Patrik Lindgren

Value co-creation within “card game encounters”

Facilitating the customer and supplier learning processes through interaction

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Abstract

Marketing is on the path of evolving to a Service-Dominant (S-D) Logic perspective. S-D Logic researchers have acknowledged that customers do not only receive value, they contribute to create value and subjectively assess it in use - a notion that challenge the logic of traditional marketing. In interaction, suppliers have the opportunity to reveal processes of customer value creation, and accordingly, align these with its own internal processes. From this perspective, the supplier is turned into a co-creator of value.

This study investigates the potentials of value co-creation, through interaction, within the context of card game encounters, an activity originally developed for traditional marketing purposes. Atlas Copco Rock Drills AB has implemented the method of the card game, and is now in search for academic support to identify the actual potentials of interaction within these encounters.

By drawing on a literature review compromising (1) a conceptual model presenting the functions of direct interaction as a merging of processes (Grönroos & Voima 2013), and (2) a processed-based framework for co-creation of value (Payne et al. 2008), a qualitative study was conducted to investigate Atlas Copco employees’ perception of how supplier representatives and customers engage in learning process by co-creating value.

The study provides guidance of how the supplier, through direct interaction, engages in the learning process through keeping a customer-oriented dialogue. Supplier representatives’ product-specific knowledge is operative to the comprehension of customer processes. It is also decisive for the organizational learning outcome from card game encounters. Statistical customer research with all due respect, however, interaction is the key to forming value propositions supporting real value creation.

The study suggest an identification of mechanism supporting supplier and customer learning processes and show how supplier actions may influence the levels of customer learning within the context of discrete interactions. It suggests that customers’ (1) cognitive ability are to be supported in information search, (2) emotions are to be supported by recognition and appreciation and (3) behavioral elements of value creation are to be supported through the sharing of knowledge and skills.

Key words: S-D Logic, value co-creation, interaction, learning process, card game encounter
Preface

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Karlstad University, May 2013
List of abbreviations

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<td>S-D</td>
<td>Service-Dominant</td>
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<td>G-D</td>
<td>Goods-Dominant</td>
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<td>AC</td>
<td>Atlas Copco Rock Drills AB</td>
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<tr>
<td>SDE</td>
<td>Surface Drilling Equipment (Division within Atlas Copco Rock Drills AB)</td>
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<td>RT</td>
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1. Introduction

For companies in the nineteenth century, efficiency in production was the cornerstone of business knowledge. As today’s businesses environment becomes more aware of customers’ individual perception of value, transactions have shifted from tangibility (e.g. goods and equipment) to intangibility (e.g. skills and knowledge) (Vargo & Lusch 2004a). Moving from a Goods-Dominant (G-D) to Service-Dominant (S-D) Logic has shifted focus towards co-creation of value and relationships-orientation as the essential part of business feasibility.

The traditional view of company-centric value creation is becoming obsolete (Prahalad & Ramaswamy 2004). Singlehanded, the company is just a facilitator of potential value for the customer (Grönroos & Voima 2013). In recent studies, researchers have acknowledged that real value is created within the customer’s own integration of resources (Ballantyne & Varey 2006; Normann 2001; Grönroos 2008, 2011; Grönroos & Voima 2013). This makes customers more than just recipients of outcomes. They are sources of knowledge and information with potential to educate companies about their internal processes (Echeverri & Edvardsson 2012). Through interaction and expression of customer experiences, the firm has an opportunity to engage in sequence of learning together with customers (Ballantyne 2004; Payne et al. 2008) in order to jointly co-create value.

The understanding and meeting of customer’s needs in a cost-effective manner is the main cause of long-term business success (Lindstedt & Burenius 2003). Researchers have acknowledged the importance of interactions when uncovering customer needs, and discovering opportunities to co-create value (e.g. Ballantyne & Varey 2006; Fyrberg & Júriado 2009; Grönroos 2011; Grönroos & Voima 2013). However, studies regarding this topic are in general conceptual, and few findings are based on empirical evidence of how dialogical interaction contributes to value creation in practice. Based on a literature review describing interaction as a merging of processes (Grönroos & Voima 2013) and a process-based framework describing supplier and customer learning (Payne et al. 2008), this study investigates the card game as an activity for value co-creation.
1.1. The card game

Aiming for a statistical method of structuring, evaluating and documenting customer needs, Lindstedt and Burenius (2003) developed the customer card game. Routed in the theories of *the voice of the customer* (e.g. Griffin & Hauser 1993), the card game is an interactive survey method between customer and supplier that allows for an individual customer ranking of “stated” needs. These needs are extracted from a qualitative study of in-depth customer interviews made by the firm. The analysis of the interviews leads to the creation of a deck of cards, where each card represent one particular customer value stated as a phrase (e.g. “Low running cost”). In the game, the customer is asked to systematically rank their individual prioritizing of value statements, and further evaluate the experienced fulfillment of each value (for a more detailed explanation of the method see section 4.1.1).

In contrast to the commonly used customer survey, the card game encounter allows for the additional dimension of supplier-customer communication through direct interaction. The supplier thereby has the opportunity to engage in dialogue with the customer in the phase of playing the game. Taking this into consideration, the study aims to investigate the interactional dimension of the card game encounter as an activity for value co-creation.

1.2. Problem situation

Together with consultancy from the firm Value Model, Atlas Copco Rock Drills AB (AC) is in the transition phase of fully implementing the card game as a part of their marketing research program. As initially intended, the method aims to provide the marketing division with relevant customer values and satisfaction ratings to assess SWOT-analysis and segmentation of customers. Aside from traditional marketing purposes, the organization withholds ambitions to integrate the card game as an initial step to the Quality Function Deployment (QFD) program. Thus, functioning as a tool for assessing customer values that are to be implemented in future development of new products and services.

However, the organization within Atlas Copco experience somewhat diversified opinions regarding the efficiency of the card game. Accordingly, Atlas Copco calls for further investigations and academic support of *how* the medium of interaction within card game encounters is facilitated and utilized.
to achieve organizational learning, and also how AC-representatives acts to supports the learning process of customers.

