# The development of supplier roles that support cocreation of value in the context of SMEs

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This research examined what is critical for the development of supplier roles within the context of Small medium sized enterprises (SMEs). The shifting paradigm within marketing Service-Dominant logic (S-D logic) is widely discussed within literature but is still scarce within the context of SMEs. Within the S-D logic the company jointly solve problems with the customer instead of creating value on its own. Nineteen interviews were conducted with owners, entrepreneurs, and managers of SMEs in order to provide an answer on this research question: 'What is critical for developing supplier roles that support co-creation of value for SMEs?'. Five phases were identified within the literature and used to structure and analyse the interview. Based on the findings of this research we found out that there are several critical aspects to develop a supplier role at each phase of the process to co-create value. Communication, work/design together, ways to diagnose needs, professionals, knowledge, customer's knowledge, experience, and partners are critical aspects to develop supplier roles. In one phase of the process to co-create value was not a supplier role identified before. The analysis revealed that the supplier role should be a value conflict preventer. Good, open, and continuous communication is needed to prevent a value conflict between the supplier and customer. This research provides SMEs practical information so they can analyse their current situation and improve to develop their supplier roles that orchestrate practices that support cocreation of value.

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### **Keywords**

Co-creation of value, Service-Dominant Logic, Small medium sized enterprises, Supplier roles, Joint problem solving, Process to co-create value.

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## **1. INTRODUCTION**

The introduction of co-creation of value is the result of the Service-Dominant Logic (S-D logic). Before the S-D logic arose; the traditional way of thinking of customers was that they were 'outside' the company instead of 'inside'. The company produces products or services through activities (inside) and the customer buys it (outside). The market itself was seen as an exchange point of products and the customer had no role in value creation. This is called the Goods Dominant Logic (G-D logic) (Phrahald & Ramaswamy, 2004; Vargo et al., 2008; Grönroos, 2011a). Since Vargo & Lusch (2004) have developed the foundation of S-D logic in marketing the involvement of the customer becomes important. In this view the product or service is not the pivotal object but the process to create more value-in-use is (Vargo & Lusch, 2006; Payne et al., 2008). By this shift, interactivity, connectivity and on-going relationships become more important to jointly solve problems and increase co-creation of value (Vargo & Lusch, 2004; Seth & Sharma, 2008). Before co-creation of value is discussed in more detail an understanding of what 'value' is needed to understand co-creation of value. Value creation is the increase in value-in-use (Grönroos, 2008; Kristensson et al., 2008; Vargo & Lusch, 2008), created by the customer (Grönroos, 2008). This research adopts the definition of value-in-use of MacDonald et al. (2011, p. 671): 'a customer's outcome, purpose or objective that is achieved through service.' Service is defined here as the use of the supplier's resources to benefit the customer. Value creation is not a comprehensive process; design, manufacturing, and back-offices processes are not part of value creation. These activities are considered as only facilitation of creating value (Grönroos, 2011; 2011a). The customer creates value and determines what value is created (Vargo & Lusch, 2004). Co-creation of value is about developing methods and processes to understand what the customer's co-creation expectations are (Phrahalad & Ramaswamy, 2004; Payne et al., 2009). To understand the customer's co-creation expectations, interaction is a critical factor to co-create value (Grönroos, 2011; 2011a) Phrahalad & Ramaswamy, 2004; Aarikka-Stenroos & Jaakkola, 2012). Hence, how is value co-created if the customer is the only one that creates value and the supplier only facilitates? Interaction connects both supplier and customer. Through interaction the supplier has the chance to influence the usage process of the customer (Payne et al., 2008; Grönroos, 2011a). Usage of the solution by the customer determines value-in-use and thus the supplier gets an opportunity to take part in the value creating process (Grönroos, 2011a).

Small medium sized enterprises (SMEs) are considered as the engine of the economic world but there is still little known about how they can develop and organize their cocreation processes. The purpose of the SME as a supplier is to orchestrate practices that support co-creation of value to increase the potential value-in-use. The SME as a supplier can play different roles within the process to co-create value but there is little known about what is critical for the development of the role as a supplier towards their customers. This paper researches what is critical to develop supplier roles that orchestrate practices to increase co-creation of value amongst SMEs. Conclusion on the basis of existing literature it is needed to deepen and integrate knowledge of the process to co-create value in such a way more pragmatic information is available for SMEs of what is critical to develop supplier roles. The purpose of this study is to determine what is critical to develop supplier roles that orchestrate practices to support co-creation of value amongst SMEs. The research question is 'What is critical for developing supplier roles that support co-creation of value for

*SMEs*?' There is no such pragmatic and academic information available for SMEs.

The process to co-create value can be examined from several distinct perspectives that provides different lenses to examine co-creation of value. This research applies two different theories about how the process to co-create value takes place. These theories are the joint problem solving process to co-create value by Aarikka-Stenroos & Jaakkola (2012) and the framework for value co-creation by Payne et al. (2008). These models provide necessary competences that support co-creation of value.

The aim of this research is to provide new academic knowledge about this topic and to further elaborate how to support co-creation of value. Much research has been conducted about the topic of co-creation of value and the new marketing paradigm S-D logic but how this new paradigm can support cocreation of value for SMEs is still scarce. Therefore, this research will also provide practical information for SMEs.

Qualitative research is executed by purposive sampling. The strategy purposive sampling is chosen because SMEs is the context of this research. The purpose of this research is to obtain deep information as much as possible about the topic of the process to co-create value and to fulfil supplier roles. Therefore, qualitative research is most suitable.

This paper is structured as followed. Firstly the theoretical framework is discussed. After the theoretical framework methods are elaborated that are used in this research. Methods include data collection, data sampling, and data analysis. Thirdly the results of the research are discussed, where the different aspects of what is critical to develop supplier roles are described. In the final section; conclusion gives a summary of the results. This research will finish with a discussion, a managerial implication, and acknowledgements about this research.

#### 2. THEORETICAL FRAMEWORK

In order to answer the research question a broader understanding of the process to co-create value is needed. The process to co-create value is a process to benefit both supplier and customer in some respect (Grönroos, 2008). It seems to have activities that spontaneous occur and not in some kind of structured way (Grönroos, 2011). To get a better grip on what the process to co-create value is, two frameworks of Payne et al. (2008), and Aarrika-Stenroos & Jaakkola (2012) are used. When it is clear how co-creation of value takes place it is easier to understand what is critical to develop a supplier role (Aarrika-Stenroos & Jaakkola, 2012).

#### **2.1 Process to co-create value**

The process to co-create value has three components: supplier, customer, and activities. The supplier creates potential value by using its resources such as knowledge, skills, and experiences (Aarrika-Stenroos & Jaakkola, 2012; Grönroos & Voima, 2013). Activities performed within the supplier component facilitate the value creation process of the customer. The customer component contains activities performed by the customer to achieve a certain goal (Payne et al., 2008) and its resources such as information, financial, information on context, industry expertise, and production material (Aarrika-Stenroos & Jaakkola, 2012). Activities, or as Payne et al. (2008) describe it as encounter processes, is sometimes referred in literature as 'touchpoints' or contacts between supplier and customer (Payne et al., 2008). This part of the process to cocreate value is where supplier and customer come together and interact or transact with each other. Practices within these encounter processes are the exchange of resources (e.g. money, information, work, products, and time). These activities are the core of the process to co-create value (Payne et al., 2008; Grönroos, 2011a).

