

Realizing co-creation

**Master thesis Strategic Management
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Management summary

The traditional view of the firm as an autonomous creator and extractor of value is increasingly redundant. Consumers want to be involved, connected, empowered and active. The joint creation of value by the firm and the consumer through types of consumer-company interaction, which is called co-creation, will have a major impact on businesses in the forthcoming years. While the principles of the process are widely understood, little attempt has been made to identify and distinguish the associated capabilities and managerial implications for organizations. An understanding of the most essential capabilities a firm must deploy in order to co-create successfully and the ways in which managers can shape these conditions specific to their companies would answer a large number of questions co-creation raises for managers.

Within this research project, which was carried out for Van Spaendonck Management Consultants, the literature on co-creation, capabilities and the relation between these two concepts is reviewed. The $R = G$ and $N = 1$ framework is selected as the most appropriate capabilities classification system in relation to co-creation and the objective of this research. This model's key principles, $R = G$ and $N = 1$, define a world in which firms should focus on one customer experience at a time ($N = 1$) and on access to, instead of ownership of, resources (R) from multiple vendors and often from around the globe (G). Ten managers of well-known co-creating organizations and two experts in the field of co-creation were interviewed to test the applicability of the $R = G$ and $N = 1$ framework and further enhance our insights into the capabilities question in relation to co-creation.

Between the results of the semi-structured interviews a clear connection was detected. A vast majority of the interviewees repeatedly referred to one of the following themes: leadership, trust, empathy, cultural change, community, flexibility, learning, feedback and mentality. Each of these themes is related to the realization of DART: dialogue, access, risk assessment and transparency. The conclusions imply that organizations are applying the co-creation concept by means of projects without actually learning from it in order to develop the capability to add or subtract appropriate resources to the whole supply network, improve continuously and develop new insights, either for operational improvement or for strategic redirection. This lack of learning during the co-creation process means organizations are not deploying dynamic capabilities, since learning is an essential part of the dynamic capabilities view.

Foreword

This thesis has been written to finish my master's in Strategic Management at Tilburg University. For executing this research project, I was largely dependent on the willingness of several organizations and experts to participate in an interview. I am very grateful ten managers and two experts in the field of co-creation took the time and effort to participate and would like to thank them for their openness and cooperation. Furthermore, I would like to thank Drs. Thijs Peeters from Tilburg University for his feedback and support during the writing of this thesis.

A special thank you goes to Toni Sfirtsis and Tibor Goossens, my company supervisors, for their feedback, support and enthusiasm during this project. Without their input, this thesis would not be as it is now. Finally, thanks to my 'colleagues' at Van Spaendonck Management Consultants, for their keen interest in this research.

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Chapter 1. Introduction

This chapter will sketch the symptoms of the problem which is researched. Furthermore, the problem statement and research questions of this project will be presented, followed by a section which shortly explains the design of this research. Finally, the structure of this thesis will be explained.

1.1 Problem indication

A perspective of the firm as an autonomous creator and extractor of value is increasingly redundant. Informed, connected, empowered and active customers challenge the traditional ways of sensing, thinking, and doing (Prahalad & Ramaswamy, 2002). By involving customers at just about any stage of the value chain, value is co-created by the customer and the firm and interaction becomes the locus of value creation (see figure 1.1). Co-creation is one of those concepts that will have a major impact on businesses in the forthcoming years. According to Prahalad and Ramaswamy (2004), the future belongs to companies that can constantly generate new knowledge of customer experiences and identify and enable experience co-creation to support compelling experience environments.

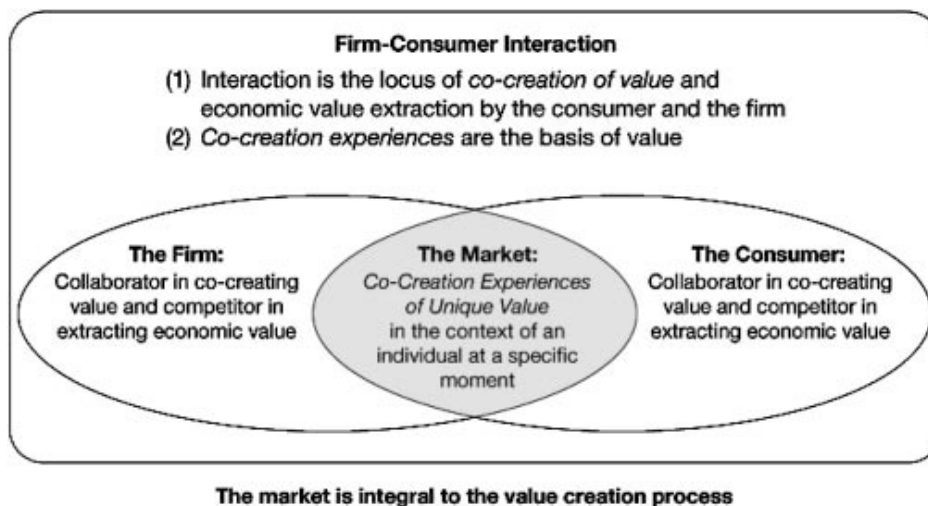


Fig. 1.1. The emerging concept of the market according to Prahalad and Ramaswamy (2004)

Organizations are continuously evolving. They want to change their direction, improve their performance or adapt to their changing external environment. Van Spaendonck Management Consultants helps organizations operating in dynamic business environments in a pragmatic and focused way at which the concept of co-creation is being increasingly

applied. While the principles of this process are widely understood, little attempt has been made to identify and distinguish the associated managerial implications for organizations. Although, in the emerging co-creation environment, the role of leadership in managing the co-creation process is very essential (Kambil, Friesen, & Sundaram, 1999; Payne, Storbacka, & Frow, 2008; Prahalad & Ramaswamy, 2000). An understanding of the most essential capabilities a firm must deploy in order to co-create successfully and the ways in which managers can shape these conditions specific to their companies would answer a large number of questions co-creation raises for managers. Consequently, these insights would contribute to the quality of the consulting services provided by Van Spaendonck Management Consultants.

1.2 Problem statement

What (type of) capabilities does a firm need to realize co-creation?

The central and dependent variable in this research, co-creation, is best broadly explained as a form of value creation in which value is created jointly by the firm and the customer through (types of) customer-company interaction (Prahalad & Ramaswamy, 2000, 2002, 2004). Although the protagonists in the co-creation process can also be suppliers, experts or other stakeholders who can be considered relevant in relation to the co-creating firm, in this research the concept of co-creation is limited to this definition. Lawer (2006) identified eight different styles of customer-company co-creation, each one requiring different capabilities for strategy, learning and marketing. In this research the focus will be especially on the capabilities containing strategic importance and on the overlap between the co-creation styles.

Capabilities are defined by Sanchez (2004) as “repeatable patterns of action in the use of assets to create, produce and/or offer products to a market” (p. 519) and contain the independent variable in this research. From the perspective of co-creation, a special focus on dynamic capabilities will be most appropriate, as will be explained in the theoretical overview of this thesis. Dynamic capabilities relate to a firm’s “processes that use resources — specifically the processes to integrate, reconfigure, gain and release resources — to match and even create market change” (Eisenhardt & Martin, 2000, p.1107). They thus are the organizational and strategic routines by which firms achieve new resource configurations as markets emerge, collide, split, evolve, and die.

1.3 Research questions

- 1 a) What does the concept of (successful) co-creation mean?
b) Which dimensions are most critical in the realization of co-creation?
- 2 What type of capabilities classifications is most appropriate when taking the co-creation perspective?
- 3 Which necessary capabilities required for the realization of co-creation can be identified?
- 4 What are the managerial implications of realizing co-creation by deploying the earlier identified capabilities?

1.4 Research design

The type of research conducted is mainly exploratory and for a smaller part descriptive in nature. A goal of the study is to contribute theoretically and empirically to the research stream of the relation between a successful co-creation process and dynamic capabilities and to the associated managerial implications. The research strategies employed are a literature review and, more importantly, a multiple case study, as it involves “a strategy for doing research which involves an empirical investigation of a particular contemporary phenomenon within its real life context using multiple sources of evidence” (Robson, 2002, p.178).

To get a good insight into the topic existing academic publications on co-creation were reviewed. Furthermore, an important part of the investigation consisted of a number of face-to-face semi-structured interviews with managers of businesses that are already engaged in the process of co-creation and have experience with the implementation of a successful co-creation environment. Besides these managers, two experts in the field of co-creation were also interviewed.

1.5 Structure of the thesis

This thesis starts with a theoretical framework, which is covered in two chapters. Chapter 2 deals with the meaning of the co-creation concept and identifies the most critical dimensions in its realization, whereas chapter 3 focuses on the most appropriate capabilities classification in relation to the co-creation process and forms the basis of the answer to which capabilities are needed to realize co-creation. Chapter 4 provides the methodology of this research project, which is followed by the results and analyses of the empirical research in chapter 5. Chapter 6 consists of the conclusions and recommendations of this research, which further answers research question three – which necessary capabilities required for the

realization of co-creation can be identified? – and provides the managerial implications associated with co-creation. Figure 1.2 summarizes the structure of this thesis.

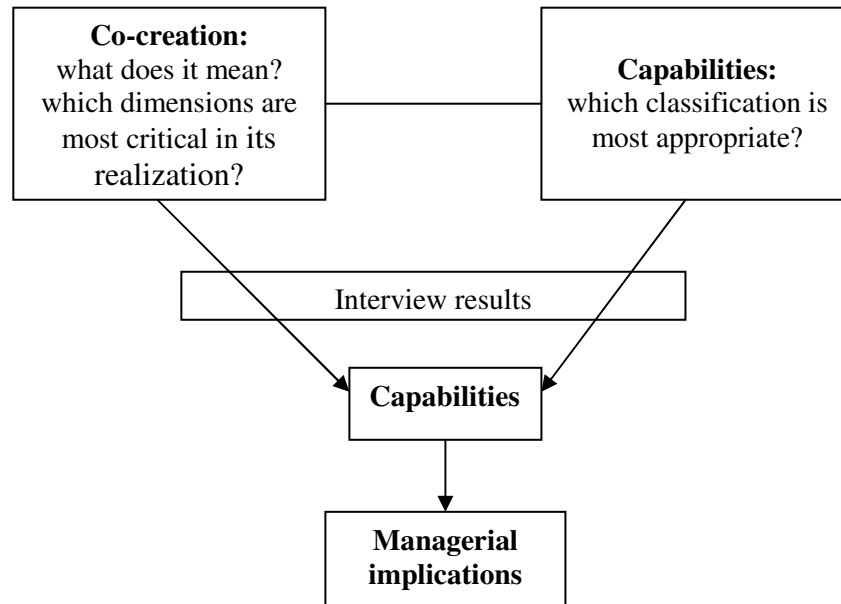


Fig. 1.2. Structure of the thesis

Chapter 2. The meaning of co-creation and its most critical dimensions

In this chapter and chapter 3, the most important and relevant results of the literature study will be presented. The results of this literature study provide insights into the capabilities question in relation to co-creation. This chapter focuses on the meaning of the co-creation process and the identification of the most critical dimensions in its realization.

2.1 Co-creation: a new concept?

Although co-creation is perceived by many as a relatively new concept, fact is that the principle of active involvement in the creation of a personalized product, service or experience exists for many decades. For example, for as long as there have been consultants who meet up with their clients to discuss a certain problem and come to a specific solution, we can speak of the co-creation of value. However, it was only beyond 2000 that customers were actually transforming into active players who were becoming part of an enhanced network. In the traditional system of markets and value creation, customers were seen as a passive audience and value creation occurred inside the firm, without any active customer engagement. Although, from the beginning of this century, forged by major business discontinuities such as deregulation, globalization, and the rapid evolution of the internet, this system is being challenged by the emergence of connected, informed and empowered customers who are becoming active players; co-creators of value (Prahalad & Ramaswamy, 2000).

2.2 The historical roots of an alternative way of value creation

When tracing the origins of the concept of co-creation, one must be careful to not only relate it to the seminal work of Prahalad, who explicitly introduced it as a nomological theme in 2004. This would falsely lead to the reference to the influential management theory “core competence” as the origin of the co-creation concept, while in fact its real basis is formed many decades earlier. The core competence model of Prahalad and Hamel (1990) is a corporate strategy model that starts the strategy process by thinking about the core strengths of an organization. Realizing core competence requires “communication, involvement, and a deep commitment to working across organizational boundaries. It involves many levels of people and all functions” (Prahalad & Hamel, 1990, p. 82) and therefore we can state that the basis of the co-creation process is embedded in the core competence construct.

However, loosening the link between co-creation and Prahalad and focusing on the principle of facilitating the customer as an active participant in the process of value creation takes us back even to works that were published already in the nineteenth century. For example, Storch (1823, as cited in Ramírez, 1999) recognized that services require cooperation between producer and consumer and Bastiat (1851, as cited in Ramírez, 1999) determined that all economic agents are “middlemen towards each other” and took value “to be the result of a many-sided exchange of services” (p. 67-68), emphasizing the importance of interfaces and dialogue in economic activity.

Besides these authors who already performed a key role with respect to the basis of the concept of co-creation more than 150 years ago, we can identify a number of highly contributing works of the twentieth century, especially in relation to service industries. Fuchs (1965) elaborates on Storch’s (1823, as cited in Ramírez, 1999) work by considering the consumer as a cooperating factor in the production process and stating that productivity in many service industries is dependent in part on the knowledge, experience, and motivation of the consumer. A few decades later, we see the emergence of the “customizing” consumer – the consumer who takes elements of market offerings and creates a customized consumption experience for him- or herself (Firat, Dholakia, & Venkatesh, 1995). The underlying thoughts of this concept establish the basis for the value profit chain concept. The core message of this framework is that the best performing organizations are those capable of developing long term relationships with committed customers, employees, and investors by focusing on providing what these three groups value most (Heskett, Sasser, & Schlesinger, 2002). In 1995, Schneider and Bowen suggest that firms should use customer talents to deliver superior service, which is supported by Lengnick-Hall (1996), who urges firms to examine the roles that customers can and do play in the service production process. Bitner, Faranda, Hubbert, and Zeithaml (1997) extend these ideas by actually defining the vital roles customers can play in creating quality and productivity in service experiences. They refer to service experiences as “the outcomes between organizations, related systems/processes, service employees and customers” (p. 193), a concept of which Pine and Gilmore (1999) state it includes the central elements of a new economic era: the era of the experience economy. According to these authors, customers demand more than a product; businesses must orchestrate memorable events for their customers – “experiences” – by involving them in a way they will always remember.

This shift in the perspective of companies to viewing customers as active co-creators rather than as passive participants is clearly described by the change in philosophy from

“What can we do for you?” to “What can you do with us?” (Wind & Rangaswamy, 2001). The meaning of value and the process of value creation concerning the firm-customer relationship are rapidly shifting from a product- and firm-centric view to personalized customer experiences. The interaction between the firm and the customer is becoming the locus of value creation and value captation. According to Prahalad and Ramaswamy (2004), a new paradigm is emerging to which they refer as Experience Co-Creation (ECC). The contrast between the traditional innovation process and the experience co-creation innovation process is well depicted in figure 2.1. However, it must be noted that innovation is just one of the key benefits (experience) co-creation can bring along. Increasing customer loyalty or reducing market research costs are other examples of drivers for companies to engage in the process of co-creation (Nambisan, 2002; Payne et al., 2008). In all cases, the central thought is transforming the customer in an active participant to be able to deliver him/her maximum value.

To be able to realize an environment in which customer-company interaction is the locus of value creation, companies need to concentrate on the total co-creation experience, as well as the process of co-creation through its key principles: dialogue, access, risk assessment, and transparency, to which is referred by the acronym DART (Prahalad & Ramaswamy, 2004).

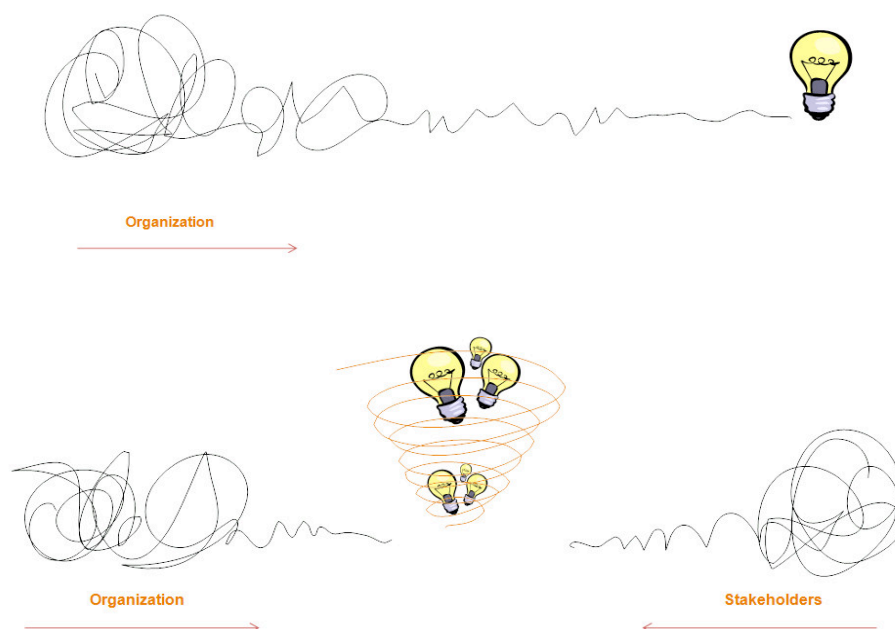


Fig. 2.1. The traditional innovation process (at the top) vs. the experience co-creation innovation process (Symnetics, 2009)

2.3 Key principles and successful co-creation

At this point, we can state that the concept of co-creation is not new, that the dynamics of the active roles of customers and the changing relationship between the customer and the firm find its origins many decades ago and that the emerging pattern of interactions between them lies at the heart of this change. We will now turn to the dimensions, or key principles, which are inextricably bound up with the design of co-creation experiences.

