

Royal Netherlands Army

UNIVERSITY OF TWENTE.



THE FOG OF THE FUTURE

A quest for the unknown ~

Royal Netherlands Army's strategic competencies and its critical knowledge

COLOPHON

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PREFACE

By finishing this thesis I finish my study Business Administration of Innovation & Entrepreneurship. For the past one and a halve year I had the privilege to work at the Policy Support Branch / Royal Netherlands Army, which represents quite a bit of my student years. Besides learning a lot about the organization and about science applied in practice, I experienced a first acquaintance with the working life. And more than ever I am convinced that colleagues are the crucial (fun) factor. I want to thank every one for their contribution!

As clear-cut every book writes about research, as foggy it sometimes was for me. I learned a lot about writing a thesis; using literature; applying methods and analyzing techniques; defining and expressing my opinion based on the analyses. I especially learned to apply analytical skills; to look further and think individually. My supervisor committee - Ludy, Lilian, Jeroen and Michel - challenged me: they were always patient during my struggle and provided the time and place to developed my knowledge and skills. I would like to thank you all!

During my research I talked with the key informants about 'strategic competencies' and 'critical knowledge'. I would like to thank them for their contributions to my research. During the conversations I noticed that many expressed their interests in the subject, but that they, at the same time, struggled with the foggy dimension. I know what you mean, but I cannot make it explicit. And exactly that dimension is so intriguing for business practice as well as science. As much as I struggled with the abstractness of my research, I also enjoyed the vagueness; it challenged me to think a lot about the complex dynamics. René, I would like to thank you for structuring and completing these thoughts.

This master thesis represents closure of a great period. I would like to thank my family and friends for supporting me in all different manners (Renée, thumps up!). And for my best friend and buddy for life, Arthur: it is your turn!

For now, I am going to face the fog of my own future.

Henrieke van den Berg Utrecht, February 2011

EXECUTIVE SUMMARY

The Royal Netherlands Army (RNLA) is characterized by rational and predictable behavior, such as hierarchical structure and planning and control processes, that fits within the old economy. In the current new economy such characteristics are less appropriate because an organization needs to be able to respond adequately to dynamic environmental changes. For an organization to be flexible, but that also secures its continuity, value is created by the leverage of resources.

An important factor for successful leverage of resources are strategic competencies. Strategic competencies are abilities of senior management to leverage resources in order to respond to dynamic environmental developments. These strategic competencies are preserved and strengthened by critical knowledge. Critical knowledge is knowledge that is unique, idiosyncratic, scarce and not easily transferable or replicable. Therefore the research question is: What are RNLA's strategic competencies and which knowledge is critical for preserving and strengthening these competencies in order to respond to dynamic environmental developments within the setting of the authorizing environment the Ministry of Defense?

First, two strategic competencies are identified. Firstly, the facilitation of strategic transformation that refers to the flexibility of the organization to continuously change adequately and to leverage resources differently in time in order to keep focus on long term effectiveness while considering the dynamic environment. The main effect of this strategic competence is increased organizational adaptability and agility. Secondly, the stimulation of multilateralism, that is a framework of many forms of (global) partnerships which supports (non) governmental (military) organizations in coping with today's dynamic environment. The main effects of the stimulation of multilateralism are a) the creation of a critical mass, b) improvement of owns' and partners' capabilities and c) cost-effectiveness.

Second, as expected, critical knowledge is difficult to identify. It has an implicit and/or tacit character shared in a group of people as a collective memory, that is dynamic. Critical knowledge concerns meta- and situational knowledge, such as know-when-why and know-where-which.

The overall recommendation is to learn more about and increase intra- and inter organizational knowledge sharing and collaboration on strategic level/in strategic settings. Five sub recommendations are identified:

Learn more about and increase intra- and inter organizational knowledge sharing (...)

- → Formulate a brief vision (strategic map) that is easy to communicate to personnel
- → Update organizational procedures to enhance timely decision-making and/or increase the organizational anticipation function
- → Keep speed in the acquisition process of military equipment to become more interoperable

(...) and collaboration on strategic level/in strategic settings

- → Investigate in what extent and on which area autonomy is preferred above collaboration
- → Overcome cultural and organizational differences between military organizational parts; and between military and civilian experts

By learning more about and increasing intra- and inter organizational knowledge sharing and collaboration on strategic level/in strategic settings the RNLA is able to adhere to two goals, namely to be able to respond to dynamical environmental changes while securing the organizational continuity. By that the RNLA secures its long term success and is able to fulfill their tasks and deliver value to the Netherlands society.

MANAGEMENT SUMMARY (IN DUTCH)

De Koninklijke Landmacht, ook wel het Commando Landstrijdkrachten (CLAS), wordt gekenmerkt door rationeel en voorspelbaar gedrag, bijvoorbeeld door het gebruiken van een hiërarchieke organisatiestructuur en het toepassen van plannings- en beheersingsprocessen. Dit gedrag past binnen de situatie van de oude economie. In de huidige, nieuwe economie zijn zulke karakteristieken echter minder bruikbaar omdat een organisatie in staat moet zijn adequaat te reageren op dynamische omgevingsveranderingen. Als een organisatie flexibel wil zijn, maar daarnaast ook haar continuïteit wil waarborgen, wordt waarde gecreëerd door het balanceren van de organisatiemiddelen.

Een belangrijke factor voor het succesvol balanceren van middelen zijn strategische competenties. Dit zijn vaardigheden van het senior management om middelen te balanceren om adequaat te kunnen reageren op dynamische omgevingsveranderingen. Strategische competenties worden onderhouden en versterkt door kritieke kennis. Dit is kennis dat uniek, idiosyncratisch, zeldzaam is en moeilijk is te verplaatsen of na te maken. De onderzoeksvraag is als het volgt geformuleerd: Wat zijn CLAS haar strategische competenties en welke kennis is kritiek voor het onderhouden en versterken van deze competenties om te kunnen reageren op dynamische omgevingsveranderingen binnen het autoriserende niveau van het Ministerie van Defensie?

Ten eerste, er zijn twee strategische competenties geïdentificeerd. De eerste competentie is het faciliteren van strategische transformatie. Dit betekent dat de organisatie flexibel is om continu te veranderen door middelen verschillend te balanceren om zowel lange termijn continuïteit als een flexibele houding naar de dynamisch veranderende omgeving te behouden. Het effect hiervan is dat de organisatie zich adequater kan aanpassen en alert is naar haar omgeving. De tweede strategische competentie is het stimuleren van multilateralisme. Dit zijn verschillende vormen van (wereldwijde) samenwerkingsverbanden die (militaire) organisaties ondersteunen in hun omgang met de huidige dynamische omgeving. De effecten van deze strategische competentie zijn a) het creëren van een kritieke massa, b) het verbeteren van eigen en partners vaardigheden en c) kosteneffectiviteit.

Ten tweede, zoals verwacht, is kritieke kennis moeilijk te identificeren. Het heeft een impliciet karakter dat gedeeld wordt door een groep van mensen in de vorm van een collectief geheugen, dat ook dynamisch is. Kritieke kennis is meta- en situationele kennis, dat is kennis over weten wanneer iets te doen en kennis over waar je iets moet doen om een doel te bereiken.

De algemene aanbeveling is meer leren over en het stimuleren van kennisdeling binnen en tussen organisaties en over strategische samenwerkingsverbanden/samenwerkingsverbanden op strategisch niveau. Vijf subaanbevelingen zijn geïdentificeerd:

Meer leren over en het stimuleren van kennisdeling binnen en tussen organisaties (...)

- → Formuleer een korte visie die makkelijk te communiceren is naar het personeel
- → Actualiseer organisatorische procedures voor tijdige besluitvorming en voor het vergroten van de anticipatie functie
- → Houd snelheid in het verwervingsproces van militair materieel om de interoperabiliteit te vergroten
- (...) en samenwerkingsverbanden op strategisch niveau
 - → Onderzoek in welke mate en op welk gebied autonomie de voorkeur boven samenwerking krijgt
 - → Overstijg culturele en organisatorische verschillen tussen militaire organisatieonderdelen en tussen militaire en civiele experts

Door meer te leren over en het stimuleren van kennisdeling binnen en tussen organisaties en over strategische samenwerkingsverbanden, is het CLAS in staat om twee doelen te vervullen, namelijk het adequaat reageren op dynamische omgevingsveranderingen en het behouden en versterken van de continuïteit van de organisatie. Hierdoor stelt het CLAS haar lange termijn succes zeker en is daardoor in staat haar taken en maatschappelijke waarde te vervullen.

CHAPTER 1

INTRODUCTION

Introduction - This chapter introduces a theoretical and practical dilemma of organizations that are expected to adapt to new economic behavior in order to deal with uncertainty and non-rationality. The main issue for organizations to survive and secure continuity is to focus on relative advantages. This research takes us to the abstract level of the organization: to the leverage of resources, core competencies and finally to strategic competencies.

First is explained why this research is initiated (§1.1). After that the research goal and questions are identified to formulate the research problem (§1.2). Finally the research relevance (§1.3) and the strategy (§1.4) are presented.

§ 1.1 Ground motives for research

1.1.1 Towards new economic behavior

1.1.1.1 Current old economic behavior

The Royal Netherlands Army is a typical example of an organization that fits in the "old economy". This type of economy is characterized by the principle of diminishing returns. This means that new products or services lead to success until the organization runs into limitations (Arthur, 1996). So to say, organizational continuity and long term success is secured by the certain environment characterized with changes of low intensity. The old economy is thus characterized by a relative stable environment. In this type of economy it is expected to have a low rate of changes and if changes occur they are expected to be non-disruptive.

Useful behavior in the old economy with a relative stable environment is performing activities such as planning and controlling organizational processes. A hierarchy of authority, like the RNLA has, enhances such predictable behavior. This behavior, characterized by planning, control and hierarchy, aims for optimization (Arthur, 1996).

1.1.1.2 Negative effects of old economic behavior

Besides positively enhancing predictable and controllable behavior, organizations in the old economy face the negative effects of bureaucracy. The RNLA deals, as a bureaucratic governmental organization, with negative effects such as rigidity, tardiness and slow decision-making processes. These negative effects are a result of many procedures. This means that for

example the freedom of RNLA for organizational change is limited because they are dependent on the legitimacy, support and authority given by the central staff of the Ministry of Defense (for an organizational chart, see appendix B). The main problem lies in the authorizing environment as a "large number and wide variety of people in particular positions who authorize them to take action, or appropriate money for them to use" (Moore & Khagram, 2004: 6). This environment exists of many authorizers which are assisted with a lot of information and who have conflicting interests that they seek to pursue through organizational activities. This pinpoints the strategic problem for public managers: a vision that needs to be supported by the authorizing environment and needs to be doable within the operational domain (Moore & Khagram, 2004).

1.1.1.3 Different organizational behavior in the new economy

The RNLA is characterized by old economic, thus rational and predictable behavior. The standard procedure to optimize their organizational businesses is by restructuring the organization. Hamel & Prahalad (1993) classify this as the improvement of (only) absolute performances, such as downsizing the organization for financial gain.

They argue that organizational behavior, such as optimization methods, needs to change because of the different characteristics in the current new economy. In order to stay successful as organization it needs to balance between being adaptable in a dynamic environment and still securing continuity for the long term. A successful way keep the balance is the creation of relative advantages. Such relative advantages are achieved by using the organizational talents, like expertise for example. The organization needs to leverage its resources, such as equipment, finance and personnel, adequately in order to respond to the dynamics of the new economy and secure its continuity.

1.1.1.4 Change into new economic behavior

The difference between the old and new economy is the difference between principles. The new economy is about the principle of increasing returns (in stead of diminishing returns, see §1.1.1.1). This means that organizations that are successful in the new economy have the tendency to continuously stimulate success and destruct failure. Compared to organizations in the old economy the number of changes is higher and the changes are more intensive. Typical in new economies is 'Schumpeterian behavior' which continuously destroys the economic equilibrium and creates new ones (Schumpeter, 1950; Van Praag, 1999). Such behavior stimulates disruptive changes which "create an entirely new market through the introduction of a new kind of product or service" (Christensen & Overdorf, 2000: 72).

Different organizational competencies are necessary in order to respond to the new economy. Such competencies are necessary for an organization to adapt to new economic characteristics such as differences in rationality or even non-rationality and uncertainty. This means that old economic behavior such as extensive planning and control processes is less appropriate for organizations in the new economy. To comply with new economical behavior, organizations need to change; reinvent goals and ways of doing things: finding the 'Next Big Thing' (Arthur, 1996).

1.1.1.5 Create fit between activities

Successful strategies pursuing renewal and change in order to respond to dynamic environmental changes depend on the organization's ability to create a fit between and integrate activities (Porter, 1996). Prahalad & Hamel (1990: 4) argue that the real source of advantage is to be found in "management's ability to consolidate corporate wide technologies and production skills into competencies that empower individual businesses to adapt quickly to changing opportunities". The main importance is the "ability of managers of firms to leverage corporate resources" also known as the core competence of an organization (Prahalad, 1993: 41). This research emphasizes that core competencies are essential for profit as well as non-profit organizations.

The question that rises is what RNLA's senior management is *able to do* about the leverage of resources in order to respond to dynamic environmental developments and to secure continuity. Focusing on core competencies, which is the key ability of an organization to leverage resources, this research abstracts "strategic competencies" from this definition. *Strategic competencies* are abilities of senior management to leverage resources in order to respond to dynamic environmental developments.

1.1.1.6 Pitfalls of organizational change

The main pitfall in using core competencies, according to Prahalad & Hamel (1990), is the lack of vision on senior management level or the lack in the administrative means to harmonize resources. The RNLA deals currently with difficulties related to the hierarchy of authority, divisionalized structure and their strategic dilemma as public managers.

RNLA is, firstly, bound to a higher authority level (Ministry of Defense) which directs their organizational structure and processes and therefore constraints RNLA's freedom to stimulate organizational change. Lacking a vision on senior management level or lacking the administrative means to harmonize resources, could be a result of difficulties on a higher level of authority on which the RNLA cannot exert (entirely) influence.

Secondly, especially divisionalized organizations, like the Ministry of Defense, that are split into product and market related strategic business units (SBU's), have difficulties to focus on relative advantages. The existence of SBU's, such as the Navy, Air Force and the Army, can lead to imprisoned resources. Competencies created within such SBU's could be seen as their own property and that could lead to hiding (and eventually loosing) talents for opportunities outside the SBU's (Prahalad & Hamel, 1990).

To sum up, in order for a (non-)profit organization to respond to the characteristics of the new economy, such as non-rationality and uncertainty, while securing long term success continuity, it is necessary for an organization to focus on the creation of relative advantages. This means that an organization is less occupied with gaining absolute advantage, such as optimization of the organization.

Relative advantages are found in the abstract level of the organization. Activities such as the leverage of resources are vital for creating new mix of value and/or relative advantages. An unique resource in the new economy is knowledge. This type of resource is able to differentiate an organization, which is profitable for the organizational adaptability to the dynamic environment and for its continuity. So in order to be successful in the leverage of resources for creating a relative advantage, the main focus is on the resource knowledge.

1.1.2 Knowledge as resource

1.1.2.1 Vital factor in the new economy

The new world economy is based on the competitive advantage of intensively processing knowledge (Weggeman, 2004; Arthur, 1996; Davenport, De Long & Beers, 1998). In order to respond to the dynamic and uncertain environment knowledge is a vital factor for success. Therefore it is important to know more about this factor in order to understand how strategic competencies are used to create relative advantages.

In traditional economic theories knowledge is considered as an exogenous factor, but in recent organization theories knowledge is compliant and reproducible (Blaauw, 2005). The RNLA is organized according traditional economic characteristics and has not yet succeeded in controlling and managing the production factor knowledge on staff level¹. A lot of knowledge management practices are for example present, but none of these activities concern the coordination of knowledge organization-wide.

 $^{^{1}}$ This information is based on a brainstorm session with RNLA staff employees about knowledge within the RNLA, 27^{th} may 2010.

One of the methods the RNLA uses to overcome these difficulties is the creation of a socalled knowledge design. This knowledge design identifies current and future crucial knowledge for the RNLA based on internal and external analyses. On the basis of these analyses the Policy Support Branch of the staff RNLA initiates specific studies and plans for knowledge development, production and management (for an organizational chart, see appendix B).

1.1.2.2 Knowledge as production factor

The Policy Support Branch assists the (deputy) commander of the RNLA and is responsible for the creation of a knowledge design. Herein it needs to take into account that knowledge distinguishes from other production factors on four points.

First of all, different knowledge experts can possess the same knowledge. The reproducibility of knowledge results in the possibility that organizational knowledge increases, while the number of people owning knowledge remains the same. Organizational knowledge gains therefore continuously a greater share in the set of resources the organization possesses.

Secondly, knowledge changes over time. Knowledge-based businesses adapt to such changes and are continuously redefining their organizational goals and 'way of doing things' (McCampbell, Moorhead Clare & Gitters, 1999). Organization members deal with rapid knowledge production because of radical and discontinuous changes (McCampbell et al., 1999). Think for example about the opportunities of training by simulation (much cheaper and still effective, but requires investments and accommodation of running costs), but also about threats like world-wide access to top secret documents via Wiki Leaks and the change to counter insurgency operations instead of "Cold war" warfare. Such changes have deep impact on organizational processes, therefore it is essential to keep up with the fast paced world.