1.3. Problem formulation and aim of the study

Grönroos and Voima (2013) highlight the call for how suppliers may gain access to the customers’ real value creating activities and Payne et al. (2008) request studies of value co-creation processes within the business-to-business sector. Considering AC’s situation and the lack of empirical S-D-research regarding the processes of value co-creation within encounters, this study provides the opportunity to investigate the card game encounter as an activity of customer and organizational learning through value co-creation.

With support from conceptual theories presenting interaction as a merging of processes (Grönroos & Voima 2013), and identifying the mechanisms of organizational and customer learning (Payne et al. 2008), the method of the study applies a qualitative approach to examine supplier representative's experiences of the card game encounter.

1.3.1. Purpose of the study

Through studying card game encounters, the purpose is to investigate how supplier representatives and customers engage in learning processes by co-creating value.

1.3.2. Research questions

Following the aim of the study, the author forms three research questions (RQ’s).

RQ1 How do card game encounters work as a platform for value co-creation?

RQ2 How do supplier representatives support the customer learning process during the card game encounter?

RQ3 How do the card game encounter contribute to organizational learning?
2. Literature review

Introducing the theoretical review, the author presents the traditional view of customer value and the heritage of the card game method. Preparing argumentation for RQ1, the chapter continues by identifying the difference between the G-D and S-D Logic perspectives on value creation and introduces a didactic model composed by Grönroos and Voima (2013) describing the locus of co-creation within merging of processes. Accompanied by the conceptual framework for value co-creation by Payne et al. (2008), the last section provides a more detailed view of the customer and supplier learning processes, relevant for answering RQ2 and RQ3.

2.1. Definition of the value concept and the card game method

Researchers have tried to compose a general definition of the value concept. Still, the term value is an ill-defined and vague expression to many. A general view is that value is created through increasing the customer’s well being or making sure the customer becomes better off in some aspect (Grönroos 2008; Nordin & Kowalkowski 2009; Vargo et al. 2008). According to Lindstedt and Burenius (2003), a generally accepted definition of customer value is:

\[
\text{Customer value} = \frac{\text{Perceived benefit}}{\text{Total expenditure}}
\]

Eq. 1. The general definition of customer value.

Following Eq.1, Lindstedt and Burenius (2003) argues that increasing customer value resides from either (a) increasing customers’ perceived benefit through satisfying needs and expectations or (b) reducing the total expenditure in terms of time, money and effort for the customer. Value has no relation to the cost of development, production or delivery of the product, but implies a complete dependency of “how well customer needs and expectations are met, and the alternatives available for comparison” (Lindstedt & Burenius 2003, p. 15).

Accordingly, customers have different needs (e.g. the same need can be evaluated differently, and reaction to costs are different) thus making value a relative concept. Comparisons between products and brands, is a culling of the customer’s expected benefit from a product.

2.1.1. The card game method

This definition of the customer value concept led Lindstedt and Burenius (2003) to development of a method purposed to capture the customer value-
positioning. To grasp customers’ prioritization of needs, as well as grading the present fulfillment of those needs, Lindstedt and Burenius (2003) argues that a statistical analysis is required. Similar to a survey, the card game method\(^1\) provides a quantitative approach of gathering customer information and satisfaction rating. The customer in general performs surveys individually, in the physical absence of supplier. The card game can be applied within the context of meeting, allowing supplier representative(s) to be present throughout the execution phase. Thus, the card game method adds the communicative dimension of direct supplier-customer interaction.

With a brief introduction of defining the traditional value concept and identifying the interactive dimension of the card meeting, the literature review further applies the contrasting view of value as created by the customer. Accordingly, a distinction between Good-Dominant and Service-Dominant Logic is required and relevant for investigating the card game as an activity for value co-creation.

### 2.2. Distinguishing Goods-Dominant from Service-Dominant logic

Jaworski and Kohli (2006, p. 109) states: “The role of a producer traditionally has been viewed as the development and delivery of goods and services, and the role of the customers has been viewed as the consumption of those goods and services”. Studying the Service-Dominant (S-D) Logic, lessons can be learned from Vargo and Lusch’s (2004a) article about evolving to a new dominant logic in marketing. “Briefly, marketing has moved from a goods-dominant view, in which tangible output and discrete transactions were central, to a service-dominant view, in which intangibility, exchange processes, and relationships are central.” (Vargo & Lusch 2004a, p. 2).

#### 2.2.1. Operand vs. Operant resources

Explaining the two theories, Vargo and Lusch (2004a) introduce the terms operand and operant resources. In definition, operand resources refer to tangible and static resources on which operations are performed to produce an effect (e.g. equipment, visible goods or natural resources). Operant refers to intangible and dynamic resources that are employed to create value through acting on operand resources or other operant resources. Operant resources

\(^1\) A formal purpose and description of the card game method can be found in Lindstedt and Burenius (2003) (p. 510-511).

\(^2\) Nonaka and Takeuchi (1995) distinguish between explicit and tacit knowledge. Explicit knowledge is articulated, codified and stored information that allows easy transition between actors. Tacit knowledge is more
constitute the competencies and capabilities of the firm, and comprise knowledge, skills and information.

Goods-Dominant (G-D) Logic argues that value is produced and embedded within operand resources (goods) by the producer. These goods are then sold and distributed (value-in-exchange) to customers (Vargo & Lusch 2004a). Companies with the goods-centered view ”set all decision variables at a level that enables it to maximize the profit from the sale of output”, and the products ”should be standardized and produced away from the market” (Vargo & Lusch 2004a, p. 5).

In S-D Logic, marketing efforts implies a continuous social and economic process with main focus on operant resources “with which the firm is constantly striving to make better value propositions than its competitors” (Vargo & Lusch, 2004a, p. 5). Thus using intangibles such as skills and knowledge where value is co-created with customers through interaction.

