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The Challenges of Knowledge Management
-Managing the “Soft” Side

A case study of a joint venture between Volvo Car Corporation and Mitsubishi
Motors Corporation

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THE CHALLENGES OF KNOWLEDGE MANAGEMENT– MANAGING THE “SOFT” SIDE: A CASE STUDY OF A JOINT VENTURE BETWEEN VOLVO CAR CORPORATION AND MITSUBISHI MOTORS CORPORATION



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ABSTRACT

Increased competition and a more global world economy have resulted in increased inter-firm collaborations. Organizational learning and knowledge sharing are considered to be one of the main motives behind firms engaging in strategic alliances. The concept of knowledge has been studied from a broad spectrum of academic discourses. Following the increase in communications technology in recent decades, focus has generally been on implementing IT systems to solve the problems associated with knowledge management. In addition, there is also a strong emphasis on the creation, storage and dissemination of knowledge in mainstream knowledge literature. This study investigates ‘knowledge management’ and the related complexities in the context of an international joint venture (IJV), as strategic alliances are considered to be a race to learn. The study draws upon a literature review on knowledge and strategic alliances, and an in-depth case study on an alliance in the automotive industry. The results discard the notion that knowledge is an “object”, which can be made readily available in organizations. Instead, we support the idea that knowledge should be viewed as the process of “knowing”, occurring in a ‘community of practice’. This implies that focus should be directed towards investments on the “soft” side: understanding people in the workplace, how factors such as culture and power are interrelated and how they influence knowledge creating processes.

Keywords: International joint ventures (IJVs), Knowledge management (KM), Organizational Learning, Community of Practice, Power, Culture

INTRODUCTION

As competition has increased and the world economy has become more global, organizations have increased collaborations in order to achieve competitive advantages (Kraatz, 1998). As a result, strategic alliances have become a popular topic for research. Organizational learning and knowledge sharing are considered to be one of the main motives behind firms engaging in strategic alliances (Kogut, 1988). The concepts of knowledge and organizational learning are well-established and well-debated phenomenon in organizational studies.

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However, the *importance* of managing knowledge is rather a contemporary idea (Alvesson & Kärreman, 2001). Knowledge is currently seen as a firm's most crucial resource and the concept has gained a lot of emphasis both from an academic and a practical perspective (Davenport & Prusak, 1998; Davenport, De Long & Beers, 1998).

Previous studies have a tendency to focus on the “technology side” rather than the “people side” of ‘knowledge management’ (Alvesson & Kärreman, 2001). According to Ruggels (1998, p. 86), most executives understand that knowledge is highly people-based, but they *‘are stuck with an investment model geared primarily towards technology implementations’*. Companies often tend to invest in computer

**“Previous studies have a tendency to focus on the
“technology” side rather than the “people” side.”**

technologies and IT systems, which due to the emergence of communications technologies in

recent years, is seen as the main solution for sharing and managing knowledge (Diedrich, 2004). Although, the focus in mainstream literature is on individual firms, there is increasing evidence on the importance of inter-organizational learning, as it is argued that firms learn more by collaborating with other firms (Powell et al., 1996). Concurrently, due to a more globalized world economy with increased competition, it is argued that firms should focus on exclusive resources, such as knowledge. This in turn has resulted in that companies look beyond the traditional geographical and organizational boundaries, as alliances and collaborations are increasing (Kraatz, 1998).

Therefore, in this academic thesis we aim to draw attention towards the challenges of knowledge management in international joint ventures (IJVs). Research shows that both knowledge sharing projects and international business collaborations often fail (see for e.g. Diedrich, 2004; Berdrow & Lane, 2003). Knowledge is often viewed as a resource that can be shared, stored, transferred throughout the organization – a very one-dimensional view (Nonaka, 1991; 1994). We strongly agree with the idea that knowledge and learning are about

“connecting people so they can think together” (McDermott, 1999, p. 104) and we consider that the notion that knowledge can be managed has a strong attraction, since knowledge is a crucial resource in today’s business economy (Contractor & Lorange, 2002). However, we do not believe that viewing knowledge from a simplistic or “realistic” perspective, as in mainstream knowledge management literature, helps to overcome the challenges and problems of understanding knowledge management. As stated by Alvesson & Kärreman (2001), we agree that the concept of knowledge is very ambiguous and involves a high degree of complexity. In order to create and enhance an understanding for how knowledge is managed and shared in organizations, we need to, as put forward by Patriotta (2003, p. 6), *“see silence in a world of noise”* – i.e. we need to study the phenomenon by applying an approach that supports and focuses on understanding the insights and interpretations of members who have been part of a knowledge management activity.

Consequently, in this paper we aim to apply a relative broad perspective on ‘knowledge management’ and by drawing upon a case study, this paper attempts to explore the challenges and complexities in knowledge management in the context of international firm collaborations. As mentioned earlier, business collaborations are crucial for organizational learning, and it is therefore of interest to investigate the complexities in an inter-organizational learning process. The setting studied in our study is the alliance between Volvo Car Corporation (VCC) and

“Although, knowledge management in the context of IJVs is a popular research topic among business scholars, we criticize the quantitative approach that is evident among most IJV studies.”

Mitsubishi
Motors
Corporation
(MMC) – a

joint venture between 1991 and 2004 named NedCar based in Born, Netherlands. The aim is to look at old realities with a new lens, by providing new insights and a better understanding concerning the complexities in knowledge management. We build our study on a critical review of the literature on mainstream and more recent

perspectives on ‘knowledge management’. Although, knowledge management in the context of IJVs is a popular research topic among business scholars, we criticize the quantitative approach that is evident among most IJV studies (see for e.g. Masao & Nakamura, 2005; Dhanaraj et al., 2004). As argued by Yan and Zeng (1999, p. 409), “*In order to build rigorous IJV theories, more inductive, grounded theory building efforts are also warranted.*” Therefore, we do not want our study to be restricted by a theoretical framework; instead we aim to create our own understanding for *what factors affect the process of knowledge management and knowledge sharing in the context of international joint ventures?*

We first start with an introduction of the context of exploration, i.e. the concept of strategic alliances and in particular joint ventures. This will be followed by a critical review of different perspectives on ‘knowledge management’ (including concepts such as organizational learning, information systems etc.). A methodology section, explaining the research strategy and the theoretical and practical approaches used to accomplish the study, will follow. The paper will continue with a presentation of the main findings of our study, which in turn will be analyzed in the succeeding section. We will conclude by discussing our findings in relation to previous literature on the topic as well as adding and opening some new perspectives.

LITERATURE REVIEW

In this section we present an overview of the literature on strategic alliances in order to create an understanding for why firms engage in such collaborations. We will also present a literature review on ‘knowledge management’ which can be seen as a broader term for a comprehensive spectrum of academic orientations including organizational learning and information systems as well as strategic management and innovation (Alvesson & Kärreman, 2001; Styhre, 2003).

STRATEGIC ALLIANCES: FIRMS' INTERNATIONALIZATION PROCESSES

Chan et al. (2007) define strategic alliances as a way of bringing firms together, in order to share resources in product design, production, marketing and/or distribution. Alliances are further defined as a co-operation, voluntarily formed, between two or more organizations in order to share, exchange or co-develop resources, capital, technology or organizational routines. Contractor & Lorange (2002) put alliances in a continuum where the one-time deal is at one

”Most scholars have used words such as cooperation, collaboration and other similar vocabularies to highlight that alliances entail an interdependent and close relationship.”

extreme and complete merger or acquisition at the other. In between, there are contracting/licensing agreements, supply-chain relationships and equity joint ventures. Most scholars have used words such as co-operation, collaboration and other similar vocabularies to highlight that alliances entail an interdependent and close relationship (Mayer & Teece, 2008). Mayer & Teece (2008) argue that even though alliances have become more common in the current business environment, there is a lack of understanding of how they are structured and how they operate.

One form of strategic alliances is the joint venture, the creation of a new entity by two or more partners with equity in this entity (Gillespie & Gulati, 2001). International joint ventures (IJVs) are comprised of two legally distinct organizations – the “parents”. The two organizations share decision-making activities in a jointly owned venture – the “child”, where at least one of the organizations is headquartered outside of the country in which this jointly owned venture operates (Kandemir & Hult, 2005). An IJV is also described as a joint venture with two or more parents of different nationalities (Inkpen & Beamish, 1997).

Alliances are considered to lower risk and increase competitive advantages by sharing risk and allocating resources towards more

specialization (Chan et al., 2007). Additionally, alliances are believed to be effective in transferring knowledge and enhancing organizational learning (Mayer & Teece, 2008). Alliances are the result of a vast reasons of motives and goals and are formed across both horizontal and vertical boundaries in the value chain (Gulati, 1998). They provide companies with the possibility to focus on core competencies while acquiring capabilities or components from the marketplace that they do not already possess. Moreover, Chan et al. (2007) argue that given the increasingly competitive environment, alliances are important and help companies attain flexibility in responding to changes in economic conditions and focused organizational structures in terms of core competencies and contributed values.