Thirdly, the creation of new knowledge is continuous. Nonaka (2007) argues that within an environment of an organization in which the only constant factor is uncertainty, knowledge proves to be a lasting competitive advantage. Organizational output differentiates in its knowledge and intellectual capital (McCampbell et al. 1999).

Finally, when new knowledge is an improvement, knowledge diffuses through the organization. In this perspective knowledge is sticky and leaky. Sticky refers to the difficulties of knowledge transfer within the organization and leaky knowledge is the undesirable flow to the external environment (Brown & Duguid, 2001). Knowledge transfers more easily between organizations than within organizations. Organizational division erects boundaries within in the firm which stimulates grouping among people with similar practices within and outside the organization (Brown & Duguid, 1998).

1.1.3 Thinking outside the RNLA box

The Policy Support Branch of the RNLA staff initiated this research for two reasons. The first reason is that the research enhances insights for this branch in the Army staff on RNLA's knowledge design, for which it is responsible. The second reason is the researcher's (relative) neutral position towards the RNLA and her capability to look outside the RNLA and Ministry of Defense. The Policy Support Branch is interested in external ideas about approaches to and development of doing its businesses, and explicates this in using an external researcher and through applying an external research focus by using documents of affiliated organizations. This results in the advantage of having different points of view about RNLA's strategic competencies and critical knowledge.

§ 1.2 Problem statement

1.2.1 Research goal

In order to support the RNLA to transform its traditional behavior into necessary new economic behavior, this research aims to identify RNLA's strategic competencies and the critical knowledge to preserve and strengthen these competencies.

RNLA's organizational structure is characterized by rational and predictable behavior pursuing performance optimization and is still rather oriented at old economic behavior. The RNLA deals with a rather fixed environment because it is part of the Ministry of Defense, its authorizing level. This fixed authorizing environment constrains RNLA's freedom for organizational change. The RNLA is also expected to deal with dynamic environmental developments in order to advice the Ministry's top management level about and deliver operation effects in land operations².

A successful strategy to respond to these dynamic environmental developments and securing the organization's continuity is by creating relative advantages. The main importance of this research is the vital presence of strategic competencies in order to leverage resources adequately. Besides that, the research identifies critical knowledge to preserve and strengthen the competencies.

 $^{^2}$ The highest commander of the RNLA (C-RNLA) is *the* authority Land Operations. Subtaakbesluit Commando Landstrijdkrachten 2009, retrieved July 29th 2010.

1.2.2 Research questions

To identify RNLA's strategic competencies and to identify the critical knowledge behind these competencies, the following research question has been deducted:

What are RNLA's strategic competencies and which knowledge is critical for preserving and strengthening these competencies in order to respond to dynamic environmental developments within the setting of the authorizing environment the Ministry of Defense?

Two sub questions are formulated as follows:

- 1: What are RNLA's strategic competencies in order to respond to dynamic environmental developments within the setting of the authorizing environment the Ministry of Defense?
- 2: Which knowledge is critical for preserving and strengthening RNLA's strategic competencies?

The following definitions are used³:

Strategic competencies are key abilities of senior management to leverage resources in order to respond to dynamic environmental developments.

- a. Leverage of resources is understood as an organizational ability to empower personnel to adapt quickly to changing opportunities.
- b. Dynamic environmental developments refer to external changes that are intensive and occur rapidly with essential influence on organizational processes.

Critical knowledge refers to knowledge that is unique, idiosyncratic, scarce and not easily transferable or replicable, and necessary to leverage resources.

The authorizing environment: the Ministry of Defense refers to the authority the RNLA receives from its authorizers to (re)organize its structures, processes and businesses. This legal area is seen as RNLA's constrained freedom for organizational change. Strategic competencies which are defined on the basis of the content analysis, but which are not realistic within RNLA's constrained freedom for organizational change are not included.

§ 1.3 Research relevance

1.3.1 Business practices

The main importance of this research is that a public organization, like the RNLA, that is structured according to old economic characteristics, such as rational behavior and extensive planning processes, adapts new economic behavior. This new economic behavior focuses on

³ For detailed elaboration on the theoretical definitions see chapter 2.

opportunities to secure organizational continuity. This means that besides old economic behavior to enhance organizational performance, the RNLA could focus on opportunities by creating new mixes of value.

Important in that aspect are strategic competencies, because they enable the organization to respond to dynamical environmental developments and to secure organizational continuity. Besides identifying strategic competencies, this research focuses on critical knowledge. This type of knowledge is able to preserve and strengthen strategic competencies. By identifying critical knowledge this research supports the Policy Support Branch in their knowledge design.

1.3.2 Scientific significance

Prahalad & Hamel (1990; 1993) argue that core competencies are essential for the leverage of resources for profit organizations. Core competencies secure the continuity of the organization by creating unique mixed of value by responding to opportunities. They create a relative advantage. In this research a key ability for senior management is defined to create such relative advantages, which is called strategic competencies.

These strategic competencies are in this research related to critical knowledge. Unique for this research is the statement that this type of knowledge is able to preserve and strengthen strategic competencies. Knowledge has an innovative edge, because it changes and develops in time. Knowledge is able to differentiate products and/or services which creates a unique advantage. It is thus seen as an essential factor for responding to opportunities, while securing the organizational continuity.

In this research these theories are applied to a non-profit organization. This means that the assumption that the organization has competitors and needs to gain profit is less/not relevant. In spite of the difference between profit and non-profit, this research argues that these theories are valuable for non-profit organizations. The vital contribution of these theories is that if the organization focuses on relative value creation (leverage of resources) and critical knowledge it is able to respond to dynamical environmental developments and on the other hand secure continuity. This means that a non-profit organization can strengthen its continuity on the long term, while still being adaptable and agile to the short term external dynamics.

§ 1.4 Research strategy

1.4.1 Research settings

This research is concentrated on the Royal Netherlands Army and is executed for the Policy Support Branch. This branch is placed within the chief of staff group (see appendix B). People in this branch possess expertise and knowledge to assist the commander of the RNLA as the Land Operations authority. Their task is giving integrated, broad-scoped and accurate advice on different strategic and operational issues.

Policy Support has a flat structure with a chief (Colonel) and a deputy. Formally this branch consists of 15 fulltime employments divided into senior (Lieutenant-colonel, civilian) and junior (Major, civilian) functions⁴.

The direct communication between RNLA's top management and the employees of Policy Support makes it possible for the researcher to access documents and connect with personnel on senior management level. The research is executed in the period from April 2010 to March 2011.

1.4.2 Research phases

The first step is getting familiar with the research problem. This is done by reading several documents and talking to RNLA employees. After defining the research problem written academic information is gathered in order to create a theoretical framework, the second step. The third step is determining the methodology to analyze the research data. Analyzing is done as follows: *a)* the qualitative content analysis of explorative studies of affiliated organizations of the RNLA to answer question 1, and *b)* key informant interviews to validate the results of question 1 and to answer research question 2. During and after the period of data collection all data is analyzed and restructured into results and conclusions, the last step.

1.4.3 Report structure

This research report consists of six chapters. Chapter 2, the theoretical framework, describes characteristics of and relations between the concepts applied. This is summarized in a schematic overview.

Chapter 3 describes in detail the methodology used to collect and analyze the research data. A qualitative research method is used, split into a latent content analysis and key informant interviews.

⁴ For the list of military ranks see appendix A.

Chapter 4 presents the results. This chapter is split up into the identification of strategic competencies and the critical knowledge related to these competencies.

Chapter 5, conclusions and discussion, captures the conclusions and sum up the key findings of the research. On top of that it discusses the scientific implications, the limitations of the research and provides suggestions for further research.

Chapter 6, recommendations, gives practical advices for the Policy Support Branch.

CHAPTER 2

THEORETICAL FRAMEWORK

Introduction - This chapter's main focus is to explain the relations between concepts used in chapter 1, to discuss them in detail and to place them in a broader scope.

In order to show the relations between the concepts a schematic framework is constructed (see figure 1). It is build from information of the first chapter and is extended with theory. In this theoretical framework an organization is split up into three elements: *a)* value creation (left, dark grey area), *b)* result (middle, dark grey area) and *c)* leverage of resources (right, light grey area).

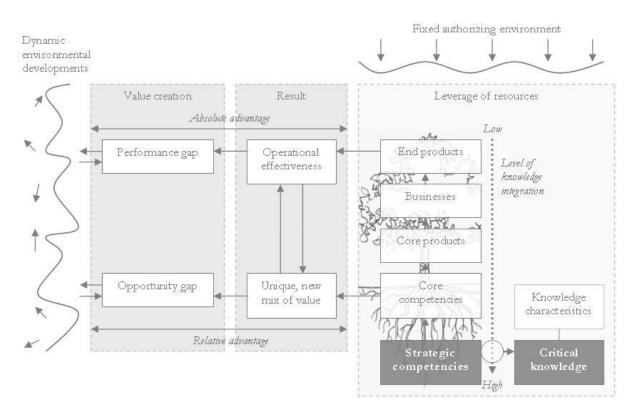


Figure 1: Theoretical framework

Paragraph §2.1 discusses the areas of value creation and the results. Subsequently, paragraph §2.3 elaborates on the leverage of resources. This paragraph especially focuses on the abstract organizational level of strategic competencies and its critical knowledge.

§ 2.1 Absolute and relative advantage

2.1.1 Two types of value creation

An organization generates value in two different ways. In the theoretical framework the two methods are defined as the performance gap and respectively the opportunity gap (see figure 2). These two methods differ in approach: the performance gap is to create operational effectiveness and the opportunity gap is about the creation of a unique mix of value (Hamel & Prahalad, 1993; 1990; Porter, 1996). So the difference between the approaches is to be found in the kind of advantage.

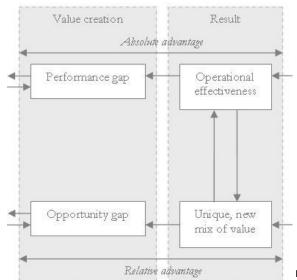


Figure 2: Value creation and result

The performance gap improves performance in a wide variety of dimensions such as costs, productivity and quality. As such the organization creates absolute advantage. The opportunity gap produces innovative value by creating new businesses, leverage of resources and/or a sense of strategic direction. The opportunity gap results therefore in relative advantages for the organization.

This does not imply that one method is superior to the other; in fact the sum of the performance and opportunity gap results in company's value creation potential (Prahalad, 1993). The reason to focus in this research on the opportunity gap is that this gap results in value creation on the long term with consistence of effort and purpose (Hamel & Prahalad, 1993). They argue that leverage of resources is important to create a unique mix of value and to enhance organizational continuity. Yet, in order to cut costs and become more efficient many organizations currently use methods such as restructuring. Hamel & Prahalad (1993) argue that

these organizations could benefit from focusing on the opportunity gap when they want to use less resource-intensive approaches to achieve different objectives.

To sum up, an organization is able to create value in two different ways. If the organization focuses on the opportunity gap it creates unique, new mixes of value which enhances organizations' long term consistence that result in a relative advantage.

2.1.2 Two types of result

Two different approaches of value creation deliver two different types of result (see figure 2). Operational effectiveness is performing similar activities *better*, and creating a unique new mix of value is performing *different* activities (Porter, 1996). In order to survive as an organization, operational effectiveness is necessary but insufficient. Operational effectiveness leads to an absolute improvement, but due to a continuous process of improvement it will never lead to a relative advantage for an organization (Porter, 1996).

To deliver a unique mix of value especially trade-offs are required to gain a sustainable strategy (Porter, 1996). A company needs to choose what (not) to do and resign to the fact that choosing one thing will lead to less of something else (Porter, 1996).

This means, by focusing on the opportunity gap an organization creates relative advantage that results in new mixes of value. The important aspect of this theory is that relative advantages do not only result in organizational adaptability to its dynamic environment on the shorter term, but that it also secures continuity on the long term.

§ 2.2 Leverage of resources

2.2.1 Organizational tree

2.2.1.1 Strategic competencies

This research is build around the concept 'strategic competencies' (see figure 3). Strategic competencies are in this research defined as key abilities of senior management to leverage resources in order to respond to dynamic environmental developments. This definition based upon two theoretical definitions, namely core competencies and dynamic capabilities.

First, core competencies are the "ability of managers of firms to leverage corporate resources" (Prahalad, 1993: 41). In this definition the importance of creating a fit between corporate activities is embraced and it explicitly puts the responsibility for this task on management level. Creating a fit implies that the organization needs to leverage its resources differently in time in

order to create a balance between the environment and the organization. On top of that, it implies a long term approach in order to create continuity, because it is necessary to continuously leverage resources in order to stay adaptable.

The second theoretical definition, dynamic capabilities, are understood as "the key role of strategic management in appropriately adapting, integrating, and reconfiguring internal and external organizational skills, resources, and functional competencies to match the requirements of a changing environment" (Teece et al., 1997: 515). This definition focuses on three important aspects for current's new economy. First, the importance of the senior management level to direct the organization's long term path. Secondly, senior management's ability to adapt, integrate and reconfigure skills, resources and competencies. Hamel (1990: 4) expands this role with management's ability to transform skills and technologies "into competencies that empower individual business". So, characterizing key roles of senior management to leverage resources concerns two responsibilities: a) the role to consolidate, adapt, integrate and reconfigure resources (such as skills, competencies, et cetera) and b) the transformation of these resources into competencies that empower individuals. Finally, a third aspect is the external organizational focus. The main motive to focus on dynamic capabilities is the ability to respond quickly to changing opportunities. Strategic competencies are dynamic capabilities and vice versa, because they leverage resources and respond to a changing environment. They are a real source of advantage because they are able to respond to fast paced environmental developments.

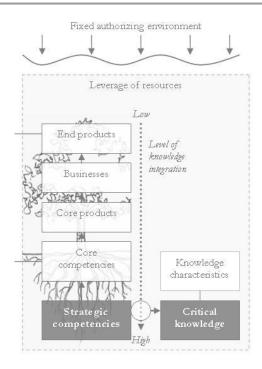


Figure 3: Leverage of resources

2.2.1.2 Roots, trunk, branches and fruit within a changing environment

In order to understand the sequential dependency between core competencies, core products, organizational businesses and end products, it is visualized as a tree (see figure 4). Core competencies are roots; core products the trunk; businesses are branches and end products are fruit (Prahalad & Hamel, 1990). For the RNLA core competencies are for example training abilities. Core competencies nurture core products; in this case it results in experienced personnel. These core products construct organizational businesses that generate end products.

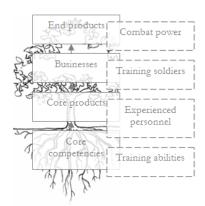


Figure 4: Example of the tree analogy

Training soldiers (organizational business) during an exercise such as Uruzgan Integration⁵ delivers at the end combat power (end product). The tree analogy also explains why the strategic competencies are found at the *bottom* of the framework instead at the top, because strategic competencies are seen as organizational *roots*.

Core competencies are essential to create effects on less abstract organizational levels, such as the levels of core products, businesses and end products. In order to understand the strategic competencies, it is, besides focusing on the definition, important to examine its effects, such as creating combat power. This research distinguishes besides that current and future strategic competencies. This means that some prerequisites are identified that need to be fulfilled to keep and/or strengthen the strategic competence.

To summarize, in order to respond to the dynamic environmental changes and to secure continuity for the organization, the creation of relative advantage is vital. The leverage of resources is important to create new mixes of value and/or relative advantage. Especially the strategic and abstract level of the organization, the roots of the tree, is essential for the adequate and timely leverage of resources. Strategic competencies, the abilities of senior management to leverage resources, are vital for the organizational ability to respond to dynamic development while securing continuity. Such competencies are able to nurture the core products, organizational businesses and end products (and therefore creating absolute advantages). But are especially able to stimulate the organization to leverage its resources in such a way that it creates new mixes of value that enhance organizational adaptability and secure the continuity. Besides defining strategic competencies it is therefore important to examine the effects and prerequisites to change from current to future strategic competencies.

⁵ Uruzgan Integration is a training exercise to test a minimum of mission capability and/or readiness.

As stated in chapter 1, knowledge is the most important resource to create differential value in order to create a relative advantage. Knowledge is therefore an essential input for the opportunity gap and strategic competencies. This research argues that knowledge is a continuous requisite to preserve and strengthen strategic competencies. This means that a type of knowledge is always necessary for the strategic competencies. This type of knowledge is defined as critical knowledge. The main issue of critical knowledge that it can be possessed by different persons; that it changes over time; that the creation of new critical knowledge is continuous and that it has the ability to diffuse in and outside the organization. This means that critical knowledge is dynamic, and in order to preserve and strengthen the strategic competencies, it is important to understand critical knowledge.

2.2.2 Role of knowledge

2.2.2.1 Types and configuration

Knowledge has been defined and explained in many, different ways. Most common is a distinction in types such as subjective vs. objective; implicit or tacit vs. explicit; personal vs. prepositional; and procedural vs. declarative (Grant, 1996b).

Knowledge, in all its types and configurations, relates to complexity and content (Andersons, 1989 in: Blaauw, 2005). Declarative knowledge concerns the 'know what', for instance facts, like the number of organizational members. Procedural knowledge concerns the 'know how', like rules such as procedures to purchase equipment. Meta-knowledge is the 'know when why', like preconditions or circumstances. And situational knowledge, 'know where which', knowing where knowledge is stored, for instance the ability to find the right person for a certain job.

