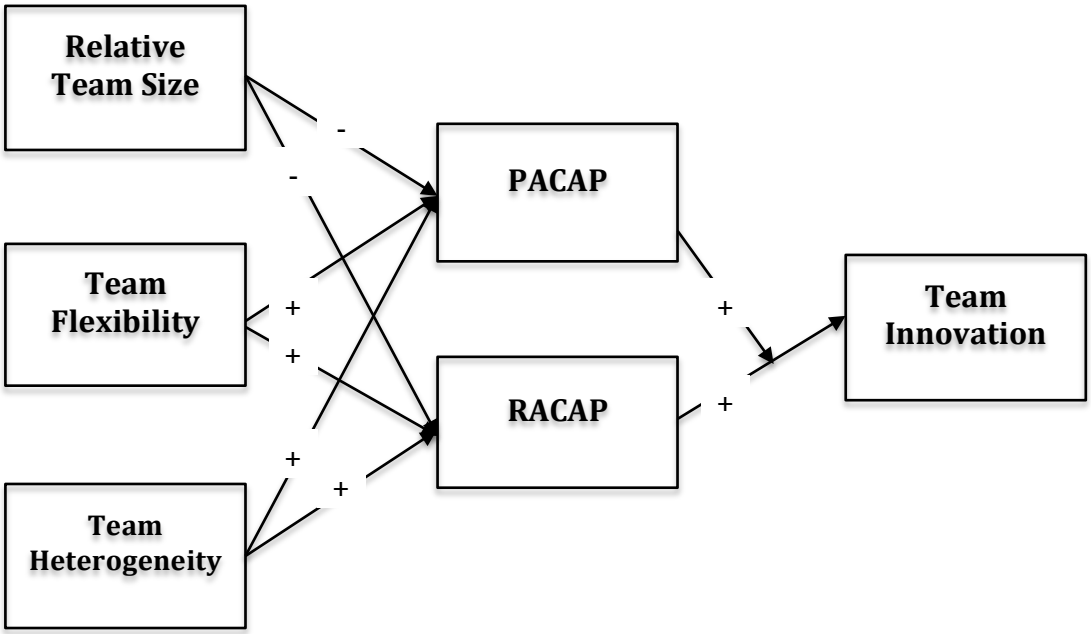


Figure 2.3 – Theoretical Framework

3. Methodology

This chapter will describe the methodology used for this research. First the research design will be discussed and after that the criteria for the research sample are described. Then the data collection is discussed after which I will mention the methods of measure used. This chapter will be ended with the reliability of this research.

3.1 Research design

When deciding which research method should be used, it was decided to follow Bryman & Bell (2011). As a research philosophy a positivistic approach is used. This approach considers the world objective and external to the researcher. One of the main principles of this philosophy is that the purpose of theory is to generate hypotheses that can be tested and that will thereby allow explanations of laws to be assessed which is called the principle of deductivism.

Based on the above-mentioned philosophy and the principle of deductivism I started with a literature study in order to establish a theory and create hypotheses. These hypotheses were tested in order to assess possible significant relations between the concepts of the established theory. In order to measure these relations it is essential that the data measuring the concepts is precise and specific. Hence quantitative data was collected via questionnaires. Once gathered, this quantitative data was analysed using various statistical methods. Based on these analyses I was able to reject or confirm the hypothesis. At the end, based on the outcomes of the hypotheses, the research question and its sub questions are answered in the conclusion.

As one of the aims of this thesis is to investigate and quantify the relations between - and influences of - concepts, there is a strong fit with this methodology and the research questions and environment.

This thesis is focusing on teams and more specifically the relation between various team antecedents, team innovation and absorptive capacity. Due to this research setting I was forced to consider teams as the unit of analysis for this research. The research was conducted at Aon Nederland. As Aon Nederland is an organization with limited project teams and mainly departments of consultants, I decided to consider these departments as teams. Taken in consideration the definition of team; “a group of individuals who work together to produce products or deliver services for which they are mutually accountable” (Mohrman, Cohen & Morhman Jr. 1995), I deem a department at Aon can be considered a team without any problems. Hence departments are used as the unit of analysis of this research.

3.2 Sample

As previously mentioned, this research takes place within Aon Nederland. This is partly due to accessibility of data as Aon Nederland is my employer. However, in addition to

this convenience-based reason, Aon Nederland is part of the Aon Corporation, with over 60,000 employees[4] one of the world's major financial companies. With the chosen unit of analysis being on a department level, it was necessary to use a major company in order to be able to collect the required amount of data. This makes the Aon Corporation suitable as well.

I specifically chose to focus my research on Aon Nederland, the Dutch division of the Aon Corporation. By focusing on one company within one country I aimed to minimize cultural and industrial bias. Due to the company structure of Aon, being country based, I expected major differences between teams/departments in different countries, which could have had an influence on my results. This resulted in the full focus on Aon Nederland.

Once the sample was narrowed down to Aon Nederland two divisions were chosen, namely Aon Risk Solutions and Aon Hewitt. The third major division, Aon consulting, was neglected. This choice was mainly convenience based. Data was easier accessible within the Aon Risk Solution and Aon Hewitt division. I also expected enough data to be available within the period of this research at the two chosen divisions.

As previously mentioned, departments were considered as teams for this research, hence were I talk about departments, in essence I mean teams. I decided to pick a random number of teams. No specific distinctions were made; I aimed to contact all available teams within those two divisions.

In first instance I, based on my own experience, picked approximately 50 teams. I benchmarked my selection of teams with one Managing Director of Aon Risks Solutions and one Program Manager of Aon Hewitt. Together with these two experience employees of Aon Nederland, eventually 68 teams were assessed. 42 teams out of the division Aon Risk Solution and 26 team out of the Aon Hewitt division. The number of team members per team differed extensively, between 3 and 60. Considering the possible importance of team size and the situation that it was not always known how many members were in a team, team members were asked to fill in the number of members within their team. I decided to use this data as it provided me exact and precise info about the absolute team size.

I also divided the teams based on their commercial activities. This was mainly done as within Aon it was expected that this might influence the results. I selected teams with a high level of commercial activities (consultants, advisors, account management, brokers) a moderate level of commercial activities, (claim handlers) and a low level of commercial activities (operations, back office teams). The level of commerciality also functioned as control variable as will be discussed later on in this chapter.

[4] Number of employees based on early 2012 figures

This resulted in the sample as mentioned in table 3.1. An extensive sheet about the selected teams, including response, can be found in appendix IV.

TEAMS	Aon Risk Solution	Aon Hewitt	Totals
Commercial activities: high	28	15	*43*
Commercial activities: medium	12	2	*14*
Commercial activities: low	2	8	*10*
Commercial activities: unknown	-	1	*1*
Totals	*42*	*26*	*68*

Table 3.1 – Selected sample

3.3 Data collection

This paragraph begins with the methods used for data collection after which the actual process of data collection will be described including an analysis of the data obtained.

As mentioned earlier in this chapter a questionnaire was used in order to obtain the data. Before the questionnaire was provided to the selected teams, a Managing Director of Aon Risks Solutions send out an e-mail to the selected teams with the request to support the research. This was also done within Aon Hewitt. This method was chosen in order to create commitment within the teams in order to optimize the response. Also support was received from the Managing Director Innovation, whose name and support I mentioned in the accompanying letter with the questionnaire.

The questionnaires were provided in person as much as possible in order to create even more commitment with the respondents and to optimize the response rate. In some situations, for example when regional offices were asked to participate in the research, e-mails were used. A letter, briefly describing the purpose of the research, was enclosed to all questionnaires (appendix I).

Eventually 86 questionnaires were handed out, more than the 68 teams as some teams received multiple questionnaires. All teams were asked to return two or more completed questionnaire in order to obtain a more average team opinion.