Dialogue is a crucial element in the co-creation view. According to Levine, Locke, Searls, and Weinberger (2001), markets can be viewed as a set of conversations between the customer and the firm, which companies should not control but should actually encourage. Prahalad and Ramaswamy (2004) underline that dialogue encourages not just knowledge sharing but, even more important, “qualitatively new levels of understanding between companies and consumers” (p. 31).

In order to realize a meaningful dialogue between the parties mentioned above, both access and transparency are critical factors. Access to knowledge, tools, and expertise enables customers to experience value in another way than through ownership, while transparency of information is necessary to create trust between all participating parties (Prahalad & Ramaswamy, 2004).

The final principle which facilitates co-creation experiences refers to the probability of customer risk. Risk assessment assumes that a consequence of customers who become co-creators of value with companies will be that they will demand more information about potential risks of goods and services and therefore may bear more responsibility for dealing with those risks (Prahalad & Ramaswamy, 2004).

DART must be enabled by technical and social infrastructure and platforms that enable customers to co-construct experiences they value and enable companies to generate business value (Prahalad & Krishnan, 2008). The key challenge for managers lies in attending to the quality of these infrastructures for interactions between companies and customers, with a special focus on the capacity to create a variety of personalized experiences. Successfully grabbing this challenge will lead to the successful realization of co-creation. However, to achieve this and to be able to compete effectively, managers will be required to gain access to new and necessary capabilities (Eisenhardt & Martin, 2000; Kambil et al., 1999; Manyika, Roberts, & Sprague, 2008; Prahalad & Krishnan, 2008; Prahalad & Ramaswamy, 2004; Teece, Pisano, & Shuen, 1997; Zollo & Winter, 2002). The identification of these capabilities will be clarified and made more understandable by first classifying the concept of co-creation into a number of co-creation types.

2.4 Styles and types

In the existing literature on co-creation, authors are lacking the identification and distinction of different styles or types of co-creation that companies are currently pursuing. In 2006, Lawer did perform this task with the intention to help firms determine which style is right for their particular context. He refers to eight different styles of customer-company co-creation: product “finishing”, new product design and development (lead user), existing product adaptation (customer feedback), mass customization, open community ideation and product design and development, new service design, real-time marketing & service adaptation, and personalized experience value and knowledge co-creation. Conclusions drawn by Lawer (2006) include that each style requires different capabilities for strategy, learning and marketing, that some of the co-creation styles overlap and that a company may combine the different styles to realize different forms of product, service and experience value.

A second classification of the co-creation concept has been made by Fronteer Strategy (2009). This consulting firm defines four types of co-creation, based on two central dimensions, as depicted in figure 2.2. The first dimension – open-ness – is related to the number and types of participants in the process, while the second dimension – ownership – refers to the persons by whom the outcome and challenges are owned.

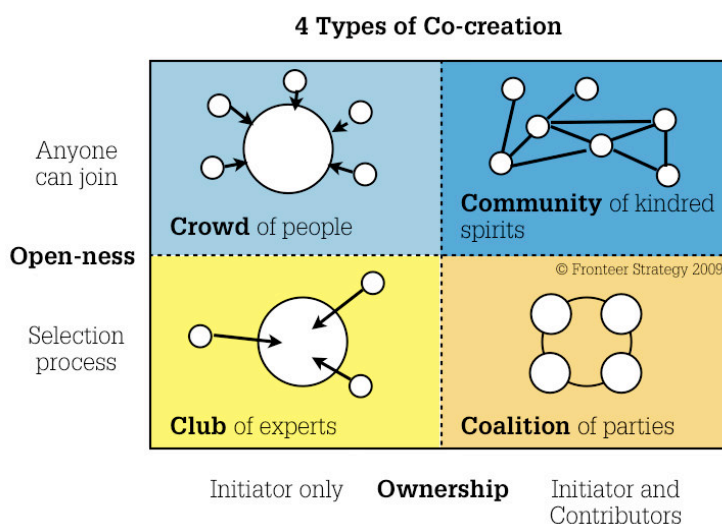


Fig. 2.2. The four main types of co-creation according to Fronteer Strategy (2009)

A final example of a classification system can be addressed to the innovation firm SunIdee. This system distinguishes five types of co-creation: co-creation workshops, crowdsourcing, open source, mass customization, and user-generated content. These types

mainly differ on three aspects, which are the number and type of persons that may join the process, the role of the participants and the perceived goal of the co-creation process.

A closer look at the above three classifications of the co-creation concept leads to three important clarifying conclusions. First of all, the dimensions used to distinguish the different co-creation styles and types are strongly comparable. In all three cases, the number and types of participants involved is an important distinguishing factor, as well as the intensity of firm-customer interaction and customer involvement. Besides, two of the three classification systems also emphasize the different roles of customers in the value-creation process (Lawer, 2006; SunIdee) and the question by whom the benefits resulting from the co-creation process are owned (Fronteer Strategy, 2009; Lawer, 2006). A second conclusion that can be drawn is that with respect to the above mentioned dimensions, it is not necessary to distinguish between the different activities within the value chain at which the concept of co-creation can be applied, such as product development, services or marketing/communication, since these dimensions would apply within all value-generating activities. The final and most important conclusion is that the classification systems just discussed do not actually identify or distinguish different types or styles of co-creation but do show three different perspectives on the co-creation concept: an objective oriented perspective, a process design oriented perspective and an implementation oriented perspective, respectively.

At this point, the resulting key question is: “which dimensions are most critical in the realization of co-creation and lead to its classification into a number of general applicable co-creation types?” For this research a classification system is needed which, unlike the existing classifications just discussed, also highlights the managerial implications associated with co-creation. The resulting dimensions will form the basis of the identification of a set of necessary capabilities that are required for the realization of the different types of co-creation.

2.5 The most critical dimensions in the realization of co-creation

In the previous section, three different classifications of, or perspectives on, the concept of co-creation have been discussed. When studying these classifications in combination with the available literature on co-creation and companies that have successfully applied the concept of co-creation within their business (e.g., LEGO; Apple; Sara Lee; Ikea), some interesting relationships can be identified. Naturally, these relationships should clearly underline the importance of the managerial implications of co-creation.

2.5.1 Customer participation

When reviewing the literature on co-creation discussed so far, a clear link with the concept of customer participation can immediately be detected. As can be derived from a previous section, this construct is not new. Supermarkets, which can be seen as models of co-creation with customers selecting, carting, and transporting groceries, date to the 1930s and in the doctor's office the productivity of the doctor has always been partly dependent on the quality of the medical history the patient gives. An examination of the relevant literature on customer participation in the production of goods and services reveals two important themes. First, the early work in the area focused largely on the firm, emphasizing why customers should engage in the production process. The benefits of such customer participation to the firm were defined in productivity gains, with customer labor substituting for employee labor (e.g., Fitzsimmons, 1985; Lovelock & Young, 1979; Mills & Morris, 1986).

The second theme concerns managing customers as partial employees and the applications and limits of traditional employee management models (e.g., Kelley, Donnelly, & Skinner, 1990; Lengnick-Hall, 1996; Mills & Moberg, 1982). Research in this theme has focused on identifying when customers may be motivated to participate in production as partial employees.

A broader perspective of co-creation can be found in the work of Firat et al. (1995). According to these researchers a fundamental characteristic of the postmodern age is that customers are asking for a greater and more active role in the production of goods and services. They argue that "the consumer may be finding the *potential* to become a participant in the customization of his/her world" (p. 50) instead of leaving this privileged role to the producer.

Based on customer participation, three types of production can be distinguished: firm production, joint production, and customer production (Meuter & Bitner, 1998, as cited in Bendapudi & Leone, 2003). In relation to the process of co-creation, only joint production is perceived relevant since this concerns a situation in which both the customer and the firm interact and participate in the production of a good or service. Therefore, we do not consider the other two types of production. Besides these types, also different levels of customer participation can be identified, which are referred to as low, moderate and high, as described in table 2.1 (Hubbert, 1995, as cited in Bitner et al., 1997). These levels are actually connected with service delivery but can also be applied to the production of goods. We speak of a high level of participation when customers are actually involved in the co-creation of a good or service and have essential production roles, as in the case of YouTube. However, this

does not imply that both the other levels can be considered irrelevant in relation to the concept of co-creation. For example, in the case of an annual physical exam (moderate level of customer participation), the patient is an active participant in the value creation process. Moreover, the creation and captation of value will be impossible without the patient's input in the form of information and effort. In other cases, all that is required is the customer's physical presence (low level of customer participation), as in the case of a symphony concert, and it can be stated with absolute confidence that this kind of value creation can not be categorized under the denominator of co-creation. Therefore, when is referred to participation in the process of co-creation, what is meant is the joint production of outcomes with a moderate or high level of customer involvement.

<i>Low:</i> Customer presence required during service delivery	<i>Moderate:</i> Customer inputs required for service creation	<i>High:</i> Customer co-creates the service product
Products are standardized	Client inputs customize a standard service	Active client participation guides the customized service
Service is provided regardless of any individual purchase	Provision of service requires customer purchase	Service cannot be created apart from the customer's purchase active participation
Payment may be the only required customer input	Customer inputs (information, materials) are necessary for an adequate outcome, but the service firm provides the service	Customer inputs are mandatory and co-create the outcome
<i>Examples:</i> <i>End consumer</i> Airline travel Motel stay Fast-food restaurant	Hair cut Annual physical exam Full service restaurant	Marriage counselling Personal training Weight-reduction programme
<i>Business-to-business customer</i> Uniform cleaning service Pest control Interior greenery maintenance service	Agency-created advertising campaign Payroll service Independent freight transportation	Management consulting Executive management seminar Install wide area network (WAN)

Table 2.1. Levels of customer participation across different services
From: Bitner et al. (1997)

Within the levels of participation just discussed, customers can play a variety of roles of which three – not mutually exclusive – are considered most contributing: the customer as productive resource, the customer as contributor to quality, satisfaction, and value and the customer as competitor to the organization (Bitner et al., 1997). A closer look at these three roles leads to the conclusion that the role of potential competitor can not be considered

relevant within the scope of this research. This role refers to the decision faced by customers whether to produce services for themselves (internal exchange) versus have someone provide the service for them (external exchange) (Lusch, Brown, & Brunswick, 1992), while firm-customer interaction and joint value creation are the central elements of the co-creation concept. Therefore, the roles customers can play in the co-creation process can all be grouped under the other two mentioned roles. The role as a productive resource emphasizes the goal of increasing the productivity of the organization through customer participation while customers as contributors to quality, satisfaction and value mainly care about maximizing their own satisfaction and the ultimate quality of the goods and services they receive (Mills, Chase, & Margulies, 1983).

Relating the presented findings in this section to the previously discussed literature on co-creation leads to the conclusion that one of the most critical dimensions in the realization of co-creation is definitely represented by the concept of customer participation. This concept contains almost all key distinguishing dimensions that were identified in the three classification systems addressed before, as depicted in figure 2.3. Besides, empirical case studies of the deployment of co-creation (e.g., LEGO) underline the importance of decisions dealing with the types and levels of customer participation and the roles customers can play. The DART principles, as discussed before, can be helpful in designing co-creation. Choices concerning this design should be controlled by the aspired level of organizational impact. One of the most essential dimensions associated with this concept is the extent to which the co-creation process will impact the current business processes and way of working and thus the number and importance of managerial implications required.

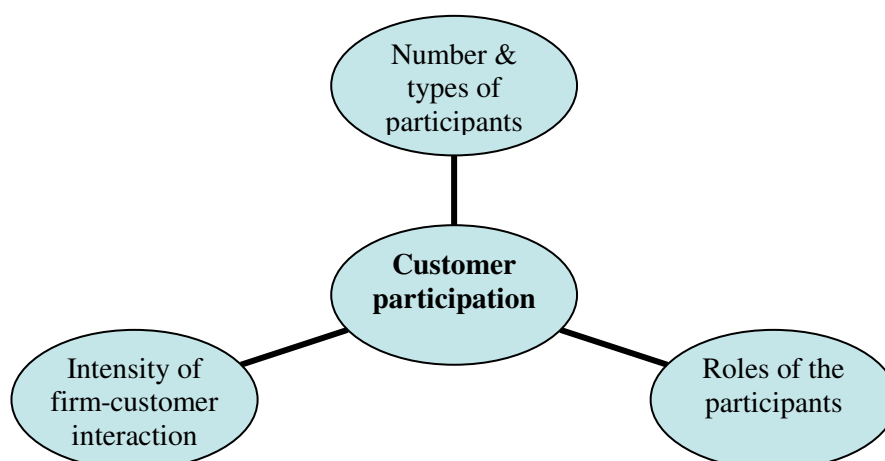


Fig. 2.3. Key dimensions of the concept of customer participation

2.5.2 Organizational design

In the previous section, it was pointed out that a great deal of concepts that are often brought in relation to the process of co-creation can actually be grouped under one dimension: active customer participation. However, little research has been done when it comes to the way in which the co-creation process can be organized – either organization-wide or separated from the daily business (e.g., as an organizational unit or project) – while this truly affects the impact it has on the entire organization and thus forms a critical factor on which the firm has to make a decision when planning to apply the concept of co-creation (Sanders, 2009; Staal, 2009).

LEGO is a good example of a traditional firm that has, in a relatively short period of time, acquired the process of co-creation. The company transformed from a producer of 300 new LEGO sets per year, to a co-creation model providing three million LEGO sets each year (see figure 2.4). At the moment, co-creation is an essential part of the LEGO Company at which a gigantic community of more than 2.5 million members plays a key role. The company wishes to have close contact with its customers throughout the world and therefore engages in many initiatives to strengthen ties between these groups of people and the company itself (e.g.; LEGO.com; LEGO Club; www.LEGOfactory.com). For example, the LEGO Factory provides consumers the opportunity to design and build LEGO models they think are lacking from the official LEGO range and the LEGO Club consists of 2.7 million children who can show each other pictures of their favourite building work and draw inspiration for future play (Corporate Communications, 2009). Clearly, at this company, firm-customer interaction is the locus of value creation and the co-creation idea is embedded in each part of the company. Therefore, LEGO is a perfect example of a firm that has decided to realize the process of co-creation at a scope that contains and impacts the entire organization.

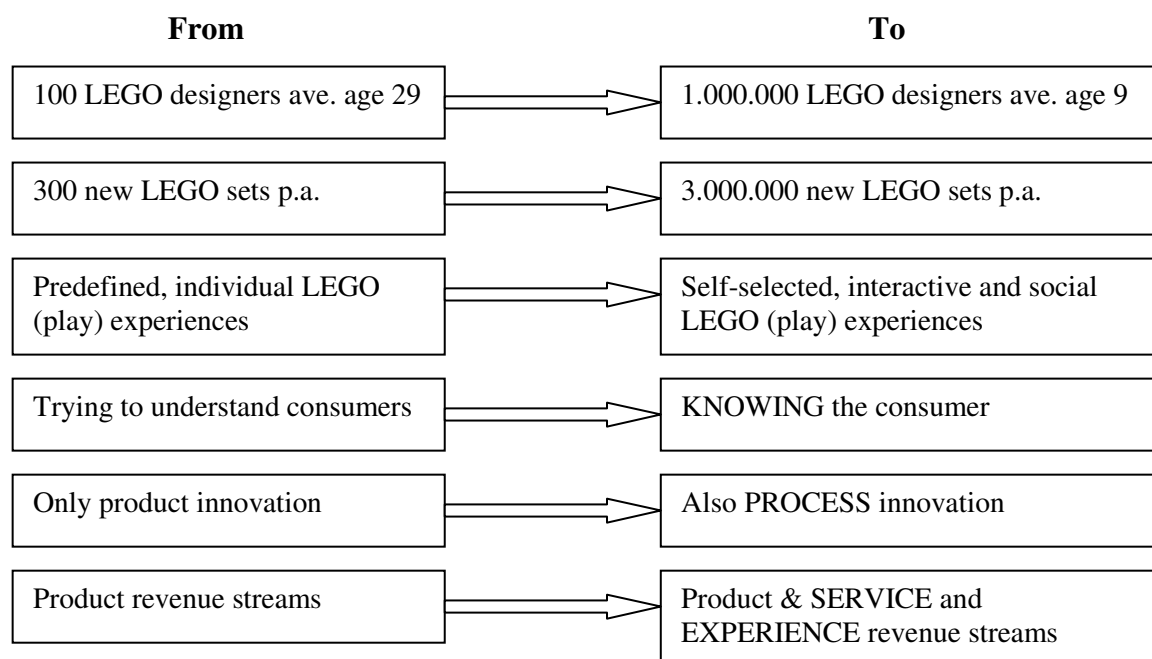


Fig. 2.4. The paradigm shift for LEGO
From: Derksen (2008)

At the opposite of the organization-wide appliance of the co-creation concept, we can identify examples of firms who have also realized co-creation, but in a way that has impacted the whole organization to a much lesser extent; separated from the firm's primary business processes. When considering the Nokia Pilots and Nokia Beta Labs, this different way of organizing co-creation, when compared to LEGO, can be perceived. In essence, Nokia Pilots is a program that helps get Nokia users around the world involved in the company's creative development process. The program acts as a channel for users to share their ideas and suggest improvements that the firm can put into action as they create their products and services. A few selected participants are given the chance to participate in real product development by matching the Nokia Pilot candidates' interests to the different projects Nokia is working on. Beta Labs has been around for a longer while; early on making public the efforts of small innovative teams at Nokia and since last year enabling the share of applications, content and services for trial usage to hundreds of thousands of users in an open platform (Mikko, 2008).