2.2.2.2 Organizational knowledge

Organizational knowledge is defined as collective context- and scope-specific memory owned by different people in different configurations and carried out through language in order to create a relative organizational advantage. If an organization is understood as a set of resources, and knowledge is one of those resources, than the type of knowledge necessary to identify is organizational knowledge (King & Zeithaml, 2003). Organizational knowledge reflects a firms' capacity to differentiate, which results in a relative advantage. Organizational knowledge

is characterized by multiple knowledge-owners, by a specific scope and context and which is captured through language (King & Zeithaml, 2003).

2.2.2.3 Tacit, human dimension

Knowledge is related to individuals or human beings. Scholars even claim that knowledge does not exist outside human beings (Weggeman, 2004; Fahey & Prusak, 1998). This statement especially counts for tacit knowledge. This type of knowledge is implicit and is difficult to formalize and to communicate to others (Nonaka, 2007).

Nonaka contrasts the scholarly view of information-based knowledge management by including the "dynamic human process" in defining knowledge (Li & Gao, 2003:8). Tacit knowledge is related to individual's action, commitment and context (Nonaka, 2007). Social interactions among organization members are therefore more important in creating knowledge than creating information technology (Li & Gao, 2003).

Tacit knowledge entails perspectives, perceptions, beliefs and values (Fahey & Prusak, 1998). The individual is often unable to reveal the principles behind what he knows (Nonaka, 2007). Tacit knowledge concerns mental models; taken for granted which makes the principles hard to uncover (Nonaka, 2007).

Polanyi (1966) defines tacit knowledge as "we can know more than we can tell" (Polanyi, 1966: 4). This proverb implies a state of affair with continuous undiscovered knowledge. According to Li and Gao (2003) Polanyi's and Nonaka's use of tacit knowledge differs in the rate of success of communicating. The latter scholar argues that it is useful to share implicit knowledge through organizational activities, though Polanyi finds communicating tacit knowledge useless and hard among people with a different level of knowledge (Li & Gao, 2003).

2.2.2.4 Critical knowledge

Critical knowledge is a knowledge type which is unique, idiosyncratic, scarce and not easily transferable or replicable and necessary to leverage resources. These characteristics are abstracted from two other definitions of knowledge: crucial knowledge and knowledge with a competitive edge. Remarkable is that critical knowledge is present in several types and configurations of knowledge, such as for example implicit knowledge.

Crucial knowledge is *necessary* and *unique*. This knowledge is indispensable for business processes and adds up in a firms' product or process (Boersma & Oldenkamp, 2004). Crucial knowledge is the core of an organizational identity and therefore essential for organizational survival (Blaauw, 2005).

Knowledge with a competitive edge is most of the time tacit (implicit) knowledge. According to Grant (1996a) the ability to acquire resources is a true advantage within a dynamic environment. This advantage is sustainable when companies' resources are *idiosyncratic*, *scarce* and which are not easily *transferable* or *replicable* (Grant, 1996a).

2.2.2.5 Knowledge integration

If knowledge is a critical input for all production processes (carried by individuals in specialized forms) the primary role of an organization is to *integrate* knowledge (Grant, 1996a). Knowledge integration is like a hierarchy; moving up from individual, specialized knowledge to a broad span of knowledge capabilities. This level of knowledge integration is put next to the hierarchy of core competencies.

The main challenge is found in the integration of knowledge capabilities at higher levels which rely on lower level capabilities (Grant, 1996a). A wider span of integrated knowledge leads to difficulties in creation and managing organizational capability (Grant, 1996a).

Synopsis - The identification of strategic competencies and critical knowledge supports the transformation from old economic to new economic behavior. Strategic competencies are preserved and strengthened by critical knowledge. These competencies are vital for the adequate and timely leverage of resources in order to create new mixes of value and/or relative advantages for the organization. By focusing on the relative advantages the organization is able to respond to the dynamic environmental changing and securing organizational continuity at the same time.

For understanding the dynamics of and relations between the concepts of the theoretical framework, qualitative research is necessary.

CHAPTER 3

METHODOLOGY

Introduction - This chapter discusses the methodology used to identify RNLA's strategic competencies and its critical knowledge. Because the concepts strategic competencies and critical knowledge are rather unknown within the RNLA, the main purpose of the research is to explore this field. Qualitative research is used for understanding complex, dynamic and multi-dimensional phenomena and therefore most appropriate for qualitative research.

To recapture from chapter 1, the research question is: What are RNLA's strategic competencies and which knowledge is critical for preserving and strengthening these competencies in order to respond to dynamic environmental developments within the setting of the authorizing environment the Ministry of Defense? The question is split up into two sub questions. The first is: What are RNLA's strategic competencies in order to respond to dynamic environmental developments within the setting of the authorizing environment the Ministry of Defense? The second sub question is: Which knowledge is critical for preserving and strengthening RNLA's strategic competencies?

Two qualitative techniques are used to select, collect and analyze data. First technique is the latent content analysis to answer sub question one (§3.1). This technique allows the researcher to access and collect quite easily a large amount of secondary data for in-depth analysis (secondary data, i.e. documents that are related to the RNLA, but do not descend from it). The data obtained is analyzed by inductive coding, that enables the researcher to code and interpret the data quite openly. Such technique is useful by less known concepts. The second technique is key informant interviews to validate the findings of the content analysis and to answer sub question two (§3.2). This technique is useful because it gives the researcher inside information about the RNLA (that enables her to validate the findings of the content analysis). As a result the findings and (at the end) the recommendations will better fit with the RNLA. Key informant interviews, who are contacted quite easily, allow the researcher to speak with experts that can share their in-depth perceptions about the research phenomena.

§ 3.1 Document content analysis

3.1.1 Latent content analysis

3.1.1.1 Technique

In this research the latent or qualitative content analysis is applied⁶. Content analysis is a technique which draws conclusions in a systematic, objective and qualitative approach by

⁶ The most common content analysis is quantitative analysis, but in this research latent or qualitative content analysis is applied.

measuring or observing variables of interest (Lee & Kim, 2001). The systemic character of content analysis is attained by applying selection criteria for the inclusion or exclusion of specific content (Lee & Kim, 2001). Objectivity is secured by precise execution of analyses through applying explicit rules which enables different researchers to obtain the same results (Lee & Kim, 2001). Content analysis is a method of analyzing written, verbal or visual communication messages (Elo & Kyngäs, 2008) based upon secondary data (Lee & Kim, 2001). Material like archival records, documents and newspaper articles are used as sources of research data.

Distinction is made between two types of content analysis. Both types deal with text interpretation, but these interpretations vary in depth and in level of abstraction (Graneheim & Lundman, 2004). The first and most common type, manifest content analysis, concerns counting the number of visible and surface content, often used in media research (Lee & Kim, 2001; Graneheim & Lundman, 2004). The other type of content analysis - applied in this research - is the latent or qualitative content analysis that finds the underlying meaning of texts (Lee & Kim, 2001; Graneheim & Lundman, 2004).

3.1.1.2 Critical attitude

Because qualitative content analysis is as complicated as a researcher chooses for it to be, a criticism is a point of interest. Both quantitative- and qualitative-oriented scholars argue that this method is insufficient for using inferential complex statistics, or is lacking in in-depth analysis (Elo & Kyngäs, 2008). Therefore it is essential to achieve trustworthy research findings. That goal is achieved when research is reliable and valid. Applying a *reliable* research method suggests that the same data is collected every time when the phenomenon is observed. *Valid* research refers to the extent in which a measure accurately reflects the concept intended to be measured.

Graneheim & Lundman (2004) relate trustworthiness to terms such as credibility, dependability and transferability. *Credibility* refers to how well the chosen method and/or technique fits within the research focus, which is split up into three aspects (Graneheim & Lundman, 2004). The first aspect of credibility concerns the selection of participants, context and approach of data collection (see §3.1.2; 3.1.3). Second aspect concerns the selection of the meaning unit (see §3.1.2.1). If the meaning unit is too wide or too small, it contains several meanings or none at all. The third aspect is the matter of how well categories and themes cover data by excluding or including (ir) relevant data. This can be tested by using representative quotations or testing agreement among co-researchers, experts and participants to confirm the researcher's approach or method. In this research this aspect, the inter-reliability, is secured by

conducting in-depth interviews with key informants and testing the findings of the content analysis during the interviews (§3.2).

Second concept related to trustworthiness is *dependability*. This concept relates to "the degree to which data change over time" and whereto researchers alternate their decisions during the analytic process (Graneheim & Lundman, 2004: 110). A researcher's perception changes for valid reasons such as new insights which influence follow-up questions or narrow the observation focus (Graneheim & Lundman, 2004). All important decisions and changes made during the analytical process are written down and mentioned in order to keep the process transparent and to secure intra-reliability while coding.

Transferability is the final concept related to trustworthiness. This concept, comparable to external validity, is about the extent to which the findings are projected on other settings or groups. To facilitate transferability accurate descriptions of the selection and characteristics of participants, and the data collection and analysis process are given.

3.1.1.3 Opportunities

Setting up a research method like a latent content analysis is challenging concerning validity and reliability, but this method involves great opportunities on the other hand. Due to the content-sensitive method secondary data is valuable for content analysis, although these secondary findings are written with varied purposes and perspectives by different organizations (Lee & Kim, 2001). Qualitative content analysis is appropriate when the informational content of the data is relevant (Forman & Damschroder, 2008). They are applied to understand a phenomenon. So, latent content analysis examines an open-ended data collection "aimed at detail and depth, rather than measurement" (Forman & Damschroder, 2008: 41). Exploring phenomena is difficult because of the variety and obscurity of the concept, like strategic competencies. Therefore it is important to gain a lot of data about many different aspects of the concept. In order to overcome difficulties in collecting large samples with enough information covering those different aspects (Lee & Kim, 2001), the latent content analysis is a pragmatic, accurate and less time-consuming approach by using already written data on the subject.

3.1.2 Data selection

3.1.2.1 Units of analysis

An important and basic step in a content analysis research is defining the units of analysis. There is a great variety of objects of study, like persons or communities, but also words or phrases (Graneheim & Lundman, 2004). In selecting the unit of analysis the researcher should consider texts which are 'large enough to be considered a whole and small enough to be possible to keep in mind as context for the meaning unit, during the analysis process" (Graneheim & Lundman, 2004). A meaning unit is a constellation of words, statements, sentences or paragraphs containing aspects related to each other through their content and context (Graneheim & Lundman, 2004).

During the development of the problem statement, Policy Support Branch made it clear that it is interested in the future expectations of closely related organizations and the strategic implications. These are all kinds of organizations, (non) governmental and (inter) national, collaborating on different levels with the RNLA, inter-agency and combined⁷. Those organizations provide valuable information of the future strategy and expectancies for the RNLA. A good example is a document called 'Future Policy Survey⁸, which is a product of collaboration between several Dutch Ministries. It covers future scenarios, strategic shocks and options for the Ministry of Defense. The units of analysis are texts of future oriented or exploration documents of affiliated organizations or institutes.

3.1.2.2 Sampling technique

A non probability sampling technique, purposive sampling, is applied because a research goal is to understand the phenomenon of strategic competencies. Purposive sampling is a technique of selecting units to be observed, based on the researcher's judgment which sample is the most useful or representative. Due to resource constraints such as time, money and personnel, trade-offs are necessary between the richness and the amount of data and the quality of analysis (Forman & Damschroder, 2008). Because the research is done by one person, the amount of data collected is restricted, but no sacrifice is made consciously on the other aspects. Concerning the amount of data⁹ and in order to attain a balanced amount of data¹⁰, the rule is applied that every organization or institute should at least have one and at most five documents to analyze. The search for documents stops in any case when saturation is achieved. Because documents are structured into specific chapters, judgmental sampling is also used to select relevant chapters or paragraphs to keep the analytical process efficient and effective.

⁷ Inter-agency is collaboration between Ministries and combined are international coalitions/partnerships. Militaire strategische visie. 2010.

⁸ Called "Verkenningen", produced in 2010 in collaboration with ministry of Defense, Interior Affairs, Foreign Affairs, Justice and Finance.

⁹ Documents are expected to be more than 50 pages.

¹⁰ Balanced amount of data refers to the several organizations which are selected. If at organization A ten documents are found and at organization B two documents, the data is unbalanced, for example.

Organizations and institutes are selected via two fixed points:

→ The main tasks of the Ministry of Defense as governmental organization

The Constitution of the Kingdom of the Netherlands sets three main responsibilities¹¹ for the Ministry of Defense based upon two constitution articles (i.e. 90 and 97). The first obligation is to defend the territory of the Netherlands and that of NATO allies. The second is to contribute to (worldwide) peace, security and stability. And the third responsibility is to support civil authorities in upholding the law, providing disaster relief and humanitarian assistance, both national and international.

On bases of these responsibilities, organizations are selected. For instance, the Royal Netherlands Army is formally related to the Ministry of Defense and the Netherlands government. Research data from the Cabinet is interesting. The Cabinet is formed from a coalition agreement between the liberal party (VVD) and Christian Democrats (CDA) with parliamentary support of the Freedom Party (PVV). Besides that it is interesting to analyze the programs of main left-wing political opponents (PvdA, D66, Groenlinks, SP). Data like political programs are important to include, but also exploration reports from affiliated scientific research institutes are useful. Scientific institutes are valuable because their products are in-depth resources of data and therefore the chance to inclusion of superficial information is minimized. Reports of research institutes gain therefore priority in selecting.

Other relevant institutes are other Dutch Ministerial departments, like Foreign and Interior Affairs. Since 2005 especially, when the Ministers of Defense, Interior Affairs and Justice enacted a covenant for civil-military cooperation¹². The Ministry of Defense obtained a larger role as security partner along with the Police, the Fire Department and Medical Support services with national accidents and disasters. On top of that, the Ministry of Defense collaborates with the National Coordinator of counter terrorism. Besides governmental organizations, public opinion about the Royal Netherlands Army is interesting to analyze because it services (indirectly) the Dutch society and its citizens. For measuring public opinion newspaper articles are used because they are representative views of the opinions of the Netherlands society.

→ Responsibilities abstracted from international treaties and charters

The most significant international obligations have their origins in the United Nations' charter, North Atlantic Treaty and the European Union (EU) Treaty of Lisbon¹³. The UN charter bounds the Netherlands to a prohibition of the use of violence unless the UN Security Council decides

¹¹ Defense memorandum 2000.

 ¹² Convenant civiel-militaire bestuursafspraken (CMBA).
 ¹³ Document: Verkenningen, 2010: 25.

otherwise. The NATO treaty concerns the obligation of collective defense of NATO territory. The EU treaty of Lisbon goes further in obligating countries to support attacked partners.

From these obligations, organizations like UN, NATO and EU are selected. On the other hand nongovernmental organizations like CORDAID (development organization) or the Red Cross are also important organizations for stabilization operations¹⁴. Such organizations are not formally tied to (a union of) countries, but play important roles in humanitarian aid.

The ministry of Defense identified strategic partners with whom it strives for intensive relations. The following countries are labeled with this A-status: Germany, France, United Kingdom and United States of America¹⁵.

In the context of this research the following organizations and research institutes are selected:

- → Ministry of Defense, especially 'Future Policy Survey' project.
- → Coalition agreement (VVD, CDA & PVV) and its political opponents (PvdA, D66, Groenlinks, SP).
- → Ministries of Foreign Affairs, Interior Affairs & Kingdom Relations.
- → Dutch organizations (research institute Clingendael, Coordinator of National Counter Terrorism).
- \rightarrow Dutch newspapers¹⁶.
- → International Governmental organizations (UN, NATO and EU).
- → International non-governmental organizations (CORDAID and the Red Cross).
- → Strategic partners (Germany, France, UK and USA).

3.1.2.3 Selection criteria

The reason to select formal written information is because of the wide variety and number of potential documents. The first step is to look for information on the Internet homepages of the selected organizations, because formal documents are often publicized on the World Wide Web. Documents related to the Ministry of Defense are also searched for on the Defense Intranet. Newspaper articles are found through the selection the Defense Communication department makes daily (which is put on the Intranet). An alternative step is to look for contacts within the organizations through contact information on the website or RNLA-personnel. The main reason for contacting persons within the organization is to let them select the right data. It is assumed that most organizations only share public information although approaching them informal, so this research is limited to public information. The most important

¹⁴ Document: Verkenningen, 2010: 105.

¹⁵ Document: Militaire strategische visie, 2010: 29 and memorandum: IMS landen- en regioprioriteiten, 2010: 1.

¹⁶ The following papers are used for selection of articles: Algemeen Dagblad/Haagsche Courant, De Pers, Telegraaf, Trouw, Volkskrant, NRC Handelsblad, NRC Next, Parool, Financiële Dagblad, Metro en de Spits.

selection criteria are that documents are strategic, explorative or future orientated. Documents focusing on competencies or knowledge have priority.

3.1.3 Data collection

3.1.3.1 Data obtained

The documents obtained are listed in appendix C. This data is collected in the month of September 2010. During this period 68 documents were selected, hereafter reduced to 45 documents after a second check on selection criteria (§3.1.2) and one in particular on a researcher's language barrier (German). The newspaper articles are collected in the period of July 21 and October 21 2010. The chart (figure 5) shows that most documents are published in 2010 and that the oldest document was written in 1998. Most data is found on the Internet and all documents are public. The amount of data assimilated from these documents, which is a total of circa 3000 pages, constitutes 45 text pages and about 380 meaning units (i.e. text phrases of varying length).