In G-D Logic, the customer is an operand resource that are to be segmented, penetrated, distributed to and promoted to and are only acted on “to create transactions with resources” (Vargo & Lusch 2004a, p. 7). However, this definition is not sufficient to embrace the S-D definition of customer roles. S-D Logic implies customers primarily function as an operant resource (Vargo & Lusch 2004a), viewed as a valuable source of information and even as a partner that might contribute to marketing, innovation and production of the firm (Echeverri & Edvardsson 2012). Vargo and Lusch (2004a) further identify marketing as a process of interacting with customers.

2.2.1. Value-in-use and creation of value-in-exchange

Grönroos (2006) described S-D logic with “process nature”. In contrast to G-D Logic, customer value is not embedded in products. Instead, it emerges in customers’ own value generating process as value-in-use (Grönroos & Voima 2013), illustrated in Fig. 1. Value-in-use is not a customizable and exchangeable offer, but rather the customer process of extracting value from the integration of internal resources (Grönroos & Voima 2013). As Moran and Ghoshal (2009, p. 409) states: “it is not resources per se, but the ability to access, deploy, exchange, and combine them that lies in the heart of value creation”. A definition stated by Korkman (2006) suggests that value is embedded in the practices of the customer. It is only the customer itself that fully understands their process and the integration of resources. In order to
create value, the customer must, according to their individual needs and usage situation, learn to maintain, repair, and adapt to the supplier’s offering (Vargo & Lusch 2004a). S-D Logic views customer’s value creation as a dynamic, interactive and unconscious series of activities performed by the customer to achieve a particular goal. Value creation depends on the customer’s accessibility and utilization of operant resources (Normann 2001), but is also realized through possession, usage, or mental states (Grönroos & Ravald 2011; Heinonen et al. 2010).


Another dimension critical for understanding value-in-use is *when*. Value creation is not a linear process sequential to the service provider’s actions. This makes the moment of value creation unclear. As argued by Echeverri and Skålén (2011) value is a function of the interaction between subjects (or between subjects and objects) over time. Thus value is an on-going process, extracted from time of usage.

Grönroos (2008, 2011) refers to customers’ value creation within the customer sphere to be *independent* of the provider. “In independent value creation, the customer only interacts with resources obtained from the firm, whether physical, virtual, mental, or imaginary - but not with the firm’s processes.” (Grönroos & Voima 2013, p. 142). However, the customer’s value creation can still be influenced from other customer-related actors, such as friends and their own customers.

**2.2.2. Value facilitation**

In the absence of *direct interaction*, the supplier can create only potential value-in-use (illustrated in Fig. 1 as creation of value in exchange). The supplier then
acts as a facilitator of value-in-use (Grönroos & Voima 2013). Value facilitation is not directly a part of the value creation process, but rather an opportunity to enable customers to create value-in-use on their own. Activities performed by the supplier (e.g. production, R&D) stand alone, thus only resulting in outputs of potential value creation. In this scenario, the supplier and customer processes run in separate from each other, without influences from the other party.

Viewing value as produced and embedded in the outcome by the provider, traditional marketing view (G-D Logic) has ignored the customer sphere and the creation of value-in-use (see Fig 1.). However, in recent years, researchers have recognized the advantage for suppliers to gain access to the customer sphere (Grönroos & Voima 2012; Grönroos 2008; Vargo & Lusch 2004a; Heinonen et al. 2010).

2.3. Interaction and value co-creation

Identifying the distinction between value embedded in products and value-in-use enables the literature review to further define the meaning of value co-creation and explore functions within co-creation activities. Grönroos and Voima (2013) argue that co-creation is a function of direct interaction, and other conceptual studies have pointed out value co-creation’s dependency of interaction (Ballantyne & Varey 2006; Fyrberg & Jüriado 2009; Grönroos 2011; Grönroos & Voima 2013). To address RQ1, further studies will review how interaction (e.g. interaction within the card game encounter) can function as the platform for value co-creation between supplier and customer.

2.3.1. Merging and coordination of processes

As stated by Ballantyne (2004) (see also: Ballantyne & Varey 2006), interaction is a dialogical process. The core of an interaction is to communicate physically, virtually or mentally with another party (Grönroos & Voima 2013). A dialogue is not a unidirectional communication that considers one person’s perspective alone, instead the purpose of the dialogue is open-ended, discovery-oriented, and value creating (Ballantyne & Varey 2006). Essentially, interaction describes a merging of supplier and customer into a coordinated process, where both parties are active (Grönroos & Ravald 2011), accordingly allowing both actors to also influence each other’s process. For example, within the context of the card game encounter, the customer may express the need for shorter delivery time of new machines, thus he/she potentially influences the supplier’s
production process. Accordingly, the supplier can positively influence the customer’s value creation process by reducing the delivery time on new machines, or telling him/her the requested delivery time is not possible, thus jeopardizing to destructing (Echeverri & Skålén 2011) value for the customer.

The customer’s value creating process is closed to the supplier, however considering an interaction may resolve in a merging of processes (instead of two processes running in parallel, see Fig. 1), the supplier has an opportunity to gain access to the customer sphere and influence the customer’s experiences and practices during usage (Grönroos & Voima 2013). This merging of processes represents the joint sphere (illustrated in Fig. 2).

![Diagram](image)

**Figure 2. A value-in-use creation model: Joint sphere as a platform for interaction.**

### 2.3.2. Interaction as a platform for value co-creation

Following the value-in-use concept, Grönroos and Voima (2013, p. 141) argue: “the customer is in charge of value creation in the joint sphere, but through the dialogical process of direct interaction, the provider may influence the customer’s value creation process and serve as a co-creator”. In other
words, co-creation of value can only occur within direct supplier-customer interaction.

However, there are no guarantees that the outcome of the direct interaction is value creating for the customer. A customer could still end up being worse off than before. For example, if a supplier forces a visit when the customer is stressed or in a bad mental state, there is always a risk for value destruction. Thus, the interaction’s impact on customers’ value creation may be negative (value destructing), or have no effect at all (Echeverri & Skålén 2011). Accordingly, Grönroos and Voima (2013) argue that interaction should only be viewed as a platform where potential value co-creation can take place.