Both these programs show the realization of co-creation separated from the daily business. The outcomes can be highly significant to the organizing company, but the organizational impact and thus the associated managerial implications can be considered as limited. While the participants in the programs are working with the concept of co-creation continuously, the

largest part of Nokia's employees and departments are not connected to it in any way (Nokia Corporation, 2009).

2.6 Conclusion

Based on the previously discussed literature and findings, particularly on customer participation and organizational design in relation to the process of co-creation, it can be concluded that the first two concepts represent critical dimensions in the latter's realization. Concerning the concept of customer participation, we can even say it will be the key driver for each co-creating firm. The importance of the relationship between the way in which firms organize the co-creation process and the process of co-creation itself is less supported by existing literature. However, taking into account the managerial implications of co-creation, logical reasoning departing from the concept of customer participation in relation to the DART principles and studying existing examples of firms that are already co-creating does provide evidence that organizational design also represents one of the most critical dimensions in the realization of co-creation. In order to validate the here presented findings managers of co-creating organizations will be interviewed.

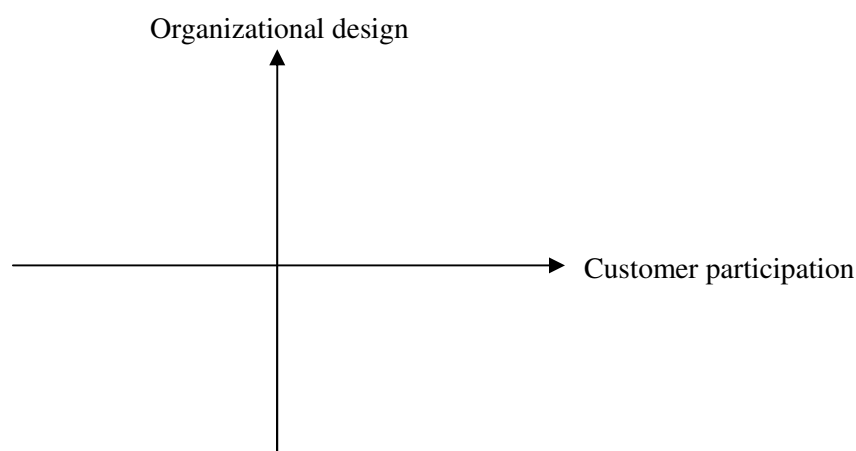


Fig. 2.5. The most critical dimensions in the realization of co-creation

Each organization planning to apply the concept of co-creation has to decide which position it aims to take in the above depicted figure. Naturally, the consequences of this decision imply a set of necessary capabilities which are required for the realization of the particular co-creation type. The identification of these capabilities represents the next step in this research.

Chapter 3. The appropriate capabilities classification and the capabilities needed to realize co-creation

First, this part of the theoretical framework deals with the question of what type of capabilities classification is most appropriate when taking the co-creation perspective. Secondly, it will provide the basis of the answer to which capabilities are required for the realization of co-creation.

3.1 Focus on capabilities

The role of firm-internal factors – resources and capabilities – has frequently been discussed by a great number of researchers, mostly in relation to strategic management (e.g., Hofer & Schendel, 1978; Kotler, 1988; Penrose, 1959; Wernerfelt, 1984). Over time, three research streams have emerged which specifically focus on the role of resources and capabilities in the development of sustainable competitive advantage: the resource-based view (RBV), the dynamic capability view (DCV) and the knowledge-based view (KBV) of the firm. These approaches are neither contradictory nor mutually exclusive (Tuominen, Rajala, Möller, & Anttila, 2003). They can best be referred to as a theoretical continuum, DCV and KBV being an extension of RBV (Barney, 2001; Grant, 1996; Priem & Butler, 2001).

In much of the empirical work, researchers refer to the concepts of resources and capabilities interchangeably. Although with the coming of the DCV, the distinction has strengthened (Amit & Schoemaker, 1993; Grant, 1998; Teece et al., 1997; Wang & Ahmed, 2007). The focus of this research is on capabilities. This concept can be defined as organizational resource-bundling processes that are developed and used with the ultimate aim of distinguishing the firm along the dimensions that bring value to its customers and/or create market or industry change (Amit & Schoemaker, 1993; Eisenhardt & Martin, 2000; Grewal & Tansuhaj, 2001; King & Zeithaml, 2001; Teece et al., 1997). They are often complex and difficult to change over time, and are more likely to produce sustainable competitive advantage than other company assets (Hitt, Ireland, Camp, & Sexton, 2001; Hunt & Morgan, 1995). The answer to the question concerning which research stream can best be linked to the concept of co-creation will be given and explained in the next section.

3.2 The dynamic capabilities view

In order to decide which approach fits best within the scope of this research we have to consider their main assumptions. First of all, according to the resource-based view a firm is a

bundle of heterogeneous resources that are partly immobile and sustainable competitive advantage is derived from the possession of valuable, rare, inimitable, non-substitutable resources (Barney, 2001; Conner, 1991; Peteraf, 1993; Wernerfelt, 1984). Taking this a step further, while including the interaction with the continuously evolving market, leads us to reason that firms need to develop competences sooner, more inventively or more fortuitously than the competition, which is one of the main assumptions of the dynamic-capability view (Amit & Schoemaker, 1993; Eisenhardt & Martin, 2000; Nelson & Winter, 1982; Prahalad & Hamel, 1990). Secondly, the learning mechanism associated with knowledge creation, the central function of the firm according to the knowledge-based view, can be perceived as a consequence of the firm's evolutionary outcome of its experiences, its capability base (Grant, 1996; Nonaka, 1994; Spender, 1996). However, we can perceive knowledge as one of the forms in which value resulting from a co-creation process can become manifest (Nambisan, 2002; Payne et al., 2008; Prahalad & Ramaswamy, 2004; Wind & Rangaswamy, 2001). Finally, the dynamic capabilities view refers to the antecedent organizational and strategic routines by which managers alter their resource base to generate new value creating strategies (Eisenhardt & Martin, 2000; Grant, 1996; Pisano, 1994). Since the basis of the co-creation process flows from the shift from the traditional "manufacturer-centric model" to a completely new way of creating value which includes interacting with different customers with different opinions, wants, and needs, co-creating firms are confronted with integrating, reconfiguring, renewing, and recreating its resources and capabilities and, most importantly, upgrading and reconstructing its core capabilities in response to the changing environment on a regularly basis (Wang & Ahmed, 2007). Besides, we can state that within this last view the evolutionary thought is embedded most. These statements lead to the adoption of the dynamic-capability-based view when taking the co-creation perspective.

The concept of dynamic capabilities has been defined in different ways by different authors. Although, one definition covers most of them: "the firm's processes that use resources – specifically the processes to integrate, reconfigure, gain and release resources – to match and even create market change" (Eisenhardt & Martin, 2000, p. 1107; Teece et al., 1997).

Having thus far defined dynamic capabilities at a conceptual level, the next relevant and necessary step is classifying the concept into a number of identifiable and measurable factors.

3.3 Opening the “black box”

Despite the widespread interest in dynamic capabilities by a great number of authors, many scholars remain sceptical about the concept’s nature and role (Winter, 2003). Moreover, dynamic capabilities have often been criticized for being tautological, vague (e.g., Mosakowski & McKelvey, 1997; Priem & Butler, 2001; Williamson, 1999), and nonoperational (Williamson, 1999). Protogerou, Caloghirou, and Lioukas (2005) refer to a “black box” of dynamic capabilities which they attempt to open using a multidimensional, higher-order model. More specifically, these authors conceive dynamic capabilities as a broader latent construct encompassing three underlying, highly interrelated dimensions: coordination capability, learning capability and reconfiguration capability.

Coordination capability describes the firm’s ability to assess the value of existing resources and integrate them to shape new competences (Amit & Schoemaker, 1993; Iansiti & Clark, 1994). They are often related to new product development, where teams belonging to different firm departments, or, in the case of co-creation, firm and customer, work together combining their varied skills and backgrounds in order to design and develop the specific product (e.g., Dougherty, 1992; Helfat & Raubitschek, 2000).

Organizational learning is strongly related to strategic renewal, as it requires that organizations explore and learn new ways while at the same time exploit what they have already learned (March, 1991). The process of learning can lead to the better and quicker resolution of specific problems and at the same time enable firms to identify new production opportunities (Teece et al., 1997).

The third factor refers to the ability to sense the need to reconfigure certain firm-specific competences in order to not let them turn into core rigidities and to carry out the required internal and external transformation, which is a costly and difficult process but also highly important (Teece et al., 1997).

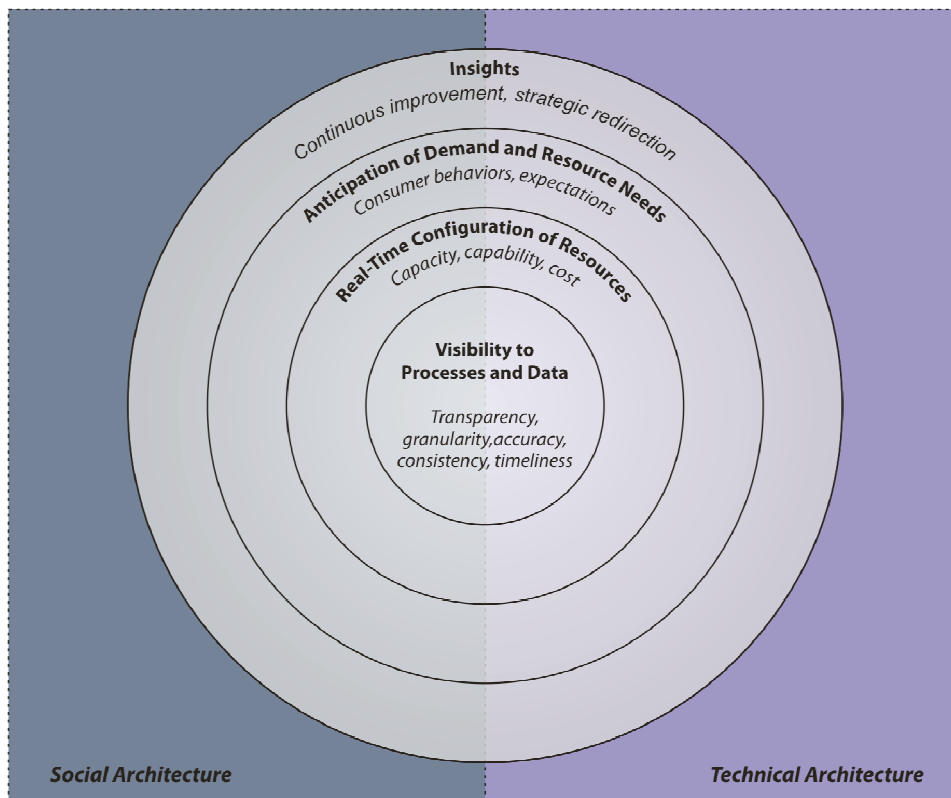
Although this model does succeed in capturing dynamic capabilities, it is questionable whether this classification system best suits the co-creation concept. With respect to the three interrelated factors it can be stated that they represent relatively easily applicable processes. Taking into account the objective of this research, a more evolutionary classification system would be more appropriate since this would better represent the impact on the organization.

3.4 Filling the gap

As concluded before, the origins of the co-creation process can be found many decades before it was popularized in the beginning of this century. However, it was not until recently

that researchers attempted to address the gap concerning the link between co-creation and the concept of capabilities. Prahalad and Krishnan (2008) are the firsts who attempted to fill this gap by focusing on building organizational capabilities that allow a firm to create the capacity for continuous innovation. According to these researchers, there are new principles of value creation as well as new capabilities that need to be build in order to compete. The two critical principles, $R = G$ and $N = 1$, define a world which is the exact opposite of where we started a hundred years ago: firms should focus on one customer experience at a time ($N = 1$) and on access to, instead of ownership of, resources (R) from multiple vendors and often from around the globe (G). As we move towards this world, different capabilities become critical sources of advantage. The success of the co-creation process will depend on a firm's "ability to develop flexible, transparent, and granular business processes that allow for continuous reconfiguration of resources ($R = G$) to serve the interests of $N = 1$ " (Prahalad & Krishnan, 2008, p. 42).

The term business process has been defined in different ways by industry experts and academics, dependent on the orientations of the authors. Prahalad and Krishnan (2008) identify business processes as "the enabler of an innovative culture through their impact on both social and technical architecture" (p. 81), where the social architecture refers to organization structure, performance measurement, training, skills, and values of the organization and the technical architecture to the firm's information technology backbone. This definition can be considered relevant within this research since it clearly emphasizes the link with overcoming internal resistance to change. Prahalad and Krishnan (2008) state that the quality of business processes determines the capability of firms to compete effectively.



Building blocks of $R = G$ capabilities

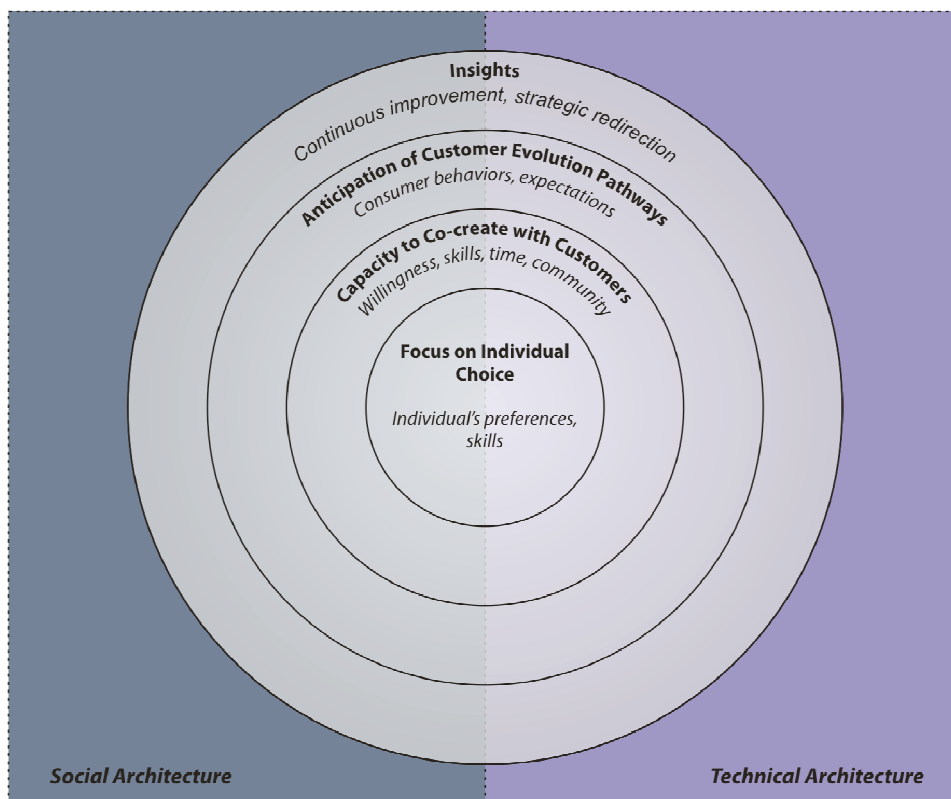


Fig. 3.1. Building blocks of $N = 1$ capabilities
Adjusted from Prahalad and Krishnan (2008)

3.5 Capabilities to realize co-creation

The depicted figures on the previous page show the building blocks of $R = G$ and $N = 1$ capabilities. The one at the top tells us that visibility to processes and data within global supply chains ($R = G$) is crucial for building the multiple layers of capabilities that are critical for dynamic reconfiguration of resources. To be able to manage the complex web of product and information flows, visibility in the supply chain is almost a prerequisite. Large companies which are operating supply chains without full visibility are faced with obvious consequences as they expose their chain to unknown global sources. Ideally, firms do exactly know who is buying what from whom and provide complete visibility to the end customer on every single product or service. As can be perceived in figure 3.1, this visibility creates the learning capability for firms to reconfigure resources in real time. This can start with a simple trend analysis of the key metrics across different markets and product categories but should be expanded to a capacity for rapid response to changes in either external market demand or internal process capabilities available at a given point in time. A combination of full visibility and the capability to reconfigure resources globally will help managers anticipate customer behaviors such that they can add or subtract appropriate resources to the whole supply network. In this process, new insights can also be derived, either for operational improvement or for strategic redirection (Prahalad & Krishnan, 2008).