The resource-based view on strategic alliances has emphasized capabilities, resources and competitive advantage behind their formation. Proponents of transaction cost theory, on the other hand, have focused on details in alliance contracts (e.g. take-or-pay clauses, price adjustments, contract duration etc.) but discarded learning, competitive advantage and capabilities (Mayer & Teece, 2008; Shelanski & Klein, 1995). Mayer & Teece (2008) suggest that the two can be complementary rather than substitutes; contracts can be a source of competitive advantage. A well-thought-out contract can be used as a tool to decrease conflict, which in turn can result in higher chances for the collaboration to succeed. Many companies enter alliances to learn

“Joint venture is the collaboration form through which tacit knowledge can be transferred by close inter-firm collaboration.”

and alliance contracts can help to facilitate knowledge sharing and learning by codifying joint agreements in a document. Scholars have previously neglected the importance of contracts concerning the effects they have on the flow of knowledge (Mayer & Teece, 2008).

A main motive behind joint ventures is to increase a company’s knowledge base and capabilities. McKelvey (cited in Kogut, 1988) suggests that companies have a knowledge base and this base is not easily transferred to other entities because of its “tacitness”. In this

view, joint venture is the collaboration form through which tacit knowledge can be transferred by close inter-firm collaboration, which is difficult to accomplish by contracting (e.g. buyer-supplier contracts) or licensing. However, motives behind joint ventures can be of other than economic reasons as viewed by DiMaggio & Powell (1983) who propose that alliances can be the cause of a bandwagon behavior, i.e. companies tend to follow contemporary trends on the market.

CRITICAL REMARKS

Some joint ventures tend to be of an unstable nature. Instability means a change in the relationship status between partners, which is unplanned or premature in the perspective of one or both partners (Inkpen & Beamish, 1997). According to Inkpen and Beamish (1997), instability in joint ventures is coupled with increased bargaining power where one of the partners

“Alliances are a race to learn and the partner that acquires more knowledge is the one with control over the relationship.”

acquires knowledge or skills, which make this partner less dependent on the other. In this way, the authors further argue

that alliances are a race to learn and the partner that acquires more knowledge is the one with control over the relationship.

Learning, as argued above, is one of the main motives behind strategic alliances. At the same time, organizations learn more by collaborating with each other. On top of this, joint ventures are believed to be a race to learn. Therefore, we need to shift focus towards the different perspectives on knowledge management and organizational learning.

KNOWLEDGE AS INDIVIDUAL VS. COLLECTIVE LEARNING – THE COGNITIVE APPROACH

One main academic discourse that has had a great influence on the literature of ‘knowledge management’ is theories of cognition. Within the cognitive perspective, there are two main approaches to organizational learning – the first approach emphasizes individual learning within organizational contexts and the second approach

focuses on individual models of learning applied to organizational actions to explain collective behavior (Cook & Yanow, 1993). The main argument in the first approach is that organizational learning occurs through individual members of the organization. Different views exist on this matter, Bolman (cited in Cook & Yanow, 1993) for instance argues that the learning of key decision makers is what constitute organizational learning. However, individual learning is also perceived as the medium through which organizations collectively learn. Argyris & Schön (1978) and their notion of single-loop and double-loop learning is a main source of reference within the cognitive approach.

The arguments of the second approach are that individual models of learning can explain organizational action. Stimulus-response

”Organizational learning is accomplished in two ways, either by the learning of existing members or by the addition of knowledge of new members.”

models can be applied to see how organizations respond to different stimulus (Hedberg, 1991; Cook & Yanow,

1993). Through different responses to the same stimuli, learning occurs. Therefore, organizational learning is accomplished in two ways, either by the learning of existing members or by the addition of knowledge of new members (Cook & Yanow, 1993).

CRITICAL REMARKS

Cook & Yanow (1993) argue that the cognitive perspective on organizational learning has contributed with valuable work in the field, even though it has not yet been proven that this is the way organizations actually learn. This perspective has some problems, which entail the ontological character of organizations as cognitive entities, how they exist and whether they are capable of learning in a way identical to human cognition. Further, concepts of individual learning are bounded by its own theoretical constraints. Research on individual cognition does not have a unified model, which can be applied and therefore poses a significant problem (Cook & Yanow, 1993).

KNOWLEDGE AS “THING-LIKE” – THE RESOURCE-BASED APPROACH

The definition of knowledge is often very broad and vague, as put forward by Alvesson & Kärreman (2001) “*knowledge is everything and everything is knowledge*” referring to the broad definition of Davenport & Prusak (1998):

“Knowledge is a fluid mix of framed experience, contextual information, values and expert insight that provides a framework for evaluating and incorporating new experiences and information. It originates and is applied in the minds of knowers. In organizations, it often becomes embedded not only in documents or repositories but also in organizational routines, processes, practices and norms.”

A great proportion of mainstream literature on organizational knowledge has viewed the concept of knowledge as an object or commodity that can be shared among the members of an organization (Nonaka, 1991; 1994). Knowledge is seen as the basic and the most important resource and the firm itself is in turn seen as a body of knowledge (Grant, 1996; Patriotta, 2003; Diedrich, 2004). The knowledge base of firms includes resources, routines, competencies, capabilities and intellectual capital which are all firm-specific and difficult to imitate assets resulting in a source of sustainable competitive advantage and the firm’s long-term survival (Von Kogh & Roos, 1996; Davenport, De Long & Beers, 1998; Davenport & Prusak, 1998; Dixon, 2000).

A main idea of this approach is the importance of knowledge and its creation, development, storage, transfer, transformation and dissemination (Nonaka, 1994; Werr & Stjernberg, 2003; Hedlund, 1994). The concepts of *explicit (articulated)* and *tacit* knowledge as well as the different carriers or agents of knowledge such as the *individual*, the *small group*, the *organization* and the *inter-organizational* domain (customers, competitors, suppliers etc.) are important categorizations made by scholars in order to understand the transfer of knowledge (Hedlund, 1994; Nonaka & Takeuchi, 1995). Tacit knowledge is experience-based and hard to explicitly

communicate or describe to others, explicit knowledge on the other hand can be codified and articulated (Nonaka, 1991; 1994). According to Nonaka (1991), the creation of new knowledge is dependent on the

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transformation of the tacit and often subjective insights of individual members of the organization to explicit and articulated knowledge (e.g. documents, products and services). This process of transforming tacit knowledge into explicit knowledge and sharing it throughout the organization is hard to achieve and the central goal of a “knowledge-creating company”.

Within this field, there is also a strong emphasis on the “technology side” where computer technology is believed to be the tool to solve the problems – especially problems concerning the transfer of knowledge. A central theme in previous research has been the use of IT to facilitate knowledge management and the presence of Internet technology e.g. intranets and discussion forums are at the heart of many studies viewing knowledge as an “it” (Davenport, De Long & Beers, 1998; Diedrich, 2004).

CRITICAL REMARKS

According to Alvesson & Kärreman (2001), labeling or re-labeling different things in knowledge terms (for e.g. practical skills are relabeled as embodied knowledge) makes the concept very broad and informs us less and less. Apart from the vagueness in definition, the resource-based approach on knowledge is also criticized for its functional and realistic view on the concept of knowledge – conceptualizing knowledge as a commodity that can be made accessible throughout the organization (Alvesson, 2001; Alvesson & Kärreman, 2001; Styhre, 2003; Diedrich, 2004; Patriotta, 2003). From this perspective knowledge is also seen as a “good thing”, however according to Foucault (1980) knowledge leads to the exercise of power and hence there are also dark sides connected with the concept. This is

related to the third view on knowledge management, which is presented below.

KNOWLEDGE EMBODIED IN PRAXIS – THE SITUATED APPROACH

The situated approach does not view learning as something “simplistic” such as the acquisition or transfer of knowledge as in mainstream knowledge literature. Learning is rather considered to be something more complex, situated in forms of social co-participation; processes in which individuals develop shared meanings of activities (Lave & Wenger, 1991; Diedrich, 2004). Two factors constitute this view: first knowledge undergoes construction and transformation, and secondly, learning is constantly interconnected with its environment (Lave & Wenger, 1991). Patriotta (2003) argues that knowledge is contingent upon interaction between and among people, resources and routines in a situation. The situated approach differs in the way the individual and environment are conceived. The individual and environment are viewed with a relational perspective and learning is regarded as inseparable from social practice (Lave & Wenger, 1991; Patriotta, 2003). To clarify, the situated approach views knowledge as something not to be found in individuals’ heads but as something situated in various organizational structures and sense-making processes which connect organizational members’ activities (Diedrich, 2004; Patriotta, 2003).

According to Pentland (cited in Patriotta, 2003), knowledge is a phenomenon embodied in praxis. Therefore, knowledge is not a cognitive structure and also not a commodity as argued in previous sections. Knowledge does not exist outside of the equipment, practices, institutions and conventions from and in which it is generated and utilized (Patriotta, 2003). Brown & Duguid (1991) highlight situated practices and communities as the sources of where knowledge gains meaning and significance. The situation is the contact point between the individual and the organization. Actions of organizational members are, to some degree, always shaped by the situation or context.

Therefore, processes of social construction and organizational context are in a dynamic way shaping learning and acquisition of knowledge (Patriotta, 2003).

Learning and knowing are considered primarily to be social activities occurring in a community of practice (Lave & Wenger, 1991; Patriotta, 2003). Practices are defined as the shared habits, customs, beliefs and principles in an organization (Patriotta, 2003). Practices are what link organizational activities to a certain perspective, i.e. how

“Learning and knowing are considered primarily to be social activities occurring in a community of practice.”

organizations view things (Patriotta, 2003).