Aarikka-Stenroos & Jaakkola (2012) made a further distinction within the activities component. See figure 1 for the framework. They describe different phases of the collaborative activities to co-create value: 1) Diagnosing the need, 2) Designing and producing the solution, 3) Organizing the process and resources, 4) Managing value conflicts, and 5) Implementing the solution. These phases do not have to succeed each other, but may simultaneously run. The phases do have great similarities towards the creative problem solving (CPS) process described by Titus (2000) but the framework of Aarikka-Stenroos & Jaakkola is used because it is more focused on value co-creation and the role the supplier can have.

The process to co-create value begins with diagnosing the needs of the customer as well as the framework of Payne et al. (2008). Diagnosing the needs of the customer enables the supplier to adjust its processes. The supplier is mostly responsible for the identification because inexperienced customers cannot identify what they exactly need and what their goals are. Interaction is important in this phase to identify and prevent the lack of mutual understanding of the needs and goals.

The next phase is designing and producing the solution. After diagnosing the needs the negotiation starts to further specify the problem and the possible solution. Different value propositions are made to meet the needs of the customer and increase the potential value. The supplier presents different benefits of every possible solution and what resources are needed. The challenge within this phase is communicate the value-in-use potential and expectations of every proposition.

In the next phase: organizing the process and resources; resources are collected to start the process to create value. Assisting the customer within the process and delivering resources can be useful because customers do not always understand the process to create value and what resources are necessary. Customers are oftentimes insecure about their own resources, such as information or knowledge.

The fourth phase is managing value conflicts. It takes some effort in managing value conflicts to get the process of value creation smoothly because of the discrepancy between supplier and customer. Customers may have unrealistic expectations of the increase in benefits. Suppliers on the other hand can complicate the facilitation of the co-creation. For example, the supplier can have a bad attitude towards an inexperienced customer.

The last phase of the process to co-create value is implementing the solution. Aarikka-Stenroos & Jaakkola (2012) listed concrete outputs of the implementation of the solution, such as design blueprints, IT systems, plans, reports, and advertising campaigns. These concrete outputs can measure the benefits and if they meet the expectations. Concrete outputs are also a way to utilize the solution even more and as mentioned before this contributes into higher value-in-use (Payne et al., 2008).

#### 2.2 Supplier roles

Now we have a common understanding of the process to co-create value we need to focus on the different roles of the supplier. In the first phase of the process to co-create of value (identifying the needs) the role of supplier is to present different value propositions to the customer. In this phase it is often a problem to present the right value proposition because of the limited information the customer tells. To present different value propositions as a supplier he or she gets a chance of discovering the needed information and ends up with the right value proposition. According to Aarikka-Stenroos & Jaakkola (2012) this role is so-called a value option advisor.

The next phase of the process to co-creating value is designing and producing the solution; the supplier can act as value amplifier. The supplier uses its knowledge, experiences, and expertise to improve co-design and co-production of the solution and to prevent the customer for taking wrong and undesirable decisions. For example, a customer can be able to organize the design of a solution, but within the design process several new insights and problems can reveal. The supplier can propose additional services to solve these problems and add more value to the solution.

In the phase organizing the process and resources the role of the supplier is to structure the process to co-create value and to identify, activate, collect, and integrate relevant resources. Aarrika-Stenroos & Jaakkola (2012) named this role as a value process organizer. Grönroos (2008) describes this role as resource facilitator. To increase the value-in-use creation

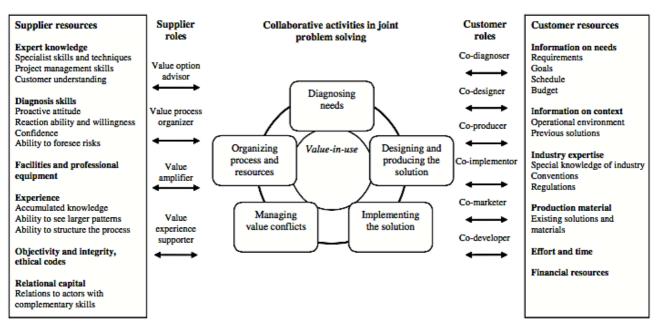


Figure 1. Joint problem solving as value co-creation in knowledge intensive business (Aarikka-Stenroos & Jaakkola, 2012,

by the customer, the supplier facilitates the value creation by providing the customer with its resources.

In the last phase of the process to co-create value (implementing the solution) the role of the supplier is termed as value experience supporter. As a value experience supporter the supplier tries to help the customer in utilizing the solution to improve the benefit and thus increasing value-in-use (Aarikka-Stenroon & Jaakkola, 2012; Gronroos, 2011a). Payne et al. (2008) also mentioned that the role of the supplier is to help the customers utilizing their resources by experiential interactions. For example, a supplier can train the customer's employees in using a system. By training the employees can use the system in such a way that it provides higher value-in-use.

The unit of analysis are SMEs. SMEs are considered as the engine of economic growth. SMEs are an essential source for jobs and innovations and there is a growing recognition of the role that SMEs fulfil in sustained global and regional economic recovery (Ayyagari et al., 2007). The definition of a SME this research adopts is the one of the European Commission: less than 250 employees.

Summarizing, in the theoretical framework it became clear how co-creation of value takes place. It became clear that interaction is an important key factor of the process to co-create value. Different supplier roles are elaborated which each serve a different purpose. The phase of the process to co-create value also determines the role of the supplier.

#### 3. METHODS

The theoretical framework shows us that there are many different aspects of the process to co-create value and the corresponding supplier role. In this section the methods are discussed that are used in this research. For this research qualitative research is chosen because of the explorative research approach. Qualitative research will grant more in-depth information about the subject in comparison to quantitative research.

This research is interested in discovering regularities towards the process to co-create value and therefore the type of this research is phenomenography (Miles & Huberman, 1994). This research tries to discover what is critical to develop supplier roles. Within this fact several SMEs are interviewed to discover if there is any regularity towards the development of their role as a supplier.

Semi-structured in-depth interviews are conducted using an interview guide to organize the conversation (Ritchie & Lewis, 2003); to obtain new knowledge about what is critical to develop supplier roles to orchestrate practices that support co-creation of value. In order to let the interviewee knows what the intentions are of this research an explanation is given. Secondly is explained that the interview consists of two perspectives. First the supplier perspective will be examined and second the customer perspective. In this way the process to co-create value is examined in two different views to attain more information. Thirdly is explained that the process to cocreate value consists of five phases and that we will walk through each phase with interview questions.

#### 3.1 Data selection

The sampling technique that is used to conduct this research is non-probability sampling. The boundary lies in the research question and is SMEs and forces to use non-probability sampling because only SMEs need to be interviewed. The selection of the participants is done via purposive sampling. Purposive sampling means that the selection of the sample unit is due a characteristic of the sample unit (Mason, 2002; Patton, 2002; Dolores & Tongco, 2007). Purposive sampling suits most because not every supplier is a SME. As described before suppliers are considered as a SME when they meet certain requirements.