The quality and the outcome of the interaction become essential for the value creation experienced by customers (Fyrberg & Jüriado 2009), and consequently, so does the provider’s understanding of this process (Grönroos & Voima 2013). Hence, engaging in a direct interaction is crucial for understanding the customer's processes and the supplier should act to support these processes (Payne et al. 2008). Positive influence - as a result of insights through directs interaction - of the value creation process allows the supplier to shift from a “traditional” facilitator of value to a co-creator of value (Grönroos & Voima 2013). Supplier representatives engaging in customer interaction (e.g. encountering the customer in the card game) therefore have a crucial role as part-time marketers (Gummesson 1991). Customer interactions requires an effective managing of the supplier representatives to learn more about the customer and its individual and collective context, thus enabling them to co-create value in the joint sphere (Grönroos & Voima 2013).

**Dynamism of the value spheres**

Grönroos and Voima (2013) explain that the value sphere is dynamic. The supplier can expand the joint sphere and enable the co-creation of value by creating more opportunities for interaction (e.g. card game encounters). In illustration, the two spheres in Fig. 2 then moves closer to each other, increasing the area of the joint sphere.

Considering the interaction may take place at different stages of the production process (e.g. the week before delivery or in the development phase of new machine), the area of the joint sphere may expand accordingly. For example, emphasizing an interaction in an early stage of the provider process (e.g. design or development, see Fig. 1), the customer may consequently have a
greater influence on the provider’s continuing processes. Thus, the customer influence may dominate the production processes of the supplier.

2.4. A conceptual framework for co-creation of value and learning processes

Having provided an overview of the locus of interaction and value co-creation between supplier and customer, the literature review magnitudes the area of the joint sphere and applies a more ongoing process-based perspective of the interaction between supplier and customer. Presenting the conceptual framework for co-creation of value (Payne et al. 2008) assists our understanding of value co-creation and learning processes within the card game encounter relevant for answering RQ2 and RQ3.

According to the S-D Logic presented by Vargo and Lusch (2004b) marketing should be viewed as a set of procedures, tasks, mechanisms, activities and interactions in which the company aims to facilitate co-creation of value with the customer. Through interaction and expression of customer experiences, the firm has an opportunity to engage in sequence of learning together with customers (Ballantyne 2004) in order to jointly co-create value. Through a dynamic long-term relationship, the company and the customer share knowledge through common activities and experiences (Payne et al. 2008).

Viewing marketing from a process-based perspective allowed Payne et al. (2008) to compose a conceptual framework (See Fig. 3) conceding the processes of customer and supplier, as well as highlighting the importance of interaction for co-creation between these actors.

As illustrated by Fig. 3, the framework comprise of: (a) continuous learning for both actors, represented by the top and bottom arrows in the figure, (b) the relationship experience on the customer side and (c) the co-creation and relationship experience of the supplier. In similarity to the joint sphere, Payne et al. (2008) illustrates the process and practices of interaction between the actors as the encounter process. However, in contrast to the joint sphere, the encounter process is to be viewed as a set of several interactions between supplier and customer.
2.4.1. Customer processes

Starting with an overview of the customer processes and a description of the relationship experience, the following section provides a more detailed view of the mechanism supporting customer learning (RQ3). "In a business-to-business relationship, the processes are ones which the customer organization uses to manage its business and its relationships with suppliers" (Payne et al. 2008, p. 85).

The relationship experience

Payne et al. (2008) suggest that the relationship experience of the customer to be viewed from two perspectives – information-processing and experiential approach. Making judgments of past, present or imagined future experiences refer to the customer's cognitive ability of information-processing (Oliver 1999). This approach expects the customer to be willing and knowledgeable in order to make rational decisions about benefits and sacrifices of products (Zeithaml 1988), services and relationships (e.g. Grönroos 1997, 2000). In order to make these rational decisions, the customers engage in information searching and evaluation of available product and service options.

However, information-processing’s objective view of the relationship experience does not embrace a complete picture of consumers’ behaviors.
Consumption is not necessarily informative, rational and goal-oriented. Thus, the *experiential approach* argues that underlying and non-utilitarian aspects of processing decisions also influence customers. Therefore, one also needs to emphasize the *emotional* influences of consumption. Experiential consumption reflects customer value in a more subjective manner, where value resides from the *experience* of consumption rather than from the object of consumption (Payne et al. 2008).

In addition to traditional marketing views, the relationship experience argues for a broader understanding of the elements (emotion, cognition, behavior) beyond information-processing. Thus understanding cognition requires a memory-based and objective view-point as well as an underlying and subconscious perspective (Holbrook & Hirschman 1982).

Stemmed from the theories provided by Beckman (1989), Payne et al. (2008, p. 87) “use emotion as an umbrella term for feelings, moods and affect-based personality characteristics”. Customer actions, or behaviors, result in experiences, e.g. purchase of a product leads to usage of the product. As S-D Logic implies, understanding customers’ value-in-use is an essential part for co-creating value. The perspective of *behavior* should therefore move beyond the actual purchase decisions and also include experiences of using product and services.

*Customer learning*

Payne et al. (2008, p. 87) states: "The customer’s experience of a supplier and its products is a culmination of the customer’s cognitions, emotions and behavior during the relationship”. The elements of the relationship experience are interdependent, and function as the linkage to support the customer learning process. Thus, understanding cognition, emotions and behavior in broader experiential sense, implies supporting the customers in their learning process. “The supplier’s role is, therefore, one of providing experiential interactions and encounters which customers perceive as helping them utilize their resources” (Payne et al. 2008, p. 87). Changes in attitudes and preferences towards the supplier represents the outcomes of the customer learning process. To facilitate customers’ capability to learn, the supplier can develop methods of interaction (e.g. potentially the card game).

Payne et al. (2008) distinguish between three different levels of customer learning. The simplest form of learning is *remembering*, which refer to the
customer paying attention to a company, its products or services. Remembering is generally the drive within traditional marketing efforts to achieve customer awareness.