Knowledge is seen as a distributed knowing shared by people situated in a context with historical, cultural, lingual and technological factors affecting it (Diedrich, 2004). In this view, scientific knowledge is not the “best” knowledge as practical and action-bound knowledge is considered to have a significant contribution as well (Diedrich, 2004). What is learned is problematic since the acquisition of knowledge is not only the process of absorbing “knowledge”. Cultural and social complexities always affect the learner, knowledge and its transfer (Diedrich, 2004).

Scribner (cited in Patriotta, 2003) argues that learning is a problem solving activity highly connected to its context. The context is referred as the problem’s characteristics, the purpose of the underlying activity and social environment in which it is embedded. The acquirement of knowledge, skills and competencies is done through the engagement in activities by trying out new strategies, routines, interventions and solving problems by using all means and resources at disposal (Patriotta, 2003).

CRITICAL REMARKS

If knowledge is embodied in practice, the only way to retrieve it is by observing actors in their day-to-day work. Moreover, situational factors become the most appropriate focus of organizational analysis instead of individuals. The situated approach has failed despite the many empirical studies to present a consistent theory on knowledge.

Given the focus on communities of practice, however, the situated approach can help develop an organizational perspective on knowledge (Patriotta, 2003).

KNOWLEDGE AS THE 'MAKING OF FACTS' – THE TECHNO-SCIENCE APPROACH

In previous sections, one main distinction is made between knowledge, as the “product” on the one hand, and knowing, the process that socially constructs the commodified knowledge on the other. The techno-science approach attempts to understand knowledge by

”Knowledge is the ‘making of facts’ whereby knowledge is initially uncertain and contested before transformed into an agreed fact – a so-called ‘black box’.”

‘opening’ organizational ‘black boxes’ in order to understand its content (Latour & Woolgar, 1979;

Patriotta, 2003; Diedrich, 2004). This approach has its roots in the sociology of science and technology and views knowledge phenomenon as a socially constructed reality. As put forward by Patriotta (2003), this perspective views knowledge as the ‘making of facts’ whereby knowledge is initially uncertain and contested before transformed into an agreed fact – a so-called ‘black box’ (Latour & Woolgar, 1979; Callon, 1999). The techno-science approach discards the conventional separation of science and technology and instead views knowledge production as the outcome of both scientific facts and technological artefacts. Hence, knowledge creation and sharing in organizations passes through interactions, associations and translations in which technical, scientific, social, economic and political aspects tend to influence knowledge production (Latour & Woolgar, 1979; Callon, 1999; Patriotta, 2003; Diedrich, 2004).

CRITICAL REMARKS

The techno-science approach highlights the importance of understanding social relations (e.g. gender, politics, and culture) between the producers and users of knowledge. An important contribution is also the recognition of conflicts and controversies and how the process of knowledge creation is contested and controversial

resulting in knowledge being institutionalized into a “thing”. In other words, focus is on the relationships between things (both human and non-human actants) and society, dealing with the problems of legitimization and social acceptance. However, the above approach has also been criticized and mainly because of the indeterminate view on the actor. The importance given to non-human actants is also criticized leading to a view on knowledge where morality, humanity and psychology are all nonexistent (Patriotta, 2003).

SUMMARY OF LITERATURE REVIEW

As described above, there are mainly four perspectives on knowledge management: the cognitive approach; the resource-based approach; the situated approach; and the techno-science approach. In mainstream knowledge literature, knowledge is often viewed as an “object” (Nonaka, 1991; 1994) that resides in the heads of individuals (Cook & Yanow, 1993) and which can be readily made available for the entire organization (Davenport & Prusak, 1998; Nonaka, 1991; 1994). We believe that this view does not illustrate the complexities of knowledge management in organizations. We strongly consider knowledge as a "collective endeavour" influenced by social, cultural and power processes as described in the situated approach (Lave & Wenger, 1991).

The influence of organizational culture on knowledge management is inevitable (Janz & Prasarnphanich, 2003; De Long & Fahey, 2000). For instance, the youthful and cosy organizational culture of a dotcom firm, is different from the more conventional corporate life evidenced at one of the major multi-national companies (De Long & Fahey, 2000). The essence of the argument is that organizations demonstrate different systems and structures in which members share different assumptions, values and artefacts that differentiate them from others (Schein, 1985). Hence, what works in a certain context, may not work in another. As stated by Janz and Prasarnphanich (2003, p. 353), *“[o]rganizational culture is believed to be the most significant input to effective knowledge management and organizational learning in that*

corporate culture determines values, beliefs, and work systems that could encourage or impede knowledge creation as well as knowledge sharing". Similarly, De Long and Fahey (2000) acknowledge organizational culture as the major constraint to knowledge creation.

The situated approach also recognizes power relations and the political and relational aspects of knowledge. As mentioned previously, knowledge and power are intrinsically related (Foucault, 1980). With the notion that management of knowledge and learning in organizations is a collective endeavor, power relations regulate and affect

“With the notion that management of knowledge and learning in organizations is a collective endeavor, power relations regulate and affect participation and practices.”

participation and practices (Diedrich, 2004). Further, the situated approach is

closely connected to the institutional theories on organizations, which emphasize the political aspects of knowledge (Powell & DiMaggio, 1991; Patriotta, 2003). That is to say, the socially constructed dimension of how knowledge is legitimized partly through the exercise of power (Patriotta, 2003).

METHODOLOGY

Knowledge Management has been the subject of interest in a lot of previous research with explorations made by a variety of fields. As mentioned previously, a central theme in previous studies has been the object-like view on knowledge where the transfer of explicit and tacit knowledge is a popular topic for researchers. Previous research concerning the concept of knowledge (as well as studies regarding IJVs) also tends to apply a quantitative methodology. However, in this study we reject the functionalistic view on knowledge and instead we tried to explore the phenomenon in a new light in order to gain a more in-depth understanding concerning knowledge management and the challenges it brings with it. Therefore, instead of gathering large data for generalization purposes, emphasis has been put on the perceptions, interpretations and subjective understandings (Saunders et al., 2007) of

managers and other group members with relevant experience, who took part in the specific joint collaboration. This approach is what is a so-called qualitative methodology (Silverman, 1993). According to Cronbach (1975), quantitative research fails in taking full account of the interaction effects taking place in social settings and since we believe that knowledge management will certainly include many conflicting and complicated interactions, we have rejected the use of a quantitative methodology.

Initially, we started with a literature review, used as a basis and a starting point, which helped us in analyzing the collected empirical

”Simply relying on second-hand data and sophisticated statistical packages, as many previous studies did, is no longer adequate. In order to build rigorous IJV theories, more inductive, grounded theory building efforts are also warranted.”

Yan and Zeng, 1999, p. 409

data. However, while conducting the study we remained open and flexible throughout the process of this research, as we did not want our study to be restricted by previous theory. As a result, several changes were made (e.g. concerning interviewing questions) during the process of writing this thesis. Thus, our research approach includes both deductive and inductive techniques (Denzin, 1978).

Next step was the gathering of data, which is mainly found in the interviews but also other material such as the JV white book and brochures, company websites as well as informal communications with company representatives. In total, we have conducted 15 in-depth interviews (approximately 45-60 minutes each) with VCC members having different roles in the NedCar joint venture. Among the 15 respondents, there was one researcher from the School of Business, Economics and Law, who had during the joint venture conducted a management study in NedCar from a cultural perspective. The remaining respondents who took part in the study were different project leaders, managers, engineers and a project controller.

The collected data were transcribed and coded according to certain themes emerging from the interviews and deriving from previous

theory. Data were separated, labelled and organized in order to see with which concepts they best fit. In this way, we were able to analyse the information found in interviews and other sources. This approach of analysing data is referred to as the grounded theory methodology (Bryman & Bell, 2007).

THE CASE STUDY

In this section the empirical data of this study will be presented. We start with a description of the specific joint venture setting, which will be followed by the “NedCar Story”, with focus on how the JV was organized, how the two industrial actors collaborated and how knowledge and learning were managed in this specific setting. The story will be structured by certain themes: *motives; contribution of skills and resources; difference in mindsets; structure of production; communication; and employees’ personal experiences*. Before we focus on our results we need to start with describing the setting in which our study has been accomplished.

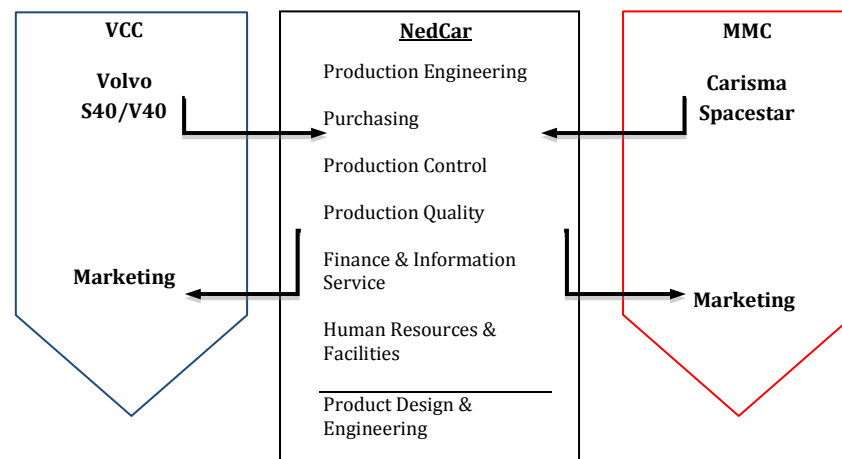
NEDCAR: THE SETTING

NedCar was a joint venture between two well-known companies in the automotive industry, namely Volvo Car Corporation (VCC) and Mitsubishi Motors Corporation (MMC). The establishment of NedCar began in 1991 when VCC realised that changes had to be made regarding the “small” Volvo car. The current V400 did neither meet Volvo standards nor generated sufficient funds to finance future developments or a successor. In addition, it had been proven that Volvo dealers could not survive on the large Volvo solely; therefore the “small” Volvo was essential. VCC were in need of a new partner since the company could not afford to develop and produce a new “small” Volvo single-handedly. MMC, on the other hand, were wanted a greater presence on the European market Hence, when MMC was approached at the Frankfurt Motor Show, the parties realised a win-win situation and agreed upon a deal together with the Dutch state to form a new joint venture – NedCar (Jönsson, 2004).