Because of the limited time for this research no endless number of cases is possible. According to Morse (1994) at least six interviews and Creswell (1998) five to twenty-five interviews need to be conducted to perform a proper research. Twenty-eight SMEs are approached for an interview. Eventually nineteen interviews were taking into account and that matches with abovementioned.

#### **3.2 Data collection**

As mentioned before semi-structured interviews were conducted to collect data. The interviews were conducted at companies that match the definition of a SME. The interviews took an average of one hour. Decisions making units (DMUs) or Problem solving units (PSUs) are interviewed to collect data; their function within the SME was entrepreneur, owner, controller, and project manager. The semi-structured interview guideline contains twenty-nine questions. The first five questions gather information about the context of the SME and should ease the interviewee gently into the interview. The remainder twenty-four questions are derived from the process to co-create value by Aarikka-Stenroos & Jaakkola (2012). The interview is divided into two different parts: supplier and customer. These parts are both divided into five themes and are corresponding to the phases of the process to co-create value by Aarikka-Stenroos & Jaakkola (2012). These five themes are: 1) Diagnosing the needs, 2) Designing and producing the solution, 3) Organizing process and resources, 4) Managing value conflicts, 5) Implementing the solution. Number of questions per theme can vary between one and four. The interview is not totally prespecified to let the interviewee do his or her story and in order to obtain more data.

In total nineteen interviews were executed in the Netherlands by four students of the University of Twente during two weeks. The SMEs were very varied to each other to increase generalizability (Miles & Huberman, 1994) and helps to get a broad understanding of the process to co-create value. The interviewed SMEs are represented within industries such as engineering, advertising, air conditioning, IT, chip technology, architect, detachment, insurances, lawyers, coating, working environment facilitation, gardening and security.

#### 3.3 Data analysis

Qualitative data are usually voluminous, messy, and unwieldy (Miles, 1979). Therefore data reduction is a central task within qualitative data analysis (Ritchie & Lewis, 2003). The data is analyse by working with the data, organizing the data, breaking the data down, searching for patterns, and discovering what is important towards the research question (Bogdan & Biklen, 1982). The approach to analyse the data is interpretivism. This approach states that human discourse and action couldn't be analysed with the methods of natural and physical science (Miles & Huberman, 1994). The interview is transcribed and coded. Coding the transcript helps to analyse the data and will distillate results towards the research question. The Grounded Theory Technique is used described by Lawrence & Tar (2013) to code and analyse the data.

The interviews are totally wrote out and analysed for interesting findings towards the research question. The Grounded Theory Technique describes two ways of coding the data; open coding and axial coding. The data is coded by axial coding which involves rebuilding the data (open coding) by establishing relationship between categories and their subcategories. Coding the data discovers patterns and are important to answer the research question. The creation of codes is based upon looking per phase of the process to cocreate value. In that way this research analyses what is critical for the development of a supplier role per phase of the process to co-create value. The results of this analysis are described in section 4; the results.

The first questions of the interview are in order to identify what kind of company it was. Questions like: 'Could you tell something about the industry/market the company is in?' and 'Could you tell something about the turbulence of the market the company is in?' are asked. These questions also provide information about the different perspectives of SMEs towards the process to co-create value.

In the second and third section of the interview the supplier and customer roles respectively are central. Per section the same kind of questions are asked. In order to find what is critical to develop supplier roles both perspectives are investigated. The interviewee can mention what actions, roles, and resources are expected from the supplier to co-create value and therefore analysing the customer perspective is useful too.

In order to find what the SME does in the phase diagnosing the needs these interview questions are asked to the interviewees: 'How do you identify the customer's needs?' and 'What are the barriers/obstacles in identifying the customer's needs?'.

In order to find what the supplier does in the phase designing and producing the solution these questions are asked to the interviewees: 'How does the process proceed when the customer's needs are identified?', 'How do you find out whether the solution met the customer's needs?' and 'What is your role in this process, and what does this role mean? What do you expect from your customer?'.

The next phase is to organize the process and resources. In order to find out what the SME does within this phase these four questions are asked to the interviewees: 'How do you facilitates the process to solve the problem/to cooperate?', 'How do you find out what resources are relevant to organize the process?', 'What resources (people, knowledge, processes, partners) do you use to organize the process?' and 'How does the customer participate within the process (active, significant or small role)?'.

The next phase is managing value conflicts. In order find out what the SME does within this phase these questions are asked to the interviewees: 'How do you deal with differences in the expected value of the solution between you and the customer?' and 'Whereby the difference in the expected value between you and the customer might have arisen?'.

The last phase of the process to co-create value is implementing the solution. To identify what the SME does this question is asked to the interviewees: 'How do you ensure that the customer can deploy the solution successfully?'.

The answers on these questions are presented in results section, along with the answers on the same kind of questions within the customer perspective.

### 4. RESULTS

In this section the results of the study are presented per phase of the process to co-create value and the corresponding supplier role. The answers of the interviewees on the interview questions are coded like stated in section 3.3 data analysis. In the data this research found regularities towards three core categories: actions, resources and communication/interaction. These core categories were divided into subcategories. If the interviewee remarked a subcategory it is presented in the tables and marked with a 'Y'. In every subsection of this section the result is given and explained what is remarkable towards the analysis. In the appendix you can find the cross case comparison tables.

# 4.1 Diagnosing the needs: Value option advisor

The results are presented in table 1 in order to find what is critical for the development of the supplier role value option advisor that supports co-creation of value. These are the results of the questions asked to the interviewees within the phase diagnosing the needs.

Table 1: Diagnosing the needs

	Total (N=19)
Communication/interaction	17
Diagnosing the needs	16
Customer knowledge	11
Relational	9
Work together	9
Experience	8
Professionals	7
Knowledge	5
Flexibility	3
Time	3
Technology	3
Capacity	2
Partners	2
Money	2

There is a diversity in the results that is shown in table 1. The most important aspects of the role as a supplier are communication and diagnosing the needs and are in agreement with the theoretical framework and the introduction. Communication/interaction is still an important aspect of fulfilling the role as a supplier. Diagnosing the needs goes through presenting possibilities, making drafts, asking questions (e.g. survey), making a video and presenting it or a plan of approach. By these methods the supplier can find out what the needs of the customer are and start the process to co-create value. Every interviewee who mentioned that diagnosing the needs is an important aspect of the role as a supplier also mentioned that communications is important. As an interviewee mentioned: It is for me quite easy to read your mind and draft your ideas on paper, but the customer has insufficient baggage. We use references, a portfolio with examples of houses. By these examples we show people what is possible and it starts to live. People are searching for many examples as well. It is all about communication, show things, and make drafts (Architect).

Eleven interviewees appointed customer knowledge. Eight of these eleven interviewees appointed that customer knowledge is lacking at their customers. Customer knowledge makes it much more easier to diagnose the needs and costs less time to figure out what the needs are. Like an interviewee mentioned: *Customer knowledge is most of the times not present, especially with new things. The director often times wants something but lacks the knowledge. Something has to happen but they do not have an idea what. They want to utilize the opportunity. Personal I want a customer that is capable so he or she can indicate what their needs are* (IT).