When focusing on the building blocks of $N = 1$ capabilities, and thus on the capacity to serve individual customers – that is, personalization and co-creation of value – capabilities to work with customers to anticipate and predict their preferences on a continuous basis are essential. A system is needed which focuses on individual customers and their individual preferences and skills, as customers base their choices on their skill levels as much as their desires. The building block that flows out of this focusing, as depicted in figure 3.1, represents a firm's capacity to co-create with customers, depending in turn on individual customers' willingness to engage as well as their skill levels. Communities consisting of individual customers who share a common interest are also inextricably bound up with co-creation. The intimate engagement with these individual customers in the co-creation process allows managers to anticipate patterns of customer evolution pathways. "What will they want next?", "What do they value?" and "How do they want to engage with us in co-creation" are types of questions firms should be focusing on and can result in new insights (Prahalad & Krishnan, 2008).

3.6 Conclusion

In this chapter, we reviewed the $R = G$ and $N = 1$ framework for thinking about capabilities in relation to co-creation. The justification for this is provided by the evolutionary nature of this model originally developed by Prahalad and Krishnan (2008), which clearly reflects the impact of the deployment of different dynamic capabilities on the organization. This in turn is directly related to the organizational design of co-creation and the associated managerial implications, which represents the objective of this research. The further an organization gets to the outer bound of the figures depicted in 3.1, the higher the impact on the organization and the higher the number and importance of the associated managerial implications. The adoption of the dynamic capabilities view when taking the co-creation perspective logically follows from the dynamic circumstances within which co-creation processes take place. Co-creating organizations constantly need to upgrade and reconstruct their business processes in response to the changing environment (Wang & Ahmed, 2007).

The move to $R = G$ and $N = 1$, a world defined by the capability to leverage global resources and to serve individual customers, demands new levels of visibility and agility in managing the supply chain, dynamic real-time reconfiguration of resources, and capabilities to work with customers to anticipate and predict their preferences on a continuous basis. Successfully deploying these capabilities will lead to the generation of new insights, either for operational improvement or for strategic redirection (Prahalad & Krishnan, 2008).

To further enhance our insight of the $R = G$ and $N = 1$ framework, the next step in this research implies interviewing managers of organizations which have already applied the concept of co-creation.

Chapter 4. Research methodology

Within this chapter, the methodology and methods used in relation to the qualitative data will be described and justified. Methods here are defined as the techniques and procedures used to obtain and analyze data (Saunders, Lewis, & Thornhill, 2007).

4.1 Purpose of the research

To identify which capabilities a firm needs to realize co-creation, an exploratory study had to be carried out. This kind of study is a valuable means of finding out “what is happening; to seek new insights; to ask questions and to assess phenomena in a new light” (Robson, 2002, p.59). Its great advantage is that it is flexible and adaptable to new obtained insights. Literature provides three principal ways of conducting exploratory research of which two are used in this research: a review of the literature, resulting in a theoretical framework as presented in the preceding chapters and interviewing “experts” in the subject (Saunders et al., 2007). Focus group interviews are not conducted because these do not allow you to develop an individual level of rapport with each participant (compared to a one-to-one interview) and there are many potential difficulties of using group interviews. For example, a high level of skill is required to in order to encourage involvement by all group members and to maintain the interview’s exploratory purpose (Carson, Gilmore, Perry, & Grønhaug, 2001).

As stated before, the objective of this study is to contribute theoretically and empirically to the research stream concerning the relation between successful co-creation and dynamic capabilities and in particular to the associated managerial implications. This goal requires an empirical investigation of the co-creation process within its real life context using multiple sources of evidence, which makes the multiple case study the most appropriate research strategy. This strategy can be a very worthwhile way of exploring the applicability of existing theory, such as the framework developed by Prahalad and Krishnan (2008), as depicted in figure 3.1, and gaining a rich understanding of the context of the research and the process being enacted (Morris & Wood, 1991; Yin, 2003).

The data collection techniques employed to conduct a case study may include, for example, interviews, observation, documentary analysis and questionnaires (Saunders et al., 2007). In this research, semi-structured interviews are used and conducted over a short period of time. The choice for this method and the way it was employed will be elaborated below.

4.2 Semi-structured interview

The empirical analysis in this thesis is based on primary data gathered from Dutch managers from organizations who are engaged in or have experience with the process of co-creation with consumers. Due to the exploratory character of this research, this engagement has been defined as broadly as possible to ascertain the inclusion of different well-known organizations applying different types or styles of co-creation and thus positioning themselves on a different spot in figure 2.5 depicted in chapter 2. This way the concept of co-creation in relation to consumers is studied from a higher aggregation level, in contrast with the majority of existing research in the subject (e.g., Brabham, 2008; Kotha, 1995; Nambisan, 2002), which focuses on the instrumental fulfilling of the co-creation process (e.g., crowdsourcing, user-generated content). Based on desk research, a list was created including all organizations which are best known for applying the concept of co-creation (see appendix 1). All of them were contacted, resulting in ten interviewees. These participants are managers at TomTom, Air France KLM, Dell, Sara Lee, Heinz, Procter & Gamble, DSM, Achmea, Robeco and Philips. All cases differ either on the type of products or services provided or on the type or style of co-creation applied, as can be read in appendix 2. Besides ten managers, two experts on the co-creation concept were also interviewed to gain better insights in the appliance of co-creation in the real world and to get inspiration with regard to appropriate questions for the managers. To motivate participation, the experts and managers were promised a report of the research findings.

The method used to collect the primary data is the face-to-face semi-structured interview. This is often referred to as a qualitative research interview and is an efficient way to obtain information on the issues of interest (Sekaran, 2003). Since existing literature clearly lacks on the relation between the two main variables in this research – co-creation and dynamic capabilities – flexibility in terms of adapting questions in response to earlier gathered information was a prerequisite to obtain the most useful data. The semi-structured interview provides this advantage as questions can be adapted, adopted and changed as is proceeded with the interviews (Sekaran, 2003). Secondly, this method allows you to use concepts or ideas in a particular way, and the opportunity to explicate these meanings will add significance and depth to the data obtained. It may also lead the discussion into areas that were not previously considered but which are significant for the understanding, and which help to address the research questions and objectives. The interviewees also get the opportunity to hear themselves ‘thinking aloud’ about things they may not have previously thought about (Saunders et al., 2007). Finally, according to literature, a semi-structured

interview will undoubtedly be the most advantageous approach to attempt to obtain data when the questions are either complex or open-ended and/or when the order and logic of questioning may need to be varied (Easterby-Smith, Thorpe, & Lowe, 2002; Jankowicz, 2005). All of these aspects should result in the collection of a rich and detailed set of data.

4.3 Measurement

The problem statement of this research questions which capabilities firms need to realize co-creation. The issue at hand is therefore measuring the relationship between the deployment of certain dynamic capabilities and the success of a co-creation process. Operationally defining these two concepts to render them measurable is done by looking at their dimensions, facets or properties and translating these into measurable elements (Sekaran, 2003).

The theoretical framework, as build in the previous chapters, first reduces the level of abstraction of the co-creation concept by identifying its two most critical dimensions: customer participation and organizational design. Customer participation is further operationalized into the number and types of participants, the roles of the participants and the intensity of firm-customer interaction. Organizational design is operationalized into the level of impact of the co-creation process on the organization and the number and importance of the associated managerial implications. With help of these elements a distinction can be made concerning firms applying the co-creation concept between those enabling a high level of customer participation and those enabling a lower level and between firms which have integrated the process in the entire organization and firms which have separated it from the daily business. This way, better insights into the required competences and managerial implications associated with the appliance of the co-creation concept on different levels can be obtained.

The second main concept in this research, dynamic capabilities, has been classified into building blocks of $R = G$ and $N = 1$ capabilities (Prahalad & Krishnan, 2008), as depicted in figure 3.1. The applicability of this framework, after slightly being adjusted, is tested by asking the interviewees for critical success factors of the co-creation process and recommendations to inexperienced managers on the subject.

The general list of questions used for the interviews can be found in appendix 3.

4.4 Interviewing competence

There are several areas where it is needed to develop and demonstrate competence in relation to the conduct of semi-structured interviews (Saunders et al., 2007). Most of these are related to overcoming interviewer and interviewee bias and are therefore highly important.

During the planning process of the interviews concerning how to demonstrate credibility and obtain the confidence of the interviewees, a checklist was used to ascertain preparation on all the associated issues. This checklist can be found in appendix 4.

Besides competences addressing biases, approaches to questioning, recognizing and dealing with difficult participants and recording information were used. First of all, during the interview, open questions were used to encourage the interviewee to provide an extensive and developmental answer and probing questions to explore responses significant to the research topic. Secondly, the most prevalent difficulties concerning participants along with suggestions regarding how to address them, as stated by King (2004), have been studied before conducting each interview (see appendix 5). Finally, all interviews have been audio-recorded, which, besides acting as a means to control bias and to produce reliable data for analysis, has several other advantages. For example, it enables the interviewer to concentrate more fully and listen attentively to what is being said and the non-verbal cues the interviewee is giving when responding (Easterby-Smith et al., 2002). However, during the interviews notes were also taken to provide a back-up if the audio-recording did not work and to provide a way to show true interest in the participant's responses (Ghuri & Grønhaug, 2005).

4.5 Analysis

In order to prepare the qualitative data for analysis, each interview was transcribed after undertaken, that is, reproduced as a written word-processed account using the actual words (Saunders et al., 2007). Since there is no standardised approach to the analysis of qualitative data and there exist many strategies to deal with the data collected (e.g., Dey, 1993; Tesch, 1990), the $R = G$ and $N = 1$ framework, adjusted from Prahalad and Krishnan (2008), was used to organise the mass of data into meaningful and related categories. The technical architecture has been excluded for analysis since the firm's information technology backbone is out of the scope of this research. The $R = G$ and $N = 1$ framework was well suitable for the data categorisation process since "categories must have two aspects, an internal aspect – they must be meaningful in relation to the data – and an external aspect – they must be meaningful in relation to the other categories" (Dey, 1993, p.96).

The next activity of the analytical process consisted of attaching relevant 'units' of data to the appropriate category or categories of the $R = G$ and $N = 1$ framework. Engaging in this selective process, guided by the purpose of this research, had the effect of reducing and rearranging the collected data into a more manageable and comprehensible form.

Once reorganized according to the $R = G$ and $N = 1$ categories, key themes and patterns or relationships could be identified with the help of within-case analysis and cross-case search for patterns, which gives the researcher a rich familiarity with each case and implies the search for within-group similarities coupled with intergroup differences, respectively (Eisenhardt, 1989). As a way of refining the analysis, this may lead to the subdivision or integration of categories (Miles & Huberman, 1994). However, to be able to test the applicability of the $R = G$ and $N = 1$ framework, as adjusted from Prahalad and Krishnan (2008), no categories were revised in this stage of the research process.

The final step of the data analysis implies the development of valid and well-grounded conclusions. This important part of the analysis is considered in the following chapters of this thesis.

Chapter 5. Results

This chapter presents the results of the empirical part of this thesis answering the final two research questions; “*Which necessary capabilities required for the realization of co-creation can be identified?*” and “*What are the managerial implications of realizing co-creation by deploying the earlier identified capabilities?*”. As stated in the previous chapter, the results are based on interviews with two experts in the field of co-creation and ten managers of well-known organizations who are already engaged in the process of co-creation and have experience with the implementation of a successful co-creation environment.

First of all, the results with respect to the concept of customer participation and organizational design, which were identified as the most critical dimensions in the realization of co-creation in chapter 2, are given. In the following sections, the results will be presented in accordance with the building blocks of the $R = G$ and $N = 1$ capabilities (see figure 3.1), as the applicability of this framework, as adjusted from Prahalad and Krishnan (2008), will be tested. The tables providing an overview of the results with respect to each layer of capabilities are presented in appendix 6.

5.1 Customer participation and organizational design

Based on the discussed literature and findings in chapter 2, it was concluded that customer participation and organizational design represent two critical dimensions in the realization of co-creation. During the interviews, both experts and the vast majority of the managers also referred to these dimensions as being highly important in the co-creation process. With respect to customer participation, most interviewees stated that organizations need to pay much attention to the decision concerning which level of customer participation to realize. When it comes to the relationship between this level and the success of a co-creation process, some did not have a clear opinion and some believed a certain limit exists. As two managers referred to profitability as the determining factor of this limit, others pointed out that a high level of customer participation is incompatible with the development of technology-driven or highly innovative products or services.

The interviewees did have a unanimous perception about the optimal organizational design in relation to co-creation. Successful co-creating requires the process to be fully integrated within the organization, by which the engagement of all employees and the

inclusion of the principles of the concept in the company's DNA or organizational culture are conditions which were mentioned.

5.2 Visibility to processes and data;

Transparency, granularity, accuracy, consistency, timeliness

Appendix 6.1 provides an overview of the results which can be grouped under the $R = G$ capabilities' building block: visibility to processes and data. Transparency, granularity, accuracy, consistency and timeliness are factors which are strongly related to this layer of capabilities.

From the results which could be linked to the building block "visibility to processes and data", it turned out that all interviewees, with the exception of two managers, had an opinion (perception) about (the relevance of) this layer of capabilities. The perceptions reveal two key themes, which are the reserved attitude of an organization in relation to being transparent and accessible towards consumers and communication with consumers.

With regard to the first theme, most interviewees mentioned the importance of organizations taking an open, transparent and accessible attitude towards consumers in order to create a reliable environment within which trust is the most prevalent factor. Without the existence of trust between co-creating partners, the process of co-creation will not become successful, as indicated by the majority of the interviewees. However, in real life, this openness and accessibility often seems to be lacking. "*Many organizations are reluctant towards being open and visible when it comes to their products and processes*", a manager of an airline company stated. Four interviewees referred to a clear limit with respect to these areas. Crossing this limit would entail exposure to the risk of the competition picking up confidential company information or being publicly rejected.

All interviewees, with the exception of two managers who did not have a clear opinion about the subject, pointed out the need for transparent communication with consumers. This communication starts during the initial stage of the co-creation process and relates to being honest and clear towards consumers with respect to the way the process will proceed, what is expected from the participants, the goals aimed to achieve, what will happen to the input from the consumers and what they will get in return. Once the co-creation process is started and running, communication in terms of providing feedback on a regular basis concerning what is happening with the generated input, such as which ideas have been adopted and which ones are being executed, is highly important. This theme is also being connected to the creation of trust by most interviewees, as the following comment of the same manager of an airline

company demonstrates: *“By providing clear feedback to our customers on a weekly basis with respect to what is happening with their ideas we send a signal of trust and are able to create a reliable environment, which is extremely necessary in order to co-create successfully”*. Keeping consumers involved and curious are other reasons mentioned for frequent and extensive communication.

5.3 Real-time configuration of resources;

Capacity, capability, cost

Appendix 6.2 provides an overview of the results which can be grouped under the $R = G$ capabilities' building block: real-time configuration of resources. Capacity, capability and cost are factors which are strongly related to this layer of capabilities.

The results belonging to an organization's ability to reconfigure resources in real time can be subdivided in a number of interdependent topics. First of all, both experts and the majority of the managers emphasized more than once during the interview the necessity to listen and pay continuous attention to what is happening among consumers, followed by a rapid and efficient response to better attune to their true wants and needs. As a manager of an information technology corporation noted: *“Approaching individuals, listening to them and responding by implementing change within the organization has the ability of positively influencing the brand experience and perceptions of a large number of people”*. A number of managers underlined the importance of this statement by referring to the negative consequences of not acting upon negative feedback, such as brand destruction and declining sales. Listening to consumers, interacting with them in the community and using trend analyses are ways in which organizations try to keep track of their consumers' demands and the most active topics.

Secondly, most managers referred to organizational flexibility as a success factor of the co-creation process, especially when it comes to unexpected consumer input and/or feedback. *“Organizations need to accept and respond to the wants of the majority of the consumers, even when these do not correspond with the preferences of the organization”*, a manager of a global manufacturer and marketer of brand-name products for consumers pointed out. However, perceptions on how to deal exactly with these issues differ. Where some managers stated that organizations sometimes need to admit that the “new truth” which has come to light during the co-creation process lies beyond what is realizable or is insufficiently related to the company's core business, others said firms unconditionally need to accept and respond

to the wants of the majority of the consumers, even when these do not correspond with the preferences of the organization.

A third factor which has been frequently mentioned in relation to the real time configuration of resources is learning. This is called a very essential part of co-creation and mainly occurs while the process is proceeding and organizations are experimenting.

Finally, a condition attached to the realization of the previous three factors appears to be the integration of the co-creation process within the organization. As highlighted by several managers, clear organizational processes and the involvement of about all employees create the ability of firms to collectively learn pending the co-creation process and efficiently deal with and respond to the input and feedback received from the community.

5.4 Focus on individual choice;

Individual's preferences, skills

Appendix 6.3 provides an overview of the results which can be grouped under the $N = 1$ capabilities' building block: focus on individual choice. Individual's preferences and skills are factors which are strongly related to this layer of capabilities.