Within the first two weeks questionnaires of 29 teams were returned. After two weeks a reminder was sent and in the following period of two weeks another 22 teams filled in their questionnaires which resulted in a response of 51 teams and consequently a response rate of 80.95%. With N=51, the 'rule of thumb' level of N being 50 or higher in order to be able to obtain significance results is reached. For 16 teams (31.37%) more than one member per team filled in a questionnaire. For these teams, average scores were taken in order to measure the average opinion per team.

As mentioned previously, it was the aim to obtain multiple respondents per team, however, it was noted that for the majority of the teams only one respondent filled in the

questionnaire. Exact reasons are unknown, however, the limited amount of time, busy working schedules or unclear instructions cannot be excluded.

Correlations were checked between the respondents of the 16 teams that had multiple respondents. Correlations appeared to be different per team. When analysing the outcomes of the questionnaires, the majority of the answers were similar, however, no significant correlations were assessed. It is worth mentioning that a significant correlation is hard to obtain with such limited respondents (max. 3) per team. Reasons for the different findings within several teams might be for example a difference in seniority or roles of the team members. Whatever the reasons is, it might be said that it is important to obtain different views within a team. Members might feel different about several concepts, and considering the level of analyses being team based, the average team opinion is most preferable.

Appendix IV shows an overview of the teams, which participated in this research including number of members per team, respondents per team and commercial activity per team. Table 3.2 shows a brief overview of the response rate per division and per commercial activity.

TEAM COMMERCIALITY	Aon Risk Solution	Aon Hewitt	Totals
Commercial activities: high	20 (71.43%)	12 (80.00%)	*32 (74.42%)*
Commercial activities: medium	11 (91.67%)	1 (50.00%)	*12 (85,71%)*
Commercial activities: (low)	1 (50.00%)	5 (62.50%)	*6 (60%)*
Commercial activities: unknown	-	1 (100.00%)	*1 (100.00%)*
Totals	*32*	*19*	*51 (80.95%)*

Table 3.2 – Response including response rate

As previously mentioned, the exact size of each team was unknown when the questionnaires were handed out. Table 3.3 shows the sizes of teams based on the data obtained, the exact size per team can be obtained in appendix IV.

TEAM SIZE	Aon Risk Solution	Aon Hewitt	Totals
Small (< 5 Members)	6	4	*10*
Medium (5-15 Members)	18	7	*25*
Large (> 15 Members)	7	7	*14*
Unkown	1	1	*2*
Totals	*32*	*19*	*51*

Table 3.3 – Team Size

3.3.1 Non-response bias.

In order to determine the non-response bias, the following steps were taken. In first instance it was determined if their might be a difference between the early respondents and the late respondents on the assumption that late respondents are more similar to non-respondents than early respondents to non-respondents (Olie, Klijn & Jansen 2012).

During the period of data collection, which took approximately four weeks, the reliability of the variables were measured every week. Despite the first week, when the amount of data was still limited, from week 2 up to the completion of the data collection, cronbach alpha values between 0.5 and 0.8 were measured which is similar to the reliability of the final data. Due to this it is deemed that there are no major differences in the data obtained after the first request compared to data obtained after the reminder.

The response rate of 80,95% can be considered as high (Baruch 1999). Table 3.2 shows the response rate per division and per level of commercial activity. As this table confirms, no division or type of team appears to be neglected.

Taking the above into consideration compared to the assessed sample of this research, the non-response bias appears to be limited and consequently will have a limited effect on the findings.

3.4 Measures

As previously mentioned, a questionnaire was used in order to measure the concepts of this research. In order to optimize the reliability and validity of the questionnaire it was decided to use existing scales and measures as much as possible (Bryman, Bell 2011).

The questionnaires were held in Dutch in order to avoid misinterpretations by the respondents as much as possible. As the original concepts were all in English, the questions were translated. Prior to handing out the questionnaires, I asked three colleagues to fill in a questionnaire and provide feedback. They especially focused on the wording of the question as poorly worded questions are considered the number one source of error in survey research (Bryman, Bell 2011). These colleagues were an administrator, a broker and a manager, so different levels of seniority and commerciality were covered. Based on the feedback various terms were changed in order to increase understanding of the questions. The questions as used for this research can be compared to the original question in appendix II. More details will be discussed per concept in the below paragraphs.

3.4.1 Team Innovation

As mentioned previously, within this thesis team innovation is measured via the concept of West (2002). When searching for appropriate questionnaires, it was noted that team innovation was measured mainly via (structured) interviews. This is considered to be

preferable as team innovation is measured via assessing the number of innovations in a specific period, which is easier to assess via interviews and interactive discussions (West 2002). As over 50 teams participated for this thesis, it was practically not possible to interview all of them. As supposedly more scholars faced this problem, a validated questionnaire was found which was established by Drach-Zahavy (2001). This questionnaire is based on West (1990) and aims to answer similar questions as West (2002) uses in his structured interviews; the number of innovations and level of creativity per team. With the questions used, team innovation is measured on four variables, namely (1) team product innovation, (2) team objective innovation, (3) team innovation developments and (4) team procedure innovation. Combined they can be considered as the total level of team innovation of a team. Each variable is mentioned via one question.

No internal reliability tests (Cronbach Alpha) are available for the concept of team innovation as the various questions related to this concept all measure different parts of innovation. Therefore there is no internal reliability between these questions.

3.4.2 Absorptive Capacity

Absorptive Capacity is described based on the definition of Zahra (2002) within this thesis. In order to measure the concept according to this definition, questions were used as provided by Jansen (2005). In his research, Jansen used the definition of Zahra and more importantly; his research took place within a large multinational financial firm as well. When testing the translated questionnaire, it was noted that the test-respondents had difficulties understanding various questions, most probably as the original questions were designed for higher management, however, this research focus on department level. Hence, various terms were changed in order to increase the understanding of the questions. As shown in table 3.4, the variables measured for absorptive capacity are acquisition, assimilation, transformation and exploration of new external knowlegde. The variables acquisition and assimilation are combined for this research as potential absorptive capacity. The variables transformation and exploration are combined as realized absorptive capacity. Each variable was measured via various questions.

A Cronbach Alpha test was used in order to determine the internal-reliability of the variables measured. The aim of this test is to determine if the questions related to a variable all measure the specific concept. As a ‘rule of thumb’ a cronbach alpha of 0.7 or higher can be considered as sufficient (Schutte et al. 2000).

Variable	Cronbach α	# Questions	N	Mean	Skewness	Kurtosis
Acquisition	0,697	4	51	4,5212	-,265	-,419
Assimilation	0,756	2	51	4,9346	-,403	-,318
Transformation	0,523	3	51	4,8121	-,372	-,163
Exploration	0,680	3	50	5,3100	-,816	,955

Table 3.4. – Analysis of absorptive capacity measures

Table 3.4 mentions the levels of Cronbach Alpha per variable. Despite the concept of transformation, all concepts show levels of Cronbach Alpha of around 0.7 or higher, which means that the concepts have a sufficient level of internal reliability; the concepts are measured with a reliable method.

Various reasons can be named why the cronbach alpha of the Transformation is only 0.523. The limited number of respondents might be an influence or the translation from the original questions to the questions used for this research. As in the research of Jansen (2005) a Cronbach Alpha of 0.72 was obtained for this concept, it was decided to accept the limited level of Cronbach Alpha for this research.

For the purpose of this research and the methods of analysis it was important that the data had a normal distribution. As presented in table 3.4, levels of kurtosis and skewness were assessed per variable in order to determine the data distribution. All levels of kurtosis and skewness were between (-/-) 1,950 based on which it can be said that the data distribution is normal. Further visual research also showed normal data distributions.

3.4.3 Team Composition

Within this thesis, team composition is based on the definition of Campion (1993) due to reasons as described earlier. In order to measure the definition the updated questionnaire from Campion (1996) was used, which was specifically designed for service providing firms and was an update of his earlier work. Based on the definition used by Campion, team composition was measured with the variables Team Heterogeneity, Team Flexibility and Relative Team Size. As shown in table 3.5, Team Heterogeneity and Team Flexibility were measured via 3 questions. Relative Team Size was measured via one question.