The Dutch state was initially the third partner in NedCar, since the production of VCC's previous 400-series (where the Dutch state had 70% ownership) continued until November 1996 and later the two industrial partners shared 50/50 ownership (NedCar: The History). This meant that two companies with different approaches agreed on working in a joint venture based in VCC's already existing factory in Netherlands – on the one side Volvo Car Corporation known for safety awareness and on the other Mitsubishi Motors Corporation known for cost effectiveness. VCC's new small cars were to be placed in the premium segment while MMC's Carisma was a low-budget car (Jönsson, 2004). The joint collaboration within NedCar was focused on production, purchasing, production control and quality. Marketing, on the other hand, was a separated activity dealt by the industrial partners independently (see Figure 1 below).

FIGURE 1 - THE NEDCAR JOINT VENTURE



The idea was to design the JV as a learning project, meaning a new production facility producing two competing cars as well as the new Volvo being built on an already existing platform used by MMC for its Carisma cars (Jönsson, 2004, p. 50-51). Initially, VCC aimed to beat Opel Vectra but soon the “car to beat” was upgraded to the BMW 3/Audi 4, which resulted in changed specifications. Both new engines and a new gearbox would replace the previous models. Mitsubishi already had the platform for their Carisma and since the aim was to gain economies of scale by having common parts every change from VCC's side had to be discussed with MMC. Volvo used the same

platform (Carisma) for V40/S40 but upgraded it to meet VCC standards. Furthermore, the entire NedCar production facility was reconstructed with a new production line, a new body shop and final assembly. The press and paint shops were rebuilt and extended and the capacity of the plant was expanded, as the aim was to achieve world-class standards of flexibility, customer specific production, and efficiency 20 hours per car as well as a certified quality assurance system (Jönsson, 2004).

NedCar's mission in 1998 was formulated as: *"the assembly and delivery of cars of top quality at agreed competitive prices and to supply them to our customers on the agreed delivery date"* (NedCar: The History). Because of start-up problems and organisational issues the aim of 163,000 cars for 1996 fell short of 18,000 cars. However, in 1997 there was an increase in total production to 197,225 and NedCar also managed to make improvements in controlling for quality, despite having to adjust to yearly changes regarding product models. The following years the total production of cars continued to reach higher levels. In 1999, Ford Motors Company acquires VCC and a year later DaimlerChrysler acquires 34% of the shares in MMC and releases the intent to acquire VCC's 50% shares in NedCar. In the year 2001, MMC acquires all shares in NedCar. Production of Volvo S40, Volvo V40, Mitsubishi Carisma and Mitsubishi Spacestar, however, remained in production until 2004 (NedCar: The History).

Below, we turn our focus towards the NedCar Story in order to understand the how the collaboration was organized and how it affected knowledge and learning.

THE NEDCAR STORY

MOTIVES

NedCar was described as a learning project, according to Jönsson (2004). However, most of the respondents in our study, viewed learning rather as a consequence or a side effect as the whole process of learning had a minor importance. The technical project leader, who



states the following, confirms this:

“[...] during the initial phase, learning was not the primary but the more we became aware of it the more we realized it. Focus of the project work was not learning but rather achieving results, but to achieve results you need to apply learning into action.”

[Technical project leader]

Nevertheless, it is unclear how learning was perceived by VCC since the implementation of Japanese production system/working methods was a major point in the joint venture contract. Therefore, learning was strongly connected to the fact that VCC aimed to implement Japanese approaches in NedCar. In addition, learning was conducted throughout the collaboration and one example is the LPP project (Learn Process in Project), which according to its project leader was a strategy to systematically learn and disseminate knowledge. However, the primary motive for the strategic alliance was still that VCC was looking for a partner to share production costs and development efforts with, while MMC was looking for a way to enter the European market. There was a win-win situation.

As described in the VCC “white book”, the business scope of a new project or enterprise should be developed in a group with broad-based skills and expertise (Whitebook, 1997). The company put a lot of emphasis on the recruitment of right people with the required skills and expertise as well as suitable experience and personal suitability and “*not just who wants to go*”. Consequently, the most experienced project leader was assigned. The VCC management was responsible for the recruitment process and a long-term approach was implemented in order to achieve stability in the project. According to the “white book”, *the recruitment had to take place in the line organization, which was responsible for ensuring that the assigned persons have: the necessary skills in terms of expertise/flexibility/open-mindedness; clear cut definitions of responsibility and authority; a well communicated function/position in the JV project; enough time for introduction and education; full support from their home organization; as well as frequent and organised information about the situation in the home*

organization. However, in reality there was a lack in the above mentioned and we will come back to it in the later section of this story.

CONTRIBUTION OF SKILLS AND RESOURCES

Going into the joint venture, the different partners brought with them different knowledge sources – MMC reassembled the entire NedCar factory according to the blueprints of its Mitsushima factory in Japan. Previously, VCC produced their 300 and 400 series in NedCar and they believed that introducing a new production line to build Carisma and V40/S40 would mean to tear down the old production line and build a new one. MMC, however, managed to put in a new line beside the old one and VCC were highly impressed by the Japanese's way of using space. MMC also contributed with the technical platform (Lancer) on which both Carisma and V40/S40 cars were built. Since VCC had ordered a blueprint of MMC's Mitsushima plant to be implemented in its factory in NedCar, the production had to be accomplished by the traditional MMC approach, i.e. a so-called 'process-driven production' in comparison to the more conventional Volvo approach, which was focused on the product itself. Process-driven product development meant that the cars that were to be produced in NedCar had to be designed to meet the production needs. Traditionally, VCC production was reversed, i.e. VCC designed cars that they believed were neat and production was constructed for the design. However, there was no strategic decision to learn MMC's process-driven production because there was a strong 'not invented here' mentality within VCC's home-organization.

VCC, on the other hand, contributed with the factory as well as their previous experience in safety issues and product design. VCC designed their cars in the Netherlands and consequently a great amount of the people present in Born was on the R&D side. VCC had very few people on the process and production side since the Japanese were held responsible for the installation of the process and the production was outsourced to the Dutch working in NedCar. VCC was interested in Japanese quality thinking, however they did not get what they expected

since MMC's view on quality differed from VCC's and this resulted in the tensions mentioned below. As stated by the process engineer, *"We noticed that a lot of system solutions [MMC's system solutions] were not quality safe."* This aspect was an important topic of discussion. In addition, the different industrial partners promoted their cars in different segments – V40/S40 was upgraded from a low budget to a premium car, and Carisma was a low-budget car from the start. The technical platform, Lancer, which VC received, was upgraded to meet VCC safety standards. MMC did not have the competence to make this upgrade and VCC did not want MMC to acquire this knowledge from them. Therefore, VCC did the upgrade their selves. Initially, MMC did not believe that the platform could be made crash-worthier, and they demanded previous data to prove this. However, in the joint venture agreement it was clearly stated that VCC would not share this data.

During production, quality was a major issue and the cars initially produced in NedCar were 65-90% complete. The project controller confirms the conflicting views on production and quality:

"NedCar did not have the ability to produce at this pace. The Japanese production boss started increasing the pace because in Japan the faster the pace the better the quality but this is not how it works in Europe."
[Project Controller]

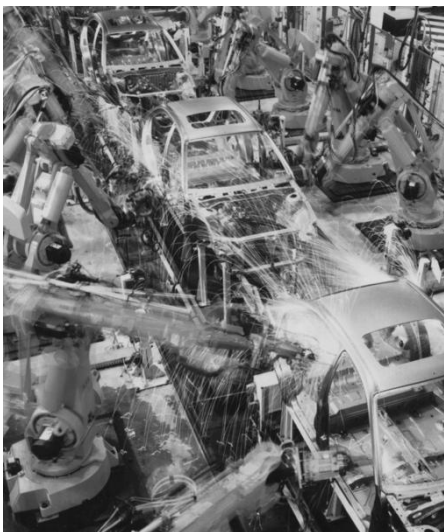
As a consequence, VCC sent 110 engineers to inspect the system and upgrade the cars in order to receive the correct components in the right time. After some time, VCC appointed a QAC, i.e. quality assurance and control system that had an auditing function and branded the cars as "factory complete". MMC was very cost-focused and the company was reluctant to quality changes that VCC wanted to achieve. As stated by the process engineer *"it was stuff like this [QAC] which they [MMC] did not have and did not want because it cost much."*

According to MMC, the assemblers had the responsibility for quality since in MMC 'kaizen', i.e. continuous improvement is mandatory and hence MMC believed that the QAC function was not necessary. However, in NedCar production was outsourced to Dutch

assemblers and therefore it resulted in complications and problems in production. Hence, the problem was not that the two industrial partners had differing views on quality; it was more about a difference in working methods. The quality engineer on the production side, states *“the Japanese have a culture, if they build something they do it right – in Europe it’s different.”* He further states, *“They did not understand that in Europe you need more control for everything. When someone in Japan says that this is to be done, they do it right.”* Apart from different working methods, there could be other factors contributing to the above-mentioned dilemmas, such as cultural differences.