*Internalization* is the next level of customer learning and refers to the process of interpretation and assimilation of experiences. From the experiences of encounters, the customer has adopted a supplier message, and is revived to take some kind of emotional stand, or opinion, about the supplier. Hopefully, this stand generates a positive perception of the supplier. Internalization is commonly used in brand building to create a memorable association of a brand or a product.

The third, and most complex form of learning is *proportioning*. Through reflecting on their own processes, and how they involve the supplier, the customers engages in a “double-loop learning” (Argyris & Schón 1978), that may give them insights to perform new or disengage from old behaviors within their value creation process. Payne et al. (2008, pp. 87-88) state: “This usually results in customers not only fully understanding the supplier’s value proposition and being attracted to it, but also engaging in new types of behavior in terms of how the value proposition relates to their lives, objectives and aspirations”.

By emphasizing a dialogue with customers (e.g. inviting to a card game), the supplier aims to explore and support the customer’s internal processes, thus allowing the supplier to shift the customer from attention seeking to a higher level of learning process.

*Customer needing*

Strandvik et al. (2012) show empirical support that customers do not assess products separately, but instead what the matching of these products implies for the customers themselves. Customers showed higher willingness to reveal business goals and strategies if expecting this would benefit their business in the future. From a customer view, Strandvik et al. (2012 p. 135) states: “Listening instead of persuading is the key to successful sales”. Focusing more on learning about the individual customer’s situation instead of promoting own products gave a positive feedback from customers.
2.4.2. Supplier processes

As covered earlier (see section 2.3.2), S-D Logic implies that the customer creates value-in-use independently. In order to co-create value with its customer, the supplier interacts to understand the mechanism that fosters customer’s value creating process (Grönroos & Voima 2013), hence engages in learning with the customer.

The conceptual framework for co-creation of value present processes purposed to design and deliver customer experience, and facilitate organizational learning. Processes relevant to the study of the card game encounter involve: (1) planning and testing value co-creation opportunities and (2) implementing and managing customer encounters. As the S-D Logic implies, these processes put heavy emphasis on managing the operant resources (knowledge and skills). Starting with an explorative approach to reveal customers value-in-use creation processes, sequentially “a supplier can design its own processes to align with those of its customers” (Payne et al. 2008, p. 88).

Planning and implementation

According to traditional marketing theory (G-D Logic), the supplier’s business orientation is built inside-out, thus decisions regarding business and product categories are formed from the understanding of current organizational resources and competencies. In contradiction, S-D Logic implies initially exploring and understanding the customer’s value creating processes and further selecting and implementing support for these processes. Thus, the planning of co-creation can be viewed as an outside-in process where the ideal value proposition is formed from customers’ value-in-use. Payne et al. (2008, p. 89) argue that: “Value co-creation demands a change in the dominant logic for marketing from ‘making, selling and servicing’ to ‘listening, customizing and co-creating’.”

The planning of co-creation requires cross-functionality. Depending on their area of expertise and previous experiences, people from different parts of the organization may have different views on customer processes. Implementing cross-functionality in customer interactions provides a more complete, detailed and diverse study of the customer situation (Lindstedt & Burenius 2003).
Organizational learning

Traditional marketing theory assumes that knowledge creation emerge only within the boundaries of the firm. As implied by the S-D Logic, knowledge is a key operant resource (Payne et al. 2008). The knowledge to understand customers’ value creating process does not solely consist of hard data, such as customer satisfaction. As Ballantyne (2004, p. 120) argues ”measuring customer satisfaction does not tell you how to make needed improvements”. Knowledge also embraces the deeper understanding of customer experiences and processes. Customers are vital sources of knowledge, thus engaging in cooperations with them gives opportunities to constantly renew the source of competitive advantages (Anderson & Narus 1991; Nonaka & Takeuchi 1995). Sawhney and Prandelli (2000) identify absorptive capacity and organizational sharing capacity as fundamental competencies necessary to collect and comprehend customer knowledge.

Absorptive capacity

The firm’s absorptive capacity refers to the “ability to recognize the value of customer knowledge, sense and incorporate it within their organization” (Sawhney & Prandelli 2000, p. 265). From a marketing perspective, absorptive capacity entails the ability to engage in dialogue with customers.

Goffin and Koners (2011) argue that an effective transfer of explicit knowledge generally requires personal contact and shared experiences. However, much of the customer’s knowledge is tacit (von Hippel 1994), thus difficult to communicate, and can only be acquired through direct interaction (Grönroos & Voima 2013). Sawhney and Prandelli (2000) argue about the importance to organize events that give customers the opportunity to meet and speak with company people (e.g. card game encounters), encourage the dialogue and through that build competitive advantage.

Essentially, absorptive capacity of customer knowledge aims to assist the complex learning of customers’ value creating processes to further compose accurate value proposals (Sawhney & Prandelli 2000).

The supplier’s inability to develop a common language with its customer affects the relationship experience. Misunderstandings or misinterpretations of

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2 Nonaka and Takeuchi (1995) distinguish between explicit and tacit knowledge. Explicit knowledge is articulated, codified and stored information that allows easy transition between actors. Tacit knowledge is more abstract in nature, and comprises the knowledge that is harder to express verbally (e.g. riding a bicycle).
the dialogue within customer encounters are considered an absorptive capacity failure, consequently inhibiting the process of organizational learning (Sawhney & Prandelli 2000).

**Organizational sharing capacity**

In order for the organizational learning process to benefit from the absorptive capacity, the firm must have the ability to spread knowledge within the organization. The knowledge-based view (Wernerfelt 1984) implies that knowledge cannot simply be imported like an asset. Knowledge has to be reproduced and interpreted by internal sources of the firm, even in the presence of customers. “New knowledge co-creation happens only if firms favor customer knowledge retention, dissemination, re-elaboration, and continuous feeding with new, fresh contributions” (Sawhney & Prandelli 2000, p. 266).