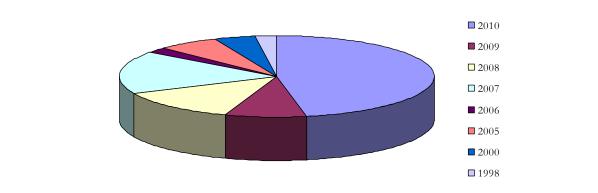


Figure 5: Documents classified to year

3.1.4 Data analysis

3.1.4.1 Immersion, reduction and interpretation

In qualitative research data collection and analysis "should occur concurrently" according to Forman and Damschroder (2008: 46). The main reason for this approach is to become familiar with the informational content in order to identify new topics and develop analytic hunches, gut feelings and connections (Forman & Damschroder, 2008). Therefore the analytical process is split into three phases: immersion, reduction and interpretation which occur concurrently through the analytic process. The aim of this type of data analysis is to develop new knowledge from raw data.

The immersion phase is all about getting familiar with the unordered data (Forman & Damschroder, 2008). In this phase the documents obtained are read and quotes are extracted and written down in Excel with comments of first impressions and analytical hunches (see appendix D, example of phase 1). The second, most important phase is all about reduction and developing a consistent approach to order the data. It is the 'heart' of the content analysis process and is thus essential for the analytical process (Forman & Damschroder, 2008). Three steps are taken: 1) the amount of raw data is reduced to relevant data for answering the research questions, 2) the data is split into appropriate and manageable themes and 3) the data is restructured into categories which address the research questions. This is done by re-reading the quotes and coding them and creating an overview of all themes and categories and the relations to one and each other (see appendix D, the A3 sheet that represents phase 2), which is already the start of the last phase the interpretation of the code reports. In this phase patterns are identified, preliminary conclusions are tested and the groundwork is laid for the conclusions (see appendix D, example of phase 3). During this phase descriptive and interpretive summaries are written, formulating key results. During this phase the first impressions of phase one and the coded and categorized data of phase two are combined in order to draw and verify conclusions.

3.1.4.2 Inductive coding for reduction

Another important decision to make when applying a content analysis is whether to use the inductive or the deductive approach. Because the research subject is rather unknown and knowledge is fragmented, the inductive approach is appropriate. Inductive coding is making categories upon the data obtained. So, the analysis moves from specific instances to generalized categories.

Meaning units are during the analysis condensed from raw data (see table 1). This refers to the process of shortening in the number of words while preserving the essence of the phrases, ending in a label of code (Graneheim & Lundman, 2004). The condensed meaning units are either close descriptions of the text or interpretations of the underlying content, or both. The strategic competence is divides into definition, effects and prerequisites (see §2.2.1.2). On bases of these (condensed) meaning units, such as interview quotes¹⁷, prerequisites are abstracted for the strategic competence.

In turn the codes are organized into (sub-) categories and consequently in a theme. These codes and sub-categories represent the effects of the strategic competence, that is identified in the theme and/or category. Codes are used to reorganize data in order to facilitate interpretation

¹⁷ Interviews are taken after the document analysis, but are included in the final analysis. Interview quotes are therefore assumed to be the same as document quotes.

and analytically useful categories. According to Forman & Damschroder (2008: 48) is creating codes "a means by which to exhaustively identify and retrieve data out of a data set as well as enable the research to see a picture of the data that is not easily discernable in transcript form". Codes can be defined too narrowly or too broadly which results in inability to discover larger patterns and themes or the difficulty to find meaning in the data. According to the authors twenty to forty codes are the norm for an individual study (2008: 53). (Sub-) categories, abstracted from codes, are the core features of the analysis. Essential is that categories are mutually exhaustive and exclusive (Graneheim & Lundman, 2004). Therefore no data is related to two categories or none, which can be difficult to achieve.

Aggregate level of	Example of content analysis				
content analysis					
Theme	Global integration for strategic success, later defined as "stimulate multilateralism"				
Theme on the control of the control	Multilateralism: a framework of many (global) partnerships which supports (non) governmental (military) organizations in coping with today's dynamic environment				
Sub-category	Collaboration/multilateral frameworks to improve own' and partners' capabilities		Creating a critical mass by collaboration/multilateral frameworks		
Code (or label)	Collaboration/multilateral frameworks as an instrument to learn from/use each other capabilities/capacities		Collaboration/multilateral frameworks as an instrument for worldwide influence		
Condensed meaning units	Collaborations in order to learn from each other	The value of partners to use their capabilities and capacities	Influence international order by collaboration	Influence on political priorities by collaboration	
Meaning units /quotes (later on extended with interview quotes)	In the spirit of l'earning of each other' collaboration must also be sought with civil society partners	Allies often posses capabilities, skills, and knowledge we cannot duplicate. We (red. USA) should not limit ourselves to the relationships of the past. We must broaden our ideas to include partnerships for new situations or circumstances, calling on moderate voices in troubled regions and unexpected partners	Although the role of non-state actors in world affairs has increased, states will continue to be the basis of the international order. In cooperation with our allies and friends, the United States can help shape the international environment, the behavior of actors, and the choices that strategic states face in ways that foster accountability, cooperation and mutual trust	A growing number of bilateral donors, including the Netherlands, are recognizing the need to work more on security and development in fragile countries. Multilateral frameworks and collaboration with other partners are vital here	

Table 1: Aggregation of content analysis

§ 3.2 Interviews

3.2.1 Key informant technique

A key informant is "an expert source of information" (Marshall, 1996a:92) and creates in-depth insights to the phenomenon studied. Key informants are rare and mostly occupy responsible and influential positions, such as functions within the RNLA's authorizing environment. An advantage of this technique is the relative quality of data which is obtained in a short period of time (Marshall, 1996a).

3.2.2 Data selection

3.2.2.1 Unit of analysis

In order to examine the results from the latent content analysis and to identify critical knowledge, key informants are interviewed. These key informants are able to share experiences and expertise concerning strategic competencies of the Royal Netherlands Army. Such experts create in-depth insights on the strategic competencies and its critical knowledge.

3.2.2.2 Sampling technique

Key informants are sampled by judgmental, purposive sampling: the most productive sample is chosen to answer the research questions (Marshall, 1996b). Since the total population of potential informants is small, a minimum of ten key interviewees is appropriate (Marshal, 1996b). A small sample of informants is not per definition unsuitable when the research goal is transferability and not generalizability (Marshall, 1996b). Especially in researching a less well known phenomenon as strategic competencies, it is important to explore the subject and ultimately share research findings with others.

Informants are invited mostly by a telephone call and in some cases by e-mail or a personal visit. After the first contact a confirmation of time, date and place was send to the interviewee by e-mail. Many informants found it difficult to answer the questions, because of abstract level of discussion. Therefore the list of definition that originally was presented during the interview (in 10 cases) was send prior to the interview (in 3 cases).

3.2.2.3 Selection criteria

Scholars have highlighted characteristics of an 'ideal' key informant (Marshall, 1996a). First and most important aspect is the role in the community. Informants hold formal roles

which give them access to the kind of information sought by the researcher. Interviewees are therefore selected on the bases of their professional position in the organization. Second characteristic is the extent to which the informant is expected to be able to absorb information with understanding and meaning. In order to communicate knowledge, an informant should be willing to share the knowledge, the third aspect, and share it intelligible, the fourth aspect. Those aspects are secured by interviewing informants who hold positions related to strategic level and/or knowledge functions. At last, to gain objective and unbiased information the key informant needs to be impartial. On top of the criteria mentioned above it is important to select informants with a broad view. Potential key informants are selected by the researcher with assistance of the RNLA's supervisor committee based on their business experience, which is appropriate for purposive sampling (Marshall, 1996a; 1996b). Six informants hold position in the central staff of the Ministry of Defense, seven hold position in the RNLA of which four in the staff of the RNLA (for an organizational chart see appendix B; for the list of key informants see appendix F).

3.2.3 Data collection

3.2.3.1 Interviews

After the latent content analysis, interviews are set up. Prior to the interview a protocol has been developed (appendix E). Formulating interview questions beforehand is essential for a goal-oriented and efficient approach. This protocol consists of formulated questions related to the research questions, the theoretical framework and the findings of the document analysis.

In the introduction (first contact and prior the interview) the interviewer informs the interviewees about the research question and the sub questions. Prior to the validation of the findings of the document analysis, open questions are asked in order to explore the interviewee's insights about strategic competencies and critical knowledge. Because these concepts are rather unknown to the interviewees, a list of definitions was given. The first question of the interviewe was to elaborate on the definition of the strategic competencies and asking the interviewee which strategic competencies he identifies in the current situation. After that the interviewer asked which competencies are necessary for the future. After these questions the interviewer validates the research findings by asking questions about the identified strategic competencies. These questions are based on the research findings, such as the effects of the strategic competencies. These effects were presented to the interviewees and subsequently was asked if they recognized these effects and if so, why (not).

The second part of the interview exists of questions about critical knowledge. Prior to the questions the interviewer explained the theoretical definition of critical knowledge. The same method was applied by using an open approach by asking the interviewees what they thought to be critical knowledge. Questions that followed are based on the literature by asking which type this knowledge is; about the extent of complexity; about how this type of knowledge is present in the organization, et cetera (see appendix E).

Because little is known about the expected answers questions are open-ended. It allows the interviewer and interviewee to discuss several aspects of the phenomenon at the same time. Such questions therefore result in multi-dimensional insights about strategic competencies and its critical knowledge. The interviews are adapted through a semi-structured way to enable the interviewer to question topics which are not foreseen beforehand, but which are relevant for answering the research questions.

The interviews are conducted face-to-face in familiar, natural environments, like the interviewees' private office, with only the interviewee and interviewer (i.e. researcher) present (except if stated otherwise). With confidentiality being guaranteed all interviews are recorded with permission of the interviewee¹⁸. The main point of recording is to transcribe and re-listen the interviews to analyze them accurately.

Because the topics are not controversial and interviewees are encouraged to speak freely, it is not relevant to take the interviews anonymously. Interviewees can on the other hand have personal reasons to prefer anonymity and therefore this option is available.

3.2.4 Data analysis

3.2.4.1 Transcribing and coding

In January 2011 thirteen interviews are taken. A total of 800 minutes have been recorded with an average of one hour per interview. An interview lasted at least 45 minutes and 90 minutes at most.

These interviews are, along with notes of the interviewer, transcribed and analyzed according to codes which were abstracted previously from document analysis. At the same time while analyzing the interviews, it is possible that new categories or codes emerge, this is the open coding approach (§3.1.4.2).

Synopsis – The research consists of two qualitative techniques in order to explore strategic competencies and critical knowledge. To answer sub question one a qualitative content analysis is executed. 45 documents of a total of 3000 pages and a collection of newspaper articles resulted in 380 selected text phrases to analyze. For validating sub question one and answering sub question two 13 interviews were taken of a total of 800 minutes. These analyses resulted in identifying RNLA's strategic competencies and the critical knowledge.

CHAPTER 4

RESULTS

Introduction - This chapter answers the research question, which is formulated as follows: What are RNLA's strategic competencies and which knowledge is critical for preserving and strengthening these competencies in order to respond to dynamic environmental developments within the setting of the authorizing environment the Ministry of Defense?

The research question is split into the following sub questions: What are RNLA's strategic competencies in order to respond to dynamic environmental developments within the setting of the authorizing environment the Ministry of Defense? (See §4.1). Two strategic competencies are identified by the document analysis. These competencies are explained by elaborating on the concept itself, the effects of the strategic competence and the prerequisites in the current situation for change. Difference is made between current and future competencies while presenting the results.

The second sub question is: Which knowledge is critical for preserving and strengthening RNLA's strategic competencies? (See §4.2). This question is divided into critical knowledge related to strategic competencies, which examines the content. The second part is related to the characteristics of critical knowledge, such as are explained in the theoretical chapter.

For an overview of the results, see table 2.

§ 4.1 RNLA's strategic competencies

This paragraph answers the first sub question (for an overview, see table 2). The following sections describe two strategic competencies that are deduced from the qualitative document analysis. These key abilities of senior management are *a*) to facilitate strategic transformation and *b*) to stimulate multilateralism.

These abilities are *future* strategic competencies based on the assumption that the RNLA is preparing for the armed conflict of the future. The future character of conflict is evolving and is "not getting any simpler: the range of threats is actually expanding"¹⁹. On basis of previous experience one could negatively put that military organizations are "always one war behind"²⁰. This future character of conflict challenges therefore military forces that are prepared for industrial-aged war. Strategic competencies, such as above mentioned, are necessary to respond to this expanding range of threats.

 $^{^{19}}$ Future character of conflict, UK Army, 2010, p. 34.

²⁰ Final report national safety & security: responding to risks to citizens, communities and the nation, Interior Affairs, 2008 p.8.

The key informant interviews are used to validate the future strategic competencies. While elaborating on the strategic competencies, interview-data are used to characterize the *current* presence of these two strategic competencies.

4.1.1 Facilitate strategic transformation

4.1.1.1 Description

In order to be able to respond to future conflict the key ability of senior management is to facilitate strategic transformation. Strategic transformation is the flexibility of an organization to continuously change adequately and (thus) to leverage resources differently in time in order to keep focus on long term effectiveness while considering the dynamic environment.

The main importance of long term effectiveness and securing organizational continuity lies in the awareness of which actions lead to which effects, side-effects and negative effects. A key informant said: "It is essential to know what the consequences are of acting, acting too late or acting not at all". Strategic transformation can only be initiated if it is transparent why change is necessary and how this change relates to long term organizational success. This means that the initiators of strategic transformation are well-known with the organizational elements and their operational characteristics, the relations between them and (the relations with) its environment. To sum up, strategic transformations requires a lot of information about internal and external dynamics for the initiators to acquire.

After making these internal and external dynamics transparent, it is vital to communicate this to the employees. The RNLA is currently focused on identifying future developments, but what it needs to do is to (re)act on bases of these identifications. An informant called this organizational anticipation: "Anticipation is a competence in itself. (...) It exists of two parts: first to identify future developments and second to react and/or adapt to such developments. (...) RNLA currently focuses on the first, but what it should do is to focus on the second". In order to act on upon dynamic developments while considering continuity, it is necessary as an organization to think about long, mid- and short-term consequences. Especially the creation and internal communication of a vision is vital in order to inform, motivate and direct personnel. Informants emphasize the importance of a vision in order to counterbalance the rush of the day. Someone said "If we would have a good vision, it is still difficult to exert. We are, on top of that, ruled by everyday's incidents". The informant aims at the external influences of the authorizing environment, like political decision-making. It is difficult to formulate and communicate a long-term vision with a political authorizing environment, but nonetheless it is essential in order to empower personnel.

An important cause for strategic transformation is budget. Military organizations are forced to transform or modernize due to strong financial constraints. The critical note in the following quote lays bare the high impact of today's economical situation. "Defense has to fight for every penny. This is an almost impossible task, because priority is almost always given to other policy areas (...). Further efficiency cuts will also be almost entirely at the expense of operational units and therefore result in clear cutting without vision"²¹. There is a significant danger of eliminating critical resources due to opportunistic efficiency reasons. Key informants confirm the critical economic situation and its consequences for the RNLA as well as some clear cutting without vision. An informant puts it as follows "We are more and more governed by an Excel sheet". Such organizational economy measures do not only decrease RNLA's budget and expenditures, but they also exhaust organizational capacities. Exhausting capacities result in a decreased ability to accomplish the same ambition level and tasks.

To sum up, in order to be able to respond to dynamical environmental developments while securing organizational continuity a key ability for senior management is to facilitate strategic transformation. Important for this strategic competence is a) information about the internal and external dynamics, b) the formulation and communication of a vision to empower personnel. Strategic transformation is an answer to restrained budgets and personnel which is ruled by everyday's incidents.

4.1.1.2 Effects

Crucial effects of strategic transformation are increased adaptability and agility. The adaptability of an organization influences the ability to cope with a complex, unpredictable environment. Being adaptable as an organization is important, because then it is organized to deal adequately with uncertain, external influences. Agile organizations possess "the ability to decentralize resources and decision making and having uncommitted resources to deal with the unexpected"²². Decentralization of resources and decision-making empowers personnel. As a key informant stated "it is not about what to think but about how to think". A currently applied concept of the RNLA that enhances adaptability and agility is the comprehensive approach. This approach responses to "wicked, unbounded or insoluble problems" which have "no clear relationship between cause and effect and no single institution will be able to control the outcome"24. The main idea of the comprehensive approach is about "recognizing that security has military,

²¹ As far as the world extends, CDA Wetenschappelijk Instituut, 2007, p. 82.

²² Strategic trend program: global strategic trends: out to 2040, UK Army, 2010, p. 38.

²³ Strategic trend program: global strategic trends: out to 2040, UK Army, 2010, p. 38. ²⁴ Future character of conflict, UK Army, 2010, p. 38.

political, economic and social dimensions"²⁵. A good example is the 3D approach which pursues cooperation of Diplomacy, Defense and Development, also called the Dutch approach. The 3D approach is comprehensive because it encounters different dimensions, like social, geographical and economical factors. This approach requires especially close collaboration with a "broad range of actors, with a role for diplomacy, development aid and sometimes armed intervention"²⁶.