DIFFERENCE IN MINDSETS

When the deal was signed and the two major partners, i.e. the Swedish VCC and the Japanese MMC, started to collaborate in NedCar based in the outskirts of the Dutch city of Born, it was inevitable to avoid cultural clashes. NedCar was a complex JV with three different parties – the Swedes, the Japanese and last but not at least the Dutch. VCC had very little experience of international collaborations and the company was very much Gothenburg-based. The employees who were sent down to the Netherlands participated in cultural courses in order to gain cultural competence. Cultural differences and how to behave and deal with different people were important topics in our interviews with the majority of the respondents recognizing it as a personal learning. For instance, VCC’s industrial project manager confirms this:



“We thought that the Dutch and the Swedes were very similar but it was totally different. A Dutch just as a Frenchman differs in your professional and your personal role. You can sit and talk back in a meeting and totally disagree, then you can go to lunch together and things are great afterwards. In Sweden we do just the opposite, if someone at a meeting yells at you, you are angry with this person forever after. And then we had the Japanese who did not understand anything of it. So there were three different role-plays which were interesting.”
[Industrial project manager]

The different cultures (national and organizational) were apparent, as different approaches were common in every-day work. Working

with the Japanese could take a lot of time since they need to understand everything clearly, but once they do, they get highly devoted to the plan. Mitsubishi was also a highly centralized organization and decisions had to be made by people sitting in Japan. Contrary, the Swedes in Born had the mandate to take decisions. However, hierarchy was also a case for VCC, as information was phased out through hierarchical dimensions, which resulted in inefficiency regarding time utilization as information was delayed in reaching out to the entire organization. In this aspect, the Japanese were much more effective by starting the day with a so-called “summarize meeting” in which they reported on what was decided in the different sections the day before. The Japanese had also a different approach concerning meetings in general. Whereas, a Swede (VCC) enters a meeting to resolve issues, a Japanese (MMC) enters a meeting in order to confirm solutions. In MMC problems are solved outside the meeting and in the ‘work place’ close to production where the problems exist. The industrial project manager and academic researcher at NedCar verify this:

“After the first six months down there, I was in a meeting and they said: “Why do you only have problems? Why do you never have solutions?” For the Japanese, a meeting is for confirming a solution and the solution is done outside the meeting. But in the Swedish or the Volvo culture, one goes into a meeting with a problem and one hope that someone will solve it for you, not to validate a solution. They have a different language and do not call it a problem but a challenge and do not look at problems but solutions. This is something that I have taken with me, as it is a much better way to work. In some places at VCC this has been received but it is hard to teach an entire organization a new way of working.” [Industrial project manager]

“One thing that we saw, it was that they (Japanese engineers) had meetings on site, very close to production while VCC might gather in a meeting room and display images on the wall.”

[Sten Jönsson, Academic researcher in NedCar]

Moreover, MMC members had also a hard time in understanding the Swedish or the Volvo approach of decision-making. Mitsubishi’s decision-making process highly deviated from the Swedish approach, as VCC members were believed to be unclear in their decision-making.

As affirmed by a project manager “they [Japanese and Dutch] did not understand our decision-making processes. When the Swedes are sitting in a meeting, suddenly everyone leaves. Then the Japanese and Dutch wonder: “Why are you leaving? We haven’t decided anything yet.” The Swedes reply: “Of course we have.”” As a consequence, the Japanese suggested using digital whiteboards in order to cope with the problems of uncertainties and unsatisfactory communication.

Further, comparing the two industrial partners collaborating in NedCar, i.e. VCC and MMC, members in MMC had a much greater experience regarding their working tasks as they had previously worked in a lot of different projects; however their working tasks remained pretty much the same during their tenure at MMC. Contrary, people from VCC’s side had less experience but were more flexible with higher willingness to learn. According to the Japanese tradition, experience is seen as a key determinant to get higher responsibilities while at VCC people are frequently rotating working tasks. This resulted in that a MMC employee knew a lot about a specific area of interest while not so much about other areas. The experience of the engineers on the factory level in MMC and VCC was very high while the Dutch engineers had almost non-existing floor experience.

STRUCTURE IN PRODUCTION

The production in NedCar was, as mentioned earlier, a ‘process-driven production’ (i.e. designing cars that fit the production process in the factory) in accordance with conventional MMC configuration. This was something that was new and contradictory with the traditional VCC production approach, which was focused more towards adjusting production for design. The production flow included the traditional flows of: Press shop; Body shop; Paint shop and Final assembly. VCC had merely one member in each flow. Once production was initiated, there was no information or knowledge infrastructure; MMC who were responsible for the installment of the production process had no technological infrastructure.



4 models on 1 line

On the contrary, MMC had great competence and skills regarding manually documenting working procedures. In NedCar things were accomplished in practice and documentation of processes and procedures was to some extent rare from VCC's perspective. The few process engineers who worked on site in the different units, documented procedures and working methods. It included purely concrete, technical issues and aspects concerning more soft issues such as experience were hard to articulate. These documentations were further not used by VCC.

Regarding engagement in the MMC production process, team bosses, were sent to Japan and MMC's Mitsushima factory for education and to learn its production process. This group of people also included 10% of the Dutch "star assemblers" with great leadership skills who later passed their knowledge to the maintaining assemblers in NedCar. From VCC's point of view, there were mainly four "stars", one in each production unit, who were responsible for learning MMC's process-driven production. According to the process engineer (in Final assembly), *"we were too few [...]. In the beginning it worked with the role I had, but if you look in the rearview mirror we should have been at least four people in the final assembly."*

Furthermore, problem solving was an important and core activity from a production perspective. MMC working methods were very highly focused on problem solving. Whenever there was a problem or a change that the two industrial partners had to deal with, a process of problem solving was followed. Firstly, a problem was recognized by production and articulated in a 'problem sheet' together with the responsible engineer. Secondly, a 'problem explanation meeting' followed where all the involved departments attended. Thirdly, a 'proposed engineering change' (PEC) was created, i.e. a detailed problem improvement request form, which was finally accomplished by an 'engineering change order' (ECO). This problem solving process was somehow unfamiliar to VCC's home organization in Gothenburg. This is confirmed by the academic researcher in NedCar, whom we

have interviewed, who stresses, *“They [VCC] learnt a lot by being in production and solving problems.”*

COMMUNICATION

In the initial phase of the joint venture, VCC started with weekly work trips to NedCar, with employees living in the same hotel and spending a lot of time together. Later on, VCC put employees permanently in the Netherlands and this resulted in the creation of a separate unit, which was isolated from the home organization. Due to information technology not being used as intensively as today, there was a lack of communication between VCC employees at NedCar and the home organization. As asserted by the project controller:

“Communication at that time was not at all like it is today, you felt further away and did not know what happened in Gothenburg.”
[Project controller]

The result of the creation of a separate unit had both positive and negative influence on the joint venture work. As stated in the “white book”, the positive aspects were connected to the strong cohesion and unity within the unit, which was essential for the accomplishment of the project. *“Positive is that we are close to the plant and it is very valuable especially when you come close to production start. Positive is also that so many functions are located together here.”* The negative aspects were connected to the isolation from the home organization, which had a harmful effect on the restoring of information and knowledge. As asserted by the crashworthiness specialist, communication was not always perfect:

“I would call back home and ask the guy who sat next to me, to send me a book at my shelf; he responded: I cannot send you this book; you might give it to MMC because you work in NedCar now.”

[Crashworthiness Specialist]



Volvo S40

Apart from the lack of communication, there was also insufficient support from the home organization. NedCar was not seen as a developing project and there was a

suspicion and mistrust among members in the home organization. As mentioned by the industrial project manager *“this [NedCar] was a collaboration that many in the management group thought was useless [...]. They did not have the will to learn and they saw it [NedCar] as an old JV that no one had any use of.”* The lack in communication, insufficient support, no willingness to learn, jealousy as well as suspicion and mistrust were all obvious issues from a wide-ranging perspective.

Communication between the two industrial partners was to some extent scarce – MMC had their own separate space and were by some means difficult to interact with. Communication with MMC took place mainly through formal meetings and when the parties met at the production facility. Communication was further complicated due to language differences, as translation was needed most of the time. Sometimes, there was also imperfection in the translation, which was seen as a major problem. MMC employees working in NedCar did not have the authority and decisions had to be taken in their home organization in Japan. This meant that formal meetings were held in Japan every seventh to eight week where all the different parties attended in technical discussions. The Japanese were solely focused on the accomplishment of building their pre-study car and less importance was given to the “softer” investment, i.e. building relationships that VCC believed was an important aspect for success.