A 7-point response scale is used rather than a 5-point scale in order to enhance variance, which is similar to the questionnaire of Campion. Campion (1996) further mentioned that 7-point scales are more useable for knowledge workers. Due to the general nature of the questions of Campion, the questions were translated one-on-one. No terms were removed or changed.

As table 3.5 shows, Cronbach alpha levels are > .7 giving the variable a sufficient level of internal reliability. All levels of kurtosis and skewness were between are 1,950 based on

which it can be said that the data distribution is normal. Further visual research also showed no abnormal data distribution.

Variable[5]	Cronbach α	# Questions	N	Mean	Skewness	Kurtosis
Team Heterogeneity	0,732	3	51	5,1329	-,824	1,108
Team Flexibility	0,761	3	51	4,9401	-,417	-,662

Table 3.5 – Analysis of team composition measures

3.4.4 Control Variables

Control variables are used in order to determine if these variables do not influence the results instead of the required variables for this research. I choose absolute team size as a control variable as research indicates that (team) size influences (team) innovation (Curral et al. 2001). Literature for example also mentions that size does influence the level of innovation of a unit. As Tsai (2001) mentioned: "Large units tend to have more resources with which to enhance their [...] innovation. They are also usually more powerful than small units and have some advantages in gaining the headquarters support for their [...] innovation activities." Furthermore, size is probably one of the most used control variables within innovation literature.

Also team commerciality was measured as a control variable in order to determine if the level of commerciality per team might influence the data obtained. Despite that no specific article proposed such an influence, it was deemed that such an influence is not unlikely. Managers who supported me with this thesis expected a high level of innovation at the more commercial orientated departments like account management or consultancy whilst a limited level of innovation was expected at the back office departments.

Variable	N	Mean	Skewness	Kurtosis
Team Size	49	12.73	2.314	6.997
Team Commerciality	51	1.48	1.157	.005

Table 3.6. – Initial analysis of team composition measures

As shown in table 3.6, both the skewness and kurtosis of the variable Team Size are above the 1.950 "rule-of-thumb" level, indicating that the distribution of data is not normal. In order to be able to use the obtained data for this thesis I logged the data for Team Size by using a Natural Log. This resulted in skewness and kurtosis levels well between (-/-) 1.950 for time size, conforming a normal distribution of the data (table 3.7).

[5] The concept of 'Relative Team Size' is excluded as it was measured via one question.

Variable	N	Mean	Skewness	Kurtosis
Team Size	49	2.25	.006	-.587
Team Commerciality	51	1.48	1.157	0.005

Table 3.7 – Final analysis of team composition measures

3.4.5 Common method bias

Most researchers agree that common method variance (i.e., variance that is attributable to the measurement method rather than to the constructs the measure represents) is a potential problem in behavioural research as method biases are one of the main sources of measurement error (Podsakoff 2003).

For the purpose of this research a Harman's one-factor test was done on items included in the research to examine whether common method bias augmented relationships. As the first factor did not account for the majority of the variance (36.49% was measured), there is little concern about potential problems associated with common method bias in general (Podsakoff 1986).

A point I would like to stress however is that for some teams multiple members filled in a questionnaire and for other teams only one member filled in the questionnaire. This might have influenced that data. However, considering the positive result of the Harman's one-factor test I deem the influence to be limited.

4. Findings

This chapter will present the findings of this research. In first instance the descriptive statistics will be discussed. Later paragraphs will describe the regression analyses. Also a post-hoc analysis is added in order to discuss the mediating effect of ACAP between Team Composition and Team Innovation. The last paragraph contains a conclusion discussing the findings.

It is considered worth mentioning that for the purpose of this research, as mentioned in chapter 2, the variables of acquisition and assimilation are combined into the variable Potential Absorptive Capacity (PACAP) and the variables transformation and exploration are combined into Realized Absorptive Capacity (RACAP).

4.1 Descriptive Statistics

Table 4.1 presents the descriptive statistics of this research. Standard deviations are in general quite similar, which makes sense as all variables were measured via a 7-points scale. Only Relative Team Size and RACAP show lower levels of standard deviations. The most reasonable explanation for this difference is the fact that Relative Team Size is measured via only one question whilst all other variables are measured via multiple questions, which are averaged. RACAP in its turn is measured by a combination of sub-variables (transformation and exploitation), which results in more data for this concept, which might have resulted in the lower standard deviation. This theory is supported by the also lower standard deviation of PACAP, which is also measured via two sub-variables.

The first control variable Team Size shows different means and standard deviations. This makes sense as the data is logged in order to obtain a normal distribution. Furthermore an ordinal scale was used. The second control variable Team Commerciality was measured on a 3-points scale, which clarifies the difference in mean and standard deviations compared to the other variable.

Furthermore, as already previously mentioned, N is ≥ 50. The 'rule of thumb' in that perspective is that N is required to be 50 or higher in order to present significant data.

	Mean	Std. Deviation	N
Relative Team Size	3.7549	1.36559	51
Team Flexibility	4.9401	1.01846	51
Team Heterogeneity	5.1329	1.02090	51
PACAP	4.7279	.97001	51
RACAP	5.0504	.71450	50
Team Innovation	4.3832	1,02740	51
Team Size	2.2501	.78569	49
Team Commerciality	1.4800	.70700	50

Table 4.1 – Descriptive Statistics

Table 4.2 shows the correlations for the study variables. It is noted that the correlation coefficients are all below .750 meaning that there is no multi-collinearity between the variables measured. For the purpose of this thesis I deem a relation to be significant when the significance is below the 'rule of thumb' .05.

When going through all relations that were subject to this research, first starting with Team Innovation, it is noted that PACAP has a strong correlation with Team Innovation, with a significance of < .00. The correlation with RACAP is less, however can still be considered significant with a level of .01. The correlation coefficients can be considered high with .404 for PACAP and .357 for RACAP.

The other relations measured, between the absorptive capacity antecedents (PACAP and RACAP) and the team compositions antecedents (Relative Size, Flexibility and Heterogeneity) show fewer correlations.

Only Team Flexibility shows a significant positive correlation with both PACAP (p=.01) and RACAP (p=.00). The correlation coefficients of both relations are high, especially the link between Team Flexibility and RACAP shows a high correlation coefficient of .723. Such a high coefficient could indicate that the concepts measured are similar (i.e. the same). In this case this is unlikely as Team Flexibility relates to members of a team being able to take over each other's work and RACAP relates the ability of transforming and exploiting new external knowledge. These are clearly two different concepts, so multi-collinearity is unlikely.

Team Heterogeneity shows no significant correlation with both PACAP and RACAP. Also Relative Team Size shows no significance correlation PACAP or RACAP, however, with a significance of .071 and a correlation coefficient of .255, a moderate significant correlation is in place between Relative Team Size and PACAP.

	1.	2.	3.	4.	5.	6.	7.	8.
1. Relative Team Size	1.00							
2. Team Flexibility	.043	1.00						
3. Team Heterogeneity	.017	-.307*	1.00					
4. PACAP	.255	.375**	.080	1.00				
5. RACAP	.039	.723**	-.217	.464**	1.00			
6. Team Innovation	.003	.247	.228	.404**	.357*	1.00		
7. Absolute Team Size	-.196	-.186	.319*	-.140	-.118	.054	1.00	
8. Team Commerciality	-.143	-.124	.149	-.185	-.167	.331*	-.115	1.00

Note:
- * p≤.05; ** p≤.01

Table 4.2 – Correlation Matrix

4.2 Regression Analyses

This paragraph will discuss the regression analyses per dependent variable. The main dependent variable is Team Innovation, however, due to the research model used, regression analyses were also done with PACAP and RACAP as dependent variable.