Studying the results related to organizations focusing on individual consumers and their individual preferences and skills immediately shows a unanimous perception about the importance of a dialogue with individual consumers as the basis of a successful co-creation process. As one of the interviewed experts remarked: "*A successful co-creation process starts with truly listening to consumers and having dialogues with them to find out who they are and what they want*". The interviewees link this dialogue to a number of success factors on which they mostly agree, which are listening carefully, truly imagining oneself in the consumer's situation, involving the consumer on a high level by providing full play in terms of what he/she wants to say and creating a reliable setting with an open mind atmosphere. Efficiently applying these factors will enable organizations to form a clear and reliable notion of the market and the wants and needs of individual consumers.

Statements which are not in complete accordance with the aforementioned success factors came from two managers who emphasized the need to hold on to business interests and profitability while involving and focusing on consumers and one manager who pointed out that companies can decide beforehand about which subjects consumers will have an opinion.

5.5 Capacity to co-create with customers;

Willingness, skills, time, community

Appendix 6.4 provides an overview of the results which can be grouped under the $N = 1$ capabilities' building block: capacity to co-create with customers. Willingness, skills, time and community are factors which are strongly related to this layer of capabilities.

According to Prahalad and Krishnan (2008), the first factor which is related to a firm's capacity to co-create is individual customers' willingness to engage. With the exception of three managers who believed a relationship exists between the willingness of a community to participate and the strength of an organization's brand(s), the interviewees did not make any straight statements regarding this subject. However, we can notice some relations with the results which are grouped under the $R = G$ capabilities' building block "visibility to processes and data". As mentioned in the corresponding section, most interviewees highlighted the importance of organizations taking an open, transparent and accessible attitude towards consumers in order to create a reliable environment within which trust is the most prevalent factor. Besides the creation of this environment, the need for transparent communication with consumers was also pointed out. Obviously, according to a vast majority of the interviewees, the appliance of these principles is strongly positively related to the success of a co-creation process and thus to the willingness of consumers to engage.

The second factor related to an organization's co-creation capacity is individual customers' skill levels (Prahalad & Krishnan, 2008). Interviewees who referred to this factor brought forward different and relatively independent perceptions. Both experts and one manager stated that the skills of consumers are lacking when it comes to co-creating technology-driven or highly innovative products or services. *"When it comes to product- and service improvements and when the most important goal of an organization is to improve customer loyalty, consumers should be involved as much as possible during the entire process. With respect to highly innovative products, this condition applies to a lesser degree and it is better for organizations to take the first step on their own"*, one of the experts stated. One manager stressed the need for organizations to be alert to the presence of highly skilful consumers, as these should be involved on a high level and connected to all divisions within the organization. Furthermore, according to another manager, consumers should be well prepared for the co-creation process in order to increase the possibility of a successful cooperation.

With respect to time, two interviewees referred to this factor as being decisive when it comes to the choice whether or not to co-create and which level of customer participation to

realize. A third interviewee emphasized the need for organizations to take plenty of time to build trust and another one was of opinion that the co-creation process shouldn't take too much time of both the organization and the consumer in order to make it a success. Clearly, what has been said concerning the factor time was mainly done while taking the organizational perspective.

Finally, a community consisting of individual customers who share a common interest is also inextricably bound up with co-creation (Prahalad & Krishnan, 2008) and seems to be the most active factor among the interviewees. "*Companies need to put a lot of effort in starting a community and motivating people to think along*", one of the interviewed experts pointed out. Success factors related to a community which were mentioned during several interviews are motivating members to be active participants instead of lurkers, making and keeping them enthusiastic and assuring the community consists of the right target group, of which the first two refer to the creation of willingness among consumers – the first factor dealt with in this paragraph.

5.6 Anticipation of demand and resource needs / customer evolution pathways;

Consumer behaviors, expectations

Appendix 6.5 provides an overview of the results which can be grouped under the $R = G$ and $N = 1$ capabilities' building block: anticipation of demand and resource needs / customer evolution pathways. Consumer behaviors and expectations are factors which are strongly related to this layer of capabilities.

The intimate engagement with individual customers in the co-creation process allows managers to anticipate patterns of consumer behaviors and expectations (Prahalad & Krishnan, 2008). A large part of the results linked to this layer of capabilities does also belong to the $R = G$ capabilities' building block "real-time configuration of resources". The necessity to listen and pay continuous attention to what is happening among consumers, followed by a rapid and efficient response to better attune to their true wants and needs and flexibility, especially when it comes to unexpected consumer input and/or feedback, refer to a firm's learning capability to reconfigure resources in real time and anticipation capability. Obviously, going through these two building blocks partly happens simultaneously.

Besides these perceptions which were supported by most interviewees, four managers directly referred to the need to look ahead to be prepared and better able to respond to (possible) future consumer behaviors and expectations. A manager of a multinational information technology corporation stated: "*At this moment we are already dealing with the*

question of how to reach the next billion people who will enter the World Wide Web and start dialogues with them”.

5.7 Insights;

Continuous improvement, strategic redirection

Appendix 6.6 provides an overview of the results which can be grouped under the $R = G$ and $N = 1$ capabilities’ building block: insights. Continuous improvement and strategic redirection are factors which are strongly related to this layer of capabilities.

A quick look at the overview of the results already tells that the upper layer of capabilities of the $N = 1$ and $R = G$ framework is hardly ever reached by organizations. Only two managers underlined the need for organizations to innovate on a continuous basis. Furthermore, integrating insights which were obtained during the co-creation process on a strategic level was mentioned by just one expert: *“Co-creation demands a cultural change within the organization. The best way to realize this change is to incorporate the results of a co-creation process into the organization’s strategy”.*

5.8 Social architecture

Appendix 6.7 provides an overview of the results which can be grouped under the social architecture, to which organization structure, performance measurement, training, skills and values of the organization are strongly related.

The perceptions of the interviewees which relate to a firm’s social architecture show some clear similarities. First of all, both experts and most interviewees speak of a cultural change which is needed to realize a successful co-creation environment. This change mainly consists of employees becoming more externally oriented, as the following comment of a manager of a global provider of consumer products demonstrates: *“An important cultural aspect of our co-creation program consists of teaching organizations how to turn the internal way of working to which employees are used into a new way based on external orientation”.* The experts and managers came up with different ways to achieve this “new” attitude: setting targets, taking employees to settings within which they can acquire new knowledge and get inspiration to take back to their own organization, setting real life examples of successful co-creation organizations, offering training and developing a reward system.

Secondly, successfully co-creating also requires the process to be fully integrated within the organization, whereby the support of top management is very crucial, as pointed out by a vast majority of the interviewees. It was even mentioned several times that the concept of co-

creation should be included in a company's DNA. This integration demands all employees to be engaged in and committed to the process, which needs to be stimulated by the organization. "*Co-creation requires the involvement of a lot of people and the support of about all parts of the organization*", a manager of an airline company noted. Therefore, most managers underlined the need for some sort of leadership, which is centrally exercised and consists of clearly supporting the co-creation process, motivating employees to support is – for which the ways of how to do this are described in the previous paragraph –, setting goals and defining and organizing the main features of the process.

Thirdly, both experts and a few managers pointed out that co-creating organizations need to let go of old and familiar rules, structures and processes since co-creation demands change.

Finally, during most interviews it was emphasized that the presence of the right people within the organization is necessary to realize a successful co-creation process. In this case, the right people refers to persons who persevere, are passionate and enthusiastic when it comes to co-creation, creative, dynamic, who have the guts to experiment, an entrepreneurial personality, possess the right knowledge and aim to facilitate cooperation and participation.

5.9 Remaining results

Besides the results which could be grouped under the $R = G$ and $N = 1$ capabilities' building blocks, the experts and managers also made some statements which could not be linked to the framework but might be relevant for this research. An overview of these results can be found in appendix 6.8. These results are included in this thesis because of their probable relevance for this research. All statements refer in some way to the capabilities a firm needs to realize co-creation and/or associated managerial implications. The similarities between these results belonging to different interviewees are mentioned here.

The fact that on the one hand co-creation is a voyage of discovery and experimenting and on the other hand organizations need to make some decisions and define certain goals and rules before starting a co-creation process emerged several times. For this reason, one expert and two managers stated it is better to start small and develop the process along the way.

Another statement which was made by several interviewees is that there exist few examples of really successful co-creating organizations. A lot of organizations claim to be engaged in a co-creation process but in fact they are not and mostly do not even know the true meaning of the concept. This perception is emphasized by some interviewed managers who falsely refer to activities as being a type of co-creation, e.g., a manager of an organization offering investment products and services stated: "*We started to involve the customer a long*

time ago, since we are doing market research for years now and this represents a type of co-creation”.

Inexperienced managers with respect to the process of co-creation should learn from organizations which are already applying the concept is a third opinion which is supported by a few interviewees.

5.10 Conclusion

Reviewing the analyses which are presented in this chapter reveals a clear connection between the results of the interviews. The conclusions given in the next and final chapter of this thesis will clarify this connection and lead to the draft of a set of recommendations.

Chapter 6. Discussion and conclusions

Within this final chapter, the conclusions of this research project will be discussed, followed by the recommendations.

6.1 Conclusions

This research has been conducted with the aim of obtaining insights into the capabilities a firm needs to realize co-creation and the associated managerial implications. To reach this research objective, this project was divided into four research questions. The first question concerns the meaning of the concept of (successful) co-creation and the most critical dimensions in the realization of a co-creation process. From the elaboration of the answer to the first part of this question could be concluded that the origins of the concept of co-creation can be found decades before it was popularized in the beginning of this century, dialogue, access, risk assessment and transparency are the key principles to be able to realize an environment within which customer-company interaction is the locus of value creation and existing classifications of the co-creation concept do not highlight the associated managerial implications. With respect to the answer to the second part of the first research question, the concept of customer participation and organizational design are selected as the most critical dimensions in the realization of a co-creation process. At a later stage of this research, this conclusion is affirmed by a majority of the interviewees.

This information was then used to answer the second research question and provide the basis for the answer to the third one, which consist of the questions about what type of capabilities classification can be used when taking the co-creation perspective and which necessary capabilities required for the realization of co-creation can be identified, respectively. By studying the concept of capabilities, the conclusion could be drawn that the dynamic capabilities view best fits within the scope of this research. Furthermore, the $R = G$ and $N = 1$ framework, as adjusted from Prahalad & Krishnan (2008) (see figure 3.1), appeared to suit the objective of this research, because of the evolutionary nature of this model which clearly reflects the impact of the deployment of different capabilities on the organization.

In order to test the applicability of the basis of the answer to research question three, the $R = G$ and $N = 1$ framework, and be able to answer research question four which concerns the managerial implications of realizing co-creation, two experts and ten managers who were in some way engaged in the process of co-creation were interviewed. From the results of these

interviews, differences and similarities in perceptions of the experts and managers became visible, which can be found in the previous chapter. The conclusions which can be drawn from the main differences and similarities and refer to capabilities firms need to realize (successful) co-creation and/or to managerial implications which are associated to a co-creation process are mentioned here and ordered by key theme to which they refer:

Trust:

- Organizations need to take an open, transparent and accessible attitude towards consumers in order to create a reliable environment within which trust is the most prevalent factor.

Feedback:

- Transparent communication with consumers is highly important. This communication refers to being clear and honest with respect to the way the process will proceed, what is expected from the participants, the goals aimed to achieve, what will happen to the input from the consumers and what they will get in return. Furthermore, providing feedback on a regular basis concerning what is happening with the generated input, such as which ideas have been adopted and which ones are being executed, is essential. This will most probably increase a consumer's willingness to engage.

Empathy:

- Organizations need to listen and pay continuous attention to what is happening among consumers, followed by a rapid and efficient response to better attune to their true wants and needs. Listening to consumers, interacting with them in the community and using trend analyses are ways which can be adopted to keep track of consumers' demands and the most active topics.
- Having dialogues with individual consumers is highly important and should form the basis of a co-creation process. A number of success factors to which this dialogue can be linked are listening carefully, truly imagining oneself in the consumer's situation, involving the consumer on a high level by providing full play in terms of what he/she wants to say and creating a reliable setting with an open mind atmosphere.

Flexibility:

- Flexibility is a success factor of the co-creation process, especially when it comes to unexpected consumer input and/or feedback.
- On the one hand, co-creation is a voyage of discovery and experimenting – staying flexible – and on the other hand, organizations need to make some decisions and define certain goals and rules before starting a co-creation process.

Learning:

- Learning is a very essential part of co-creation and should mainly occur while the process is proceeding and organizations are experimenting.
- The integration of co-creation within the organization represents a condition for the process to be successful. Clear organizational processes and the involvement of about all employees create the ability of firms to collectively learn pending the co-creation process and efficiently deal with and respond to the input and feedback received from the community.

Community:

- A community consisting of individual customers who share a common interest is an essential part of the co-creation process. Success factors related to a community are motivating members to be active participants instead of lurkers, making and keeping them enthusiastic and assuring the community consists of the right target group, of which the first two refer to the creation of willingness among consumers.

Cultural change:

- To realize a successful co-creation environment, a cultural change is needed. This change mainly consists of employees being more externally oriented. Setting targets, taking employees to settings within which they can acquire new knowledge and get inspiration to take back to their own organization, setting real life examples of successful co-creation organizations, offering training and developing a reward system are ways to achieve this change.

Leadership:

- Some sort of leadership, which is centrally exercised and consists of clearly supporting the co-creation process, motivating employees to support it – for which the ways of how to do this are described in the previous point –, setting goals and defining and organizing the main features of the process, is needed.

Mentality:

- The presence of the right people within the organization is necessary to realize a successful co-creation process. In this case, the right people refers to persons who persevere, are passionate and enthusiastic when it comes to co-creation, creative, dynamic, who have the guts to experiment, an entrepreneurial personality, possess the right knowledge and aim to facilitate cooperation and participation.

Remaining conclusions:

- Going through the “real-time configuration of resources” and “anticipation of consumer behaviors and expectations” building blocks by organizations partly happens simultaneously.
- “Continuous improvement and strategic redirection”, which make up the upper layer of capabilities of the $N = 1$ and $R = G$ framework, is hardly ever reached by organizations.

Obviously, between the above mentioned points, a clear connection can be detected. The vast majority of the individual conclusions are referring to ways aimed at optimizing the interaction with the consumer in order to create value for both the consumer and the organization. This in turn refers to DART: dialogue, access, risk assessment and transparency. The key factors which the interviewees mentioned as being strongly related to the realization of these four principles and were a response to open-ended questions – not referred to in any way by the interviewer – are trust, feedback, empathy, flexibility, learning, community, cultural change, leadership and mentality. Therefore, a summarizing model of the conclusions of the interview results can be created, as depicted in figure 6.1.

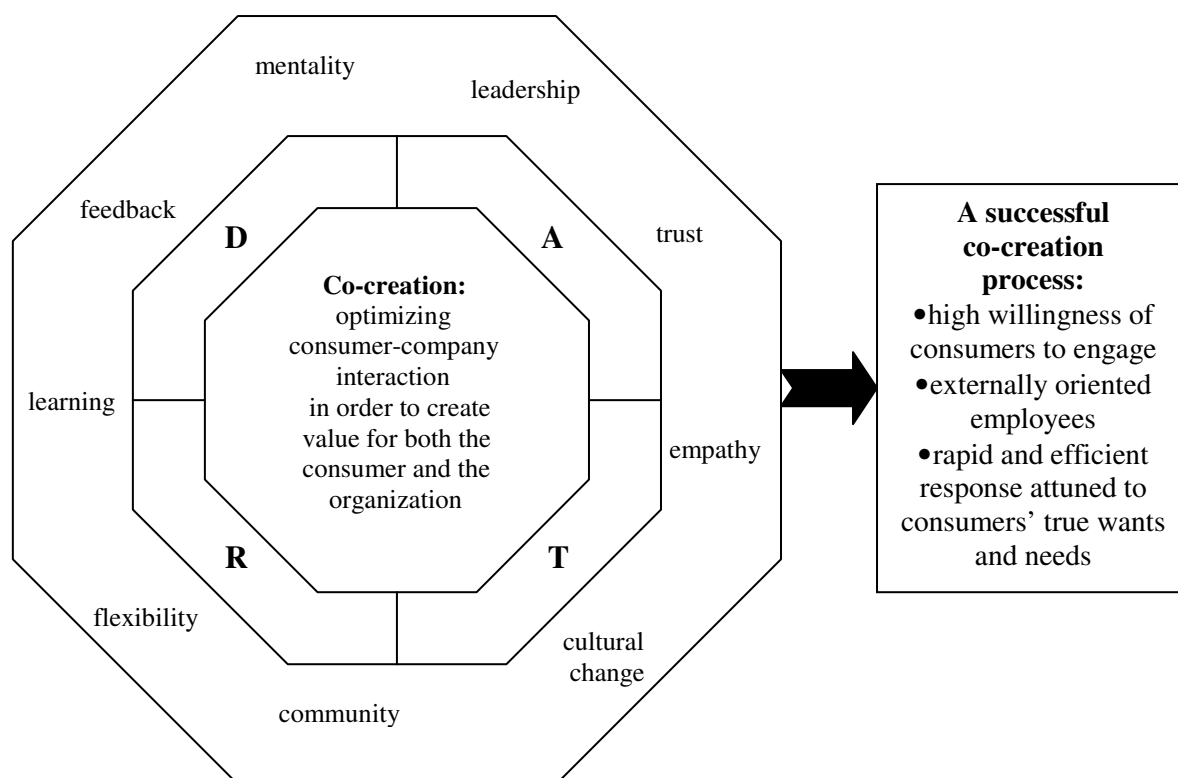


Fig. 6.1. A summarizing model of the conclusions of the interview results

Besides the search for cross-case patterns, the twelve within-case analyses were compared. These analyses consisted of a description of the main activities of the company the managers and experts work for and/or of the main activities the interviewees are involved in themselves. The comparison did not reveal any patterns, such as a connection between the answers of managers of a same branch of industry.