EMPLOYEES’ PERSONAL EXPERIENCES

The NedCar collaboration can be mainly described as an experience-based and ‘in practice’ learning project. The knowledge that has been acquired by VCC is today found in the members taking part in the project. This is confirmed by the project manager, who asserts *“there were many [VCC employees] who lived and worked in Holland, but then there were also many who traveled during the period and were involved and they absorbed the knowledge. The best knowledge transfer, it's when someone is working on a project somewhere and then travels back and works in other similar projects. That's when you*

achieve an automatic knowledge transfer.” Similarly, the technical project leader agrees with the above mentioned and states *“it is in action and not words, to see that things [i.e. the possibility of producing two cars on the same production line] can be done in other ways that are much better than what you’ve done ever before. That learning is amazing, I believe.”* According to this point of view, VCC were arrogant and believed that “their way” was the right way. A further example on this is the different view on quality standards, where VCC believed that their standards were superior to MMC’s. Employees who had worked in NedCar and moved back to the home organization were not appointed roles, which matched their previous experiences. The development manager who states the following, confirms this:

“We are not good at taking advantage of knowledge when people come home, the knowledge is found in individuals, and if the individuals get the right work, it is possible to reutilize knowledge but we are generally very poor when it comes to disseminate knowledge. The most effective use of knowledge is to ensure that people are positioned where their experience is beneficial.” [Development manager]

On the contrary, the production (quality) engineer we interviewed had a different view on this matter and believed that his personal knowledge was utilized in an optimal way since his new job (after NedCar) was working in VCC’s new joint venture. This is contradictory to the other voices according to which VCC was inefficient in utilizing the knowledge and experiences of employees working in NedCar.

VCC’s knowledge and learning process in NedCar can also be described as a slow process due to several contributing factors. Firstly, the project was exposed to internal changes within VCC, i.e. changes in product specifications and employee turnover. Secondly, a lot of the employees working in the project teams were young engineers dreaming of becoming project leaders. This in turn, resulted in a competitive environment where people were reluctant to share



Mitsubishi Carisma

and make their personal knowledge available for others in the organization. This is asserted by the researcher in NedCar, who stresses *“if you would release your most important skills for a kind of bureaucrat or a machine, you lose the competitiveness – it is about power in the sense that there are bureaucrats at the head office who want to drain me off my skills and make me redundant. Of course, nobody says so, but it's there – the very smartest is not released so it's a slow process to learn.”* In addition, the reluctance in the home organization to assimilate new knowledge is also a proof of visible power structures in the organization. Thirdly, VCC gained a lot of experience regarding the Japanese production methods, however there has also been other influences since the entire automotive industry has been shifting towards certain Japanese working ways, such as lean production, ‘kaizen’ and the “Toyota way”. If this can be seen as a consequence of the collaboration in NedCar is unclear. As stated by the production engineer *“VCC has learned a lot about the Japanese working ways, a lot of this has been achieved through benchmarking activities. But if NedCar has had any influence on this is unclear.”*

DISCUSSION

The empirical evidence in this study indicates that knowledge management should focus more on ‘knowing’, embodied in praxis and occurring in a ‘community of practice’, rather than ‘knowledge’, viewed as an object that can easily be transferred. Before we bring up our arguments for the above mentioned, it is important to analyze and understand how the joint venture was structured.

JOINT VENTURES – MOTIVES AND OPPORTUNITIES

NedCar as a strategic alliance was mainly directed towards achieving results – from VCC’s perspective the result was to develop and produce a new “small” Volvo in a cost-efficient way. Apart from the above mentioned, learning was a secondary motive for VCC and the company had a “learning project”, called LPP, within the broader car project. MMC’s motives for the strategic alliance were not quite

similar – while they were also focusing on cost efficiency, their primary motive was to enter the European market and establish a competitive position on a market where they previously were very small. This confirms the different motives behind strategic alliances mentioned previously in the theoretical framework (Kogut, 1988; Mayer & Teece, 2008).

Additionally, the joint venture contract had a clear point regarding what type of knowledge, i.e. learning Japanese production system and working methods, VCC would acquire by collaborating with MMC. Hence, the contract was utilized to facilitate knowledge sharing and learning by making the sharing of these working methods explicit and codified in the alliance contract. As Mayer and Teece (2008) suggest, transaction cost theory, which has mainly focused on details and specifications in alliance contracts, can be complemented by the resource-based view on strategic alliances. NedCar, as an example, clearly demonstrates that the contract has been exploited to include learning goals and also to manage conflicts and joint venture instability. Moreover, in NedCar the joint venture contract was also used to protect knowledge – e.g. when the technical platform (Lancer) was upgraded, VCC did not share the new platform version with MMC for two years. Similarly, in the joint venture contract it was clearly stated that MMC would not receive data regarding previous Volvo cars. These are clear examples of how the contract was used as a tool to protect knowledge sharing and to retain a competitive advantage. Apart from the above mentioned, the joint venture contract was also used to manage joint venture instability. According to Inkpen & Beamish (1997), joint ventures tend to become instable over time when one JV partner acquires more knowledge and hence becomes less dependent on the other partner. However, the contract with the inclusion of details about what knowledge sharing goals as well as the fact that there was a 50/50 ownership enabled NedCar to be a stable collaboration for a long period of time. The ownership structure in NedCar implied that both partners were willing to collaborate.

Furthermore, there were also other motives, than merely economic motives, behind the NedCar joint venture, which could be connected to bandwagon behavior (DiMaggio & Powell, 1983). During the 1980s, a great amount of focus was on Japanese production and a lot of companies in the automotive industry had started to build joint ventures with Japanese companies in order to learn Japanese working methods (e.g. NUMMI, a joint venture between General Motors and Toyota initiated in 1984; Diamond-Star Motors, a joint venture between Chrysler and Mitsubishi initiated in 1985) (General Motors, 2012; Mitsubishi, 2012). Therefore, NedCar was no coincidence; VCC was following the steps of other major actors in the automotive industry and were looking for a strategic partner.

Additionally, according to McKelvey (cited in Kogut 1988) firms have knowledge bases with strong “tacitness” and that tacit knowledge can be acquired through joint ventures and close inter-firm collaborations rather than other types of strategic alliances, such as contracting. Even though, our respondents could not clearly state whether or not the Japanese working methods were entirely assimilated through NedCar, we believe that the collaboration has had a great influence in acquiring the “tacitness” of Japanese working methods. Given the fact that VCC were introduced to Japanese production system and working methods in NedCar and the fact that there existed a close collaboration among the two industrial partners in Born, it was easier to make use of the benchmarking activities later on.

However, the NedCar collaboration included several sources of complexities, which impeded the learning process. Cultural differences (national and organizational), different working approaches, internal and external changes were all challenges to cope with in NedCar. As a joint venture actor it is crucial to understand the above-mentioned differences and as VCC has now experienced these dilemmas they are in much better state to understand and manage these changes.

NEDCAR – KNOWLEDGE AND LEARNING AFFECTED BY SITUATIONAL FACTORS

A COMMUNITY OF PRACTICE

The learning process in NedCar strongly supports the view on knowledge as a *'community of practice'*. It refers to the way people in a community develop shared ideas and, norms and interpretations that influence their way of working, which in turn influence the way they develop and share knowledge (Lave & Wenger, 1991; Brown & Duguid, 1991). In NedCar, there was a strong 'we against them' mentality between VCC's employees in NedCar and the home organization. This created a strong unity among VCC's employees working in NedCar, which had both positive and negative characteristics. According to Brown & Duguid (1991), the strength of a community of practice is also its weakness due to the fact that shared ideas are easy to disseminate within a group's boundaries, but much more difficult to share outside the community of practice. NedCar and VCC's employees working in the JV is a clear example of a community of practice. The VCC members taking part in NedCar were strongly connected with each other and ideas were shared through mainly informal communication channels. Initially, the employees lived in the same hotel before moving into permanent residences in the same area.

The work environment at NedCar among the VCC employees was very open and informal ways of sharing were apparent and effective. As the development manager stated "*what works effectively is informal communications*". The result was the development of strong relations within the group where everyone knew each other. On the contrary, the isolation of the unit from the home organization hindered those ideas to circulate outside NedCar. According to the situated approach on learning (Lave & Wenger. 1991), managing knowledge "requires newcomers to move toward full participation in the sociocultural practices of a community". In our study, the "newcomer" was VCC's home organization, which as a separate unit from NedCar did not have the ability to take full participation in NedCar's sociocultural community of practice. This in turn resulted in that there was no

interest or willingness to assimilate the knowledge from NedCar joint venture in other parts of the home organization. As emphasized by HR project leader “*we as humans do not want to integrate knowledge which we have not been part of in creating*”.

MASTERS, APPRENTICES AND PROBLEM SOLVING

A term that is widely connected to the situated approach on knowledge and learning is *apprenticeship*. According to this view, learning is a co-participating process and an activity that does not take place in an individual’s mind. An apprentice is an individual who learns through full participation in a community of practice where a master has the role of instructor. Hence, learning does not follow from the master to the apprentice, but it rather occurs within the process of co-participation (Lave & Wenger, 1991). By applying the above-mentioned perspective on NedCar, apprenticeship was certainly one way how the Japanese production process was shared to the Dutch and Swedish engineers working in NedCar. First, the so-called “stars” were sent to Japan to learn the Japanese production methods, who later shared that knowledge to the remaining workers in NedCar. However, we do not believe that this was a simple and linear process. In NedCar, there was a strong presence of co-participation in which the apprentices (i.e. Dutch and Swedish engineers) and the masters (i.e. Japanese engineers) interacted and ideas were transformed to fit the certain context in NedCar and the different interests of the parties. In this co-participation, understanding the relationships between the different actors is vital in order to enhance an understanding for the creation and sharing of knowledge.