Tables 4.3, 4.4 and 4.5 present the results of the hierarchical regression analysis per dependent variable. Team Innovation is considered the main dependent variable of this research, however, due to the nature of the model of research, PACAP and RACAP are considered dependent variables for the Team Composition variables.

As shown in tables 4.3, 4.4 and 4.5, the second model of each regressions show increasing levels of the Adjust R Square and F-Value compared to the previous model, meaning that the addition of the independent variables out-level the control variables. Hence the control variables do not disturb the relations measured in this research. Only the third model of table 4.3 shows a slightly decreased F-value due to the addition of the interaction effect.

4.2.1 Team Innovation

Table 4.3 describes the influence of RACAP to Team Innovation and the moderating effect of PACAP. The adjusted R Square of the analysis is > .180 meaning that the clarity of the analysis can be considered as sufficient. As Models 3 of table 4.3 show, RACAP has a positive influence on Team Innovation. With a significance of .04, the relation can be considered significant. Hypothesis 1 of this research, *"A high level of RACAP has positive influence on Team Innovation"* is therefore supported.

	Model 1	Model 2	Model 3
Control variables			
Absolute Team Size	.09	.18	.16
Team Commerciality	.18	.29**	.27*
Independent variables			
PACAP		.43***	.38**
RACAP		.27**	.30**
Interaction Effect			
PACAP × RACAP			. 10
R Square	.03	.36	.36
Adjusted R Square	-.01	.29	.29
Δ Adjusted R Square	-	.30	-
F-Value	.77	5.87	4.72

Notes:
- * p≤.10; ** p≤.05; *** p≤.01
- Standardized coefficients and two tailed tests are used for all hypotheses

Table 4.3 – Hierarchical regression analysis with Team Innovation as dependent variable

Hypothesis 2 of this thesis, "*A high level PACAP positively moderates the influence of RACAP on team innovation"* is not supported by the findings of this research. As Model 3 shows, the PACAP Interaction component is not significant. This means that PACAP does not have a significant influence on the relation between RACAP and Team Innovation. It is worth mentioning that PACAP has a significant influence (p=.02) on Team Innovation, however, such relation is outside the scope of this thesis.

4.2.2 Potential Absorptive Capacity

Table 4.4 presents the regression analyses for the Team Compositions variables with PACAP as dependent variable. It is worth mentioning that the adjusted R Square level is below the 'rule of thumb' level of .18, meaning that the clarity of the model is limited. Hence it cannot be excluded that the findings might be influenced by other, unknown factors. For the purpose of this research I will continue with the said model, being aware of these possible influences.

As previously mentioned, the control variables appear to have no influence to the relations measured with this regression. The influence of the Team Composition variables to the PACAP is limited. With a significance of .46, Relative Team Size has no significant influence on PACAP. Also no negativity is noted. Hence hypothesis 3a of this research "*Relative team size has a negative influence on PACAP"* is not supported.

Similar as discussed in the correlation matrix (table 4.2), Team Flexibility appears to have a strong relation with PACAP. The regression shows a positive significant (p=.03) influence of Team Flexibility on PACAP. Due to this high level of significance and correlation, between Team Flexibility and PACAP, I deem it unlikely that the limited Adjusted R Square of this regression influences this significance. Therefore hypothesis 4a *"Team flexibility has a positive influence on PACAP"* is supported.

	Model 1	Model 2
Control variables		
Absolute Team Size	-.10	-.12
Team Commerciality	-.27*	-.22
Independent variables		
Relative Team Size		.11
Team Flexibility		.36**
Team Heterogeneity		.25
R Square	.08	.21
Adjusted R Square	.03	.11
Δ Adjusted R Square	-	.08
F-Value	1.70	2.08

Notes:
- * p≤.10; ** p≤.05
- Standardized coefficients and two tailed tests are used for all hypotheses

Table 4.4 – Hierarchical regression analysis with PACAP as dependent variable

Team Heterogeneity appears to have no significant influence on PACAP. The significance of .12 is close to a moderate significant influence, however slightly above the norm used for this research (> .10). Therefore hypothesis 5a *"Team heterogeneity has a positive influence on PACAP"* is not supported. It is worth mentioning that the N of this research (N=51) is sufficient but still limited for quantitative research. It is not unlikely that a higher N will makes this link moderately significant.

4.2.3 Realized Absorptive Capacity

Table 4.5 presents the regression of the team composition variables related to RACAP. The adjust R Square is .49, well above the 'rule of thumb' of .18. Hence, the clarity of the regression is considered valid.

When analysing the regression it is noted that the influences of Relative Team Size on RACAP can be neglected. Despite that the expected negative influence is confirmed, with a significance of .43, this influence is non-significant. Therefore hypothesis 3b *"Relative team size has a negative influence on RACAP"* is not supported.

Similar as the with PACAP, also for RACAP it is noted that Team Flexibility has a positive influence, however, this time even more extensive. With a high level of significance (p<.00) hypothesis 4b *"Team flexibility has a positive influence on RACAP"* is supported. It appears that in (almost) 100% of the cases measured, Team Flexibility positively influences RACAP.

	Model 1	Model 2
Control variables		
Absolute Team Size	-.09	-.02
Team Commerciality	-.14	-.07
Independent variables		
Relative Team Size		-.09
Team Flexibility		.73***
Team Heterogeneity		.03
R Square	.03	.55
Adjusted R Square	-.02	.49
Δ Adjusted R Square	-	.51
F-Value	.52	9.40

Notes:
- *** p≤.01
- Standardized coefficients and two tailed tests are used for all hypotheses

Table 4.5 – Hierarchical regression analysis with RACAP as dependent variable

Team Heterogeneity in its turn appears to have no influence on RACAP. With a significance of .83, the possible influence is far from significant. This also resulted in a low t-value. Due to this, hypothesis 5b *"Team heterogeneity has a positive influence on RACAP"* is not supported.

4.3 Post-Hoc Analysis

Considering the research model (theoretical framework) of this thesis, a post hoc analysis is issued in order to determine the mediating effect of Absorptive Capacity between the relation of Team Composition and Team Innovation.

Table 4.6 presents the regression analysis for the post hoc analysis. The purpose of this analysis is to determine if ACAP mediates between Team Composition and Team Innovation in order to confirm the mediating position of ACAP as suggested in the theoretical framework. Model 2 of the hierarchical regression analysis shows the influence of the Team Composition variables on Team Innovation. Only Team Flexibility shows a significant (positive) influence on Team Innovation. Relative Team Size has no influence considering the limited t-value and significance. Team Heterogeneity appears to have an influence on Team Innovation however, this influence is not significant.

When analysing Model 3 it is noted that the addition of PACAP and RACAP to the regression strongly influences the relation between the Team Composition variables and Team Innovation. Coefficients of all Team Composition independent variables decreased. Also the levels of significance weakened. Considering theses findings ACAP is considered to have a mediating position between Team Composition and Team Innovation which supports the research model used within this thesis and confirms that ACAP does have an actual purpose in this research and does not only partly influence the relation between team composition variables and team innovation.

	Model 1	Model 2	Model 3
Control variables			
Absolute Team Size	.09	.12	.15
Team Commerciality	.18	.22	.28**
Independent variables			
Relative Team Size		.09	.06
Team Flexibility		.40***	.07
Team Heterogeneity		.23	.17
PACAP			.37**
RACAP			.29
R Square	.03	.20	.39
Adjusted R Square	-.01	.10	.28
Δ Adjusted R Square	-	.11	.18
F-Value	.77	2.05	3.51

Notes:
- ** p≤.05; *** p≤.01
- Standardized coefficients and two tailed tests are used

Table 4.6 – Hierarchical regression analysis with Team Innovation as dependent variable

4.4 Conclusion

In total eight hypotheses were established, linking the concepts of Team Innovation, ACAP and Team Composition. When looking at hypotheses linking ACAP to Team Innovation, it is noted that hypothesis 1 is supported. Support is found for a positive influence of RACAP on Team Innovation. Taking this into consideration it is concluded that also within teams RACAP does influence the level of innovation, which justifies the importance of RACAP, and consequently ACAP in general, for teams. This is also in line with literature that expects such influence (Zahra 2002).