Besides adaptability and agility, some documents focus on conflict prevention as main task and the creation of unique forces as long term goal²⁷. First of all, the focus on conflict prevention has two main arguments: it is better and cheaper than repairing after conflicts occurred. But although it gains priority, it is not necessarily easier to exert. Critical factors of conflict prevention are timely and informed decision-making and the ability to react adequately in an uncertain and complex environment. Key informants however do not see conflict prevention as the main task for the RNLA unless the government decides so. Secondly, the development of unique forces is more emphasized due to the trend to supranational military cooperation. Especially in Europe is the "collection of interlocking European armies" a hot topic. Smaller countries could specialize in niche capabilities or key military tasks, like protection against chemical and biological weapons, because they cannot deliver the full range of military capabilities due to financial constraints. Key informants do however not expect that the Ministry of Defense is going to specify its tasks, ambition level and to create niche capabilities because it will loose its potential as lead nation in military missions and therefore will narrow its worldwide political influence.

To recall, essential effects of strategic transformation are increased adaptability and agility which enables an organization to respond to an uncertain environment and to act upon this environment. The identified focus on conflict prevention as main task and the creation of unique forces, is not confirmed by key informants due to the fact that the Ministry of Defense has an expeditionary ambition level and that the Netherlands decreases its worldwide political influence if it narrows its ambition level.

4.1.1.3 Prerequisites for change

For adapting to the future character of conflict by strategically transform the organization, some prerequisites for change are identified. The first prerequisite is updating RNLA's organizational procedures and/or approaches that are "misrepresenting the

²⁵ NATO 2020, NATO, 2010, p. 22.

²⁶ Our common concern: Investing in development in a changing world, Foreign Affairs, 2007, p. 22.

²⁷ Future character of conflict, UK Army, 2010; Our common concern: Investing in development in a changing world, Foreign Affairs, 2007.

interconnectedness and interdependency of different military activities"²⁹. RNLA's current procedures are quite fixed. A good example in this case is the procurement of (large) equipment and/or technological systems. Specific procedures are set up in order to be transparent in (the cost of) project investments and in order to control projects' finances³⁰. Such procedures have a significant impact on organizational processes, because many steps are clear and predefined. Many budgets are for example compartmentalized. An informant states that "budgets need to be adaptive in order to be adaptive as an organization". Such fixed procedures influence organizational behavior which means that personnel (start to) focus on the process in stead of the goal. "The process becomes sacred. But the focus should not be on 'how to behave' but on 'how to think" an informant emphasized. Key informants confirm that the ability to respond adequately is decreased due to fixed procedures. An informant said: "planning procedures become more and more complex which demand more and extensive organizational capacity". Such procedures are still valid to keep internal transparency and financial control, but in order to respond to a changing environment, procedures also need to support organizational adequateness. This means that the organization is able to respond effectively and in time. An informant emphasizes the need for speed: "you need sensors which capture information in order to make decisions in time and to act in time". A good example is the occurrence of strategic compression. This means that actions and/or decisions on the tactical level of the organization by even one individual could have major influences on strategic level. Such strategic soldiers need to be able to change quickly in roles in a dynamic conflict situation; they are able to rapidly change from 'winning the hearts and minds' to using physical violence. So, the RNLA needs to refine their future procedures and approaches in order to empower personnel for adequate decision-making while staying transparent and keeping financial control.

The second prerequisite for military success in a complex and fast paced environment is rapid acquisition of military equipment. A key aim for rapid acquisition is to "radically shorten the timeframes involved in moving from innovation to practical embodiment"31. If this responsiveness quickens, the agility and adaptability of the organizations grows. Key informants state that the acquisition process is too rigid and thereby less appropriate for operational effectiveness due to two reasons. The first reason is a time consuming process of procurement. It is time consuming due to procedures in order to control the overall costs of the project and to specify a set of demands for a state-of-the-art result. Law enforces procedures to enhance transparency and financial control, like for example the European regulations on procurements above approximately €130.000 and the defense material process which is obligatory for projects

²⁹ Future character of conflict, UK Army, 2010, p. 35.

³⁰ See the "Walrus affaire" and "Hoofdlijnen van het Defensie materieel proces", 2007 which concern projects with a financial scope of more than € 5 million.

31 An initial long-term vision for European defense capability and capacity needs, EU, 2006, p. 22.

with a financial scope with more than €5 million³². Such procedures are experienced as a "snowballs" that increases negative bureaucratic effects such as rigidity and tardiness. The second reason is the assumption that military equipment is still effective for military operation over ten till twenty years. Replacement of equipment is in the current situation sooner necessary due to developments in information and communication technology and combat situations, like the occurrence of cyber warfare for example. Due to the reason that military equipment needs a quicker update, research & development (R&D) costs are relatively more expensive (i.e. shorter time to recover the costs). Informants emphasize the possibility to by commercial of the shelf. This means that the RNLA could accept an 80 percent solution in stead of the ideal 100 percent solution. An informant said "the time-span of initial solution to implementation is long and most of the time the costs are higher than expected (...) I never met someone who invented just what we want, so commercial of the shelf - to buy what the industry offers - is an appropriate solution". Commercial of the shelf will reduce the costs through lower R&D costs and quicker availability of equipment (so there is no need to maintain old equipment with increasing running costs to operate). On top of that is plausible that interoperability of the military systems increases. An informant told "in order to be interoperable it is necessary to buy military equipment which can be integrated with foreign systems. In the past some 'ideal' solutions could not be integrated due to its state-of-the-art characteristics".

To summarize, organizational procedures are set up for transparency and financial control and are therefore vital in decision-making. A negative effect of procedures is that can be too time-consuming which decreases timely and adequate decision-making in order to respond to the dynamic environment. On top of that, rapid acquisition of military equipment can deliver a minimum of 80 percent sufficient equipment within a shorter time frame, with lower R&D costs (and/or subsequently with lower maintenance costs when new equipment is delayed).

4.1.2 Stimulate multilateralism

4.1.2.1 Description

The second identified strategic competence is to stimulate multilateralism. Multilateralism is a framework of many forms of (global) partnerships which supports (non) governmental (military) organizations in coping with today's dynamic environment. The need for multilateralism is embraced by many states for securing their prosperity and responding to "a world of global threats, global markets and global media" NATO argues: "Better cooperation can also be helpful in addressing unconventional threats such as terrorism, cyber-attacks, and

³² Hoofdlijnen van het Defensie materieel proces, 2007.

³³ Power and legitimacy: the quest for order in a unipolar world, Clingendael, 2005, p. 17.

energy vulnerabilities"³⁴. The UK Ministry of Defense states: "Partnerships: alliances are relatively strong form of collective defense and offer the best chance of spreading the load in future conflict."³⁵ The Dutch Ministry of Foreign Affairs emphasizes: "A growing number of bilateral donors, including the Netherlands, are recognizing the need to work more on security and development in fragile countries. Multilateral frameworks and collaboration with other partners are vital here"³⁶. And according to the development organization CORDAID the main point of multilateralism is being complementary. They say: "to complement each other is not always about direct collaborations, like partnerships are. Essential is the consciousness of and knowledge about the different roles of firms, government and welfare organizations have."³⁷ An informant identified this as synergy: to gain more profit together that they would if they performed separately. Multilateralism is used to form groups of power in order to respond to the dynamics of the world.

Multilateralism is an essential mean to fulfill tasks on a large scale and/or long term. Besides that, it creates advantages for the organization itself. Through multilateralism military organizations are able to create effects on the operational level, such as conflict prevention. Subsequently, and for this research more interesting, multilateralism enhances access to strategic level of allies and partners. The USA Defense argues that access to higher organizational levels is essential for responding to new circumstances or situations³⁸. Especially qualities, such as skills, capabilities and knowledge, which are difficult to build, own and to duplicate can be accessed through multilateralism. Such partnerships offer great opportunities on operational level as well as strategic level.

Multilateralism is a broad defined concept. As abovementioned it can have different forms of partnerships. A logical difference is formal, binding alliances versus informal partnerships³⁹. On top of that, many partnerships exist of different types of organizations, such as civilian, military and (non) governmental organizations, that use both soft as hard power instruments⁴⁰. Such coalitions vary in size, scale, composition, specific requirements, competencies and capabilities depending on the type of operation⁴¹.

To sum up, multilateralism is an adequate, synergetic approach - present in different forms - to respond to the dynamics of the world, such as addressing unconventional threats. Besides that the main advantage of multilateralism is that an organization is able to access allies

³⁴ NATO 2020, NATO, 2010, p. 24.

³⁵ Future character of conflict, UK Army, 2010, p. 35.

³⁶ Our common concern: Investing in development in a changing world, Foreign Affairs, 2007, p. 24.

³⁷ Strategy 2007-2010, walk that extra mile, CORDAID, 2007, p. 16. (Free translation).

³⁸ National defence strategy, USA Army, 2008, p. 15. ³⁹ Future character of conflict, UK Army, 2010.

⁴⁰ An initial long-term vision for European defense capability and capacity needs, EU, 2006.

⁴¹ National defence strategy, USA Army, 2008; Strengthening of the coordination of emergency humanitarian assistance of the United Nations, UN, 2007.

on strategic level. This means that an organization becomes acquainted with allies' special qualities, like skills, capabilities and knowledge.

4.1.2.2 Effects

Multilateralism has three effects. The first effect is the creation of a critical mass. The environment in which defense forces in today's and future conflict have to operate is characterized by a continuous struggle between groups of power. The dynamics between these groups of power require an adequate strategy for organizations in order to influence such dynamics. The creation of a critical mass supports two goals. The first is a concentration of strength on an operational level, like intervening or influencing local government. The second goal is the creation of a critical mass worldwide in order to influence the international order. The USA army states for example: "In cooperation with our allies and friends, the United States can help shape the international environment, the behavior of actors, and the choices that strategic states face in ways that foster accountability, cooperation and mutual trust", Multilateralism is thus effective on two different levels, both on the operational and the strategic level. It functions as an instrument to bond and to make one's own power stronger and other groups of power relatively weaker.

The second effect is improvement owns' and partners' capabilities. Organizations are able to share and most positively duplicate each other skills, knowledge and capacities through collaboration and partnerships. An informant emphasized that partnerships refine organizational competencies which result in the ability to respond quicker to external changes. Multilateralism improves organizations' capabilities, but also facilitates organizations to "learn valuable skills and information from others better situated to understand some of the complex challenges we face together"43. These collaborations are set up in the "spirit of learning of each other"44 which improves the value of the partnerships. The United Nations even talk about the creation of international mechanisms and that these mechanisms "should assess progress annually, create a focal point to share best practices and lessons learned and fully fund the most useful international mechanisms"45. So, the second effect is also found on both operational and strategic level. Besides learning from each other, it is important to continue joint strategizing and providing integrated analysis to ensure a balanced approach for security situations⁴⁶.

 ⁴² National defence strategy, USA Army, 2008, p. 13.
 ⁴³ National defence strategy, USA Army, 2008, p. 16.
 ⁴⁴ Our common concern: Investing in development in a changing world, Foreign Affairs, 2007, p. 24.

United Nations. Trends and progress in international development cooperation, 2010, p. 31.
 Our common concern: Investing in development in a changing world, Foreign Affairs, 2007, p. 25.

A third effect of multilateral frameworks is cost-effectiveness which is achieved by "collective security, burden sharing, confidence building and conflict prevention; promoting situational understanding; role sharing; and - critically - to enable access",47 on a multinational level. European Union Member States are, for example, "increasingly pooling, sharing and synchronizing their military assets"⁴⁸, because it is a cost-effective way. Critically considered can sharing costs not be an effect of a core competence, but due to the global economic downfall this advantage cannot be ignored. Key informants also emphasize the fact that partnerships are initiated due to the current economical situations. A key informant said "Partnerships were based on ideology. In the current situation it is based on pragmatism, so it is all about money".

To sum up, multilateralism creates three effects. On strategic level the critical mass – the first effect – results in bonding to make owns and allies' power stronger and others relatively weaker. The second effect, the improvement of owns and partners capabilities, is to use and/or learn from each others skills, knowledge and capacities. The third effect, that is not theoretically seen a competence, is the cost-effectiveness of multilateralism. Especially due to the economic downfall this effect is an important reason for military organizations to collaborate with others.

4.1.2.3 Prerequisites for change

Notable in especially European-oriented documents is the expected direction towards specialization of national armies to create several niche forces. The European Union (EU) identifies a special ambition: "We [EU] may be going through a paradigm change towards a truly globalised order, towards a more multi polar order. But also unexpected events have shaped, and most likely will continue to shape, our environment. We need to prepare for the future with the right mix of flexibility and determination. Europe needs its own version of smart power." In the document they reflect on the past and compare the EU to the military and political power of the United States of America. "And EU-member states need greater military power, to counter US assertions that Europe should be left out of political decisions because, with few exceptions (the British, French and the Dutch), it tends to bring very little useful military force to the table."50 The EU emphasizes a new ambition for European armies, such as the RNLA. These quotes imply that if Europe wants to be a political power it needs to supply more military force to world wide conflict situations.

The European ambition for an own force leads to resistance by its members due to two reasons. The first reason is that member states do not want to give up autonomous decision-

⁴⁷ Future character of conflict, UK Army, 2010, p. 35.
⁴⁸ What ambitions for EU defense in 2020, EU, 2009, p. 134.

 ⁴⁹ What ambitions for EU defense in 2020, EU, 2009, p. 135.
 50 Willing and able? EU defense in 2020, EU, 2008, p. 18.

making and place it one level higher and/or share it with another country. The main problem is those nations have differences in their "political will and the capacity and capability to make significant contributions across the spectrum of conflict."51 Key informants emphasize this problem. "It feels 'unheimlich' (...). It is a state's issue to decide whether or not we dedicate to a mission". Nations will not easily give such essential power to supranational institutions. Especially the incapacity of supranational alliances to gain "a clear political and military chain of command, sufficient autonomous planning and control capacities, a coherent strategic concept and possibly also enough strength and clarity of purpose to deter escalation in a volatile situation" is a concern⁵². An informant said: "I do notice more initiatives to cooperate, but nations want to keep their autonomy." So, what can be said is that nations do search more active for collaborations. This means that the political will to initiate collaborations between foreign (military) partners is increased. On the other hand is the will to share political decision-making about missions very low and is it not likely that this willingness will increase in the coming years.

The second reason is the cultural and organizational differences between military organizational parts; and between military and civilian experts. A key informant said the following about organizational and cultural differences: "It is a disadvantage if you never see each other before an operation. The more contact, the better. You need to share a common ground before you start." Such things as a common ground and mutual trust are important aspects of multilateralism. Essential is to understand each others structure, culture and way of doing things. The NATO stated that different organizations and organizational parts "tend to plan differently, set different priorities, establish different standards of accountability; recruit and deploy personnel differently, and often even speak the same language in ways that one has trouble understanding the other"53. It is important to understand and trust the other and to know how organization can fit in order to set up effective collaborations.

To summarize, if the Netherlands wants to adhere to the trend towards a European military force, it needs to take two prerequisites into account. The first is that the nation is to give up autonomous decision-making to a supranational level (like the EU) or that it shares decisionmaking with at least one other nation. The effect of such trend is that political decision-making is more time-consuming and dependents on other political authorities. This dependency takes away the nation's autonomy to decide whether or not to take part in a mission. A second prerequisite is the ability to cope with the cultural and organizational differences between military organizational

 $^{^{51}}$ National defence strategy, USA Army, 2008, p. 21. 52 What ambitions for EU defense in 2020, EU, 2009, p. 72. 53 NATO 2020, NATO, 2010, p. 42.

parts, such as the Navy or Air force and between military and non-military organizations, such as the Ministry of Foreign Affairs.

§ 4.2 Critical knowledge

This paragraph answers the second sub question (for an overview, see table 2): "Which knowledge is critical for preserving and strengthening RNLA's strategic competencies?" Critical knowledge is the type of knowledge that is vital to preserve and strengthen strategic competencies. The importance of knowledge in the current dynamic environment is its ability to change and subsequently diffuse among people. Knowledge, as organizational factor, is dynamic and therefore essential for an organization to respond to its environment.

First aspect of the sub question is the relation between the *future* strategic competencies and *current* critical knowledge. The strategic competencies are a) the facilitation of strategic transformation and b) the stimulation of multilateralism. The first aspect concerns the content of critical knowledge in relation to the strategic competencies. The second aspect is about the characteristics of critical knowledge. In order to understand critical knowledge is not only important that is identified which knowledge it is, but also what type knowledge it concerns. Especially for preserving and strengthening critical knowledge it is vital to know how to develop, manage and maintain and which mechanisms the organization need to use.

4.2.1 Critical knowledge and its content

4.2.1.1 Facilitate strategic transformation

To recall, strategic transformation is the flexibility of an organization to continuously change adequately and (thus) to leverage resources differently in time in order to keep focus on long term effectiveness while considering the dynamic environment. The first aspect of this strategic competence is the function of the senior staff to facilitate the transformation. The main difficulty of changing the organization and/or the leverage of resources is the creation of a balance between the organization and the external environment. According to a key informant a staff "coordinates (...), synchronizes (...) plans; harmonizes the performance of tasks, related to the set of resources." The creation of balance is challenging because the organization needs to be prepared for all kinds of (unexpected) situations, combinations and environments to perform its tasks. An informant said: "An organization needs to adapt to changes, and it needs to do this quickly. Changing is all about willingness and possibilities. Willingness relates to leadership and possibilities relate to processes, systems and preconditions." Besides recognizing that willingness and leadership are two crucial factors for

change, especially leadership has to deal with an extra dimension. Employees are connected to each other through formal and informal networks. An informant said: "People start immediately to share and collect thoughts (...) it requires a new style to coordinate the staff". An informant added: "connections of people and organizations become more important (...). The ability to deal with such networks is important (...) that is a change (...) and it is necessary to prepare your employees for that". The crucial factor of such connections and networks for critical knowledge is that it functions as an instrument to find specific knowledge and/or experience. So, in order to coordinate as staff, but also to synchronize all kinds of processes in a dynamic world, it is necessary to use such networks to leverage resources.