Enhancing an interactive business strategy, though customer collaboration and dialogue, requires a dispersion of information throughout the whole organization. In that sense, all business processes focus on customer value and identification of opportunities to co-create value with customers (Sawhney & Prandelli 2000). Methods for efficient and effective knowledge sharing are for example cross-functional meetings (Lindstedt & Burenius 2003).

Considering much of the customer knowledge is experiential and tacit in its nature (von Hippel 1994), firms need to adapt an “expeditionary marketing approach” to involve customers in their knowledge creation process and assist their articulation of desires (Leonard & Rayport 1997). Thus, a sharing capacity failure comprises the supplier’s inability to harness customer knowledge within the organization. Customers who put time and effort into the co-creation process also expect the supplier to utilize and respond to the received knowledge. In the lack of feedback or result, the supplier may appear as unreliable, thus negatively influencing future interactions.

**2.4.3. The encounter process**

Since delivery of a service is not necessarily the unequivocal purpose for customer meetings, service management researchers more commonly use *encounters* as an encompassing expression of business interactions (Åberg 2007). In the process-based concept (Payne et al. 2008) the *encounter process* is the series of interaction between supplier and the customer and can involve various functional departments (cross-functional). In Fig. 3, the encounter
processes is represented by the two-way-arrows linking the customer and supplier processes.

The purpose of the encounter can be strictly an exchange of resources (e.g. money, products, work, information, time) or collaborative practices where the actors meet and jointly perform activities with a common purpose. Grönroos (2006) argues that an understanding of the content and form of these interactions (understanding the customers value-in-use) is necessary to engage in organizational learning. Through direct interaction, the provider aims to explore customer experiences, practices and individual preferences in order to engage in learning about the customer.
3. Methodology

This chapter provides overview and argumentation for the methodology to execute the study of the card game encounter in order to further understand customer and organizational learning in association with co-creation.

3.1. Qualitative research approach

The qualitative approach was chosen because card game encounters relation to value co-creation, learning and interaction is under-explored in previous research. A qualitative approach aims to answer questions of how, why or what. Patton (1990, p.22) defines qualitative data as “detailed descriptions of situations, events, people, interactions, observed behaviors, direct quotations from people about their experiences, attitudes, beliefs, and thoughts and excerpts or entire passages from documents, correspondence, records, and case histories”.

The qualitative method is flexible in its nature, thus it does not consider a specific progressive pattern. It implies an interactive process between research question, structure of investigation, collection of data and analysis of data (Jacobsen 2002). Consequently, the design of the research questions change over time as the empirical study narrows down to an accurate result. This approach was suitable considering the empirical results brought insights that advocated a later adaption of the research questions.

Argued by Jacobsen (2002), the qualitative approach is suitable when the study aims to interpret and understand a specific concept or phenomenon. Anchored in theories of co-creation, this study aims to reveal the factors affecting the learning process of organizations and customers in the context of the card game encounter. To gain insight of the interaction between employees and customers, and investigate how these actors engage in the learning process, the individual experiences of employees must be investigated.

3.2. Research strategy

Considering the lack of research of card game encounters, the research inquires an exploratory approach. Thus implying an investigation of employees’ individual perception of interaction and learning.

Further, the research applies a cross-sectional approach, thus focusing on a specific phenomenon at a single moment in time (Ruane 2005). A longitudinal
approach was considered, but the short time frame (five months) and due to the respect of employees’ work-time, this approach was dismissed. Instead the research aim to capture the status quo of how card game encounters are carried out today.

Considering that the organization within Atlas Copco Rock Drills AB have experience of using the card game at several occasions, the case study approach lets us explore these activities in a real life context (Yin 2003). In contrast to a general result-orientation provided by the extensive research, the case study focuses on one specific example. Accordingly, the case study of this investigation focus on investigating the activity of card game encounters between Atlas Copco and its customers.

3.3. Data collection

The empirical study for this thesis aims to reveal employees’ individual experience of value co-creation within card game encounters. Additionally, the study needed to address research subjects regarding organizational and customer learning through interaction. Observational studies of the customer card meeting were considered. However, observations are a time-consuming method associated with high uncertainty regarding the validity of the outcome (Bryman & Bell 2007). In order to control the data collection towards my research questions, the method of semi-structured interviewing was found most suitable.

The method of the semi-structured interview intended to unravel the employees’ own interpretation of the interaction within the card game encounter. The interview structure was formed around an interview guide (Bryman & Bell 2007) and contained sets of predetermined open-ended question (see Appendix 2) to focus the collected data towards the research questions. In contrast to structured interviews, the semi-structure emphasize a dialogue between interviewer and respondent, thus giving interviewees the opportunity to raise topics of particular interest (Bryman & Bell 2007).

The semi-structured interview is also suitable since the study aim to explore the individual experience of the card game encounter. By allowing respondents to articulate unreserved explanation and elaboration on answers, the interviews covered employees’ individual perceptions of relevant topics:

• Interaction through dialogue
• Customer learning
• Organizational learning
A sum of six interviews where conducted (50-60 minutes each). Five were conducted in Swedish, one in English. Five were performed face-to-face at Atlas Copco’s facilities in Örebro, and one where performed over telephone. Interviews were voice-recorded and transcribed verbatim in word documents.

To form an understanding of the card game encounter, data collection also comprised documents (e.g. rules of the card game) and mail received from the thesis employer at Atlas Copco Rock Drills AB. Three meetings (approximately 1h each), and four Skype-meetings (30 minutes each) where attended, with the purpose to direct the approach of the study and update the employer about the progresses of the study.

3.4. Interviewees

Interviews with customers where considered, but with restrictions from Atlas Copco, this was excluded from the method.

Interviewees consisted of two product portfolio managers (marketing), two product managers (marketing), and one construction engineer from Atlas Copco Rock Drills AB. In addition, one interview was also conducted with the consultant from the firm Value Model, who helped Atlas Copco to implement the method of the card game. Through an interview with this consultant, the author established deeper insight of how the card deck is developed and used in marketing research activity.