The relational component is according to the interviewees very important within this phase as well. The supplier needs to know whom the customer is to exactly know what the customer's needs are. As an interviewee mentioned:

Important is that we have a relationship with our customers. To identify their real needs I need to have a relationship. When we have a first conversation you don't tell me everything. That just costs more time. Before a customer trusts you. We are all into the advice. Before he tells what he exactly wants we have to work on a relationship first (Work environment facilitator).

What also came forward out of the analysis is that every SME that is within the construction industry does not work and/or design together with their customers to diagnose the needs. As one of them mentioned: *The expansion of a business location or the construction of a new house, the customer is partly a layman. We see that as an obstruction, sometimes it is a chance as well but most of the time it is an obstruction.* (Construction). As the interviewee mentioned it is oftentimes an obstruction that the customer does not know what exactly their needs are and therefor it is a reason why they do not work and/or design together with the customer to diagnose their needs. The way they are trying to diagnose the needs of their customers is most times via asking questions and not by presenting possibilities, examples, or drafts. By asking questions they figure out what the needs are.

According to the analysis experience is an important aspect as well. Experience to identify and diagnose needs of the customer is useful towards the supplier role value option advisor. By this experience the supplier knows better what the customer wants and what is possible to solve the problem with a potential solution. Most of the experience is experience in identifying the needs of the customer. Like an interviewee mentioned: *Nowadays it goes via the Internet and you can check on it what they make and assess what kind of electronics is inside according to our expectations* (Chip technology). What is also remarkable is that when the industry is instable/turbulent the experience aspect becomes less important. 80% Of the SMEs did not notice that experience is important to identify or diagnose the needs. When the industry is instable/turbulent experience plays a less important role to diagnose the needs.

Lastly professionals are frequently used to diagnose the needs of the customer. What kind of professional is dependent on what industry the SME is in; architects, project managers, highly educated employees, lawyers, engineers, and technicians. Professionals within SMEs have more knowledge of the business and therefore are more capable to diagnose and recognise needs. Like an interviewee mentioned: *We try to sell standard products, if that is not possible our project manager goes to the engineer to let him develop a solution that is missing in the story of the customer* (chip technology). Professionals and knowledge are connected with each other. The reason why this research made a distinction between knowledge and professionals in the analysis is that knowledge is not always determined from professionals.

# 4.2 Designing and producing the solution: Value amplifier

By increasing the co-production and co-designing of the possible solution the supplier increases the potential value-inuse. The interviews are analyzed and presented in table 2.

 Table 2: Designing and producing the solution

	Total (N=19)
Communication/interaction	19
Work/design together	16
Diagnosing the needs	15
Experience	8
Professionals	8
Knowledge	6
Partners	6
Customer knowledge	5
Relational	5
Money	3
Time	3
Capacity	2
Technology	1

Like in table 1 here is the diversity also forthcoming. Communication stays an important aspect of the process to cocreate value. Within the phase designing and producing the solution every interviewee mentioned that communication is important throughout this phase. Like an interviewee mentioned: You have to take care of that in the beginning you have a lot of interaction with your customer. We try to do that as much as possible, to be close with the customer and take them along the creation of a draft (chip technology). To align the needs of the customer and the thoughts about the needs of the supplier communication is critical. Without conversation the supplier does not know if the right solution suits the needs of the customer.

By communicate constantly with the customer the supplier tries to check if they have the right thoughts about the possible solution and if the possible solution will satisfy the needs of the customer. Therefore communication is interconnected with the second aspect work/design together. To work/design together with the customer it will provide a better solution and increase the value-in-use. Like another interviewee mentioned: also during the process there are constantly construction meetings, conversations with customers, constantly monitoring what we are doing and if this is satisfying; also within the designing process of the solution (construction). Sixteen interviewees responded to work/design together with the customer. To work/design together with the customer in this early phase the company prevent by making the wrong decisions towards the possible solution. Like another interviewee mentioned: we try to be very close to the customer, we call ourselves a co-developer. Cooperate and develop, design together (chip technology).

Diagnosing the needs is still important within this phase. By presenting value-propositions the supplier checks if the possible solution suits the needs of the customer. By presenting possible solutions the customer has a chance to redesign it and work/design together with the supplier. An interviewee said the following: most times we present our idea, this is the way we could do it. It can be a draft or a piece of a design. This is to make it concrete as much as possible so that the customer understands it. Within that process we are very close to our customers, also because we have to work together with their employees. That is an intimate process. As we take the lead (IT). Translating customer's needs in a possible solution experience is still important according to the analysis. When the needs are mostly diagnosed the supplier uses its own experience to translate those needs into a possible solution. As well for the experience towards the process to co-create a possible solution is mentioned by two interviewees. These interviewees said: *We are the party that has the experience and connects all the lines together. In that way we grow bigger and bigger. We must continue, like what is the planning. We coordinate the 'Lean', which you go along the processes and that everyone thinks the same* (construction). Like the interviewee mentioned the supplier has the experience to organize the process to lean with the customer.

Professionals are important within this phase of the process to co-create value. Like an interviewee said: *It is here discussed with the best-educated employees, we have three in our organization. You consult them and say if they can develop this on the basis* (Insurances). By consulting the professionals it becomes clear if the needs can be translated into a possible solution. Secondly professionals are not used only to check if the needs can be translated into a possible solution but to design a possible solution as well.

Lastly what is remarkable is that every interviewee who mentions that uses his or her own knowledge to design and produce a solution does not mention that customer's knowledge is used within this phase. That means that when the supplier has in-house knowledge it does not need the knowledge of the customer to design and produce a solution.

## 4.3 Organizing the process and resources: Value process organizer

In the third phase of the co-creation process the role of the supplier is to organize the process to co-create value and identify, activate, collect, and integrate relevant resources. The answers on the questions asked within the interviews are presented in table 3.

	Total (N=19)
Communications/interaction	15
Professionals	13
Work/Design together	10
Knowledge	9
Partners	9
Experience	7
Diagnosing the needs	6
Customer's knowledge	5
Time	5
Capacity	5
Relational	4
Money	3
Technology	1
Flexibility	1

Table 3: Organizing the process and resources

Communication is within the phase organizing the process and resources an important aspect. Like an interviewee mentioned: *I think that communication is everything determinative within this phase. Every time I ask my customers what kind of communication suits them, and on what time, and when is the next contact (Work environment facilitation)?* By

constant communication the supplier is organizing the process to co-create value. The interviewee also mentions in his response that without communication this phase of the process to co-create value cannot proceed because it is determinative. This is also debated by more interviewees as: *The relevance within al our processes is communication. Without sufficient communication every process will failure* (Lawyer).