No support is found for the second hypothesis of this thesis. Based on the findings of this research, PACAP does not (positively) moderate the relation between RACAP and Team Innovation. The influence of the moderator is not significant. It is considered unlikely that methodology issues are the bases of this unexpected outcome as the influence is

strongly non-significant. When focussing on literature, no strong arguments are found why this non-significant relation might be expected. An argument might be the claim that PACAP should only be related to RACAP (Volberda 2010) or that PACAP and RACAP are integrated concepts (Todorova 2007). However, other research shows that specifically PACAP might influence organizational characteristics such as it's competitive advantage (Zahra 2002). When looking at the outcome of this thesis and the contradictions in previous literature it is recommendable to focus more on this moderator in future research in order to gain more knowledge in that perspective.

The hypotheses 3a up to 5b, focussing on the relations between team composition variables and ACAP show mixed results. It is noted that the expected positive influence of Relative Team Size on PACAP (hypothesis 3a) is not supported by this research. The influence of this relation is far from significant; hence it is not likely that the methodology used is the basis of this unexpected outcome. As earlier mentioned, research does indicate that a larger team has a positive influence on innovation in general (Tsai 2001, Stewart 2006). It was proposed that this would not affect the claim of Campion (1993) that a team shouldn't be too large as than groups may be dysfunctional due to heightened coordination needs or reduced involvement. Based on the findings of this research it might be that these conflicting opinions do out-level each other, which explain the non-significant relation between relative team size and PACAP. The same explanation might be used when explaining the non-significant influence of relative team size on RACAP (hypothesis 3b). The non-significance of this relation is similar as with PACAP, also here the opposing theories mentioning that a team should be large enough in order to obtain knowledge, however, not too large as that might make the team dysfunctional may out level each other.

The second variable of team composition, being team flexibility, shows a significant positive influence on both PACAP and RACAP, which was also expected as mentioned in hypotheses 4a and 4b. The influence of team flexibility on PACAP was expected positive due to the claim that it is important to be flexible in order to acquire knowledge (Volberda 1999, Lichtenthaler, Lichtenthaler 2009). The findings of this thesis support this claim considering the strong influence measured. The positive influence of team flexibility on RACAP appeared to be even stronger. This positive relation was expected as organisations rely more on teams to be able to transform more easily and also within teams multi-skilling has a positive influence on transforming knowledge and team effectiveness (Dunphy 1996, Zaccaro 2001, West et al. 2003). Hence, the findings of this thesis confirm this line of thought.

The third en last team composition variable linked to ACAP is team heterogeneity. The influence of team heterogeneity on PACAP was expected to be positive (hypothesis 5a) as support was found that diversity within groups has a positive influence on knowledge acquisition and learning (Yli-Renko, Autio & Sapienza 2001). The findings of this thesis do present a positive influence between team heterogeneity and PACAP, however, the

influence is just little above a moderate significance (.12). Considering the relative small sample used within this survey (n=51) it cannot be excluded that the sample size might have had a limited influence to the significance of the findings. On the other hand it should be noted that the correlation measured between team heterogeneity and PACAP is limited and far from significant. Hence other reasons might have also influenced this relation.

The influence of team heterogeneity on RACAP was expected to be positive (hypothesis 5b). The findings of this thesis however, show no influence between these variables considering the low significance (.86). A positive influence was expected, as scholars argue that groups are better with the handling of knowledge considering a larger pool of resources. Also an exposure to diverging and potentially surprisingly perspectives may lead to more creative solutions (De Dreu, West 2001, van Knippenberg 2004). These arguments were followed for the purpose of the hypothesis as they relate to the use of knowledge. However, other research more relating to innovation in general mentions that relations between heterogeneity (or diversity) and innovation are not straightforward. In various fields of research within the concept of innovation, diversity shows positive, negative or non-significant influences on innovation (Van Knippenberg 2007, Hüttermann 2011). Considering that ACAP can be seen as a form of innovation, this might explain the outcomes of this thesis. Hence this thesis also confirms the unclear relation between team heterogeneity and RACAP, and to a lesser extent, to ACAP in general.

In addition to the variables measured, a post hoc analysis was added in order to determine if ACAP has a moderating effect on the relation between team composition and team innovation. This analysis clearly indicated that ACAP mediates the relation between team composition and team innovation.

5. Discussion and Conclusion

Based on the previously discussed findings, this chapter will present the conclusion of this thesis. Thereafter the contributions to science, managerial implications, limitations and advise for future research are subject to discussion.

5.1 Conclusions

As mentioned in the research question in paragraph 1.1, this research focussed on which team composition variables have a positive influence on the absorptive capacity of a team and consequently, which absorptive capacity variables have a positive influence on team innovation. Before answering this question, it is important to discuss the variables used first.

The first concept of this research is Team Innovation. Based on the definitions used, Team Innovation is not divided into variables but seen as one process, namely the introduction of and application, within a group, organization, or wider society, of processes, products or procedures new to the relevant unit of adoption and intended to benefit the group, individual or wider society (West, Farr 1990). Hence, no variables are used within this thesis for team innovation, it is seen as one process. Secondly I focus on the variables of Absorptive Capacity (ACAP). ACAP contains out of two variables: PACAP and RACAP. These two variables can be defined as follows. PACAP is the acquisition and assimilation of new external knowledge. RACAP can be seen as the transformation and exploitation of this new external knowledge (Zahra 2002). Based on previous research, this focus on PACAP and RACAP as being the most consistently used variables (Volberda 2010). The third and last concept of this research is Team Composition. The variables of Team Composition are considered to be Relative Team Size, Team Flexibility and Team Heterogeneity (Campion 1993, Campion, Papper & Medsker 1996).

Based on the variables of the above-mentioned concepts and the findings of this research it can be concluded that between ACAP and Team Innovation, RACAP has a positive and significance influence on Team Innovation. No direct relation between PACAP and Team Innovation is measured, however the focus was on PACAP as a moderator on the relation between RACAP and Team Innovation. It turn out that PACAP does not (positively) moderated this relation as was expected.

The relation between Team Composition and ACAP shows mixed results. Between the variables, only Team Flexibility appears to have a significant positive influence on PACAP and RACAP. Relative Team Size shows no significant influences to PACAP or RACAP. Also Team Heterogeneity in relation with RACAP and PACAP shows no significant results.

5.2 Contribution

This research contributes to the field of science by linking team innovation and team aspects to ACAP. Despite the popularity of teams, team innovation and ACAP, team aspects were not linked to ACAP yet. By combining these concepts I aimed to provide more insight in their relations and consequently contribute to science.

With reference to ACAP, the findings of this research contribute to its field of science by linking ACAP with team aspects and innovation within such teams. The results of this thesis confirm that team aspects do influence ACAP within teams or groups. Especially Team Flexibility positively influences ACAP. This is considered an addition to the current literature of ACAP as such relations were not subject to research before. Furthermore support is found that ACAP, and more in particular RACAP, within teams does have a positive effect on innovation within these teams. Literature already suggested such relations within organisation in general but within teams these relations were never subject to investigations. This research fills this gap and confirms that this previous claim between RACAP and innovation is not only applicable on a broader level but also within the smaller environment of teams.

When focussing on team literature, this thesis contributes to science by linking teams to the concept of ACAP. A dive into the world of science shows articles linking teams to knowledge handling or learning, however ACAP appeared to be neglected. Also within the field of Team Innovation ACAP is not subject to extensive research. This thesis provides insight on the link between teams and ACAP and confirms that team composition does influence ACAP, which is considered a contribution to (1) research relating to teams and knowledge handling and (2) research relating to teams and innovation.