In order to focus the empirical study around the card game encounter, the interviewees where required to have previous experience of playing the card game together with customers. Due to ethical concerns and with respect to the integrity of interviewees, total anonymity was established, thus no names where mentioned in the writing of the report.

3.5. Data analysis

Analyzing the empirical data received from the interviews, the initial phase was to conceptualize the raw data. Each interview was transcribed verbatim. Analyzing these interviews generated first-order codes relating to the research questions and the aim of the study. First-order codes follows the structure of the interview guide (see Appendix 2) and were:

- Respondents background
- Respondents description of AC’s organization
- Interpretation of the card game purpose
- Characteristics of a good/bad meeting
• Interaction
• Customer learning
• Organizational learning
• Customer’s understanding of the value statements
• Improvements of the card game method

First-order codes were used to summarize parts of the transcription. Through comparing the coding of the different interviews, higher order categories were created. These categories provides the backbone of the findings section and are:
• Employees’ interpretation of the card game purpose
• Interaction
• Employees reflection regarding customer learning
• Organizational learning.
• Customers’ misinterpretation of the value statements

3.6. Validity and reliability

As argued by Kirk and Miller (1988), in order to maintain objectivity and credibility in research, one must consider reliability and validity. Potential threats to the reliability of the research conduct: participant error or bias, and observer error or bias (Robson 2002).

Considering this study is based single-handed on employee’s descriptions, one must acknowledge the absence customers’ own interpretation of the encounter. Viewing it only from this perspective leaves the individual customer’s experience unnoticed and thus putting more focus on the organizational learning outcomes. However, one must acknowledge that employees still possess the ability to recognize the perceived learning of the customer, thus minimizing the unreliability of the study.

When applying a qualitative analysis through semi-structured interviews, the participants must be thoroughly informed of the context of each question. This is important in order to provide homogeneous interpretations amongst interviewees and to assure an accurate result of the study. Thus, the interviews composed of simply formulated sentences without any multi-interpretive words, such as “co-creation” or “value-in-use”, to minimize the fallacy of the response. One cannot assure a completely homogeneous interpretation, however participants where encouraged to provide counter-questions thus providing the opportunity to reformulate the question.
With concerns of potential business interest from the consultant at Value Model, the author excluded these interview findings from the empirical study (section 4.2). Thus, the findings from this interview merely contributed to the understanding of developing the card deck (see section 4.1.1. *The voice of the customer*).

The interviews were conducted neutrally without any influencing questions. Open questions were used to receive broad knowledge of topics raised. Respondents were also provided with the opportunity to express answers freely beyond the intension of the question. When applying an exploratory approach, respondents are vital participants in the formulation of both theory and research question, thus allowing an active and open-minded contribution is essential to the study.


4. Findings

Chapter four comprises the findings of the study. The chapter begins with a brief background of Atlas Copco Rock Drills AB and phases of developing and playing the card game. Then, the results of the empirical study are reported comprising the major part of the chapter. This is the last section of the chapter and reviews the findings related to the research questions.

4.1. Background

Atlas Copco is a global organization founded in 1873, with activities all around the world. In the year 2012, they had 39 800 employees. Atlas Copco Rock Drills AB (AC) functions within the area of Mining and Rock Excavation Technique and is divided several divisions. Two of them are RockTec (RT) and Surface Drilling Equipment (SDE).

The RockTec division develops and manufactures rock drills, rotation units and automation solutions for the Underground Rock Excavation and SDE divisions. SDE specifies on surface drill rigs and equipment, and has production centers in Sweden, China, Japan, Austria, Italy and India. In addition to production centers, the division has distribution centers and customer centers around the world.

4.1.1. The voice of the customer

Atlas Copco Rock Drills AB (AC) has been helped by consultancy from an external company when implementing the method of the card game. Through an interview with this consultant the author established deeper insight of how the method is developed and implemented in marketing research activity. As an all-encompassing expression, the method is referred to as the voice of the customer and is divided into two phases, a qualitative and a quantitative phase. The qualitative phase comprises the development and the building of the card deck. This card deck is then to be used in the quantitative phase comprising playing the game and collecting customer information.

The qualitative phase - Creating the card deck

The qualitative phase applies an exploratory approach of gathering, processing and compiling customer articulated and underlying needs. Open-ended unstructured interviews with customers provides the raw-data and groundwork for the further developing of the card deck. The consultant explains the interviews as following:
“The interviewing technique is the same technique as the police use in their interrogations. Basically that means that I, as a seeker of real information, must be able to implement trust in the customer.”

Even though the interviews are unstructured, the interviewer aims to steer the dialogue towards the areas defining the customer value: benefits, time, money, and effort (See Eq. 1).

The next step is the processing and compiling of the raw data. From several pages of documented interviews, marketing personnel aim to extract the most essential and representative customer values. Customers’ definitions and explanations of value can be patterns of underlying concepts or just fragments of sentences or “in-quotational” spoken needs. In order to get a representative width of customers, a minimum of 30 interviews are conducted within different sub-industries (e.g. construction, selective mining or volume mining) and regions. The most corresponding findings are further categorized. The consultant from the firm Value model explains:

“...we make an affinity diagram. We organize and group each need, without misrepresenting the actual customer statement”

The final step of the qualitative phase comprise of defining and phrasing of the “value statements” on the cards. The outcome is a deck consisting of 20-30 cards, where each card provides a particular value in form of a phrase (see Fig. 4).

![Figure 4. A random sample from the card deck portraying the value statement (i.e. “Low numbers of unplanned stops”), the rank field and the mood-scale.](image-url)

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3 “Affinity diagrams are a popular “Six Sigma” tool for organizing ideas into categories based on their underlying similarity; affinity diagrams help to identify patterns and establish related groups that exist in qualitative datasets” (Shafer et al. 2005, p. 200)
The quantitative phase – The rules of the game

Comprising the quantitative phase is playing the game and the quantitative data collecting. The game requires at least one AC-representative and one representative from the customer company (there can also be more representatives from both actors). The following provides a walkthrough of the card game.