For strategic transformation an organization needs to be flexible with focus on long term effectiveness. An informant introduces this flexibility as follows: "Conventional planning processes are still reliable and necessary, but sometimes we need the courage to come loose of such methods. That requires a collective mind-set. The preparedness to let go of such plans (...) it is the ability to improvise". Another informant handed over a recent study of the Hague Centre for Strategic Studies⁵⁴. This study elaborates on the 'anticipation'-function which is necessary to respond the environment of the Ministry of Defense. The informant said the following about anticipation: "Instead of asking which type of equipment we need, we need to ask ourselves if we need the equipment at all. Instead of owning equipment we need the possibility to use equipment. It is a different approach (...) and needs an entirely different organization. (...) We need to question ourselves how we acquire equipment instead of only asking what type of equipment to acquire". If the organization wants to strengthen its anticipation function, it needs to ask different type of questions for setting the strategy. It needs to reconsider the dynamics of the environment and how the RNLA can enhance its flexibility to adapt without loosing sight of the long term. If the RNLA decides to create possibilities for using military equipment instead of acquiring the equipment, it needs to consider different questions. Think for example about the type of contract; how to educate and train personnel; how to facilitate access to experiences about working with the equipment, et cetera.

To conclude, the main difficulty of facilitating strategic transformation is to find a balance between responding to the environmental dynamics and to secure organizational continuity. An important aspect for strategic transformation is that personnel works (and need to work) in networks and use their connection to find critical knowledge. On top of that, critical knowledge of strategic transformation is related to the anticipation-function. This means that the organization, and its senior management, needs to ask different questions than before. Not only explorative question about for example military equipment are vital to ask, but also the action

⁵⁴ Anticipatie, The Hague Centre for Strategic studies, 2010.

from foresight to insight is essential. This means that the RNLA needs to act upon the insights they identify.

4.2.1.2 Stimulate multilateralism

To repeat, multilateralism is a framework of many forms of (global) partnerships which supports (non) governmental (military) organizations in coping with today's dynamic environment. The critical factor for effective multilateralism is to have knowledge of the partners. An informant said: "Knowledge about partner's language and culture. You need in-depth knowledge about the organizations. We need not only study the organizational structure, but also how they operate. To know what they want. Then it is easier to comprehend your partner'. Multilateralism needs diplomatic skills for cooperation instead of military skills. An informant puts it as follows: "The Netherlands is a small country, so it is plausible that we cooperate a great deal in bi- and multilateral cooperation (...). The RNLA selects its management on bases of leadership and decisiveness. Such leaders are therefore less trained in being a diplomat. For multilateralism it takes two to tango. We need diplomatic skills to get what we want. On international, but also on inter departmental level, such as the Ministry of Foreign Affairs. Military-trained people decide and act, unlike diplomats who are much more subtle, sensitive and discrete in their decision-making". This means that the military approach to cooperation is less valuable for diplomacy affairs in multilateralism. In order to understand and deal with other organizational cultures it is important to learn more about partners and the skills of diplomatic collaboration.

Multilateralism stimulates sharing knowledge between partners, but is held back by one thing: trust. The willingness to share knowledge, technology and information is a problem, because relations between partners change. An informant said: "Knowledge is power to influence. Only an intensive feeling of trust will make us share knowledge". So, knowledge is seen as an asset that needs protection. The willingness to share knowledge is low in general, because it is assumed that sharing knowledge decreases the organizational influence on its partners and on (inter) national level. It is less clear if sharing knowledge gains advantages or disadvantages for the organization. It is assumed that sharing knowledge is only positive for the partner, because he is able to acquire new knowledge. So, if it is not in the organizational interests to share knowledge, why would they do so? A key informant said that the organization needs to change its mind-set to "duty to share". An example of stimulating personnel to share knowledge internally and externally is rewarding them.

To sum up, in order to stimulate multilateralism extensive knowledge about partners is necessary to understand their culture, way of thinking, structure, et cetera. Especially important are the use of diplomatic skills for the partnerships. Partnerships enhance sharing of critical

knowledge between partners, but are held back by lack of trust. In order to trust each other in sharing knowledge a change of mind-set is necessary. Personnel need to change from the assumption that knowledge is power, to duty to share.

4.2.2 Critical knowledge and its characteristics

As expected critical knowledge is difficult to define as expected, because it is mainly implicit and/or tacit knowledge. Key informants describe it as "what is between the ears" or that what is found in "the heads of people". Key informants distinguish critical knowledge on tactical level and on strategic level. Critical knowledge on tactical level is easier to identify. For example, knowledge and experience about the Afghanistan mission. Informants found it difficult to identify critical knowledge on strategic level. One key informant said: "The organizational top needs to coordinate, manage and indicate directions. Critical knowledge is found in the staff. This type of knowledge feeds the organizational top for preparing them for decision-making". Other informants emphasize that critical knowledge is present in groups of people. So, critical knowledge on strategic level is found in a group of people that share a collective memory.

The collective memory has certain dynamics. Topics such as, what kind of effects the organization attains; how things relate to each other; which relations are causal, reciprocal, et cetera, are shaping critical knowledge. Critical knowledge changes a lot due to external dynamics that influences the continuous development of knowledge within and shared by people.

Informants emphasize that this knowledge incites to action. And before taking action "you need to know what the effects are of certain actions" according to an informant. This means that this type of knowledge is closely related to meta-knowledge, which refers to 'know-when-why'. Critical knowledge is on also related to the ability to find sources of information. A key informant emphasized the need for "knowledge about the collection of sources and where they are". This type of knowledge, to know-where-which, is situational.

To sum up, critical knowledge is difficult to define due to its implicit, meta- and dynamic character. This means that it is difficult to define and measure its advantages and results. An informant said: "You cannot easily measure the effects of knowledge management. It makes me wonder, are we doing the right things? (...) it is a wild guess. (...) the effects are experienced on mid- and long-term". This means that the advantages of critical knowledge are less visible for personnel and senior management. So it is crucial to examine, and communicate the vital contribution of critical knowledge to the organizational continuity and the ability to respond to the dynamic environmental developments.

		Facilitate strategic transformation	Stimulate multilateralism		
Strategic competencies	Identification	The flexibility of an organization to continuously change adequately and (thus) to leverage resources differently in time in order to keep focus on long term effectiveness while considering the dynamic environment	Framework of many forms of (global) partnerships which supports (non) governmental (military) organizations in coping with today's dynamic environment		
	Effects	Being adaptable and agile	Creation of critical mass		
		Task specialization (conflict prevention) and/or focus on a unique military force is <i>not</i> recognized	Improvement of owns' and partners' capabilities		
			Cost-effectiveness		
	Prerequisites (short term)	Updating RNLA's organizational procedures in order to become less fixed and/or flexible	Know in what extent and on which area autonomy is preferred above multilateralism		
		Rapid acquisition of military equipment to reduce R&D costs; to encounter the shorter lifespan of equipment and to become more interoperable	Overcome cultural and organizational differences between military organizational parts; and between military and civilian experts		
Critical knowledge	Content	Connections and networks vital to access critical knowledge	Diplomatic skills for cooperation		
		Using of the anticipation-function			
		Trust / duty to share are necessary			
	Characteristics	Difficult to identify (implicit/tacit knowledge)			
		Group of people that share a collective memory			
		Collective memory that is dynamic			
		Meta- and situational knowledge (resp. know-when-why and know-where-which)			

Table 2: Overview of the results

CHAPTER 5

CONCLUSIONS & DISCUSSION

Introduction - The qualitative document analysis and key informant interviews resulted in answering the two sub questions of the research. In the first part of chapter the results and key findings are summarized (§5.1), by answering the research question: What are RNLA's strategic competencies and which knowledge is critical for preserving and strengthening these competencies in order to respond to dynamic environmental developments within the setting of the authorizing environment the Ministry of Defense?

In the second part (§5.2) of this chapter the results are discussed by elaborating on the scientific implications, the research limitations and providing suggestions for further research.

§5.1 Conclusions

5.1.1 Strategic competencies

This research identified two strategic competencies. The first, strategic transformation, is understood as the flexibility of an organization to continuously change adequately and (thus) to leverage resources differently in time in order to keep focus on long term effectiveness while considering the dynamic environment.

In order to be flexible it is essential to acquire information about the internal and especially the external dynamics that influence the organization's continuity. After acquiring and analyzing that information a vision needs to be formulated and communicated by the senior management to empower personnel. This enables employees to react on what is necessary to secure the organizational continuity and to respond at the same time to dynamic environmental developments. Important is that these findings not only focus on the value of external analysis, such as the Future Policy Survey, but that it also focus on the creation of an internal vision related to these analysis to initiate action.

Strategic transformation is, besides being adaptable to the environment and securing organizational continuity, a response to the fact that the RNLA has to deal with restrained budgets and with personnel who is ruled by everyday's businesses. Such practices could lead to opportunistic efficiency reasons and/or management without a clear vision for its personnel to act upon. A vision is therefore useful to overcome short term valuable efficiency reasons and which guides the organization towards long term effectiveness on purpose and effort.

The main effect of strategic transformation is increased organizational adaptability and agility without losing sight of long term effectiveness. It enables the organization to respond to

an uncertain environment and their opportunities and threats. This means that the RNLA, a military governmental organization, is able to be flexible without loosing sight of its long term direction. In fact, an adaptable and agile organization applies short term flexibility measures in order to keep focus on the long term. So, short term measures are not likely to disrupt the long term vision, like opportunistic efficiency reasons do, but they are likely to support the long term vision.

The document analysis identified a focus for military forces on conflict prevention and on top of that it identified the trend towards unique forces. These findings are not confirmed by the key informants due to the fact that the Netherlands would like to preserve and strengthen its political influences that would decline if they narrow down the ambition level of the Ministry of Defense.

RNLA's current facilitation of strategic transformation needs improvement, because it is held back by intensive organizational procedures. Such procedures are set up to enhance transparency and financial control and therefore vital for the RNLA's decision-making. These procedures are unfortunately too time-consuming for the current new economy, because it decreases timely and adequate decision-making that is necessary for responding to a dynamic environment. Updating such procedures by narrowing down the rigidity for example is expected to be difficult. Such procedures are the essence of governmental, bureaucratic organizations. So when it is required to change and/or update these procedures, in the most extreme version, it is asked to change the type of organization. And that will lead to cultural resistance for example, because life long employees are used to work with extensive procedures. Resistance is not easy to overcome and takes a long time. It can even be necessary to change the mind-set of (future) managers on RNLA staff level, but probable also on Ministry of Defense and/or political level. A second necessary improvement is the acquisition of military equipment. A rapid acquisition can deliver a minimum of 80 percent sufficient solution within a shorter time frame with lower R&D costs. It is seen as a quick win, because it reduces the amount of money and time. And these factors are essential in today's dynamic and economical situation.

Multilateralism, the second strategic competence, is a framework of many forms of (global) partnerships which supports (non) governmental (military) organizations in coping with today's dynamic environment. It is an adequate synergetic approach, present in different forms, that could address unconventional threats for example. Besides that, the advantage of multilateralism is that organizations are able to access the strategic level of allies. This means access to another's unique skills, capabilities and knowledge. The importance of this finding is the awareness that a military organization can access other (military) organizations on strategic level

(in stead of only the operational level) and that it is valuable because they can learn from each other.

Multilateralism has three effects. The first effect is the creation of a critical mass on strategic level that bonds owns and allies power and weakens other groups of power. The second effect is the improvement of owns and partners capabilities by learning from partners. The third effect, that is theoretically seen not a competence, is the cost-effectiveness of multilateralism. Especially in the current economical situation such positive effect cannot be ignored and is even a reason to initiate partnerships. These effects occur on different levels; on international as well as organizational level. This means that multilateralism is valuable in several aspects and therefore influential on a broad level within and outside the organization.

The document analysis identifies a trend towards a European army. If the Netherlands government wants to adhere to this trend, they need to take into account that it is going to give up autonomous decision-making. This decreases timely decision-making and increases the nations' dependency to others. Important is to understand that multilateralism is expected to decrease individual budgets, but that organizations need to be careful that it does not lead to slow decision-making. On top of that, organizations such as the RNLA need to cope more and better with other cultural and organizational habits of (non-)military organizations for effective multilateralism. If such cultural and organizational habits need to adapt to each other, it is necessary to train and educate personnel on strategic level. Important is that this training consults personnel how to work on the long term with allies, even without the presence of an operational situation or setting.

5.1.2 Critical knowledge

Critical knowledge is related to the strategic competencies. First, the facilitating of strategic transformation is preserved and strengthened by the network and/or connection employees use to access critical knowledge. Besides connections, organizational anticipation is essential for responding to dynamic environmental developments. Strategic transformation is about foresight and accordingly about insight. So, after asking explorative questions about the future and the environment, it is important act upon the insights that the RNLA has identified.

Second, multilateralism is preserved and strengthened by extensive knowledge about partners(hips) by understanding another structure, culture and way of working. Partnerships benefit the most of the use of diplomatic skills. An important aspect in collaboration is trust. In order to share critical knowledge, a change of mind-set is necessary to induce personnel to the duty to share knowledge.

The difficulty of defining critical knowledge is because it is implicit, meta- and situational knowledge. This knowledge is shared in a collective memory of people, that changes in time. On top of that it is difficult to pinpoint the advantages of sharing critical knowledge for securing organizational continuity and/or responding to dynamic environmental changes.

5.1.3 Key findings

On bases of these results a number of key findings are abstracted. Firstly, strategic competencies are valuable for the RNLA on strategic level and/or in strategic settings. Strategic competencies result in relative advantages such as learning from partners and sharing knowledge on strategic level. This research shows that besides learning in operational settings and on operational level, it is essential to learn from each other and/or to share knowledge on strategic level and in strategic settings. Experience such as how to cope with new opportunities and threats, like quicker innovation cycles or cyber warfare, can be shared on strategic level with other (military) organizations. Strategic competencies enable the organization to respond to dynamic environmental changes, while securing organizational continuity.

Secondly, identifying critical knowledge, that preserves and strengthens strategic competencies, is difficult. That is because critical knowledge is a) implicit and/or tacit knowledge, b) shared by a group of people as a collective memory, c) that collective memory is dynamic because it is related to specific strategic competence and changes over time and, d) concerns meta- and situational knowledge. Difficulties in identifying critical knowledge can lead to difficulties in managing and developing this type of knowledge. And because critical knowledge is expected to preserve and strengthen strategic competencies it is essential to know what critical knowledge is, how it needs to be managed and developed.

Strategic competencies and critical knowledge enhance the organizational ability to cope with a dynamic environment without loosing sight of securing long term continuity. Therefore it is essential to keep focus on these type of competencies and knowledge.

§5.2 Discussion

5.2.1 Scientific implications

This research argues that for organizational continuity and the ability to respond to dynamical environmental changes, strategic competencies are vital. This means that for an organization to survive, it needs to nurture its strategic competencies. Interesting is that strategic competencies adhere to these two goals: to respond to the dynamic environment while securing

continuity. By that, it rules out all kind of opportunistic organizational measures and is the organization able to create relative advantages, that result unique, new mixes of value. Strategic competencies open up opportunities for innovation for example.

By focusing on strategic competencies this research deepens the concept of core competencies. It puts an explicit task on senior management level of the organization to be responsible for the leverage of resources in order to create opportunities. It also explicates that strategic competencies, which are present in the abstract level of the organization, can provide specific, tangible results, such as new mixes of value.

Such tangible outputs, like innovations for example, are the result of the leverage of resources. In the current economy the differential value of these resources is found in the factor knowledge. By identifying a specific type of knowledge, critical knowledge, this research argues that special and specific attention is needed for critical knowledge in order to nurture and strengthen the organization's strategic competencies. As knowledge is already acknowledge as an innovative and/or competitive factor, this research acknowledge critical knowledge to be a vital input for the organization in order to be able to respond to dynamic environmental changes as well as to secure organizational continuity.

Strategic competencies and critical knowledge are vital for the organization's long term success. This research shows that this counts also for non-profit organizations. Non-profit organizations differ significant from private organizations, but both types of organizations need to be able to respond to dynamical environmental changes while securing their organizational continuity. This abstract goal is specified in different manners (e.g. deliver value for the society or deliver profit for the shareholders) by different types of organizations (e.g. public or private). Strategic competencies and critical knowledge are essential aspects for any organization if it wants to be adaptable to its dynamic environment and to secure at the same time its continuity.