When looking at innovation in general this research contributes on the level of innovation within teams, or in other words, on team innovation. ACAP was not linked to innovation within teams yet. This thesis contributes to science by confirming that ACAP, or more in particular RACAP, within teams does influence the level of innovation of such teams. Taking in consideration the earlier mentioned situation that firms are relying more on teams for innovation nowadays, this is considered an important contribution to science.

5.3 Managerial Implications

This research reconfirmed scholar literature and showed new insights between ACAP, teams and team innovation that are beneficial for companies and firms and eventually could improve their competitive advantage.

Based on the findings of this research there are two recommendations I would present to the management of firms who are looking for innovative teams.

- It is recommended to obtain a high level of absorptive capacity within teams for a high level of team innovation.
- It is recommended to obtain a flexible team in order to obtain a high level of absorptive capacity within a team.

This thesis shows that if teams are able to transform and exploit new external knowledge, this will positively influence the level of team innovation. Hence it could be said that if teams have a high level of absorptive capacity, this will positively influence the innovation within such teams.

When looking at team composition, this research indicates that team flexibility positively influences absorptive capacity. The ability of team members to perform and take over each other's work positively influences the acquisition, assimilation, transformation and exploitation of new external knowledge within teams. Therefore, if managers would like to achieve a high level of absorptive capacity within a team it is recommendable to establish a flexible team.

5.4 Limitations and Future Research

This research took place within one company and with a limited number of respondents. Despite the earlier mentioned advantages of holding a survey within one company, it might also be recommended to extent this research over various companies and branches in order to determine if the findings of this research still apply. The same can be said about the number of respondents. It is recommendable to use a larger sample of teams in order to obtain a larger pool of data and being able to confirm the findings in a more generic perspective and to possible increase validity and reliability.

Departments are considered teams for the purposes of this research, partly based on the definition of a team used for this research. As the majority of team related research focus on project teams, it might be interesting to focus on project teams as well, as it might be expected that diversity and flexibility levels are different compared to departments.

The data of this research is collected via questionnaires. It was aimed to use multiple questionnaires per team, however, as for reasons discussed earlier, for the majority of the teams only one questionnaire was used, which was filled in by the manager/leader of such team. It might be recommendable to always use multiple questionnaires per team. Especially as managers or team leaders might give socially desired answers. Such situations cannot be excluded for this research considering the correlations between the questionnaires used within a team were not significant. This should be taken into consideration in future research.

Only two control variables were used for this research. In order to obtain as much support as possible from the respondents and in order to avoid a time consuming questionnaire which could have negatively influenced the size of the data sample, it was decide to not to use too many questions. For future research it is recommended to use more control variables in order to determine their possible influence.

Because of time-constraints it was not possible to apply a longitudinal approach to this research. Hence, this research should be considered more like a 'snap-shot' and possible longitudinal effects between the variables measured are not assessed. Therefore a longitudinal approach of this study is also recommended for future research.

When going more into detail, the second hypothesis of this thesis, claiming that PACAP positively moderates the relation between RACAP and Team Innovation was not supported. As no strong arguments were found why this influence was not significant, it is recommendable to further investigate this relation more in detail, maybe also by focussing on the specific variables of PACAP and RACAP in order to obtain more detailed results and knowledge of a possible moderating effect.

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Appendixes

Appendix I – Invitation letter to respondents

This appendix contains the questionnaires used for this research. Two questionnaires were used, one for Aon Risk Solutions and one for Aon Hewitt.

Onderwerp: Innovatie onderzoek

Beste collega,

Zoals eerder aangekondigd in de e-mail van Jeroen Kuyper doe ik in het kader van mijn scriptie aan de Erasmus Universiteit onderzoek naar innovatie op afdelingsniveau.

Mijn onderzoek richt zich op de links tussen teams (afdelingen) en innovatie en vindt plaats in samenwerking met Peter Hartman, MD Innovation.

De uitkomsten van het onderzoek zullen zoveel mogelijk meegenomen worden binnen de nieuwe strategie “Nieuwe energie uit tegenwind” waarbij innovatie één van de speerpunten is. Daarbij hopen Peter en ik gebruik te kunnen maken van jouw input.

Om inzicht in de huidige situatie te krijgen zou ik je willen vragen om bijgaande stellingenlijst in te vullen. Aangezien het onderzoek op afdelingsniveau plaats vindt zou het ideaal zijn als een directe collega van je ook de lijst kan invullen. Je bent vrij om iemand (of meerdere) hiervoor te kiezen.

De lijst bestaat uit 3 open vragen, 36 stellingen en eindigt met een open vraag waarbij tips/mening/ideeën kunnen worden gegeven inzake innovatie en hoe dit vorm te geven. De lijst zal ongeveer 10 minuten in beslag nemen en kan geretourneerd worden hoe het jouw het beste uitkomt (bijv. e-mail, interne post, etc.).

Mocht je vragen, opmerkingen of aanmerkingen hebben dan ben ik bereikbaar via jan.steven.kelder@aon.nl of telefonisch op 010-4487523.

Bij voorbaat dank voor je medewerking!

Groet,

Jan Steven

Appendix II – Scales for measuring concepts

This appendix contains the questions used compared to their original questions and their source.

Vraag	Originele vraag	Bron
Uw **productgroep of afdeling** (bijv. Property/CAR/Marine/Account Management/Specialties/Regio Nijmegen/etc.)		
Uw **team** binnen deze productgroep of afdeling (bijv. Claims/….		
Uit hoeveel medewerkers bestaat dit team?		
Collega's van ons team bezoeken regelmatig andere afdelingen of productgroepen.	Employees of our unit regularly visit other branches.	Jansen et al. (2005)
Ons team verzamelt markt informatie door middel van informele ontmoetingen (bijv. lunch met bekenden uit de markt).	We collect industry information though informal means (bijv. Lunch met bekenden uit de industrie).	Jansen et al. (2005)
Andere afdelingen/divisies van Aon worden nauwelijks bezocht.	Other divisions of our company are hardly visited.	Jansen et al. (2005)
Ons team organiseert periodiek bijeenkomsten met klanten of derden om nieuwe kennis te verkrijgen.	Our unit periodically organizes special meetings with customers or third parties to acquire new knowledge.	Jansen et al. (2005)
Ons team is traag in het herkennen van veranderingen in de markt (bijv. bij concurrentie of inzake regelgeving).	We are slow to recognize shifts in our market (bijv. concurrentie, regelgeving)	Jansen et al. (2005)
Nieuwe mogelijkheden om onze klanten te bedienen worden snel opgepakt.	New opportunities to serve our clients are quickly understood.	Jansen et al. (2005)
Ons team ontwikkelt regelmatig nieuwe producten en diensten op basis van de veranderingen in de markt.	Our unit regularly considers the consequences of changing market demands in terms of new products and services.	Jansen et al. (2005)
Medewerkers binnen ons team slaan nieuwe kennis op voor toekomstig gebruik.	Employees record and store newly acquired knowledge for future reference.	Jansen et al. (2005)
Medewerkers binnen ons team delen nauwelijks hun praktische ervaring met elkaar.	Employees hardly share practical experiences.	Jansen et al. (2005)
Ons team komt periodiek bij elkaar om markt trends en product/service ontwikkeling te bespreken.	Our unit periodically meets to discuss consequences of market trends and new product development.	Jansen et al. (2005)
Het is duidelijk hoe activiteiten binnen ons team dienen te worden uitgevoerd.	It is clearly known how activities within our unit should be performed.	Jansen et al. (2005)
Klachten van klanten worden genegeerd binnen ons team.	Client complaints fall on deaf ears in our unit.	Jansen et al. (2005)
Ons team heeft een duidelijke scheiding van rollen en verantwoordelijkheden.	Our unit has a clear division of roles and responsibilities.	Jansen et al. (2005)