Problem solving is, further, a term which is strongly connected to the situated approach on knowledge management (Bragd, 2002; Scribner, 1987, cited in Patriotta, 2003). According to Scribner (cited in Patriotta, 2003), problem solving is a central activity when it comes to learning. Employees or learners acquire knowledge, competencies and skills through actively solving practical problems. According to the data collected in our study, problem solving was a core activity in

NedCar. In fact, in this aspect MMC's working methods were more encircled on problem solving than VCC's. Whenever there was a problem or a change that had to be dealt with, a problem solving process followed. Mitsubishi's organizational culture can be described as a typical "problem solving culture", since the Japanese had a very different view on problem solving. Problems in MMC were handled close to the production, while in VCC problems were brought to formal meetings where solutions were often absent. The problem solving activities in NedCar, e.g. the 'problem sheets', were used as a way to define problems and enabled VCC to learn this in the specific context.

CULTURE AND POWER

Learning from a situated approach, is viewed as a relational practice affected by factors situated in everyday work life. One of the complexities in understanding knowledge management concerns the role of culture. According to De Long and Fahey (2000), organizational culture is the main barrier to knowledge creation, sharing and use in organizations. Cultural values, norms and practices all affect behaviors, which in turn influence knowledge processes in organizations. In NedCar, the cultural differences were, as mentioned in the previous section, unavoidable and had a great influence on the creation and dissemination of knowledge. As stated by Lave (cited in Diedrich, 2004), knowledge undergoes *construction* and *transformation*. The upgrade of the platform to meet VCC's safety standards can be seen as a clear example of how VCC transformed the knowledge embedded in the platform. What worked in MMC and its factories in Japan would certainly not work in Europe and cultural differences are one reason behind this. NedCar as a factory, which was built upon MMC's Mitsushima blueprints, was continuously transformed to include quality improvements – an example is the QAC function. Similarly, the Japanese 'process-driven production' was not entirely adopted by VCC. While VCC has learnt a lot about designing a car to match production needs in the factory, the company has still transformed that process to meet VCC standards and its cultural and historical traditions.

As a further example, the different values between the two industrial partners, i.e. VCC and MMC, highly influenced the outcome of the collaboration. VCC, as a European player had a very different production approach in comparison with the conventional Japanese approach focused on 'process-driven production'. Even though, VCC had a project within NedCar named LPP focusing on the acquisition of Japanese production process, there was a strong conception that the "Volvo way" was the right way of producing cars. The liaison officer manager stated, "*MMC decided the whole process as you probably have heard. Everything [in production] was done in MMC's way and we did not work in that way here in VCC.*" This shows that NedCar was seen as a separate unit and the knowledge, which took place in that context, was not applicable in VCC's home organization. As mentioned by De Long and Fahey (2000) cultures or subcultures influence what is believed to be useful or important knowledge. In the case of NedCar, some people in the home organization perceived NedCar as an old and useless JV. However, we believe that there are two sides to the above mentioned. As mentioned previously, the existence of a strong culture within a community of practice can result in that ideas can be easily shared among members. This entails that culture is not only a barrier but also an enabler to knowledge sharing.

Apart from culture, *power and political processes* are also unavoidable, when one tries to understand knowledge management (Diedrich, 2004). In NedCar, the power relations were undoubtedly visible. First, as mentioned earlier, the JV contract included clauses, which hindered knowledge sharing between the two industrial partners in NedCar. Second, as pointed out by the academic researcher in NedCar, power hindered the sharing of knowledge since there was reluctance among the young engineers to share their "smartest" skills with other project members. In addition, the unwillingness in the home organization, to reutilize the knowledge achieved in NedCar, could also be connected to power relations affecting the learning process. Knowledge is, as argued by Foucault (1980), intrinsically connected to

power. The above examples clearly show the importance of power and the influence on knowledge. The strong “not invented here” mentality that existed in the home organization is evidence of that knowledge management should rather emphasize knowing and learning as a ‘process’ that is affected by different factors, such as power relations, strongly integrated in the situation. Therefore, the view of knowledge as an “object” (Nonaka, 1991; 1994;) that resides in the heads of individuals (Cook & Yanow, 1993) and which can be readily made available for the entire organization (Davenport & Prusak, 1998; Nonaka, 1991; 1994) does not illustrate the complexities of knowledge management in organizations. We do not believe that managing knowledge can be merely accomplished by investment in information technology. Therefore focus should be directed towards managing the factors or the barriers that impede knowledge management activities.

TACIT AND EXPLICIT KNOWLEDGE

Further on, a main distinction in mainstream knowledge management literature is the notion of *explicit* and *tacit knowledge*. Whereas explicit knowledge refers to ‘hard’ and codified knowledge, tacit knowledge regards the personal insights and experience-based knowledge of individuals (Nonaka, 1994; Nonaka 1994; Nonaka and Takeuchi, 1995). Nonaka, further, argues that there are four modes of conversion of tacit and explicit knowledge; socialization, externalization, internalization and combination. We strongly believe that applying such a perspective on knowledge and learning implies that one does not understand the complexities and ambiguities in learning processes as described above. However, there was one very interesting reflection in our study strongly connected to what Nonaka’s calls the *externalization* process, i.e. articulating tacit knowledge in explicit forms. The Japanese engineers working in NedCar had great skills and competence in documenting working procedures and codifying problem solving solutions. As stated by the process engineer, “*Japanese were fantastic in documenting and drawing things. We [VCC] had a hard time understanding their way of drawing because*

we are not as good at drawing.” This is also strongly connected to the ‘problem solving process’, as mentioned earlier, where so called ‘problem sheets’ were used, including drawings with detailed illustrations regarding a specific problem. A further example is MMC’s use of white boards, which were used in meetings to clarify what decisions were made. The above-mentioned are strong evidences of an organizational culture (i.e. Mitsubishi) that fits with what Nonaka (1991) calls the “knowledge-creating company”. Interestingly, the “knowledge-creating companies” in Nonaka’s popular study (1991) are all Japanese companies and that is also the case with MMC. Therefore, we argue that the organizational cultures in Japanese companies could be an explanation for Nonaka’s view on knowledge management and that certain view may not fit other organizational cultures, such as VCC’s organizational culture. This is confirmed by the industrial project manager who stresses, *“It is hard to teach an entire organization a new way of working”*.

CONCLUSION

Knowledge and learning are concepts, which have gained extensive emphasis in previous research. Similarly, knowledge is also seen as one of the most important resources of organizations in the contemporary business world (Davenport & Prusak, 1998; Davenport, De Long & Beers, 1998). A strong emphasis in previous research has been on viewing knowledge as a commodity that can be easily shared among the members of an organization (Nonaka, 1991; 1994). Similarly, focus in the field of IJV studies is of the same nature with a strong tendency towards quantitative research approaches (see for e.g. Masao & Nakamura, 2005; Dhanaraj et al., 2004). Further, a popular distinction in mainstream knowledge literature is between explicit and tacit knowledge – explicit knowledge refers to articulated knowledge found in transcripts, documents and products, whereas tacit knowledge is the experience-based knowledge and personal insights of individual members in an organization. A key argument in mainstream literature (Nonaka, 1991; 1994; Nonaka & Takeuchi, 1995; Davenport & Prusak,

1994; Hedlund, 1994) is that knowledge is a firm's most crucial resource and hence tacit knowledge must be converted to explicit forms in order to make it available to the entire organization. Hence, organizations are reasonably familiar with the hard of knowledge management, i.e. the implementation of IT-related systems that facilitate knowledge sharing. However, firms are less adept at addressing the soft issues of knowledge management.

In this study, we have investigated the concept of 'knowledge management' in the context of an international joint venture, and attempted to apply a broad literature review in order to gain an understanding for the different perspectives on the topic. Drawing upon a case study, the results strongly support the notion that knowledge is shaped in a 'community of practice' and influenced by factors in the situation such as power, culture, and perhaps most importantly the people who co-participate in the community. Therefore, knowledge management cannot be accomplished merely by investments in information technology and the use of intranets, forums or other IT tools that are used extensively in different organizations today in order to share knowledge. We argue that in order to achieve success in knowledge management activities, focus should rather be directed towards understanding the complexities in the "situatedness" of knowledge.

From a theoretical perspective, this study contributes with a different applied methodology on knowledge and learning in the field of international joint venture studies. In comparison to previous research, where focus has been on quantitative and deductive methodologies, i.e. the testing of propositions, we have applied an open approach focusing on the experiences, insights and interpretations of people working in a specific setting. By doing this, this study illustrates the importance of issues such as culture and power that are not brought up to surface in other studies.

The study has also some important practical contributions for managers and employees working with knowledge and learning activities and/or inter-firm collaborations.

To understand what knowledge is before attempting to 'manage' it: Knowledge is a "collective endeavour" in which social, cultural and political aspects need to be managed before the implementation of any technology infrastructure.

To understand that culture could be both a barrier and an enabler to knowledge sharing: culture is what unitizes a group but also what isolates it from others. Hence the accepted assumptions, values, beliefs and practices among the members of an organization may enable the transfer of knowledge within the group, but they could also hinder them from acquiring new approaches.

The "learning" objectives and goals of a joint venture should always be supported by the home organization: The creation of a new entity (JV group) results in the isolation from the home organization, which entails that full support and trust to be shown. The goals and objectives should always be clear and supported by top management. If this is not achieved, the result will be political and/or relational controversies resulting in that knowledge may not be shared in an optimal way within the broader boundaries of the organization.