5.2.2 Limitations

Like every academic study, this research deals with limitations. The first limitation is that this qualitative research does not provide information such as significant relations or correlations for example. The reason to apply qualitative methods was to investigate less known phenomena and to gain transferable findings. In order to secure valid and reliable findings for the qualitative research, all kinds of measures are taken (see § 3.1; 3.2). Alternatively, by choosing to focus on qualitative techniques and results, quantitative methods and findings are absent. This means that this research cannot provide quantitative information about the relations between strategic competencies and critical knowledge and their contribution to the organizational ability to

respond to dynamic environmental changes and to secure continuity. This research does provide in-depth results about the strategic competencies and critical knowledge of the RNLA, but it is difficult to generalize this to recommendations for other non-profit organizations.

The second limitation is that, although the key informants are selected carefully, strategic competencies and critical knowledge are less known subjects. In-depth discussions about the concepts are therefore more difficult, because more time is needed for the informants to understand the concepts. Because the concepts are relatively unknown, it is more difficult for the key informants give information that supports the (researcher's) understanding about the concepts.

A third limitation of the research is that it did acknowledge RNLA's constrained freedom for change and/or the authorizing environment of the Ministry of Defense, but that this part of the research needs more attention in order to advise higher levels of the organization as well as other non-profit governmental organizations to cope with strategic competencies and critical knowledge.

5.2.3 Suggestions for further research

In order to learn more about strategic competencies and critical knowledge, it is important to execute more research (see also the practical recommendations, chapter 6). This can be done on two levels. The first, is to execute more qualitative research about strategic competencies and critical knowledge in order to learn more about the richness of these concepts. This can be done by involving more non-profit and/or governmental organizations for creating understanding about a 'common set' of strategic competencies that is necessary for this type of organization. Or enlarging the number of informants by including external or more internal informants. External informants can be found in other Dutch Ministries or foreign armies for example. The number of internal informants can be increased by selecting more participants on the different organizational levels, such as the Central staff or staff RNLA. On top of that, an extended number of informants enables the researcher to investigate the mechanisms of interand intra- knowledge sharing and integration to learn more about the dynamic collective memory. Or to investigate the type of partnerships and obstacles that are present between military organizations that enhance and/or reduce knowledge sharing.

The second suggestion is to execute quantitative research in order to find more about the relations between the concepts and their value to enable an organization to respond to the dynamic environment and to secure continuity. This can be done by quantitative techniques such as surveys to measure relations and correlations between concepts. But quantitative research can

also measure the value of strategic competencies and critical knowledge for organizational adaptability and agility on the short term, and/or organizational continuity on the long term. Further research can for example measure dimensions of organizational adaptability and agility and linking them to dimensions of strategic competencies and/or critical knowledge. Hypothesis can for example be a appropriate technique to (in)validate these relations. Besides that, a longitudinal research can measure the relation between strategic competencies, critical knowledge and organization continuity. So many types of research are interesting to follow up this study.

Executing more qualitative and quantitative research is valuable because it enhances our in-depth insights about the value of and the relations between these concepts. These studies can support the organization to adapt to dynamic environmental changes and to secure continuity.

CHAPTER 6

RECOMMENDATIONS

Introduction – In order to advice the Policy Support Branch and to adhere to the research goal, this chapter formulates practical recommendations. One overall recommendations is identified and is split into sub recommendations (see table 3).

§6.1 Recommendations for the Policy Support Branch

Overview of the practical recommendations

- 1. Learn more about and increase intra- and inter organizational knowledge sharing (...)
 - a. Formulate a brief vision that is easy to communicate to personnel
 - b. Update organizational procedures to enhance timely decision-making and/or increase the organizational anticipation function
 - c. Keep speed in the acquisition process of military equipment to become more interoperable
- 2. (...) and collaboration on strategic level/in strategic settings
 - Investigate in what extent and on which area autonomy is preferred above collaboration
 - b. Overcome cultural and organizational differences between military organizational parts; and between military and civilian experts

Table 3: Overview of the practical recommendations

Some practical recommendations are identified for the Policy Support Branch to follow up (see table 3). The overall recommendation is to learn more about and increase intra- and inter organizational knowledge sharing and collaboration on strategic level/in strategic settings. It is important to educate and train personnel in their duty to share knowledge within the organization and between organizations. It is important to enhance trust for example. On top of that it is essential to learn more about strategic collaborations between military and/or (non) governmental organizations. The RNLA can for example examine which type of strategic collaboration is preferred (e.g. informal, or formal collaborations). By learning more about and increasing knowledge sharing and collaboration on strategic level/in strategic settings, the

organization is better able to respond to a dynamic environment while securing the organizational continuity. The overall recommendation is split into five sub recommendations:

The first recommendation is the formulation of a brief vision that is easy to communicate to personnel. This vision informs, motivates and directs personnel to respond to dynamic environmental changes without loosing sight of the long term organizational continuity. This vision is based on external analyses, such as the Future Policy Survey, and explains why change is necessary. The Policy Support Branch (especially the cluster 'strategy, knowledge and innovation') can play an explicit role in designing a brief vision, because it is already engaged in future policy of the RNLA. The formulation and communication of a brief vision can be done by a strategic map that informs employees about the strategy and goals for the following five years (the Royal Netherlands Navy uses this map, see appendix G for the example). This strategic map is based on external analyses and formulizes shortly the overall ambitions of the organization and how they are going to be achieved. The map is structured into four themes: ambitions (what are our goals?); stakeholders (on which performance factors are we judged?); processes (in which processes do we need to excel?); innovation (what can be done better and/or what needs investment?). This map is useful to inform and empower personnel to respond to dynamic environmental changes and securing organizational continuity at the same time.

A second recommendation is to update organizational procedures to enhance timely decision-making and which takes into account that today's military activities are interconnected and interdependent. Updating such procedures in a bureaucratic organization concerns changing the essence of the organization. It will take therefore a lot of time in order to change personnel's working habits. Changing procedures does however not mean that no organizational procedures are appropriate, but that these procedures need to become more adequate for the current dynamic environment to enhance to organizational anticipation function. Adequate procedures empower personnel to make timely decisions in order to enhance the organizational adaptability and agility.

A third recommendation is to keep speed in the acquisition process of military equipment. By that the RNLA accepts an 80 percent solution that is lower in (development) costs, quicker to implement and easier to integrate with other (foreign) systems. Lowering the costs of new military equipment is valuable due to decreasing budgets. Rapid implementation of military equipment increases the organizational adaptability and agility. Easier integration with other systems increase the interoperability of the systems and increase the possibilities of military organizations that can be adaptable and agile together.

The fourth recommendation is to investigate in what extent and on which area autonomy is preferred above collaboration. One could expect for example that strategic collaboration and knowledge sharing does work for media strategies of different armies, but that it is less preferred concerning their strategic decision-making processes. By investigating the extent and preferred areas of collaboration, the organization is able to set priorities on specific types of collaborations.

The fifth recommendation is to overcome cultural and organizational differences between military organizational parts as well as between military and civilian experts. Especially intensifying the use of diplomatic skills can increase the value of the partnership.

An important marginal comment is that the RNLA is an operational command. In order to adhere to these recommendations it is necessary to involve legitimate support of the authorizing environment, i.e. the central staff of the Ministry of Defense. Support from higher levels are useful because it creates commitment to the changes made and by that securing its potential success.

To sum up, a first step for the Policy Support Branch is to create a strategic map. This map informs and empowers personnel to act upon environmental dynamic changes and to secure organizational continuity at the same time. For the other recommendations Policy Support can act as the initiator of the changes. This can be done within the organization, on the higher level, but also outside the Ministry of Defense. Overall, these recommendations support the facilitation of strategic transformation and the stimulation of multilateralism, the two identified strategic competencies, and their critical knowledge. By that, the organization enables itself to respond adequately on dynamic environmental changes while securing organizational continuity.

CHAPTER 7

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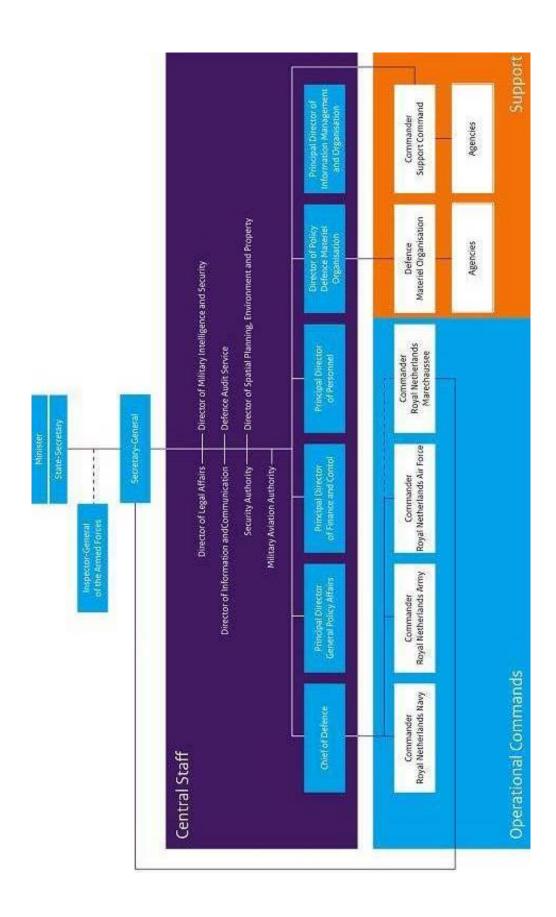
CHAPTER 8

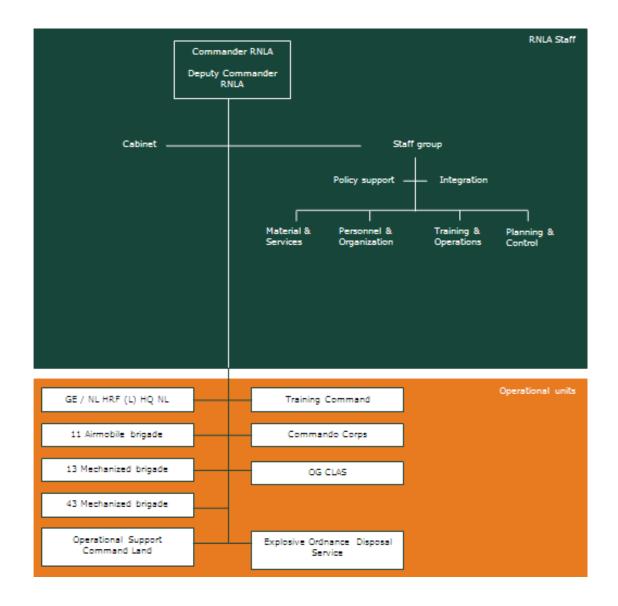
APPENDICES

Appendix A: Military ranks of the RNLA

Military ranks of the Royal Netherlands	Military ranks in the Royal Netherlands Army (in	
Army	Dutch)	
General (four star)	Generaal (vier sterren)	
Lieutenant-general (three star)	Luitenant-generaal (drie sterren)	
Major General (two star)	Generaal-majoor (twee sterren)	
Brigadier General (one star)	Brigadegeneraal (een ster)	
Colonel	Kolonel	
Lieutenant-colonel	Luitenant-kolonel	
Major	Majoor	
Captain	Kapitein/Ritmeester	
()	()	

Appendix B: Organizational charts





Appendix C: Documents analyzed

CDA. As far as the world extends: ambitions for the Dutch armed forces in a changing international context, 2007.

CDA. Partijprogramma, 2010.

Clingendael. Crying Wolf? Assessing unconventional terrorism, 2000.

Clingendael. Power and legitimacy, the quest for a unipolar world, 2005.

Clingendael. The stability assessment framework, designing integrated responses for security governance and development, 2005.

Clingendael. Vechten met één hand op de rug? V redesondersteuning in escalerende conflicten, 1998.

CORDAID. Strategy 2007-2010, walk that extra mile, 2007.

D66. Partijprogramma, 2010.

European Union. European Union security and defence white paper: a proposal, 2010.

European Union. Initial long-term vision report for European defence capability and capacity needs, 2006.

European Union. What ambitions for European defence in 2020, 2009.

European Union. Willing and able? European defence in 2020, 2008.

France (Ministry of Defense). The French white paper on defence and national security, 2008.

GroenLinks. Partijprogramma, 2010.

Interdepartementaal project met o.a. Ministerie van Defensie. Verkenningen, 2010.

International Committee Red Cross. Cooperation with national societies, 2007.

Ministerie van Binnenlandse Zaken en Koninkrijksrelatie en UK Cabinet Office. Final report: National safety & security, 2008.

Ministry of Interior Affairs & Kingdom Relations; Justice and Defense. *Innovatieprogramma* veiligheid, analyse, 2008.

Ministry of Foreign Affairs. Our common concern, investing in development in a changing world, 2007.

Ministry of Economical Affairs; and Defense. Defensie industrie strategie. 2010

Ministry of Economical Affairs. Security first, een verkenning naar Nederlandse kansen voor veiligheid en innovatie, 2007.

Ministry of Justice. Antiterrorismebeleid en evaluatieonderzoek, 2010.

Ministry of Justice. Islamitische en extreemrechtse radicalisering in Nederland, een vergelijkend literatuur onderzoek, 2009.

NATO. NATO 2020 Assured security, dynamic engagement, 2010.

NATO. NATO 3.0, 2010.

NCTb. Countering violent extremist narratives, 2010.

NCTb. Jihadisme en het internet, 2009.

PvdA. In dienst van Nederland, in dienst van de wereld. Een plan voor een actieve en doelmatige krijgsmacht, 2007.

PvdA. Partijprogramma, 2010.

PVV. Partijprogramma, 2010.

Sociaal Cultureel Planbureau en Centraal Planbureau. Strategisch Europa, markten en macht in 2030 en de publieke opinie over de Europese Unie, 2009.

SP. Een betere wereld begint nu, 2010.

SP. Partijprogramma, 2010.

United Kingdom (Ministry of Defense). Adaptability and partnership, issues for the strategic defense review, 2010.

United Kingdom (Ministry of Defense). Future character of conflict, 2010.

United Kingdom (Ministry of Defense). Global strategic trends: out to 2040, 2010.

United Kingdom (Ministry of Defense). The defence strategy for acquisition reform, 2010.

United Nations. Achieving sustainable development and promoting development cooperation, 2008.

United Nations. Strengthening of the coordination of emergency humanitarian assistance of the United Nations, 2007.

United Nations. Trends and progress in international development cooperation, 2010.

USA (Ministry of Defense). Army posture statement, 2010.

USA (Ministry of Defense). National defense strategy, 2008.

USA (Ministry of Defense). Quadrennial defense review report, 2010.

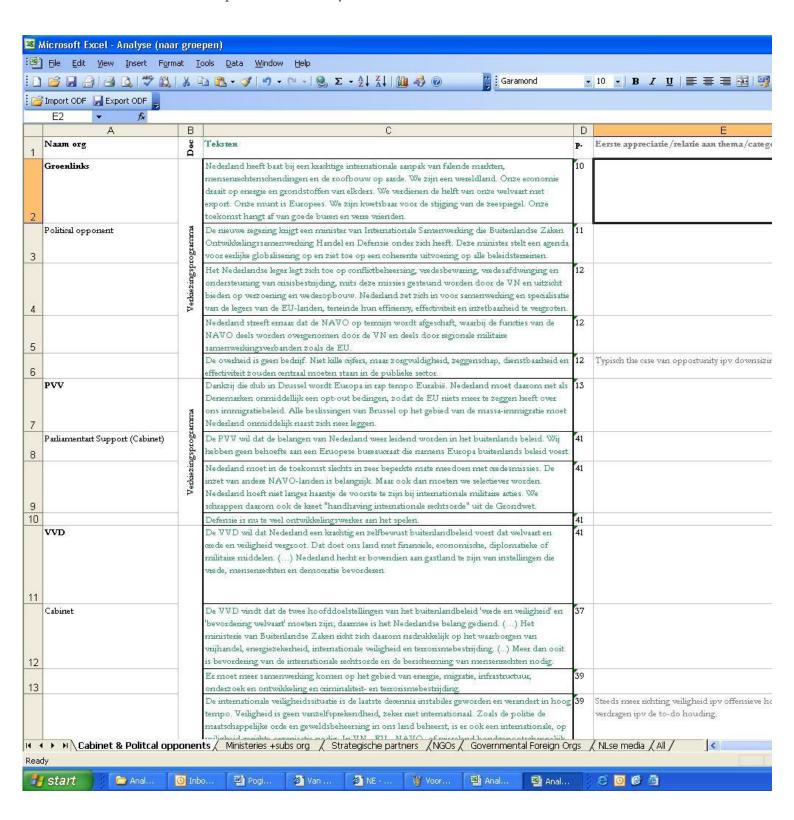
USA (Ministry of Defense). Rebuilding America's defenses, strategy forces and resources for a new century, 2000.

VVD. Partijprogramma, 2010.