Professionals are used to organize the process to cocreate value and identify, activate, collect, and integrate relevant resources. The professional conclaves with the customer about specifications of the possible solution. Therewith the professional knows what resources are relevant for the process to co-create value. Like an interviewee said: The project manager goes into conclave first, to check if it is possible. The customer delivers specifications, via those specifications they want to have a motor. The engineer draws the motor, designs it (Chip technology). Like the interviewee mentions the engineer knows what resources are relevant within the process to co-create value. Another interviewee debates: it is quite diverse. But when I find myself lacking, I ask if I can bring someone else along. I take my interior designer with me. That is a resource I use in the process (Work environment facilitation). The interviewee debates here when his knowledge is lacking to produce a possible solution he brings a professional with him to produce a solution.

Work/design together with the customer is an action that is mentioned by ten interviewees within the phase organizing the process and resources. Therefore work/design together is a frequently used action to organize the process and resources. The interviewees also mention to work/design together when they are customer instead of supplier. Nevertheless it still shows the importance of working/designing together with the supplier and customer: we're going to meet with each other; we invite them or visa versa (50/50). Then we come up with something together with the suppliers (IT). Another interviewee mentioned it is quite an intensive process to co-create value with the customer and the customer most times underestimates it: the customer must be made aware of the high participation of the customer within the process. Otherwise we cannot figure out what the customer exactly wants. We need to have a lot of contact. Customers are oftentimes surprised about how much effort, time, and energy it takes to create a piece of furniture. Effort of themselves. They underestimate the process and how many things they need to think about (Work environment facilitator). The comment of the interviewee shows how intensive a supplier want to work and design together with the customer. Without that intensiveness he cannot figure out what the customer exactly wants and what kind of resources are needed.

Nine interviewees mentioned that knowledge is an important aspect to organize the process and resources and of whom seven even said that knowledge is the most important aspect to organize the process and resources. As one of them mentioned: *by knowledge and specialism, thus you know what choices to make* (Construction). Customer's knowledge is not included. An interviewee even mentioned that the customer does not need knowledge within this phase because the supplier has. By having knowledge the supplier knows to organize the process and knows what resources are relevant to produce the solution.

Partners are mostly used to organize the process; therefore it is a kind of resource for the supplier. Partners are used to deliver materials that are used to produce the solution but for knowledge as well. Like these interviewees mention: *I* assure by having the right people around the table to address it. It could be my neighbour who owns a company that supplies metal we work a lot with. Another interviewee mentioned: *I*  assure I will get my partners with their knowledge and possibilities to help me with the process (Physical tools for advertising). As they mention partners are an important aspect but knowledge of their partners is as well. This knowledge is not included in the abovementioned knowledge but this stresses even more that knowledge is an important aspect.

Time is an important resource for the companies that are in the construction industry within this phase. In total there are four companies interviewed that are within the construction industry and three of them responded positively towards time. The interviewed mentioned nowadays time is more important because men expect more from constructors within less time. When a supplier is early involved in the process by the customer the supplier is getting the maximum time that is available.

# 4.4 Implementing the solution: Value experience supporter

Aarikka-Stenroos & Jaakkola described this is the last role of the supplier within the process to co-creation value; therefore this phase is described first instead of the phase managing value conflicts. The answers on the questions within this phase are presented in table 4.

Table 4: Implementing the solution

	Total (N=19)
Utilize the solution	11
Communication/interaction	4
Training the customer	3
Implementation together with supplier	3
Advising the customer	3
Implementation by supplier	3
Quality assurance	3
Time	2
Professionals	2
Relational	2
Knowledge	1
Experience	1

The first remarkable thing is that SMEs do not always apply the role as a value experience supporter. About 42% of the interviewees responded that they do not utilize the solution when the solution is implemented. For example: not really applicable for this company, when the flagpole is implemented oftentimes it is good and that is it (Physical tools for advertising). When a company applies the role as a value experience supporter the supplier utilizes the solution to improve the benefit and thus increasing value-in-use. The forms in which they do are: training, implementing by the supplier, advising the customer, implementation together with the customer, and assuring the quality of the solution. For example by training the customer he or she can increase the utilization of the solution because the customer gains more information about implementing the solution in his or her own surroundings. One interviewee is in detachment industry and mentioned: The employees go with a positive attitude to their work. They wear our clothing to be representative. Besides that they need to have fun in their work. To achieve the right compensation, and have a good feeling at the place they are detached (Detachment within construction industry). By assuring the quality of their own 'product' they increase the utility and thus increase valuein-use.

There are only four interviewees who mentioned that they think communication/interaction is important to do within the phase of implementing the solution. But what is remarkable is that every interviewee who mentions to communicate/interact utilizes the solution as well. For example: *you have to be concerned with communication, aftersales and to drink a cop of coffee with you business relationship* (Construction).

## 4.5 Managing value conflicts

Aarrika-Stenroos & Jaakkola (2012) argue that there is no supplier role within the phase managing value conflicts. Their framework is in the context of knowledge intensive businesses that would not have to be applicable for SMEs. The results of the analysis are presented in table 5.

Table 5: Managing value conflicts

	Total (N=19)
Communication/interaction	16
Presenting alternatives	7
Contractual fixation	7
Customer's knowledge	5
Work/design together	4
Experience	3
Relational	3
Knowledge	2
Time	2
Diagnosing the needs	2
Professionals	1
Flexibility	1
Money	1

Remarkable is that a value conflict most times occur when there is lack of good communication. The majority of the suppliers mentioned that the lack of good communication ultimately results in a value conflict and by sufficient communication the supplier can prevent a value conflict. The results of the analysis are so overwhelming that the supplier plays a role within this phase as a 'value conflict preventer'. For example: Everything has to do with communication. If it goes wrong, it has to do with that. In principle it should not be (chip technology). The role of the supplier is to increase communication to prevent a value conflict. As mentioned in the theoretical framework these phases may run simultaneous and therefore this role may run simultaneous as well. As Aarikka-Stenroos & Jaakkola mentioned a value conflict is most times a result of differences between expectations of the supplier and customer. By increasing communication the difference in expectations may fade because the customer knows what to expect and visa versa.

When a value conflict occurs twelve interviewees responded to act upon by evaluating, fixate on the contract, and presenting alternatives. By evaluation the supplier checks with the customer where is went wrong and hopefully prevent it in the future. To fixate on the contract the supplier tries to avoid responsibility for the value conflict to prevent a refund. By presenting alternatives the supplier repairs the value conflict.

## 5. CONCLUSION

Literature showed that information about the process to cocreate value is not overwhelming. No literature covered information about the process to co-create value in the context of SMEs. The framework of Aarrika-Stenroos & Jaakkola is used to gather information about the process to co-create value and the supplier roles. Several supplier roles were identified: Value option advisor, Value amplifier, Value process organizer, and Value experience supporter. The semi-structured interview questions are derived from the framework of Aarrika-Stenroos & Jaakkola. Questions are asked within the context of the five phases of the process to co-create value. The results are presented per phase of the process to co-create value to achieve what is critical for the development per supplier role. This research provides SMEs more pragmatic information how to further develop their supplier roles within the process to cocreate value. Within this research the purpose was to determine what is critical to develop supplier roles that orchestrate practices that support co-creation of value amongst SMEs. To answer the research question: 'What is critical for developing supplier roles that support co-creation of value for SMEs?" nineteen SMEs are interviewed and analysed.