Keeping an open mindset and spanning the boundaries: Inter-firm collaboration and learning require a two-way approach and an open mindset. This means that the organization must be flexible and willing to learn new things rather than holding on to old realities.

Enable co-participation and involvement: A community of practice entails that employee engagement and participation are crucial for successfully managing knowledge. Hence, managers should enable knowledge sharing through the use of different co-participative methods, for e.g. workshops.

The above stated recommendations are some themes identified in the empirical investigation. It should be stated that the challenges concerning knowledge, which companies may face might differ. Therefore, it is highly interesting that in future studies to identify the challenges from the perspective of different companies and industries and to understand them appropriately.

REFERENCES

- Alvesson, M.** (2001), Knowledge Work: Ambiguity, Image and Identity, *Human Relations*, 54(7): 863-86.
- Alvesson, M. & Kärreman, D.** (2001), Odd Couple – Making Sense of the Curious Concept of Knowledge Management, *Journal of Management Studies*, 38(7): 995-1018.
- Berdrow, I. & Lane, H.W.** (2003), International Joint Ventures: Creating Value through Successful Knowledge Management, *Journal of World Business*, 38(1): 15-30.
- Brown, J. S. & Duguid, P.** (1991), Organizational Learning and Communities of Practice: Toward a Unified View of Working, Learning and Innovation, *Organization Science*, 2(1): 40-57.
- Bryman, A. & Bell E.** (2007), *Business Research Methods* (2ed.), Oxford: Oxford University Press.
- Callon, M.** (1999), Actor-Network Theory – the Market Test, in J. Lawand and J. Hassar (eds.), *Actor Network Theory and After*, Oxford: Blackwell, 181-95.
- Chan, S., Kensinger, J. & Martin, J.,** (2007), Leveraging Corporate Strategic Advantage Using Alliances and Joint Ventures, *Review of Financial Economics*, 16: 1-3.
- Contractor, F. J. & Lorange, P.** (2002), The Growth of Alliances in the Knowledge-based Economy, *International Business Review*, 485-502.
- Cook, S. & Yanow, D.** (1993), Culture and Organizational Learning, *Journal of Management Inquiry*, 2(4): 373-390.
- Cronbach, L. J.** (1975), Beyond the Two Disciplines of Scientific Psychology, *American Psychologist*, 30(2): 116-127.
- Davenport, T. H., De Long, D. W. & Beers, M. C.** (1998), Successful Knowledge Management Projects, *Sloan Management Review*, 39(2): 45-57.
- Davenport, T. H. & Prusak, L.** (1998), *Working Knowledge: How Organizations Manage What they Know*, Boston: Harvard Business School Press.
- De Long, D. W. & Fahey, L.** (2000), Diagnosing Cultural Barriers to Knowledge Management, *Academy of Management executives*, 14(4): 113-127.
- Denzin, N.K.** (1978), The Logic of Naturalistic Inquiry, In Denzin N. K. (ed.), *Sociological Methods – A Sourcebook* (p. 54-73). McGraw-Hill, New York. 39

- Dhanaraj, C.**, Lyles, M. A., Steensma, H. K. & Tihanyi, L. (2004), Managing Tacit and Explicit Knowledge Transfer in IJVs: The Role of Relational Embeddedness and the Impact on Performance, *Journal of International Business Studies*, 35(5): 428-442.
- Diedrich, A.**, (2004) *Engineering Knowledge: How Engineers and Managers Practice Knowledge*, Diss. Göteborg : Univ., 2004.
- DiMaggio, J. & Powell, W.** (1983), The Iron Cage Revisited: Institutional Isomorphism and Collective Rationality in Organizational Fields, *American Sociological Review*, 48: 147-160.
- Dixon, N.M.**, (2000), *Common Knowledge*, Boston: Harvard Business School Press.
- Foucault, M.**, (1980), *Power/Knowledge*, New York: Pantheon.
- General Motors**, 2012 [online]. Available at <<http://www.generalmotors.com>> [Accessed 2012-04-03].
- Gillespie, J. & Gulati, R.**, (2001), Alliances and Joint Ventures, Smelser, N. & Baltes, P. (eds.), *International Encyclopedia of the Social & Behavioral Sciences*, 392- 397, Oxford, England: Elsevier Science.
- Grant, R.M.**, (1996), Toward a Knowledge-based Theory of the Firm, *Strategic Management Journal*, 17: 109-122.
- Gulati, R.** (1998), Alliances and Networks, *Strategic Management Journal*, 19: 293-317.
- Hedberg, B.**, (1981), How Organizations Learn and Unlearn, In P.C. Nystrom & W.H. Starbuck (eds.), *Handbook of Organizational Design*, London: Oxford University Press.
- Hedlund, G.** (1994), A Model of Knowledge Management and the Nform Corporation, *Strategic Management Journal*, 15: 73-99.
- Inkpen, A. & Beamish, P.**, (1997), Knowledge, Bargaining Power, and the Instability of International Joint Ventures, *Academy of Management Review*, 22(1): 177- 202.
- Janz, B.D.**, & Prasarnphanich, P. (2003) Understanding the Antecedents of Effective Knowledge Management: The Importance of a Knowledge-Centered Culture, *Decision Sciences*, 34(2): 351-384.
- Jönsson, S. A.** (2004), *Product Development: Work for Premium Values*. 1. [uppl.] Malmö: Liber.
- Jandemir, D. & Hult, T.** (2005), A Conceptualization of an Organizational Learning Culture in International Joint Ventures, *Industrial Marketing Management*, 34: 430-439.
- Kogut, B.**, (1988), Joint Ventures: Theoretical and Empirical Perspectives, *Strategic Management Journal*, 9: 319-332.
- Kraatz, M.S.** (1998), Learning by Association? Inter-organizational Networks and Adaptation to Environmental Change, *Academy of Management Journal*, 41(6): 621-43.
- Latour, B. & Woolgar, S.** (1979), *Laboratory Life: the Construction of Scientific Facts*, Princeton, N.J.: Princeton University Press. **Lave, J. & Wenger, E.** (1991),

Situated Learning: Legitimate Peripheral Participation, Cambridge: Cambridge University Press.

Mayer, K. & Teece, D.J. (2008), Unpacking Strategic Alliances: The Structure and Purpose of Alliance Versus Supplier Relationships, *Journal of Economic Behavior & Organization*, 66: 106-127.

Mitsubishi, 2012 [online]. Available at <<http://www.mitsubishimanufacturing.com>> [Accessed 2012-04-03].

Nakamura, M. (2005), Joint Venture Instability, Learning and the Relative Bargaining Power of the Parent Firms, *International Business Review*, 14(4): 465-493.

NedCar: The History, 2012 [online]. Available at <http://www.nedcar.nl/images/stories/History/history_en.pdf> [Accessed 2012-03-10].

Nonaka, I., (1994), A Dynamic Theory of Organizational Knowledge Creation, *Organization Science*, 5(1): 14-37.

Nonaka, I., (1991), *The Knowledge-Creating Company*, Harvard Business Review, 69(6): 96-104.

Nonaka, I. & Takeuchi, H. (1995) *The Knowledge-Creating Company*, New York: Oxford University Press.

Patriotta, G., (2003), *Organizational Knowledge in the Making: How Firms Create, Use and Institutionalize Knowledge*, Oxford: Oxford University Press.

Pentland, B. T. (1992), Organizing Moves in Software Support Hot Lines, *Administrative Science Quarterly*, 37(4): 527-48.

Powell, W. W., Koput, K. W. & Smith-Doerr, L. (1996), Inter-organizational Collaboration and the Locus of Innovation: Networks of Learning in Biotechnology, *Administrative Science Quarterly*, 41(1): 116-145.

Quinn, J. B. (1992), *Intelligent enterprise: A Knowledge and Service Based Paradigm for Industry*, New York: The Free Press.

Ruggles, R., (1998), The State of the Notion: Knowledge Management in Practice, *California Management Review*, 40(3): 80-88.

Saunders, M., Lewis, P. & Thornhill, P. (2007), *Research Methods for Business Students* (4ed.), Harlow, UK: Prentice Hall.

Schein, E. (1985), *Organizational cultures and leadership: A dynamic view*. San Francisco: Jossey-Bass.

Shelanski, H. A. & Klein, P. G. (1995) Empirical Research in Transaction Cost Economics: A Review and Assessment, *Journal of Law, Economics, & Organization*, 11(2): 335-361.

Silverman, D. (1993), *Interpreting Qualitative Data*, London: Sage.

Styhre, A. (2003), Knowledge Management Beyond Codification: Knowing as Practice/Concept, *Journal of Knowledge Management*, 7(5): 32-40.

Von Krogh, G. & Roos, J., (eds.) (1996), *Managing Knowledge*, London: Sage.

Wenger, E. (1998,) *Communities of Practice: Learning, Meaning and Identity*, Cambridge: Cambridge University Press.

Werr, A & Stjernberg, T. (2003), Exploring Management Consulting Firms as Knowledge Systems, *Organization Studies*, 24(6): 881-908

Yan, A. & Zeng, M., (1999), International Joint Venture Instability A Critique of Previous Research, A Reconceptualization, and Direction for Future Research, *Journal of International Business Studies*, 30(2): 397-414.