Appendix D: Coding phases of the qualitative content analysis

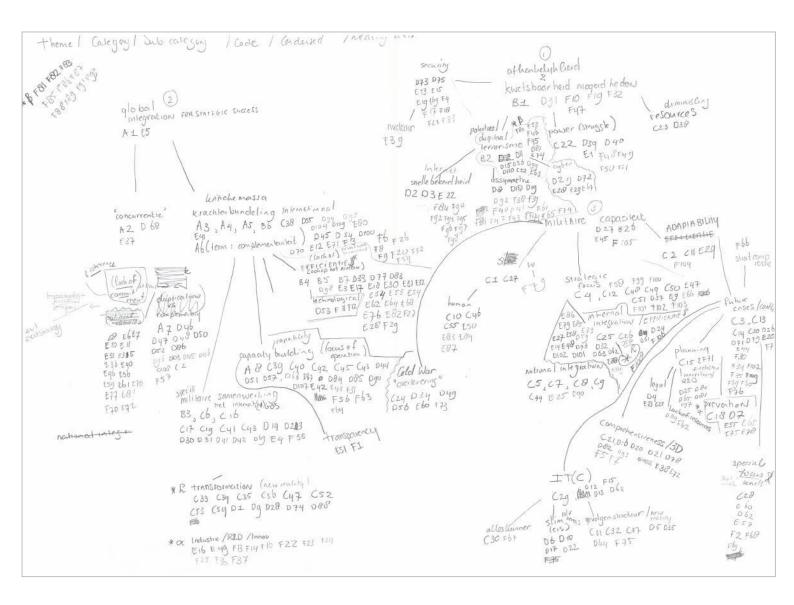
Phase 1: Immersion

Documents are read and quotes are extracted and written down in an Excel document with comments of first impressions and analytical hunches.



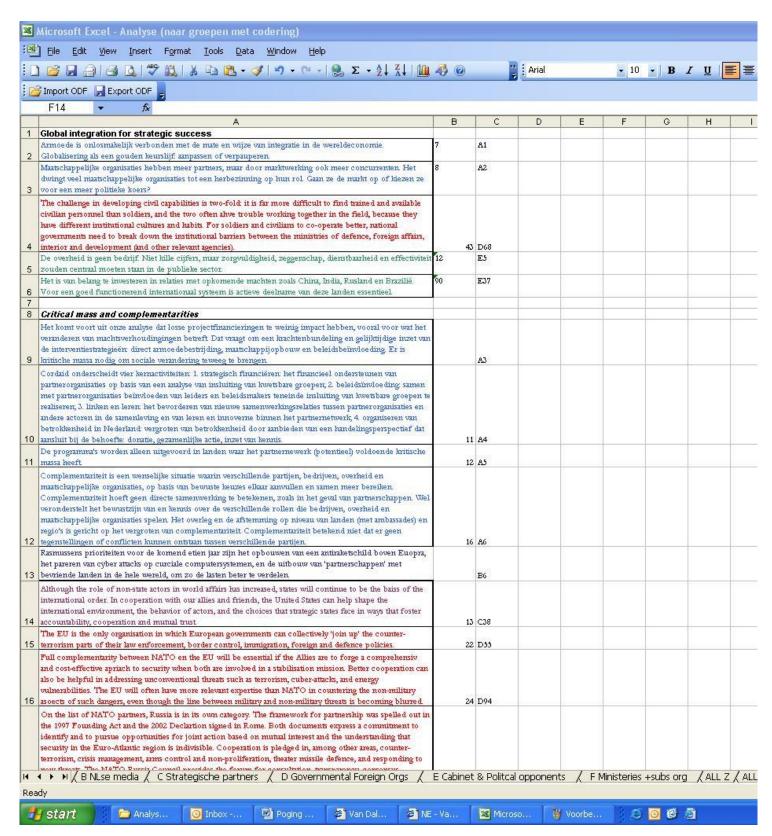
Phase 2: Reduction

This phase is about reduction and developing a consistent approach to order the data. Three steps are taken: 1) the amount of raw data is reduced to relevant data for answering the research questions (i.e. excluding some document on a re-check on selection criteria), 2) the data is split up in appropriate and manageable themes, and 3) the data is restructured into categories which address the research questions.



Phase 3: Interpretation

In this phase patterns are identified, preliminary conclusions are tested and the groundwork is laid for the conclusions. During this phase descriptive and interpretive summaries are written, formulating the key results (i.e. the summaries and formulations of the key results are written in this document.



Appendix E: Interview protocol (in Dutch)

Noteren bij aanvang interview	
Naam geïnterviewde	
Naam interviewer	Henrieke van den Berg
Datum en tijdstip interview	
Plaats interview	
Wel/geen derden aanwezig	

Introductie

Mijn naam is Henrieke van den Berg, ik studeer Bedrijfskunde aan de Universiteit Twente. Op dit moment studeer ik af bij Bestuursondersteuning Staf CLAS.

In dit interview wil ik graag dieper ingaan op kritieke kennis van de organisatie die strategische competenties onderhoudt en versterkt.

Het interview duurt ongeveer een uur en wordt met uw toestemming opgenomen. Als ik het opneem kan ik mij nu meer concentreren op het interview zelf en vervolgens naluisteren voor een accurate analyse van ons gesprek. De gesprekken worden vertrouwelijk behandeld en worden niet aan derden verstrekt [vragen]. In mijn verslag wil ik wel graag ter illustratie enkele citaten gebruiken. Als u geen bezwaar heeft, noem ik daarbij uw functie. Anders citeer ik anoniem [vragen].

Het interview is als het volgt opgebouwd. Eerst heb ik een aantal vragen om de bevindingen die ik tot nu toe heb te valideren. Vervolgens stel ik een aantal vragen over kritieke kennis in algemene zin. Uiteindelijk sluit ik af met vragen over kritieke kennis van de al geïdentificeerde strategische competenties.

Ik wil u vragen zoveel mogelijk expliciete voorbeelden te gebruiken bij de beantwoording van de vragen. Aan het eind van het interview is er tijd om op aanvullende opmerkingen in te gaan. Als alles duidelijk is zou ik nu graag beginnen.

In het onderzoek beantwoord ik twee vragen:

- → Wat zijn de strategische competenties van de Landmacht, die nodig zijn om te reageren op dynamische ontwikkelingen uit de omgeving rekening houdend met de autoriserende omgeving, nl. de Bestuursstaf van het Ministerie van Defensie?
- → Welke kennis is kritiek voor het onderhouden en versterken van de strategische competenties van de RNLA?

Interview vragen

Ist

- 1. Wat zijn volgens u in de huidige situatie strategische competenties? Waarom? Voorbeelden?
- 2. In welke mate zijn deze strategische competenties aanwezig in de huidige situatie? Hoe mondt dit bijvoorbeeld uit in core producten, businesses en eind producten? [uitleg theoretisch kader]

Soll & transitie

- 3. Welke strategische competenties moet het senior management in de toekomst bezitten? Waarom? Voorbeelden?
- 4. Wat moet er in de huidige situatie veranderen om dit te bereiken? In hoeverre acht u dit reëel?

Op basis van deze analyse zijn er twee strategische competenties naar voren gekomen:

Stimuleren van wereldwijde samenwerkingsverbanden.

- Effecten: 1) creëren van kritieke massa, 2) verbeteren van eigen en andermans vaardigheden, 3) kosteneffectiviteit.
- O Bijzonderheden: Er is een trend waarneembaar richting gespecialiseerde krijgsmachten. Hierdoor wordt vereist dat deze krijgsmachten meer samenwerken en integreren. Dit leidt tot weerstand vanwege culturele en organisatorische verschillen en ook vanwege het feit dat krijgsmachten weinig vertrouwen hebben in leiding door supranationale machten.
- a. Herkent u deze vaardigheid bij het CLAS? Zo ja, hoe? Zo nee, waarom niet?
- b. Wat vindt u van het belang van deze vaardigheid voor het CLAS? Waarom?
- c. Als u kijkt naar het theoretisch overzicht, hoe mondt het stimuleren van wereldwijde samenwerkingsverbanden uit in core producten, businesses en eind producten?
- Wat vindt u het belangrijkste effect van wereldwijde samenwerkingsverbanden?
- O Wat vindt u van de weerstanden die geïdentificeerd zijn?

Faciliteren van strategische transformatie.

- Effecten: 1) voorkomen van conflicten en 2) de trend richting unieke, gespecialiseerde krijgsmachten.
- O Bijzonderheden: Voor het faciliteren van strategische transformatie moeten er drie punten aangepast worden. 1) Conventionele, empirische planning processen, 2) sneller ontwikkelen van innovatie tot implementatie en 3) inspelen op het bestaan van de lawfare (door strategische compressie).
- d. Herkent u deze vaardigheid bij het CLAS? Zo ja, hoe? Zo nee, waarom niet?
- e. Wat vindt u van het belang van deze vaardigheid voor het CLAS? Waarom?
- f. Hoe mondt het faciliteren van wereldwijde samenwerkingsverbanden uit in core producten, businesses en eind producten?
- g. Wat vindt u het belangrijkste effect van wereldwijde samenwerkingsverbanden? (geïdentificeerde effecten: voorkomen van conflicten, richting unieke krijgsmachten).
- h. Wat vindt u van de aanpassingen die moeten worden gedaan? (Conventionele, empirische planning processen, sneller ontwikkelen van innovatie tot implementatie en inspelen op het bestaan van de lawfare (door strategische compressie)).

Kritieke kennis

Voor het in stand houden van strategische competenties zoals het stimuleren van wereldwijde samenwerkingsverbanden en het faciliteren van strategische transformatie, is bepaalde kennis nodig. Dit noem ik "kritieke kennis". Kritieke kennis heeft de volgende eigenschappen: het is uniek, eigenaardig, zeldzaam, noodzakelijk en niet gemakkelijk te verplaatsen of na te maken. Deze kritieke kennis wil ik met de onderstaande vragen identificeren.

Ist

- 1. Welke kennis binnen en buiten de Landmacht verstaat u hieronder in de huidige situatie?
- 2. Waarom is deze kennis volgens u zo essentieel voor de Landmacht?
- 3. In welke mate komt deze kennis voor in de huidige situatie?
- 4. In welke vormen komt deze kennis voor in de huidige situatie?
- 5. Hoe is kritieke kennis op dit moment aanwezig/opgeslagen in de Landmacht en haar omgeving?
- 6. Wat kunt u zeggen over de complexiteit van kritieke kennis?
- 7. Welk voordeel bereikt de organisatie door het gebruik van deze kennis?

Soll & transitie

- 8. Wordt deze kennis en daarmee ook het voordeel voldoende benut door de Landmacht in de huidige situatie?
- 9. Wat moet er veranderen om deze kennis voldoende te benutten?
- 10. Hoe kan Bestuursondersteuning staf CLAS de organisatie stimuleren om dit voordeel voldoende te benutten? (cursieve vragen zijn specifiek op BO gericht)
- 11. Wat voor consequenties heeft dit voor het kennisdesign/invulling taken BO?

Naast de 'open benadering' voor het identificeren van kritieke kennis van het CLAS, zijn de volgende vragen opgezet om de kritieke kennis van de twee strategische competenties te identificeren.

1) De eerste rol van het senior management van staf CLAS is het stimuleren van wereldwijde samenwerkingsverbanden.

Ist

- a. Welke kritieke kennis is aanwezig om deze vaardigheid te onderhouden en te versterken?
- b. In welke vormen komt deze kennis voor?
- c. Hoe is deze kritieke kennis aanwezig/opgeslagen in de Landmacht en haar omgeving?
- d. Wat kunt u zeggen over de complexiteit van deze kritieke kennis?

Soll & transitie

- e. Welke kennis is naast de al aanwezige kennis nodig voor het onderhouden en versterken van deze vaardigheid?
- f. Hoe kan deze kennis beter worden benut?
- g. Wat kan Bestuursondersteuning doen om deze rol te onderhouden en versterken?

- h. Wat heeft dit voor consequenties voor het kennisdesign/invulling taken BO?
- 2) De tweede rol van het senior management van staf CLAS is het faciliteren van strategische transformatie.
- 3) *Ist*
- a. Welke kritieke kennis is aanwezig om deze vaardigheid te onderhouden en te versterken?
- b. In welke vormen komt deze kennis voor?
- c. Hoe is deze kritieke kennis aanwezig/opgeslagen in de Landmacht en haar omgeving?
- d. Wat kunt u zeggen over de complexiteit van deze kritieke kennis?

Soll & transitie

- e. Welke kennis is naast de al aanwezige kennis nodig voor het onderhouden en versterken van deze vaardigheid?
- f. Hoe kan deze kennis beter worden benut?
- g. Wat kan Bestuursondersteuning doen om deze rol te onderhouden en versterken?
- b. Wat heeft dit voor consequenties voor het kennisdesign/invulling taken BO?

Overig

1. Zijn er nog relevante punten overgeslagen?

Begrippenlijst tijdens het interview

Strategische competenties

Essentiële vaardigheden van senior management om middelen te balanceren om adequaat te reageren op dynamische omgevingsveranderingen.

Stimuleren van wereldwijde samenwerkingsverbanden.

- o Effecten:
 - o Creëren van kritieke massa.
 - O Verbeteren van eigen en andermans vaardigheden.
 - Kosteneffectiviteit.
- O Bijzonderheden: Er is een trend waarneembaar richting gespecialiseerde krijgsmachten. Hierdoor wordt vereist dat deze krijgsmachten meer samenwerken en integreren. Dit leidt tot weerstand vanwege culturele en organisatorische verschillen en ook vanwege het feit dat krijgsmachten weinig vertrouwen hebben in leiding door supranationale machten.

Faciliteren van strategische transformatie.

- o Effecten:
 - o Voorkomen van conflicten.
 - O De trend richting unieke, gespecialiseerde krijgsmachten.
- o Bijzonderheden: Voor het faciliteren van strategische transformatie moeten er drie punten aangepast worden. 1) Conventionele, empirische planning processen, 2) sneller ontwikkelen van innovatie tot implementatie en 3) inspelen op het bestaan van de lawfare (door strategische compressie).

Kritieke kennis

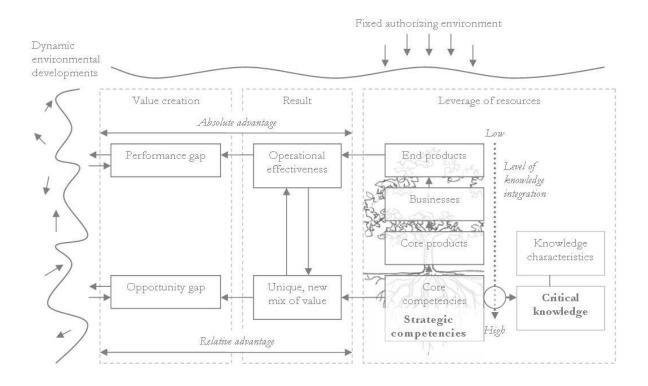
Kritieke kennis is uniek, eigenaardig, zeldzaam, noodzakelijk en niet gemakkelijk te verplaatsen of na te maken.

Vormen van kennis

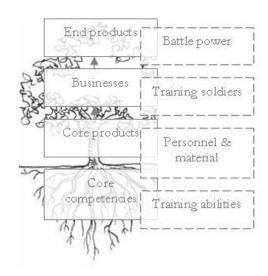
Subjectief vs. objectief; impliciet vs. expliciet.

Kennis over feiten; procedures; voorwaarden; situaties, etc.

Theoretisch overzicht:



Voorbeeld:



Appendix F: List of key informants

MoD*/Central staff Colonel H.A.J.M. Jacobs (land operations**)

MoD/Central staff Colonel R.P.J. Adang (plans for exploitation)

MoD/Central staff Lieutenant-Colonel F. Stemann (knowledge management)

MoD/Central staff Lieutenant-Colonel G. Kooij (future policy)

MoD/Central staff Lieutenant-Colonel R. de Jong (operational policy)

MoD/Central staff Lieutenant-Colonel M.A. Hubregtse (bi-and multilateral collaboration)

MoD/Expert centre Lieutenant-Colonel P.M.W. Boonen (expert centre)

RNLA/Expert centre Lieutenant-Colonel M. van Luit (expert centre)

RNLA/Staff Lieutenant-Colonel A.A.G. Goedhart (knowledge design)

RNLA/Staff Lieutenant-Colonel J.G.H. Overmaat (knowledge design)

RNLA/Staff Lieutenant-Colonel M.P. Buis (knowledge design)

RNLA/Staff Major K.L. Fridsma (planning & control)

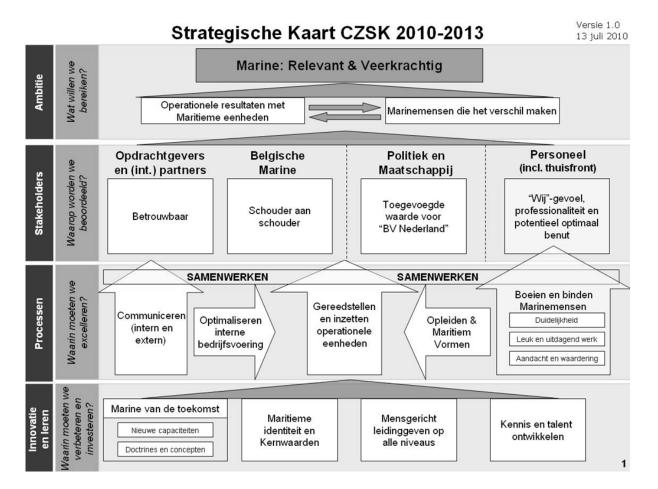
RNLA/PERSCO*** Captain J.C. Kroon (personnel)

^{*} MoD = Ministry of Defense

^{**} Professional area of the key informant

^{***} PERSCO = Personnel command

Appendix G: Example of the strategic map



Source: Intranet Ministry of Defense, January 5th 2011 (<a href="http://intranet.mindef.nl/km/stafgroep_dp_c/organisatie/eenheden_directies/Strategischekaart/Strategischeka