Ons team heeft moeite met het implementeren van nieuwe producten en services.	Our unit had difficulty implementing new products and services.	Jansen et al. (2005)
Collega's binnen ons team variëren sterk qua expertise.	The members of my team vary widely in their areas of expertise.	Campion et al. (1993)
Collega's binnen ons team hebben een grote verscheidenheid aan achtergrond en ervaring	The members of my team have a variety of different backgrounds and experiences.	Campion et al. (1993)
Collega's binnen ons team hebben kennis en kunde die elkaar aanvullen.	The members of my team have skills and abilities that complement each other.	Campion et al. (1993)
De meeste collega's binnen ons team kennen elkaars werk.	Most members of my team know each other's jobs.	Campion et al. (1993)
Het is makkelijk voor collega's binnen ons team om elkaars werk over te nemen.	It is easy for the members of my team to fill in for one another.	Campion et al. (1993)
Ons team is erg flexibel wanneer men binnen het team een nieuwe rol dient te vervullen.	My team is very flexible in terms of change in membership	Campion et al. (1993)
Het aantal medewerkers binnen ons team is te laag om het werk gedaan te krijgen.	The number of people in my team is too small for the work to be accomplished.	Campion et al. (1993)
Indien ik de keuze had, zou ik liever in een team werken dan alleen.	If given the choice, I would prefer to work as part of a team rather than work alone.	Campion et al. (1993)
Ik vind dat het werken binnen een team mijn mogelijkheden vergroot om efficiënt te werken.	I find that working as a member of a team, increases my ability to perform effectively.	Campion et al. (1993)
In algemeen zin werk ik liever binnen een team.	I generally prefer to work as part of a team.	Campion et al. (1993)
Ik kan mijn werkzaamheden niet afmaken zonder informatie (of producten) van anderen binnen mijn team.	I cannot accompish my task without information of other members of my team.	Campion et al. (1993)
Collega's binnen mijn team zijn van mij afhankelijk inzake informatie (of producten) die zij nodig hebben om hun werk te doen.	Other members of my team depend on me for information needed to perform their tasks.	Campion et al. (1993)
Collega's binnen mijn team zijn van mij afhankelijk inzake informatie (of producten) die zij nodig hebben om hun werk te doen.	Within my team, jobs performed by team members are related to one another.	Campion et al. (1993)
De werkdoelstellingen die ik dien te behalen worden bepaald door de doelstellingen van het team.	My work goals come directly from the goals of my team.	Campion et al. (1993)
Mijn werkzaamheden op een willekeurige dag worden bepaald door de doelstelling(en) van mijn team op die dag.	My work activities on any given day are determined by my team's goals for that day.	Campion et al. (1993)
Ik voer weinig activiteiten uit die niet gerelateerd zijn aan de doelstellingen van ons team.	I do very few activities on my job that are not related to the goals of my team.	Campion et al. (1993)

Mijn evaluatie(beoordeling) wordt sterk beïnvloed door het teamresultaat.	My performance evaluation is strongly infuenced by how well my team performs.	Campion et al. (1993)
Veel beloningen gerelateerd aan mijn werkzaamheden (bijv. salaris, promotie, etc.) worden in grote mate bepaald door mijn bijdrage aan het team.	Many rewards from my job (e.g. pay, promotion, etc.) are determined in large part by my contributions as a team member.	Campion et al. (1993)
Ons team heeft de afgelopen zes maanden nieuwe producten en/of diensten ontwikkeld.	The team innitiated new procedures and methods.	Drach-Zahavy (2001) & West (1991)
Ons team heeft de afgelopen zes maanden innovatieve methoden ontwikkeld om doelstellingen te bereiken.	The team developed innovative ways of accomplishing work target/objectives	Drach-Zahavy (2001) & West (1991)
Ons team heeft de afgelopen zes maanden nieuwe vaardigheden ontwikkeld om innovatie te verbeteren.	The team developed new skills in order to foster innovations.	Drach-Zahavy (2001) & West (1991)
Ons team heeft de afgelopen zes maanden verbeteringen doorgevoerd qua werkprocedures en methoden.	The team initiated improved teaching strategies and methods.	Drach-Zahavy (2001) & West (1991)

Appendix III – Questionnaire

This appendix contains the questionnaires used for this research. The open area at the end of the questionnaire was not used for the purpose of this thesis, but only added for internal purposes.

Stellingenlijst

Onderstaande lijst bestaat eerst uit drie open vragen en daarna uit een 7-puntsschaal. Bij de

7-puntsschaal dient u zich af te vragen in hoeverre u het eens of oneens bent met de uitspraken (één antwoord per regel omcirkelen).

1 = Volkomen mee oneens

2 = Mee oneens

3 = Enigszins mee oneens

4 = Neutraal

5 = Enigszins mee eens

6 = Mee eens

7 = Volkomen mee eens

	Vraag	**Antwoord**
1.	Uw **productgroep of afdeling** (bijv. Property/CAR/Marine/Account Management/Specialties/Regio Nijmegen/etc.)	
2.	Uw **team** binnen deze productgroep of afdeling (bijv. Claims/ Broking/Industry/Relatiebeheer/Operations/Administratie/ etc.)	
3.	Uit hoeveel medewerkers bestaat dit team?	

Onderstaande stellingen hebben betrekking op het team waarbinnen u werkzaam bent zoals ingevuld bij vraag 2.

	Stelling	**Antwoord**						
4.	Collega's van ons team bezoeken regelmatig andere afdelingen of productgroepen.	**1**	**2**	**3**	**4**	**5**	**6**	**7**
5.	Ons team verzamelt markt informatie door middel van informele	**1**	**2**	**3**	**4**	**5**	**6**	**7**

	ontmoetingen (bijv. lunch met bekenden uit de markt).							
6.	Andere afdelingen/divisies van Aon worden nauwelijks bezocht.	**1**	**2**	**3**	**4**	**5**	**6**	**7**
7.	Ons team organiseert periodiek bijeenkomsten met klanten of derden om nieuwe kennis te verkrijgen.	**1**	**2**	**3**	**4**	**5**	**6**	**7**
8.	Ons team is traag in het herkennen van veranderingen in de markt (bijv. bij concurrentie of inzake regelgeving).	**1**	**2**	**3**	**4**	**5**	**6**	**7**
9.	Nieuwe mogelijkheden om onze klanten te bedienen worden snel opgepakt.	**1**	**2**	**3**	**4**	**5**	**6**	**7**
10.	Ons team ontwikkelt regelmatig nieuwe producten en diensten op basis van de veranderingen in de markt.	**1**	**2**	**3**	**4**	**5**	**6**	**7**
11.	Medewerkers binnen ons team slaan nieuwe kennis op voor toekomstig gebruik.	**1**	**2**	**3**	**4**	**5**	**6**	**7**
12.	Medewerkers binnen ons team delen nauwelijks hun praktische ervaring met elkaar.	**1**	**2**	**3**	**4**	**5**	**6**	**7**
13.	Ons team komt periodiek bij elkaar om markt trends en product/service ontwikkeling te bespreken.	**1**	**2**	**3**	**4**	**5**	**6**	**7**
14.	Het is duidelijk hoe activiteiten binnen ons team dienen te worden uitgevoerd.	**1**	**2**	**3**	**4**	**5**	**6**	**7**
15.	Klachten van klanten worden genegeerd binnen ons team.	**1**	**2**	**3**	**4**	**5**	**6**	**7**
16.	Ons team heeft een duidelijke scheiding van rollen en verantwoordelijkheden.	**1**	**2**	**3**	**4**	**5**	**6**	**7**
17.	Ons team heeft moeite met het implementeren van nieuwe producten en services.	**1**	**2**	**3**	**4**	**5**	**6**	**7**
18.	Collega's binnen ons team variëren sterk qua expertise.	**1**	**2**	**3**	**4**	**5**	**6**	**7**
19.	Collega's binnen ons team hebben een grote verscheidenheid aan achtergrond en ervaring.	**1**	**2**	**3**	**4**	**5**	**6**	**7**
20.	Collega's binnen ons team hebben kennis en kunde die elkaar aanvullen.	**1**	**2**	**3**	**4**	**5**	**6**	**7**
21.	De meeste collega's binnen ons team kennen elkaars werk.	**1**	**2**	**3**	**4**	**5**	**6**	**7**
22.	Het is makkelijk voor collega's binnen ons team om elkaars werk over te nemen.	**1**	**2**	**3**	**4**	**5**	**6**	**7**
23.	Ons team is erg flexibel wanneer men binnen het team een nieuwe taken dient uit te voeren.	**1**	**2**	**3**	**4**	**5**	**6**	**7**
24.	Het aantal medewerkers binnen ons team is te laag om het werk gedaan te krijgen.	**1**	**2**	**3**	**4**	**5**	**6**	**7**
25.	Indien ik de keuze had, zou ik liever in een team werken dan alleen.	**1**	**2**	**3**	**4**	**5**	**6**	**7**