The most important aspects for developing supplier roles are: communication, work/design together, diagnosing the needs, professionals, experience, knowledge, relations, customer knowledge, and partners. Without these aspects the supplier cannot develop their role to support practices that orchestrate co-creation of value.

Throughout the whole process to co-create value communication is the most important aspect. To work on improving communication as a supplier they develop their supplier roles. The customer does not always tell the supplier what their needs are. By having more contacts and constant communication as a supplier with your customer it becomes easier to present the right value proposition. Also for designing and producing a solution communication is critical to develop the supplier role as a value amplifier. By constant communication the supplier figures out what solution suits the needs of the customer. Within the phase organize the process and resources the supplier needs to communicate constantly with the customer to align the process and make sure the customer delivers his or her relevant resources. Aarikka-Stenroos & Jaakkola have found no role within the last phase managing value conflicts. Constant and open communication is needed to prevent a value conflict and thereby the role of supplier is a preventer of value conflicts. As a value conflict preventer the supplier needs to increase communication with their customers. By increasing communication the chance of having a difference expectations between supplier and customer decreases or even disappear. Even in the last phase every SMEs who utilize the implemented solution needs to communicate with the customer.

Work/design together with the customer is an important aspect of the supplier role as well. Particularly in the second phase of the process to co-create value. To design and produce a solution the supplier needs to work/design together with the customer. Without working/designing together the supplier cannot improve co-design and co-production.

Diagnosing the needs is important throughout the first three phases of the process to co-create value. By constantly diagnosing the needs the supplier checks if the possible solution still suits the customer's needs. Within the first phase the supplier needs to know what kind of solution the customer wants. In the second phase the supplier checks if the needs that are diagnosed are well translated into a possible solution. To organize the process and relevant resources the supplier controls if the process and resources are still relevant. Professionals are used for their knowledge and expertise to diagnose the needs of the customer. Professionals add value because they are useful to design and produce a solution. Particularly to organize the process and resources professionals are used to know which resources are relevant and to organize the process.

Experience of former processes helps the supplier to better diagnose the needs. The supplier has experience with the same kind of customer needs and knows what possible solution can satisfy them. In the organization of the process and relevant resources experience is used as well. The supplier knows what resources are relevant and how to organize the process.

By using knowledge the supplier knows how to cocreate value with the supplier. Particularly within the third phase organize the process and resources the supplier uses its knowledge. After producing and designing a possible solution the supplier uses its knowledge to identify and collect relevant resources and what choices to make to organize the process.

Relation with the customer makes it easier to communicate and to diagnose the needs. The customer knows what to expect from the supplier and visa versa. The customer trusts the supplier more when there is an increased relationship between them. In order to easily diagnose the needs of a customer a relationship is needed.

Customer knowledge is most useful within the first phase. Because the customer knows what his needs are it makes it easier for the supplier to diagnose those needs. The supplier simply has to do less because the customer can explain better what he or she wants.

Lastly, partners are most useful to organize the process and relevant resources. Partners have different knowledge about the process to co-create value and therefore are useful for the supplier. Partners are used for their knowledge about relevant resources as well.

## 6. **DISCUSSION**

Like in every study there are some points of attention that need to be discussed. Four students of the University of Twente conducted the nineteen interviews. We all four are inexperienced interviewers therefore the first interview went not as good as the following interviews. We used a semi-structured interview to reduce the effect of an inexperienced interviewer but if one of us conducted the interview this effect would be less. Thereby the first interview could be more usable than it is now.

Another limitation of this research is that Dutch SMEs were interviewed. The aspects found regarding to the development of supplier roles are aspects within SMEs from the Netherlands. Future research can contribute to research in different countries to increase generalizability.

This research tried to answer the research question *'What is critical for developing supplier roles that support cocreation of value for SMEs?*'. To answer that research question this research needed to generalize the data of the interviewees. Future research on firm specific industries can show different outcomes. In section 4; the results was already shown that there were slightly differences between the aspects in general and within the construction industry. Future research can contribute by researching these critical aspects to develop supplier roles towards specific industries.

Future research can contribute why SMEs do not always apply the role as a value experience supporter. About 42% of the interviewees do not utilize the implemented solution to increase value-in-use. When suppliers pay more attention towards the role as a value experience supporter they can increase value co-creation more. Finding why SMEs do not always apply the role as a value experience supporter can help SMEs to organize that role.

Communication is the most important aspect for the development of supplier roles within the process to co-create value. One develops the role as a supplier when one increases the level of communication. Future research can contribute to find ways of increasing the efficiency of communication. Especially because an increase in communication prevents from getting a value conflict which costs time and money. By increasing communication the differences within expectations of the customer will decrease and a value conflict will disappear or decrease.

### 7. MANAGERIAL IMPLICATIONS

This research offers advice to managers in terms of how to manage and improve their supplier roles within the process to co-create value. Actions, communication/interactions and resources are specified within every phase of the co-creation process. To further develop their supplier roles they need to analyze their current situation and improve their supplier role where is needed. The turbulence of the market needs to be considered as well as shown in the results because the aspects can differ.

This research suggests that suppliers of SMEs should pay more attentions to increase co-creation of value within the last phase of the process to co-create value. The interviewed owners or entrepreneurs of the SMEs are not paying much attention when the solution is implemented. Examples of increasing the co-creation of value within the last phase are: implementation by the supplier, training the customer, quality assurance, advising the customer. These examples do not always apply to every specific industry but only helps the supplier by getting ideas how to improve his process to cocreation value within the last phase.

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#### 9. REFERENCES

- Aarrika-Stenroos, L., & Jaakkola, E. (2012). Value co-creation in knowledge intensive business services: A dyadic perspective on the joint problem solving process. *Industrial Marketing Management*, 41 (1), 15-26.
- Ayyagari, M., Beck, T., & Demirguc-Kunt, A. (2007). Small and Medium Enterprises Across the Glove. Small Business Economics, 29, 415-434.
- Bogdan, R.C., & Biklen, S. K. (1982). Qualitative research for education: An introduction to theory and methods. *Allyn & Bacon, Incorporated, 13.*
- Creswell, J. (1998). Qualitative inquiry and research design: Choosing among five traditions. *Thousand Oaks, CA: Sage*.