6.2 Managerial recommendation

The conclusions drawn out of the interview results, as summarized in figure 6.1, learn that organizations pay much attention to the $R = G$ capabilities' building blocks "visibility to processes and data" and "real-time configuration of resources", the $N = 1$ capabilities' building blocks "focus on individual choice" and "capacity to co-create with customers" and the social architecture. With respect to the outer layers of capabilities of the $R = G$ and $N = 1$ framework, "anticipation of consumer behaviors and expectations" and "insights", the results of the interviews are lacking. This implies organizations are applying the co-creation concept by means of projects without actually learning from it in order to develop the capability to add or subtract appropriate resources to the whole supply network, improve continuously and develop new insights, either for operational improvement or for strategic redirection. This lack of learning during the co-creation process means organizations are not deploying dynamic capabilities, since learning is an essential part of the dynamic capabilities view.

So when it comes to a recommendation about the application of the $R = G$ and $N = 1$ framework, as adjusted from Prahalad and Krishnan (2008) and depicted in figure 3.1, by managers of organizations which aim to be engaged in a co-creation process, a highly important one can be given. Firms should focus more on the learning part of the co-creation process, not only in the beginning/experimenting phase but during the entire process, to make sure dynamic capabilities are deployed and the process becomes an integral part of the business, as aimed for by most interviewees.

6.3 Limitations and implications for future research

The main limitations of this research relate to the sample of organizations. With respect to future research about the capabilities a firm needs to realize co-creation and the associated managerial implications, it is recommended to select a higher number of cases and also include organizations which have had a bad experience regarding the co-creation process. Furthermore, besides managers, employees who fulfil another function within a co-creating organization and consumers should also be interviewed. This would enrich the insights into

the capabilities question in relation to co-creation. Finally, two essential questions which follow from the conclusions and recommendations presented in this chapter and should definitely be dealt with in further research are:

- how can organizations go beyond project-based management of the co-creation process and incorporate it into the daily business?
- how can organizations turn co-creation into a continuous learning process within the organization?

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Appendix 1: Well-known co-creating organizations

- LEGO
- Nike
- Apple
- TomTom
- ANWB
- Air France-KLM
- Starbucks
- Cisco
- Dell
- TNT
- Samsung
- Sony Ericsson
- Nokia
- Vodafone
- IKEA
- Sara Lee
- Heinz
- Procter & Gamble
- Mars
- Heineken
- Rabobank
- ABN Amro
- Talpa
- Benz
- DSM
- Achmea
- Aegon
- Nuon
- XS4ALL
- Robeco
- Philips

Appendix 2: Sample of organizations and experts

- Expert 1: Martijn Staal: Innovation Management Consultant on Co-creation and New Media at TNO ICT.

Martijn works as a consultant at TNO, at the department of information and communication technology and is an active blogger on e.g. Marketingfacts. As a consultant he advises organizations about the use of new media, like user generated content and communities. He also gives presentations about innovation, co-creation and new media. On his weblog he provides up to date information concerning the business of social media, co-creation and web 2.0.

- Expert 2: Marieke Schoenmaker: Experience Innovation and Concept Development at Frion; Director 'Vat op Vitaliteit' at Stad van Morgen; Chairwoman at Stichting InnovatieBroedplaats; Managing Partner at Gamechanger; Co-creator.

Marieke has 20 years of experience in innovation driven transformations from the customer, business, creative and social perspective. During the past 7 years she specialized in business model innovation in eBusiness. She led innovation execution projects and programs for top players in both the national and the international environment. Some of her specialties are business innovation, ebusiness management, customer experience and interaction management, organizational development and value management.

- Organization 1: TomTom

TomTom is a digital mapping and routing company that focuses on car navigation. Products include Portable Navigation Devices (PNDs), line fitted in-dash navigation solutions and software for use on PDAs and smartphones. Through the Tele Atlas unit the company also supplies digital maps that enable routing guidance. Leveraging the active involvement of their users through customer support, customer feedback, and a user community is a vital part of their strategy.

The large amount of complaints and questions regarding flaws in TomTom's navigation devices was the main drive for the company to develop Map Share. Map Share offers users the opportunity to correct maps themselves when these are not correct. Everyone can join the TomTom Map Share community and use the map changes made by other TomTom users free of charge. Users can indicate until which level of trust they want to admit corrections. Because of Map Share the number of complaints and remarks has declined by 80% within one year. TomTom is the only navigation device working with this type of co-creation.

- Organization 2: Air France-KLM

Air France-KLM is a European airline holding company which was created by the mutually-agreed merger between Air France and KLM in 2004. The products/services offered by the company are passenger flights, cargo activity, aircraft maintenance and catering.

KLMinTouch, KLM's private, exclusive online research community, was launched on 30 January 2008 and consists of 400 Flying Blue Elite members from The Netherlands, UK, Germany, Sweden and Norway. These members are all frequent flyers with at least 7 KLM boardings and have all flown at least one competitive airline within the past 12 months. The objective of KLMinTouch is to understand the customers' values, aspirations, dreams and challenges and co-create relevant, differentiated offerings by giving

community members the opportunity to offer ongoing feedback on existing products and services, get involved in developing new products and services at an early stage and enter into dialogue with KLM in an open and transparent manner. Key benefits are that projects can be done within a few days and cost efficiency: high set up costs but relatively inexpensive weekly costs.

➤ Organization 3: Dell

Dell is a multinational information technology corporation that develops, sells and supports computers and related products and services, as a merchant. The company offers a broad range of product categories, including desktop computer systems, servers, and networking products, mobility products, software and peripherals and enhanced services. On Direct2Dell, the official Dell corporate blog, IdeaStorm was launched in February 2007 as a way to give a direct voice to customers and an avenue to have online “brainstorm” sessions to allow the customer to share ideas and collaborate with other customers and Dell. The company’s goal through IdeaStorm is to hear what new products or services customers would like to see Dell develop. In addition to the open discussion IdeaStorm site, in December 2009, “Storm Sessions” was added where Dell posts a specific topic and asks customers to submit ideas.

➤ Organization 4: Sara Lee

Sara Lee Corporation is a global manufacturer and marketer of brand-name products for consumers throughout the world. It has operations in more than 40 countries and sells its products in over 180 nations worldwide. Its brands include *Ambi Pur*, *Douwe Egberts*, *Sanex*, *Senseo* and the *Sara Lee* brand.

The company has set up an open innovation program through a website as a portal – consisting of partner pages, open pages, and brand pages – which allows members to submit an innovative idea, technology or solution with the ultimate goal to commercialize the ones that best support the company’s strategic direction. The target audience includes current strategic partners, new suppliers, consumers and employees.

➤ Organization 5: Heinz

Perhaps best known for its ketchup, Heinz manufactures thousands of food products in plants on six continents and markets these products in more than 200 countries and territories. The company claims to have 150 number one or number two brands worldwide. In The Netherlands Heinz has a prime position in the food market with well known consumer brands like Honig, De Ruijter, Karvan Cévitam, Roosvicee and Heinz of course.

Heinz states to have learned that bringing external knowledge leads to developing better products and services. Engaging clients, suppliers and partners from the early stages of product design can reveal unmet customer needs and thus introduce breakthrough innovations.

➤ Organization 6: Procter & Gamble

Procter & Gamble is a global company that provides consumer products in the areas of pharmaceuticals, cleaning supplies, personal care, and pet supplies.

Through the company’s innovation program Connect + Develop, P&G aggressively looks for solutions for their needs while also considering any innovation – packaging, design, marketing models, research methods, engineering, technology, etc. – that would improve their products and services and the lives of the world’s consumers. Furthermore, the

company has a number of assets available for license: trademarks, technologies, engineering solutions, business services and more. The Connect + Develop strategy has already resulted in more than 1.000 active agreements. Types of innovations vary widely, as do the sources and business models. P&G states to be interested in all types of high-quality, on-strategy business partners, from individual inventors or entrepreneurs to smaller companies and those listed in the FORTUNE 500 — even competitors.

➤ Organization 7: DSM

DSM is a multinational chemical company specialized in life sciences and materials sciences. Its activities are grouped into five clusters: nutrition, pharma, performance materials, polymer intermediates and base chemicals and materials. The company employs 24.000 people worldwide and is headquartered in the Netherlands, with locations on five continents.

By combining internal and external competences – both in R&D as in marketing – DSM is involved in the process of co-creation. The company recognizes that successful, profitable innovation is dependent on collaboration and entrepreneurship and owns a division specifically focused on new business development, in collaboration with external parties.

➤ Organization 8: Achmea

Achmea, a subsidiary of Eureko B.V., is the largest financial services group with a clear and demonstrable focus on value creation. Their core business is insurance – life, non-life and health – and services relating to pensions and health.

Sharing knowledge and experience and connecting people is an important part of Achmea's objectives. The Achmea Innovation Centre of Excellence was launched in 2007 in response to the gap which had grown between Achmea and the strongly evolving customer.

➤ Organization 9: Robeco

Robeco, established in Rotterdam, offers investment products and services to institutional and private investors worldwide. The product range encompasses equity and fixed-income investments, money-market funds, responsible investing and alternative investments, including private equity, hedge funds and structured products. To service institutional and business clients, Robeco has offices in 12 countries and a banking license in France and the Netherlands, where it can sell its products straight to private clients.

Robeco Direct states to deliver personal service through direct and open communication on a continuous basis, facilitated by i.e. KlankBoard and Robeco Connect.

➤ Organization 10: Philips

Royal Philips Electronics of the Netherlands is a diversified health and well-being company, focused on improving people's lives through timely innovations. As a world leader in healthcare, lifestyle and lighting, Philips integrates technologies and design into people-centric solutions, based on fundamental customer insights and the brand promise of "sense and simplicity". Headquartered in the Netherlands, Philips employs approximately 116.000 employees in more than 60 countries worldwide.

At Philips Design, they state to know that they can only fulfil people's needs and desires when they truly understand what these are. That's why they focus on their target audiences' priorities, values, inspirations, likes and dislikes. The international and multi-disciplinary design team aims to deliver truly relevant solutions that anticipate on people's needs and exceed their expectations.

Appendix 3: General list of interview questions

- 1) What does co-creation mean for (*name of the organization*) and can you tell something about the initiatives your organization has already taken with respect to this process?
- 2) What were the main motives for (*name of the organization*) to apply the concept of co-creation?
- 3) What are the marketing- and innovation goals (*name of the organization*) wants to achieve?
- 4) Which ways are used within your organization to motivate employees to become more externally oriented?
- 5) How can organizations manage the balance between on the one side being externally focussed and on the other side staying connected to the organization?
- 6) How can you motivate your target group?
- 7) Can you tell something about the way the co-creation process is organized within your organization – either organization-wide or separated from the daily business – and in which way do you believe this affects its success?
- 8) At which level does (*name of the organization*) allow the consumer to participate in the co-creation process and to which extent do you believe this affects the success of the process?
- 9) Which dimensions would you refer to as being most crucial when it comes to choices organizations have to make before starting with co-creation?
- 10) Which organizational competencies and/or critical success factors would you relate to a co-creation process?
- 11) Which necessary recommendations would you give to a manager who is planning to apply the concept of co-creation within his/her organization?
- 12) Finally, what are the challenges for (*name of the organization*) in the domain of co-creation?

Appendix 4: Checklist

To help you prepare for your semi-structured or in-depth interview	
✓	How might your preparation and knowledge (in relation to the research context and your research question) affect the willingness of the interviewee to share data?
✓	What will be the broad focus of your in-depth interview, or what are the themes that you wish to explore or seek explanations for during a semi-structured interview?
✓	What type of information, if any, will be useful to send to your interviewee prior to the interview?
✓	What did you agree to supply to your interviewee when you arranged the interview? Has this been supplied?
✓	How will your appearance during the interview affect the willingness of the interviewee to share data?
✓	Have you considered the impact that your interview location may have on participants' responses and on your own personal safety?
✓	How will you prepare yourself to be able to commence the interview with confidence and purpose?
✓	What will you tell your interviewee about yourself, the purpose of your research, its funding and your progress?
✓	What concerns, or need for clarification, may your interviewee have?
✓	How will you seek to overcome these concerns or provide this clarification?
✓	In particular, how do you intend to use the data to which you are given access, ensuring, where appropriate, its confidentiality and your interviewee's anonymity?
✓	What will you tell your interviewee about their right not to answer particular questions and to end the interview should they wish?
✓	How would you like to record the data that are revealed to you during the interview? Where this involves using a tape recorder, have you raised this as a request and provided a reason why it would help you to use this technique?
✓	How will you seek to overcome potential issues related to the reliability of the data you collect, including forms of interviewer bias (related to your role and conduct), interviewee bias (the level of access that you gain to the data of those whom you interview) and sampling bias?

Checklist

From: Saunders, Lewis, & Thornhill (2007)

Appendix 5: Difficult interview participants

<i>Recognised difficulty</i>	<i>Suggestion</i>
Participant appears willing only to give monosyllabic answers, these being little more than 'yes' or 'no'	Reasons for this are varied. If it is due to limited time, or worries about anonymity, than this can be minimised by a careful opening of the interview. If the participant gives these answers despite such precautions, try phrasing your questions as open as possible; also use long pauses to signify that you want to hear more.
Participant repeatedly provides long answers which digress from the focus of your interview	Although some digression should be tolerated, as it can lead to aspects about which you are interested, you will need to impose more direction. This must be done subtly so as not to cause offence such as by referring back to an earlier relevant point and asking them to tell you more, or requesting that they pause so you can note down what they have just said.
Participant starts interviewing you	This can suggest that you have created rapport. However, you need to stress that you are interested in their opinions and that, if they wish, they can ask you questions at the end.
Participant is proud of their status relative to you and wants to show off their knowledge, criticising what you do	This is extremely difficult and at times like this you will have to listen attentively and be respectful. Remember that you are also likely to be knowledgeable about the research topic so be confident and prepared to justify your research and the research design you have chosen.
Participant becomes noticeably upset during the interview and, perhaps, starts to cry	You need to give your respondent time to answer your question and, in particular, do not do anything to suggest that you are feeling impatient. If your respondent starts crying or is obviously very distressed it is probably a good idea to explain that the question does not have to be answered. Do not end the interview straight away as this is likely to make them even more upset.

Difficult interview participants and suggestions on how to address them
From: King (2004)

Appendix 6: Interview results

6.1 Visibility to processes and data;

Transparency, granularity, accuracy, consistency, timeliness

Interviewees	Perception of interviewees about: visibility to processes and data
Expert 1	<ul style="list-style-type: none"> • Transparency and an open culture within the organization will give your customers the feeling they are being trusted and understood. • The part of the co-creation process related to the decision which generated ideas to execute is often perceived as 'the scary part'. Preferably, organizations make these decisions without the involvement of consumers since there might be a chance the competition is among them. • Keeping the customer curious by executing the co-creation process in a highly transparent way and paying continuous attention to the communication with customers – especially when they are not highly involved – is extremely important.
Expert 2	<ul style="list-style-type: none"> • Protectionism is strongly negatively related to the success of a co-creation process. • To be able to build trust to apply the concept of co-creation in a successful way, transparent communication and processes are a must.
Manager 1	<ul style="list-style-type: none"> • The success of Map Share is strongly related to the visibility of this technology. • Organizations need to be very clear towards customers regarding what is happening with their input and what they will get in return.
Manager 2	<ul style="list-style-type: none"> • By providing clear feedback to our customers on a weekly basis w.r.t. what is happening with their ideas we send a signal of trust and are able to create a reliable environment, which is extremely necessary in order to co-create successfully. • Many organizations are reluctant towards being open and visible when it comes to their products and processes. • We communicate with our consumers on a regular basis with the help of processes which enable us to stay well-informed on what is happening within the community.
Manager 3	<ul style="list-style-type: none"> • Organizations need to be honest and transparent during all of their dialogues with consumers, even when faced with negative feedback. • An extensive overview with respect to which ideas have been adopted, which ones have been executed and the way it was done is provided to the community each week. This clear feedback is highly important to keep people involved.
Manager 4	<ul style="list-style-type: none"> • To stimulate the existence of trust between the organization and the consumer, firms need to be totally clear concerning the purpose of the co-creation process, the level of seriousness, what is being expected of the participants, that not all input will be used and that in some cases, on a particular moment, because of good reasons, the co-creation process will deliver no results or be ended. • With respect to large organizations, consumers often have an ideal image of the communication and feedback processes, while in reality in most cases these are far from perfect. • An internally well connected organization is a must. External (and internal) ideas need to flow through the organization in a flexible and transparent way.
Manager 5	-
Manager 6	-
Manager 7	<ul style="list-style-type: none"> • The efficient sharing of knowledge between co-creating parties is very important but not without limits. The other party will not be gained access to all processes and data. • During the initial stage of the co-creation process it is highly essential to be clear and transparent towards the consumer regarding the way in which the co-creation process will proceed, how the cooperation will work and which goals are aimed to achieve.
Manager 8	<ul style="list-style-type: none"> • Regular and efficient communication with all people involved will create an environment within which trust and transparency are prevalent factors. • The aims associated with the co-creation process need to be totally clear to both the consumer and the organization.
Manager 9	<ul style="list-style-type: none"> • Transparency is indissoluble connected to the wish to be open, accessible and consumer-focused.