26.	Ik vind dat het werken binnen een team mijn mogelijkheden vergroot om efficiënt te werken.	**1**	**2**	**3**	**4**	**5**	**6**	**7**
27.	In algemene zin werk ik liever binnen een team.	**1**	**2**	**3**	**4**	**5**	**6**	**7**
28.	Ik kan mijn werkzaamheden niet afmaken zonder informatie (of producten) van anderen binnen mijn team.	**1**	**2**	**3**	**4**	**5**	**6**	**7**
29.	Collega's binnen mijn team zijn van mij afhankelijk inzake informatie (of producten) die zij nodig hebben om hun werk te doen.	**1**	**2**	**3**	**4**	**5**	**6**	**7**
30.	Binnen mijn afdeling zijn de werkzaamheden van collega's aan elkaar gerelateerd.	**1**	**2**	**3**	**4**	**5**	**6**	**7**
31.	De werkdoelstellingen die ik dien te behalen zijn afgeleid van de doelstellingen van het team.	**1**	**2**	**3**	**4**	**5**	**6**	**7**
32.	Mijn werkzaamheden op een willekeurige dag worden bepaald door de doelstelling(en) van mijn team op die dag.	**1**	**2**	**3**	**4**	**5**	**6**	**7**
33.	Ik voer weinig activiteiten uit die niet gerelateerd zijn aan de doelstellingen van ons team.	**1**	**2**	**3**	**4**	**5**	**6**	**7**
34	Mijn evaluatie(beoordeling) wordt sterk beïnvloed door het teamresultaat.	**1**	**2**	**3**	**4**	**5**	**6**	**7**
35.	Veel beloningen gerelateerd aan mijn werkzaamheden (bijv. salaris, promotie, etc.) worden in grote mate bepaald door mijn bijdrage aan het team.	**1**	**2**	**3**	**4**	**5**	**6**	**7**

Aanwijzing voor de laatste vier stellingen. Denkt u bij het beantwoorden van deze stellingen aan teamwork binnen uw afdeling in de afgelopen zes maanden. Daarbij dient u bij elke vraag aan te geven in hoeverre de stelling van toepassing is.

36.	Ons team heeft de afgelopen zes maanden nieuwe producten en/of diensten ontwikkeld.	**1**	**2**	**3**	**4**	**5**	**6**	**7**
37.	Ons team heeft de afgelopen zes maanden innovatieve methoden ontwikkeld om doelstellingen te bereiken.	**1**	**2**	**3**	**4**	**5**	**6**	**7**
38.	Ons team heeft de afgelopen zes maanden nieuwe vaardigheden ontwikkeld om innovatie te verbeteren.	**1**	**2**	**3**	**4**	**5**	**6**	**7**
39.	Ons team heeft de afgelopen zes maanden verbeteringen doorgevoerd qua werkprocedures en methoden.	**1**	**2**	**3**	**4**	**5**	**6**	**7**

Op deze pagina is een ruimte voor ideeën, tips, feedback , enz. inzake innovatie en hoe u denkt dit vorm te geven of hoe u dit graag zou zien.

Ruimte voor uw ideeën.

Appendix IV – Team Overview

This table presents an overview of the teams which participated in this research including members per team (Mem.), respondents per team (Resp.) and commercial activity per team (Commercial).

TEAM OVERVIEW			Mem.	Resp.	Commercial
1	Aon Risk Solutions	Broking Cargo	11	2	High
2	Aon Risk Solutions	Broking Casco	12	2	High
3	Aon Risk Solutions	Broking Landmaterieel	4	2	High
4	Aon Risk Solutions	Broking Logistics	3	3	High
5	Aon Hewitt	Investment Eindhoven	15	1	High
6	Aon Risk Solutions	Operations	23	3	Medium
7	Aon Risk Solutions	Algemeen	11	1	High
8	Aon Hewitt	Consultancy T&R	9	1	High
9	Aon Risk Solutions	Claims Operations	-	1	Low
10	Aon Risk Solutions	Claims CAR	5	1	Medium
11	Aon Risk Solutions	Claims Property & CAR	20	1	Medium
12	Aon Risk Solutions	Claims Liability	16	2	Medium
13	Aon Risk Solutions	Industry	10	1	High
14	Aon Risk Solutions	Regio Rotterdam	15	1	High
15	Aon Risk Solutions	Regio Noordwijk	8	1	High
16	Aon Hewitt	Relatiebeheer CW	27	1	High
17	Aon Hewitt	Pensioenadministratie	14	1	Low
18	Aon Hewitt	PMO	4	3	Low
19	Aon Hewitt	Consulting Rdam	60	2	High
20	Aon Risk Solutions	Claims Propert	6	1	Medium
21	Aon Hewitt	Investment Amsterdam	8	2	High
22	Aon Hewitt	Sales	4	1	High
23	Aon Hewitt	Billing Rotterdam	2	2	Low
24	Aon Hewitt	TSS	20	1	-
25	Aon Risk Solutions	Claims Marine	30	1	Medium
26	Aon Risk Solutions	Regio Nijmegen	24	1	High
27	Aon Hewitt	Billing Eindhoven	3	1	Low
28	Aon Hewitt	Investment Rotterdam	8	1	High
29	Aon Risk Solutions	AM Maastricht	2	1	High
30	Aon Risk Solutions	Regio Hengelo	6	1	High
31	Aon Risk Solutions	Bouw	5	1	High
32	Aon Risk Solutions	Regio Den Bosch	4	1	High
33	Aon Risk Solutions	Claims Marine Cargo	14	2	Medium
34	Aon Risk Solutions	Publieke Sector	7	1	High
35	Aon Risk Solutions	RB Maastricht	6	1	High
36	Aon Risk Solutions	Broking Specialties	7	1	High

37	Aon Risk Solutions	Claims Werkmaterieel	4	1	Medium
38	Aon Hewitt	TC Eindhoven	17	2	High
39	Aon Risk Solutions	Schade Maastricht	3	1	Medium
40	Aon Risk Solutions	AM+ RB Rotterdam	13	1	High
41	Aon Hewitt	TC Rotterdam	10	2	High
42	Aon Risk Solutions	Regio Groningen	22	1	High
43	Aon Risk Solutions	Claims Marine Casco	8	2	Medium
44	Aon Hewitt	Consulting Adam	25	1	High
45	Aon Hewitt	TCD Actuarial Adam	20	1	High
46	Aon Hewitt	Traineeship	-	1	Medium
47	Aon Risk Solutions	Broking Unit	28	2	Medium
48	Aon Hewitt	TC Amsterdam	30	2	High
49	Aon Hewitt	Legal	9	1	Low
50	Aon Risk Solutions	Marine, Power, Energy	5	1	High
51	Aon Risk Solutions	Broking Prof. Services	7	1	High