- Dolores, M., & Tongco, C. (2007). Purposive sampling as a Tool for Informant Selection. *Ethnobotany research* & *applications*, 5, 147-158.
- Gebauer, H., Johnson, M., & Enquist, B. (2010). Value cocreation as a determinant of success in public transport services. *Managing Service Quality*, 20 (6), 515-530.
- Grönroos, C. (2008). Service Logic Revisited: Who Creates Value? And Who Co-creates? *European Business Review*, 20 (4), 298-314.
- Grönroos, C. (2008a). Adopting a service business logic in relational business-to-business marketing: value creation, interaction and joint value co-creation. *Otago Forum*, 2, 268-287.
- Grönroos, C. (2011). A service perspective on business relationships: The value creation, interaction and marketing interface. *Industrial Marketing Management*, 40, 240-247.
- Grönroos, C. (2011a). Value co-creation in service logic: A critical analysis. *Marketing Theory*, 11 (3), 279-301.
- Grönroos, C., & Voima, P. (2013). Critical service logic: making sense of value creation and co-creation. *Journal of Academic Marketing Science*, 41, 133-150.
- Kristensson, P., Matthing, J., & Johansson, N. (2008). Key Strategies for the Successful Involvement of Customers in the Co- Creation of New Technology-Based Services. *International Journal of Service Industry Management*, 19 (4), 474-491.
- Lawrence, J., & Tar, U. (2013). The use of Grounded Theory Technique as a Practical Tool for Qualitative Data Collection and Analysis. *Electronic Journal of Business Research Methods*, 11 (1), 29-40.
- Macdonald, E. K., Wilson, H., Martinez, V., & Toossi, A. (2011). Assessing value-in-use: A conceptual framework and exploratory study. *Industrial Marketing Management*, 40, 671-682.
- Mason, J. (2002). Qualitative researching. SAGA publications, Inc.
- Miles, M. B. (1979). Qualitative data as an attractive nuisance. Administrative Science Quarterly, 24, 590-601
- Miles, M. B., & Huberman, A. M. (1994). Qualitative Data Analysis. SAGA Publications, Inc.
- Morse, J. M. (1994). Designing funded qualitative research. Handbook of qualitative research, 2, 220-35.
- Patton, M.Q. (2002). Qualitative Research and Evaluation Methods. *SAGA Publications, Inc.*
- Payne, A. F., Storbacka, K., & Frow, P. (2008). Managing the co-creation of value. *Journal of the Academic Marketing Science*, 36, 83-96.
- Payne, A. F., Storbacka, K., Frow, P., & Knox, S. (2009). Cocreating brands: Diagnosing and designing the

relationship experience. Journal of Business Research, 62, 379-389.

- Prahalad, C. K., & Ramaswamy, V. (2004). Co-creation experiences: the next practice in value creation. *Journal of Interactive Marketing*, 18 (3), 5-14.
- Qualitative Research Methods: A Data Collector's Field Guide. Family Health International, 1-12.
- Rena, S. J., Hua, C., Ngai, E. W. T., & Zhoua, M. (2015). An empirical analysis of inter-organisational value cocreation in a supply chain: a process perspective. *Production, Planning & Control, 26* (12), 969-980.
- Ritchie, J., & Lewis, J. (2003). Qualitative Research Practice. SAGA Publications Ltd.
- Sheth, J. N., & Sharma, A. (2008). The impact of the product to service shift in industrial markets and the evolution of the sales organization. *Industrial Marketing Management*, 37, 260-269.
- Titus, P. A. (2000). Marketing and the Creative Problem-Solving Process. *Journal of Marketing Education*, 22 (3), 225-235.
- Vargo, S. L., & Lusch, R. F. (2004). Evolving to a New Dominant Logic for Marketing. *Journal of Marketing*, 68, 1-17.
- Vargo, S. L., & Lusch, R. F. (2006). Service-doinant logic: What it is, what it is not, what it might be. *Sharpe*, 29-42.
- Vargo, S.L., & Lusch, R. F. (2008). Service Dominant Logic: Continuing the Evolution. *Journal of the Academy of Marketing Science* 36 (1), 1–10.
- Vargo, S. L., Maglio, P. P., & Archu Akaka, M. (2008). On value and value co-creation: A service systems and service logic perspective. *European Management Journal*, 26, 145-152.

# **10. APPENDIX**

# Appendix 1: Sample description

SME	Industry	Size (employees)	Market description
1	Construction	50	Stable
2	Construction	50	Stable
3	Gardening	14	Stable
4	Physical tools for advertising	6	Stable
5	Air conditioning	50	Stable
6	Chip technology	190	Stable
7	IT	10	Unstable, turbulent
8	Construction	15	Movements in the market, constant developments
9	Construction	75	Stable, movements in the market
10	IT	45	Unstable, turbulent
11	Architect	2	
12	Chip technology	45	Stable
13	Detachment within construction industry	89	Stable
14	Insurances	35	Unstable, turbulent
15	Security	10	Unstable, many new developments. Not turbulent.
16	Lawyer	5	Stable
17	Coating	35	Not stable nor instable, movements in the market
18	Work environment facilitation	7	Unstable, many new developments
19	Engineering	20	Stable, slow market

# Appendix 2: Subcategory description

Subcategory	Description
Communication	Communication means: mutual conversation takes place between supplier and customer in any different form. Examples found in the data: physical table conversation, online chatting, keeping
	someone up to date.
Work/design together	The supplier and the customer design/work together throughout the different phases of the process to co-create value. The interviewees mention they work/design together with the customer within the supplier perspective or the interviewees mention they work/design together with the supplier within the customer perspective.
Diagnosing the needs	The supplier needs to diagnose the needs of the customer and can take place in different ways: presenting value-propositions, presenting previous solutions, research (e.g. questionnaire), presenting drafts, video.
Professionals	A professional is an employee that has some kind of knowledge and experience towards a profession. Examples found in the data: project manager, architect, engineer, highly educated employee, technical employee, employee in general.
Experience	Reflection of observation and involvement in former processes. Examples found in the data: towards the needs, towards the customer, towards the processes, towards partners.
Knowledge	Facts, information, and skills acquired by the supplier. Examples found in the data: in-house knowledge.
Relational	To have a relation with someone outside the company. Examples found in the data: relation with customers, relation with suppliers, and relation with partners.
Customer's knowledge	Facts, information, and skills acquired by the customer.
Flexibility	Capable of being changed or adjusted to meet certain needs. Examples found in the data: flexible supplier.
Technology	The use of technology to invent useful things or to solve problems. Examples found in the data: up-to-date technology, identify new technology.
Capacity	The maximum amount or number that can be received or contained. Examples found in the data: stock, capacity of the supplier.
Time	A limited period or interval. Examples found in the data: little time, enough time, early

	involvement of the supplier in the process, delivery on time.
Partners	One that is united with others or another. Example found in the data: partners of the supplier.
Manage value conflicts	To decrease a value conflict. Examples found in the data: contractual fixation, evaluation,
	presenting alternatives.
Solution utilization	To utilize the implemented solution. Examples found in the data: implementation by the supplier,
	training the customer, quality assurance, advising the customer.