	<ul style="list-style-type: none">• Organizations need to be clear to consumers with respect to what they will get in return for participating in the co-creation process and e.g. be able to offer useful and/or instructive company and market information.• The results of all of our co-creation initiatives and the usefulness of them are being carefully communicated to our customers. Transparency on this subject is highly important.• To organizations, launching an open platform on the internet represents a difficult step to take, since it involves the risk of getting publicly rejected. However, this can happen anyway on another platform, so companies can better embrace it and learn from it.• Trusting the customer is essential in order to successfully embrace the co-creation process. This enables a company to be truly open and involve the customer.
Manager 10	<ul style="list-style-type: none">• It is essential to be extremely clear to your dialogue partners regarding what your organization wants to achieve with them and that the ultimate goal of the human-centered conversations is to obtain better solutions together.

6.2 Real-time configuration of resources; *Capacity, capability, cost*

Interviewees	Perception of interviewees about: real-time configuration of resources
Expert 1	<ul style="list-style-type: none"> • The result of not listening and responding to consumers who are calling for change is that they will start yelling louder, join together while turning against you and your name and sales will collapse. Listening to what is going on among consumers and acting accordingly is one of the most important success factors of the co-creation process. • The part of the co-creation process related to the decision which generated ideas to execute is often perceived as 'the scary part'. Preferably, organizations make these decisions without the involvement of consumers since there might be a chance the competition is among them. • During this period of intensive competition, the ability to act according to changing consumer wants and needs with the help of a community thinking along is highly essential.
Expert 2	<ul style="list-style-type: none"> • Being able to create together with consumers consists of an analysing part, interpreting the analyses to solutions and being able to implement these solutions. • The process of interpreting consumer analyses followed by the development of new products and services often fails because of mistakes in interpretation. That is why organizations need to involve consumers on a higher level and give them the opportunity to deliver ideas themselves, instead of purely focusing on consumer data and research, to be able to sooner create a better and more reliable image of the market and the true meaning of consumer wants.
Manager 1	<ul style="list-style-type: none"> • Map Share is the successful response to the high number of complaints TomTom received. • To be able to cope with the high amount of Map Share corrections, a clear organizational process and the complete integration of Map Share within the organization are required. • Flexibility is a critical success factor of the co-creation process. • On the one hand, flexibility in case of a new or unexpected truth coming to light is essential, on the other hand, organizations sometimes need to admit that, for the moment, this truth lies beyond what is realizable. The key question in this case is whether or not to adjust running projects and reorganize your business. • Organizations need to pay continuous attention to internal processes, e.g., an increase in the feedback received implies the need for reorganizing the way this feedback is managed. • Organizations which possess a high amount of data are able to detect trends and/or make forecasts.
Manager 2	<ul style="list-style-type: none"> • We aim to be faster and more efficient than our competition in noticing and responding to what is going on among our business travellers. • Learning is an important part of the co-creation process. Before starting, certain decisions have to be made but 'be out there and try' is definitely appropriate. Mistakes will be made but organizations can only learn from them.
Manager 3	<ul style="list-style-type: none"> • Because of the rapid growth of the web, a huge number of people are connected and perceptions and information are being exchanged and dispersed in no time. Organizational responsiveness to these developments is extremely important. • Approaching individuals, listening to them and responding by implementing change within the organization has the ability of positively influencing the brand experience and perceptions of a large number of people. • In this connected age, companies need to market to an audience of one: to their lifestyles, to their personalities, to their needs, to their causes and to their fundamentals. • It is highly important organizations listen and respond as soon as possible to negative feedback of consumers. This will be appreciated. • Since every Dell employee is stimulated to participate in IdeaStorm and it is not only a central team which is dealing with it, we are better able to quickly respond in an efficient way to what is happening among our customers.
Manager 4	<ul style="list-style-type: none"> • Pickwick has already achieved great success by executing a number of concepts which were delivered by consumers. • Both the consumer and the organization need to be flexible and willing to experiment. Therefore organizations need to accept and respond to the wants of the majority of the consumers, even when these do not correspond with the preferences of the organization.

	<ul style="list-style-type: none"> • A co-creating organization needs to have a clear focus on learning. • A co-creating organization needs to develop the ability to quickly fill science, technology, facility and capability gaps.
Manager 5	<ul style="list-style-type: none"> • To Heinz, co-creation means developing products based on the input received from individual consumers.
Manager 6	-
Manager 7	<ul style="list-style-type: none"> • We are constantly watching consumer trends to be able to quickly and efficiently adapt to them at the right moments. • Flexibility is strongly related to the success of a co-creation process since an organization does not know in advance what will happen and might be faced with unexpected matters. How to deal with such matters needs to be discussed before the start of a co-creation process.
Manager 8	<ul style="list-style-type: none"> • The process of co-creation is highly dynamic, so demands for individuals who are flexible, do not hold on to existing structures and processes and are able to manage difficulties and change rapidly and effectively. • A higher level of customer participation will lead to more success but not without limits: the consumer is allowed to interfere on all areas but we will not adapt to wants which are not related to our core business. • Learning is a central aspect of the co-creation process. Listening, generating ideas and detecting the consumer's true wants and wishes enables an organization to find out how to operate in a better way. • One of Achmea's strengths is adapting to megatrends. • The moment organizations are really aware of and want to realize what their customers want, need and wish, they need to be able to deal with this knowledge in an innovative way and let go of certain familiar matters which are perceived as unnecessary by the consumer.
Manager 9	<ul style="list-style-type: none"> • In response to the feedback received from consumers, such as ideas or complaints, we implement change within the organization and adapt our service to better attune to market demands. • To make sure the largest part of your community consists of active participants instead of lurkers, each employee needs to be continuously aware of which topics are most active among consumers so the organization can act upon them and improve service. • To organizations, launching an open platform on the internet represents a difficult step to take, since it involves the risk of getting publicly rejected. However, this can happen anyway on another platform, so companies can better embrace it and learn from it.
Manager 10	<ul style="list-style-type: none"> • The moment organizations truly understand their consumers and know what they value, they need to translate this knowledge into action so they can come up with certain solutions. • During the entire co-creation process firms need to be flexible, certainly when faced with unexpected feedback from consumers, since this goes with thinking out of the box.

6.3 Focus on individual choice; *Individual's preferences, skills*

Interviewees	Perception of interviewees about: focus on individual choice
Expert 1	<ul style="list-style-type: none"> • A successful co-creation process starts with truly listening to consumers and having dialogues with them to find out who they are and what they want. The next step consists of setting clear goals.
Expert 2	<ul style="list-style-type: none"> • Creating a safe and reliable setting for consumers and facilitating and having dialogues in the right way with them, e.g., by asking stimulating questions, form the necessary basis of a successful co-creation process. • Really involving the consumer during the entire process of generating ideas and enabling him/her to deliver input him/herself is highly important to be able to form a right and reliable notion of the market and consumer wants. • Carefully listening to the consumer is essential to be able to create an open mind atmosphere.
Manager 1	<ul style="list-style-type: none"> • Map Share focuses on the persons who know best: local residents.
Manager 2	<ul style="list-style-type: none"> • Involving your consumers in product development will lead to a better product. Maybe not qualitatively, but it will be better attuned to the wishes of the consumer. • KLM In Touch focuses on the persons who have the most experience with KLM products and the products of the competition to get to know the most active topics and what is happening among consumers. • Organizations need to pursue maximum consumer participation, although, within certain limits: profits need to be realized. • Organizations need to seek a balance between listening to the consumer and focussing on their core business. Overfocussing on one of the two activities will probably happen at the cost of the other one. • By asking the right questions to members, allowing members to ask the right questions to KLM and have discussions with each other, a clear notion can be formed of what is happening among the target group.
Manager 3	<ul style="list-style-type: none"> • We closely cooperate with our community by listening to and having dialogues with them on an individual basis. • We have a lot of conversations with our consumers through several channels, e.g., dell.com, by which we possess a large amount of data with respect to who our consumers are, what they want and what we can do with that. • We try to create a kind of digital DNA of persons so we learn what they are doing offline and online and how we can reach them. • 'Market to an audience of one' is an essential part of the connected age, within which we are living at this moment. Organizations need to respond and adapt to people's lifestyles, personalities, needs, causes and fundamentals. • 'Think like a customer' is necessary in order to co-create.
Manager 4	<ul style="list-style-type: none"> • Two sorts of innovations can be distinguished: technology driven innovations which are not suitable for co-creation – like the Senseo, consumers do not come up with that – and line extensions, which are suitable for co-creation – like a new taste for the Senseo, people do have an opinion about that.
Manager 5	<ul style="list-style-type: none"> • We speak to people on the street, visit supermarkets and people at home to find out which products they want, what these product should look like, which price they should have, etc. The next step consists of trying to realize these products. That is what co-creation is about.
Manager 6	<ul style="list-style-type: none"> • Within each project, the consumer is the centre of attention. Through different initiatives, we try to efficiently generate feedback on a continuous basis and develop and/or execute ideas in cooperation with the consumer.
Manager 7	<ul style="list-style-type: none"> • The higher the level of customer participation, the higher the chance of a successful co-creation process. When consumers are involved more, the discussion will be clearer, the consumer's wants and skills will better come to light, and a solution will be reached sooner and more efficiently. • The moment consumers who possess useful knowledge appear, organizations need to respond by connecting these individuals to all levels within the organization so they can go through the co-creation process together.

Manager 8	<ul style="list-style-type: none"> • The more the consumer is involved in the co-creation process, the more successful the process will be. Co-creation starts with focussing on the wants and skills of the consumer and they should be allowed to interfere on all areas. • We have created a social community consisting of persons who are over 55, retired or almost retiring, to enable them to enter into dialogues with each other about all kinds of subjects and share experiences. By asking them specific questions and paying attention to their conversations we get to know these persons, find out what is going on in their lives and how to serve them best. • Organizations need to learn to put themselves into the shoes of the consumer while letting go of the traditional way of working. • We have developed a program within the organization which helps us to let go of familiar matters which are no longer valuable from the perspective of the consumer.
Manager 9	<ul style="list-style-type: none"> • KlankBoard is a way by which Robeco Direct tries to obtain better insights into consumer perceptions to be able to improve service; it is a way to communicate with the consumer more intensively. • Organizations need to seek a balance between being consumer-focused – listening to the consumer and acting accordingly – and holding on to business interests – profits need to be realized. • Talking to people about finance while they are at home will lead to different things coming to light.
Manager 10	<ul style="list-style-type: none"> • We aim to approach human beings from a wide perspective, we truly want to understand the consumer, find out what he/she values, which can only be achieved by imagining ourselves in the consumer's situation. • To be able to really understand human beings, know what is going on in their lives, we visit them at home and talk about a certain topic while letting go of all thoughts relating to Philips, a certain technology or product. The conversation will be led by the perception of the person in front of you so can go in all directions. • The only way for an organization to really add value is by understanding human beings, in their whole contexts, by appreciating them and approaching them as persons instead of consumers. • A truly valuable dialogue with a consumer will only exist in the presence of trust and an open atmosphere. • Ideally, the consumer is involved as much as possible and the insights based on what consumers state, think and do form the basis of the co-creation process.

6.4 Capacity to co-create with customers; Willingness, skills, time, community

Interviewees	Perception of interviewees about: capacity to co-create with customers
Expert 1	<ul style="list-style-type: none"> • Companies need to put a lot of effort in starting a community and motivating people to think along. • Selecting the right target group is highly important. E.g., a community consisting of a large number of people who do not really add value has a high change to rapidly die. • The wisdom of the crowd is (almost) always inferior to the wisdom of the best experts within an organization. • When it comes to product- and service improvements and when the most important goal of an organization is to improve customer loyalty, consumers should be involved as much as possible during the entire process. With respect to highly innovative products, this condition applies to a lesser degree and it is better for organizations to take the first step on their own.
Expert 2	<ul style="list-style-type: none"> • Organizations need to create environments/communities through which people can find one another out of interest and have an interest in each other. • A high level of consumer participation is very important during the connect phase, which relates to the connection of ideas, people and information. However, this condition applies to a lesser degree to the create phase, within which products or services are created, since consumers are lacking certain skills which are required for this phase.
Manager 1	<ul style="list-style-type: none"> • At Map Share, the community is truly being challenged, members are being stimulated to report changes so they can be processed and shared with the community. • Some brands do lend it selves perfectly to co-creation, others to a much lesser degree. The stronger or more affective the brand, the more a community is willing to think along and spend time to that. As a manager you should carefully think about this. • If your brand does not really lend itself to co-creation, this does not mean you should not do it, but the question of how to activate people becomes more crucial. Access to a good customer base is essential. • Before starting a co-creation process, organizations should ask themselves whether their community is approachable.
Manager 2	<ul style="list-style-type: none"> • Co-creation takes a lot of time, so organizations which want to be engaged in the process should either find a good partner or make plenty of time for it within the organization. • Community feeling is very important. Members need to trust one another. • Co-creation demands goal setting and target group selection. • Turning more community members into active participants and providing the right information to these active participants are big challenges for KLM. • An important goal of co-creation consists of turning people into ambassadors or promoters of your organization.
Manager 3	<ul style="list-style-type: none"> • We use a lot of different ways to try to create more active members within our community. Furthermore, we believe that having dialogues with people who give their opinion at media out of Dell's reach is highly important, so we keep a sharp eye on this.
Manager 4	<ul style="list-style-type: none"> • When a lot of people/consumers like your brands, your product categories and the things you do as a company, co-creation is not a difficult task: people want to join your organization. When it comes to less attractive brands and product categories, the task becomes more difficult. • Two sorts of innovations can be distinguished: technology driven innovations which are not suitable for co-creation – like the Senseo, consumers do not come up with that – and line extensions, which are suitable for co-creation – like a new taste for the Senseo, people do have an opinion about that.
Manager 5	<ul style="list-style-type: none"> • An important goal of co-creation is turning people into ambassadors of your organization.
Manager 6	-
Manager 7	<ul style="list-style-type: none"> • It is very important for organizations to take time to build trust, to create the notion that you are aiming to achieve the same goals as the consumer and are giving a hundred percent to achieve them. • Organizations should be alert to the presence of highly skilful consumers, as these should be involved on a high level and connected to all divisions within the organization.
Manager 8	<ul style="list-style-type: none"> • Since our core business is not that attractive to customers we have developed a platform at

	which several parties are doing things which are of value to the customer and through which he/she – when interested – will sooner approach our business.
Manager 9	<ul style="list-style-type: none">• In order to realize a successful co-creation process, it should not take too much time both for the organization and the consumer.• Once there exists a number of fans of your organization and you involve these fans into the development of a product or service, these people will make sure more people will become enthusiastic which will quickly lead to the expansion of the community surrounding your company.
Manager 10	<ul style="list-style-type: none">• Time and budget are decisive factors when it comes to which level of customer participation to realize.• Before getting involved in a co-creation process, organizations need to take time for a proper preparation. It needs to be clear on which area insights want to be obtained and the consumer needs to be prepared for this.

6.5 Anticipation of demand and resource needs / customer evolution pathways; Consumer behaviors, expectations

Interviewees	Perception of interviewees about: anticipation of demand and resource needs / customer evolution pathways
Expert 1	<ul style="list-style-type: none"> • Listening to what is going on among consumers and acting accordingly is one of the most important success factors of the co-creation process. • During this period of intensive competition, the ability to act according to changing consumer wants and needs with the help of a community thinking along is highly essential.
Expert 2	-
Manager 1	<ul style="list-style-type: none"> • On the one hand, flexibility in case of a new or unexpected truth coming to light is essential, on the other hand, organizations sometimes need to admit that, for the moment, this truth lies beyond what is realizable. The key question in this case is whether or not to adjust running projects and reorganize your business.
Manager 2	<ul style="list-style-type: none"> • We aim to be faster and more efficient than our competition in noticing and responding to what is going on among our business travellers.
Manager 3	<ul style="list-style-type: none"> • Dell's newest line of notebooks is almost completely based on the input obtained from consumers. • Approaching individuals, listening to them and responding by implementing change within the organization has the ability of positively influencing the brand experience and perceptions of a large number of people. • 'Market to an audience of one' is an essential part of the connected age, within which we are living at this moment. Organizations need to respond and adapt to people's lifestyles, personalities, needs, causes and fundamentals. • At this moment we are already dealing with the question of how to reach the next billion people who will enter the World Wide Web and start dialogues with them.
Manager 4	<ul style="list-style-type: none"> • Both the consumer and the organization need to be flexible and willing to experiment. Therefore organizations need to accept and respond to the wants of the majority of the consumers, even when these do not correspond with the preferences of the organization.
Manager 5	-
Manager 6	-
Manager 7	<ul style="list-style-type: none"> • We are constantly watching consumer trends to be able to quickly and efficiently adapt to them at the right moments. • Flexibility is strongly related to the success of a co-creation process since an organization does not know in advance what will happen and might be faced with unexpected matters. How to deal with such matters needs to be discussed before the start of a co-creation process.
Manager 8	<ul style="list-style-type: none"> • The process of co-creation is highly dynamic so demands for individuals who are flexible, do not hold on to existing structures and processes and are able to manage difficulties and change rapidly and effectively. • One of Achmea's strengths is adapting to megatrends. • The moment organizations are really aware of and want to realize what their customers want, need and wish, they need to be able to deal with this knowledge in an innovative way and let go of certain familiar matters which are perceived as unnecessary by the consumer. • Organizations need to learn to anticipate on what is happening within their surroundings and the way the customer is developing him/herself while letting go of the usual and familiar way of thinking and working.
Manager 9	<ul style="list-style-type: none"> • To make sure the largest part of your community consists of active participants instead of lurkers, each employee needs to be continuously aware of which topics are most active among consumers so the organization can act upon them and improve service.
Manager 10	<ul style="list-style-type: none"> • During the entire co-creation process firms need to be flexible, certainly when faced with unexpected feedback from consumers, since this goes with thinking out of the box. • An important part of co-creation consists of looking ahead when it comes to customer demands and expectations.