# Appendix 3: Value option advisor Diagnosing the needs

Core category	Subcategory	SM	IE nı	ımbe	r															
		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19
Resources	Knowledge					Y									Y	Y			Y	Y
	Customer's knowledge	Y	Y	Y		Y	Y	Y			Y	Y		Y		Y			Y	
	Experience			Y	Y	Y			Y				Y	Y			Y		Y	
	Relational	Y		Y				Y				Y	Y	Y		Y		Y	Y	
	Professionals		Y				Y		Y			Y	Y		Y				Y	
	Partners												Y							Y
	Money	Y						Y												
	Time								Y				Y						Y	
	Capacity												Y					Y		
	Technology				Y		Y						Y							
Actions	Communication/interaction	Y	Y	Y		Y	Y	Y	Y	Y		Y	Y	Y	Y	Y	Y	Y	Y	Y
	Work/Design together			Y				Y			Y	Y	Y		Y	Y			Y	Y
	Diagnosing needs	Y	Y	Y		Y	Y	Y	Y	Y	Y	Y	Y		Y	Y		Y	Y	Y
	Flexibility								Y		Y					Y				

# Appendix 4: Value Amplifier Designing and producing the solution

Core category	Subcategory	SM	IE nu	mbe	r															
		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19
Resources	Knowledge	Y	Y			Y								Y	Y	Y				
	Customer knowledge								Y	Y	Y	Y						Y		
	Experience				Y				Y	Y	Y			Y	Y		Y		Y	
	Relational	Y												Y			Y	Y	Y	
	Professionals	Y					Y	Y		Y	Y				Y		Y	Y		
	Partners		Y		Y		Y		Y	Y	Y									
	Money									Y		Y		Y						
	Time								Y					Y			Y			
	Capacity										Y							Y		
	Technology									Y										
Actions	Communication/interaction	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
	Work/Design together		Y	Y	Y	Y		Y	Y	Y	Y	Y	Y		Y	Y	Y	Y	Y	Y
	Diagnosing needs	Y	Y			Y	Y	Y	Y		Y	Y	Y		Y	Y	Y	Y	Y	Y
	Flexibility							Y			Y									

# Appendix 5: Value process Organizer Organizing the process and resources

Core category	Subcategory	SM	IE nu	ımbe	r															
		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19
Resources	Knowledge		Y						Y	Y	Y		Y		Y	Y		Y		Y
	Customer knowledge						Y	Y			Y		Y				Y			
	Experience			Y		Y			Y	Y			Y				Y		Y	
	Relational							Y		Y							Y		Y	
	Professionals	Y	Y		Y	Y	Y				Y	Y	Y	Y	Y		Y		Y	Y
	Partners			Y	Y					Y	Y	Y	Y			Y	Y			Y
	Money	Y					Y											Y		
	Time	Y		Y					Y	Y	Y									
	Capacity			Y			Y				Y		Y	Y						
	Technology												Y							
Actions	Communication/interaction	Y	Y	Y	Y	Y		Y		Y	Y	Y	Y	Y			Y	Y	Y	Y
	Work/Design together	Y		Y				Y		Y	Y	Y	Y		Y				Y	Y
	Diagnosing needs			Y		Y	Y	Y	Y									Y		
	Flexibility																Y			
																			<u> </u>	
App Core category	<b>Dendix 6: Managing v</b> Subcategory		e co //E n																	
	Subcategory	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19
Resources	Knowledge	-	Y	5	<u> </u>	5	0	,	0	Y	10		12	15		15	10	17	10	- 17
	Customer's knowledge		Y							Y	Y						Y			Y
	Experience		-		Y	Y				Y	-						-			-
	Relational		Y		-	-				Y							Y			+
	Professionals		-				Y													+
	Money						Y													+
	Time									Y	Y									+
Actions	Communication/interaction	Y	Y		Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y		Y	Y	Y	+
	Work/Design together		Y						Y			+	Y		Y	+		+	+	+
	Diagnosing needs		+				Y												-	Y
	Flexibility		+						Y										+	+
	Manage value conflicts	Y	Y	Y	Y	Y		Y	Y				Y	Y	Y			Y	+	+

# **Appendix 7: Value Experience Supporter Implementing the solution**

Core category	Subcategory	SM	IE nu	ımbe	r															
		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19
Resources	Knowledge	Y																		
	Experience	Y																		
	Relational		Y				Y													
	Professionals		Y	Y																
	Time		Y					Y												
Actions	Communication/interaction		Y								Y			Y	Y					
	Solution utilization		Y	Y		Y		Y	Y		Y			Y	Y		Y	Y	Y	

# **Appendix 8: Interview Template companies Bachelor Thesis: Co-Creation**

Interview nr:

Voor onze bachelor studie zijn wij bezig met een onderzoek naar samenwerking onder middel en kleine bedrijven. We hebben een bepaald theoretisch proces en deze zouden we graag met u willen doorlopen. Het komt er eigenlijk op neer dat we benieuwd zijn naar jullie rol als leverancier in samenwerking met partners en klanten, zowel bedrijven als particulier. Daarnaast is uw rol als klant in samenwerking met leveranciers en partners ook van belang voor ons. Aan de hand van vijf thema's willen wij dit onderzoeken.

Naam bedrijf:

Functie geïnterviewde:

Branche / Markt:

Aantal werknemers:

Turbulentie van de markt:

(stabiele markt, in beweging, technologische ontwikkelingen naast elkaar?) *Leverancier:* 

Klantbehoefte identificeren:

- Hoe identificeert u de klantbehoefte bij uw klanten?
- Wat zijn barrières/obstakels in het identificeren van klant behoeftes?
- Vormgeven en bedenken van een mogelijke oplossing
- Hoe verloopt het proces nadat de klantbehoefte is geïdentificeerd bij uw klanten?
- Hoe komt u erachter of de mogelijke oplossing de klantbehoefte bevredigd?

Wat is uw rol in dit proces, wat houdt deze rol precies in volgens u? Wat verwacht u van uw klant?

Organisatie van het proces en de middelen

- Hoe faciliteert u het proces om het probleem op te lossen / om samen te werken?
- Hoe komt u erachter welke middelen relevant zijn voor de organisatie van het proces?
- Welke middelen (mensen, kennis, processen, partners?) gebruikt u in de organisatie van het proces?

Hoe participeert de klant in het proces? (actief, grote rol, kleine rol)

Omgaan met verschil in verwachtingen

- · Hoe gaat u om met verschillen in de verwachte waarde van de oplossing tussen u en de klant?
- Waardoor zou het verschil in de verwachte waarde tussen u en de klant kunnen zijn ontstaan?

Invoeren van de oplossing

· Hoe zorgt u ervoor dat de klant de oplossing succesvol kan inzetten?

## Klant:

Klantbehoefte identificeren:

Hoe wordt uw eigen klantbehoefte geïdentificeerd door uw leverancier?

· Wat zijn barrières/obstakels in het identificeren van uw klant behoeftes door uw leverancier?

Vormgeven en bedenken van een mogelijke oplossing

· Hoe verloopt het proces bij u intern nadat de klantbehoefte is geïdentificeerd door uw leverancier?

- Hoe komt u erachter of de mogelijke oplossing die uw leverancier biedt uw klantbehoefte bevredigd?
- Wat is uw rol in dit proces, wat houdt deze rol precies in volgens u? Wat verwacht u van uw leverancier? Organisatie van het proces en de middelen

Hoe wordt het proces gefaciliteerd om het probleem op te lossen / om samen te werken?

- · Hoe komt u erachter welke middelen relevant zijn voor de organisatie van het proces intern?
- Welke middelen (mensen, processen, kennis, partners) zijn hierbij van belang?
- Hoe participeert de leverancier in het proces?
- Omgaan met verschil in verwachtingen

· Hoe gaat u om met het verschil in verwachtingen in waarde tussen u en de leverancier?

· Waardoor komt het verschil in de verwachtingen in waarde tussen u en de leverancier?

### Invoeren van de oplossing

Hoe zorgt u als klant ervoor dat u de oplossing optimaal ingezet kan worden?