6.6 Insights

Continuous improvement, strategic redirection

Interviewees	Perception of interviewees about: insights
Expert 1	<ul style="list-style-type: none"> • Co-creation demands a cultural change within the organization. The best way to realize this change is to incorporate the results of a co-creation process into the organization's strategy. • During the integration phase of the co-creation process within the organization, it first needs to become part of the corporate strategy and in a later stadium the co-creation strategy should be clearly propagated internally and externally and one can speak of a well-defined organization which organization-widely stimulates co-creation. • LEGO is a successful international example of co-creation: this company has transformed from a firm facing declining profits and lacking a connection with consumers' wants and needs into a very popular firm which enables its consumers to create their own designs and organize congresses and truly listens to the needs of its target group, even when this requires a change in strategy.
Expert 2	-
Manager 1	-
Manager 2	<ul style="list-style-type: none"> • The number of companies which are engaged in a co-creation process and the number of communities is growing. This underlines the need for firms to stay alert and continuously innovate.
Manager 3	-
Manager 4	<ul style="list-style-type: none"> • Co-creation requires strong internal resources in order to realize continuous innovations.
Manager 5	-
Manager 6	-
Manager 7	-
Manager 8	-
Manager 9	-
Manager 10	-

6.7 Social architecture

Interviewees	Perception of interviewees about: social architecture
Expert 1	<ul style="list-style-type: none"> • With respect to large and well-known organizations the co-creation process is a lot more complex than when it comes to smaller, unknown firms since in the first case, more departments and employees are involved and more can be lost. • An open culture within the organization will result in more loyal customers. • In order to stimulate employees to become more externally focussed with the aim of realizing a successful co-creation environment, a cultural change within the organization is needed. This change can only be effectuated when it is included in people's targets. • A change of existing structures, rules and processes is necessary. • On the one hand co-creation needs to be stimulated top-down, on the other hand people need to experience the benefits by themselves. • The further co-creation is integrated within the organization, the better. To be able to make it a success, the engagement and commitment of about all departments and employees is essential. • During the integration phase of the co-creation process within the organization, it first needs to become part of the corporate strategy and in a later stadium the co-creation strategy should be clearly propagated internally and externally and one can speak of a well-defined organization which organization-widely stimulates co-creation. • A successful co-creation process requires the presence of the right knowledgeable people within the organization.
Expert 2	<ul style="list-style-type: none"> • To be able to connect ideas, information and people, a certain attitude and mentality are needed within the organization which exceed the transaction focus at which most firms are focussed. When it comes to co-creation, the transaction is not central, but the interaction between participants is, which will logically lead to a transaction • In order to motivate employees to become more externally oriented and change the design of the organization, employees should be taken out, e.g., to other companies which have already applied the concept of 'design thinking', so they can learn from the creativity and vision of the world of others and take new experiences back to the own organization • In order to realize a successful co-creation process, it has to become part of the primary business process: it needs to be integrated within all levels of the organization, everyone acts a part in the process. Furthermore, co-creation should be in the DNA of some employees, people are needed who can, e.g., connect ideas, information and people and build trust. This will result in co-creation landing in the DNA of the organization. • Existing structures and processes on which organizations are leaning are becoming less important and the network from which the organization is part is becoming more essential and should be completely flexible. • To be able to co-create, managers are needed within the organization who have ideals and inspiration to facilitate cooperation and participation of people. They need to have guts and entrepreneurial power.
Manager 1	<ul style="list-style-type: none"> • On the one hand, employees are being motivated to become externally oriented, on the other hand, an eye is conscientiously being kept on it since it can lead to information becoming public which is not meant to be. • Whether or not and to which extent an organization is willing to apply the co-creation concept and let go of the need to control everything is strongly related to the organizational culture. • If an organization decides to apply the concept of co-creation, it has to completely integrate the process within the organization and make sure it will become part of its DNA. • Before people are asked to participate in something, the organizational consequences have to be considered • An organization's culture – can we speak of prevalent willingness? – and the assets and liabilities – can we speak of a win-win situation? – are critical success factors of a co-creation process. • An organization willing to co-create needs the faith of its board, since co-creation is a big step and clear agreements have to be made. Once the community is invited, it is difficult to correct things.
Manager 2	<ul style="list-style-type: none"> • In Holland, transparency and openness are not very prevalent. Here we can speak of a

	<p>certain reluctance to give too much information about certain processes and products within the organization.</p> <ul style="list-style-type: none"> • In order to realize a successful co-creation process, the support of (higher-level) management and the internal customers is definitely crucial. • Co-creation requires the involvement of a lot of people and the support of about all parts of the organization.
Manager 3	<ul style="list-style-type: none"> • In the beginning, there was only one central team which focussed on doing business in a direct way, talking and listening to consumers. Nowadays, this is much more integrated within the entire business. Everyone within Dell has access to all platforms and is being encouraged to participate which results in the ability of responding to what is happening around us in a much faster and more efficient way. It's now part of everyone's job, which clearly contributes to the success of a co-creation process • The central team as it exists today decides the main features with respect to how to co-create and to make sure as many dialogues as possible are taking place. • We believe we can truly be a better organization by listening and participating in conversations, by making this part of Dell's DNA.
Manager 4	<ul style="list-style-type: none"> • Co-creation brings your brand closer to the consumer which will involve your consumer at a higher level and creates the ability of better taking the message of where your organization stands for and why it is unique. • In our case, the co-creation process has resulted in a lot of free publicity which has made both our consumers and our business partners believe that we are an innovative company. So surplus value was definitely created for our sales reps. • Co-creation is change management. To make sure all employees will truly become externally focussed, co-creation has to become part of their DNA, they have to be directed, examples need to be provided and they need to be able to experiment. Furthermore, a number of success stories and believers are essential. • A successful co-creation process requires it to be completely integrated within the organization, to become part of the organizational culture, whereby a (small) number of people are needed to centrally encourage and motivate employees, organize it, solve problems and function as a pool of knowledge. • Sara Lee's biggest challenge when it comes to co-creation is making sure even more people within the organization will embrace it and it will truly become a way of working with the aim of realizing surplus value.
Manager 5	<ul style="list-style-type: none"> • To see to it that employees will think and work in a more consumer-focused way, a person is needed with a central position in the organization who is passionate about co-creation and gets enthusiastic about it. Then the rest will follow. • To be able to realize a successful co-creation process it has to be integrated within the organizational culture. • To be able to co-create employees need to let go of the old and familiar way of thinking, which implies not thinking from what they already have and know, and do what they always do. • It is very important to really involve consumers with respect to brand positioning and give them the opportunity to discover which elements they associate with your brand and with which ones the majority feels comfortable. • An organization needs to be visionary and entrepreneurial.
Manager 6	<ul style="list-style-type: none"> • An important cultural aspect of our co-creation program consists of teaching organizations how to turn the internal way of working to which employees are used into a new way based on external orientation. • Experts in the field of co-creation provide training to our employees with the aim of getting them to be more externally oriented. • An essential part of our co-creation program consists of a reward system. Employees within our organization who start cooperation with consumers receive a form of recognition from the management. This recognition is an important incentive, even for employees who are not yet involved in co-creation, to cooperate with consumers. • The CEO plays an important role in stimulating employees within the organization to apply the concept of co-creation as a way of working, like setting clear goals in this area. • We aim to make the concept of co-creation and the Connect + Develop program a completely integrated part of the entire organization. Everybody has to do it to increase efficiency and per-person productivity.

	<ul style="list-style-type: none"> • A successful co-creation process demands a clear setting of your strategy which needs to be implemented throughout the entire organization. • P&G's challenge regarding co-creation is taking it to the next level to implement even more improvements and making sure the process will embed further into existing businesses, especially into the multi billion dollar businesses. These businesses offer most resistance because of the high number of internal experts who possess a lot of knowledge.
Manager 7	<ul style="list-style-type: none"> • Employees need to be stimulated from the top to become more externally oriented and interact with customers more often. • To make it a success, co-creation needs to be completely incorporated into the organization. Everybody needs to be continuously focused on customer interaction. • Managers need to know what type of persons are working in the organization, which qualities of character they have and which competences they possess to be able to decide whether they can be trained and developed in order to let them successfully participate into a co-creation process. • The success of a co-creation process is highly dependent on the presence of a number of people within the organization who really want to go for it, have perseverance, like it and are enthusiastic about it. • Keeping focussed on external orientation and involving as many people as possible within the co-creation process and not falling back into the traditional way of working is a challenge for our company. We need to keep listening and stimulating co-creation. • Another challenge for our organization is developing an appropriate reward system for the ones who succeed in cooperating with the customer in a right and efficient way.
Manager 8	<ul style="list-style-type: none"> • To us, co-creation implies the implementation of radical changes, both in existing structures and running processes, which hurts. • To be able to realize a successful co-creation process, people are needed within the organization who really enjoy doing it, have the guts to go for it, are very creative and dynamic and do not hold on to existing profiles and processes. • A successful co-creation process demands it to be undertaken at the top of the organization. • Entrepreneurship is indissoluble connected to a successful co-creation process. • We try to convince people Achmea stands for listening to consumers and innovation. • At this moment a program is running within our organization which teaches us to let go of familiar things which do not add value anymore from the perspective of the consumer. • We aim to achieve that more and more employees within our organization learn to think and work in a customer-focused way.
Manager 9	<ul style="list-style-type: none"> • Every employee within our company is being motivated to interact with the customer on a continuous basis: listen to them, elicit reactions and suggestions and be open to both ideas and complaints. The customer needs to be convinced that we are open to them in at all events. • To be able to realize a successful co-creation process, the train of thought behind Open Robeco needs to be embedded in the entire organization. Everyone needs to believe in it and support it. • By rewarding employees when they score high in being consumer-focused they are motivated to keep doing it. • Realizing customer focus is a central part of the training we provide to our employees. • To be able to successfully co-create the traditional view of an organization needs to be changed: one needs to think from an open network within which stakeholders, mainly customers, form a whole with the organization. The organization should not be seen as a property, so shareholding stands in the way of co-creation.
Manager 10	<ul style="list-style-type: none"> • To Philips Design, co-creation really is a way of working. It is completely integrated which absolutely is a success factor: it should become part of your DNA. • Co-creation will deliver the best results when everyone within the organization is open to it and is working on it in a right and efficient way, without getting through a fixed plan of action. • Because we are working on co-creation with a very mixed company, it is easier to us to approach consumers from a wide perspective and be truly open to them. Furthermore, most employees who are working here are already trained to be creative and think out of the box. • Our human-centered approach to thinking and working is stimulated from the top of our organization.

	<ul style="list-style-type: none">• Employees literally need to be given full play to work on co-creation and not be forced to constantly keep in mind the sales numbers.• It is a challenge to hold on to the way at which we are working with our consumers right now. We need to be continuously aware that we do not fall back into the traditional way of working, from the technology, like one has always been doing.
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6.8 Remaining results

Interviewees	Remaining results
Expert 1	<ul style="list-style-type: none"> • Most of the times organizations do think carefully about the beginning stage of a co-creation process, like how to launch an open platform, but disregard the following steps of the process, like what to do with generated ideas, and simple practical things, like how to select ideas, because one enthusiastic person starts the process and forgets to involve colleagues. • On the one side, co-creation is a voyage of discovery – organizations can be helped but in the end they have to experience and do it themselves – and on the other side, before starting to co-create, it needs to be considered how to organize it, who is responsible and how to deal with problems once they occur. • I can only think of a very small number of successful Dutch co-creating organizations. • Co-creation happens anyhow. The challenge to organizations is to deal with it in the right way and make use of its power. • Once you have developed a co-creation specific strategy you should experiment with it. It is wise to start small. • A combination of offline and online co-creation mostly is most effective. • Co-creation goals often are very unclear: organizations focus too much on social technologies instead of goals, what is aimed for is often being missed, the organizational change which is necessary is not implemented and measurements and evaluations do not take place. • The choice for a type of co-creation is highly dependent on the familiarity of your company and your brands. When you are a relatively unknown organization, you should better not launch a platform since no one will visit it.
Expert 2	<ul style="list-style-type: none"> • A lot of organizations speak about co-creation but only a few do really know the meaning of the concept. • To be able to realize a successful co-creation process, organizations need to focus on the collective interests. A win-win situation should be realized. • Co-creation: just do it and learn and experience along the way how to do it best and adjust your organization to it. Organizations need to learn to experiment and not always look for safety. • Inexperienced managers in the field of co-creation should involve people who already have some experience with it and learn from them. • To make sure co-creation will deliver useful results, it is essential that one will meet both online and offline.
Manager 1	<ul style="list-style-type: none"> • Co-creation always starts small. Organizations need to experiment with it. • Before an organization starts with co-creation, a lot of things need to be considered but at one moment 'just do it' will do. • Creating an atmosphere of trust between the organization and the consumer is an important part of the co-creation process. The concept of trust is embedded in the total system of Map Share. • TomTom is able to improve maps on a daily basis since people who own a product of our company can receive the Map Share update every day. • Organizations using interactive channels should be careful to not only send but also be able to provide feedback and communicate openly about the feedback received from consumers.
Manager 2	<ul style="list-style-type: none"> • Inexperienced managers in the field of co-creation who want to start with it should talk with organizations which already have some experience with it. • To be able to co-create one does not have to take into account a fixed framework with respect to which things to consider, however, goals need to be set, the target group has to be defined, one should choose between an open or a closed community, some topics need to be thought of to get through the first couple of months and a good internal pr machine is crucial.
Manager 3	<ul style="list-style-type: none"> • We have developed a kind of framework which employees can use when they face the choice between responding to a certain opinion or not responding and when they decide to respond, how to do it.
Manager 4	<ul style="list-style-type: none"> • I think a lot of people of several organizations speak about co-creation but only a few of

	<p>they are actually involved in the process. There only exist a few successful examples of co-creation.</p> <ul style="list-style-type: none"> • Co-creation does not mean going through a process without any rules or restrictions. A kind of framework needs to be created and goal setting is highly important. Otherwise one does not know which ideas are valuable. • To us, co-creation represents an experiment to find out how we can better do the things we do.
Manager 5	<ul style="list-style-type: none"> • Our organization still is in a discovery stage of co-creation.
Manager 6	<ul style="list-style-type: none"> • Managers need to take care that an innovation from outside the company's walls will get as much appreciation as an innovation coming from the own innovation team. • Before starting with co-creation, it is highly important to exactly know what you want. Organizations need to know where to play and how to win.
Manager 7	<ul style="list-style-type: none"> • At Pharma, most of the times the customer exactly knows what he/she wants and we possess the facilities and knowledge to execute their needs for them. So actually this entire business is based on co-creation. • Co-creation is not an objective in itself. It is a way to achieve things faster. • The concept of trust is inextricably bound up with the success of a co-creation process. All parties need to believe they are pursuing the same goals with all their efforts and trust must prevail with respect to the intellectual property, which means the property of knowledge needs to be respected from all sides and should not be taken advantage of in any case. • Mutual interests are highly important when it comes to co-creation. Both parties need to benefit from the process, a win-win situation should be created. • Both the organization and the consumer offering something the other party does not have is a critical success factor of co-creation. This should be complementary and at the same time a certain degree of overlapping is important. • Creating some early successes in the cooperation by the organization is essential to convince people, including the management team, that co-creation really works. Furthermore, success creates success. • Inexperienced managers in the field of co-creation who want to start with it should talk with organizations which are already doing it, instead of finding out everything by themselves. Discussions with other parties with the aim of learning how to do things better are very relevant.
Manager 8	<ul style="list-style-type: none"> • Co-creation needs to be fun at all times. Therefore organizations must know when to stop with a certain co-creation initiative. • Organizations starting with co-creation should better start small. When the cooperation goes well and you know what you can do together, the process can be extended. • Achmea still is in a discovery stage of co-creation.
Manager 9	<ul style="list-style-type: none"> • We started to involve the customer a long time ago, since we are doing market research for years now and this represents a type of co-creation. • I would advise managers who want to start with co-creation to think big, start small and scale fast. That is, have great ideas, start small and extend the process step by step. When something works, it should be extended
Manager 10	<ul style="list-style-type: none"> • A lot of organizations state to be co-creating but a closer look will tell that they actually are not involved in a co-creation process at all. It is a difficult job to really approach consumers while not keeping in mind the organization or certain products.