As a first step, the administrative data and keys are filled out by the AC-representative alone or together with the customer (see Fig. 5). These cards display the key attributes and characteristics of the customer (e.g. which region, what rock conditions they work with or what level of rig sophistication). The customer is only allowed to choose one option for each “Key”. If more than one option are applicable, the option most equivalent to the customer is chosen.

Secondly, the customer has been provided with the card deck consisting of 26 cards, each card representing a specific value statement (see: Appendix 1 for all value statements). On each card there is also a square to indicate the ranking of the particular card, and two mood-scales (satisfaction scales) representing AC’s and the competitor’s current fulfillment of the need (see Fig. 4). The method proceeds as follows:

(1) The customer is asked to place each card (value statement) in one of following piles: Decisive, Desirable or Irrelevant (See Fig. 6). When done, all cards should be placed in one of the three piles. The AC-representative(s) is present in order to provide an explanation of the value statement if necessary.
(2) The customer is asked to prioritize each card individually from most important to least important. Starting with the “Decisive” pile, then the “Desirable” and last the “Irrelevant” pile. When finished, the card with highest priority should be on top, and the lowest in the bottom.

(3) The AC-representative writes the unique rank (1-26) of each card in the “rank field” (see Fig. 4).

(4) Starting from the top of the deck (from highest to lowest priority), the customer puts a mark on the “mood scale” (see Fig. 4). (a) How he/she feels that AC is satisfying the value stated on the card. (b) How he/she feels that a particular competitor is satisfying the value. Write the name of the chosen competitor on the first card.
4.2. The empirical study

Having described the stages of developing the card deck and provided a walkthrough of the card game rules, the empirical study comprise findings from interviews conducted with the product portfolio managers, product managers, and the construction engineer. The topics are divided according to the data analysis described in section 3.5.

4.2.1. Employees interpretation of the card game purpose

A mutual denominator for respondents’ description of the purpose was a method for organizing the customers’ prioritization of needs. Four of the respondents argued that the card game is primary used for statistical purposes to provide information for the marketing department. One of the respondents stated:

“The purpose of the customer card game is to get statistics. If we haven’t got any numbers that reflects the customer it’s hard to point something out in particular.”

Another respondent from the marketing division explained:

“The game is mainly for our marketing people to know the customer needs, customer focus, and what customer value we can provide. That is the most important part of our job.”

Four of the respondents explained that these meetings also work as a benchmarking tool of estimating how well AC is fulfilling particular needs compared to other competitors. Together, prioritization, satisfaction and key customer characteristics found the information base for identifying segments and further perform a SWOT-analysis on the different markets. A majority of respondents believe the card game fulfills this purpose, however the number of games performed so far does not provide enough representation to make credible predictions in the SWOT-analysis. One of the respondents highlights the importance of maintaining the balance between short- and long-term goals.

“We should put more effort into these card games... but it is hard to have a long-term focus especially when it’s burning somewhere. It’s much easier to take the short profitable path instead of maintaining a balance in the things you do.”
Card game vs. Surveys

The respondents are unanimous that the card game is more efficient marketing tool than simply sending out a survey. One respondent express criticism towards surveys:

“Surveys are terribly boring. They are everywhere. A face-to-face conversation enables the customer to elaborate more on answers and also to get answers on individual questions.”

Another respondent criticize the customer satisfaction surveys:

“You can be satisfied even though your results are not good. You can be unsatisfied even though your results are fairly OK… The survey does not provide the customer motives.”

One respondent believes that many customers question the effectiveness of surveys and questionnaires (e.g. regarding satisfaction).

“They are used to making surveys and not seeing any result.”

4.2.2. Interaction

Four respondents indicates interaction as key characteristic for a good meeting. A good meeting is when the customer: actively explains how and why they choose to prioritize a certain value; elaborates on explaining their situation and methods of usage; and asks questions about the value statements.

Approaching the customer

Four respondents state that it is important to inform the customer about the actual purpose of the card game meeting for having a qualitative interaction. If the customer believes revealing important information about processes will benefit him/her in the future, the customer is in general more motivated to communicate. The following presents two scenarios when the customer usually misinterprets the purpose of the card game.

(Scenario 1) Two respondents express their concern regarding sales representatives visiting customers. Customers see sales representatives primarily in negotiations about price. Consequently, also relating the situation of the card game to be a negotiation, thus affecting the quality of the interaction. One respondent argues:

“This method is not for selling purposes, the situation is supposed to be natural.”…”If only a sales representative (single-handed) performs the meeting, there is always a risk of positioning.”
Further the respondent argues that a positioning inhibits the customer’s communication of relevant information to understand the customer situation (e.g. how they use resources). Another respondent argues that revealing information will be turned against them in future negotiations:

“Eventually they will have negotiations with the same person. Revealing information at this meeting will inhibit their argumentation in future negotiations. This restricts them from revealing what’s bad and what’s good.”

One of the product portfolio managers at RT further argues that it is a smaller risk for a dishonest dialogue when representatives from the product company (SDE or RT) come and visits. The respondent explains:

“When we show up there is no risk for positioning… we usually understands what the customer is trying to describe.”

(Scenario 2) Having enough knowledge, and understanding what the customer explains is vital for the representative’s credibility. For this matter, some respondents are critical to hiring consultancy agencies to perform the games. One respondent explains:

“In contrast to hiring consultancy, we (the product company) have product knowledge and know how products are applied… consultants hired to perform marketing research just have the knowledge about the method of the game. They will not understand what the customer is trying to express, and they cannot provide accurate follow-up questions.”

The respondent explains further that the quality of the interaction suffers when hiring consultancy:

“The interaction is bad when sending a third-party.”

Interaction and the emotional state of the customer

A majority of respondents argue that the emotional state of the customer affects the dialogue. One respondent provides examples characterizing a good and a bad meeting:

- The good meeting: “The customer seemed comfortable in talking about their situation, gave elaborate reflections and did not seem bothered of our visit.”
- The bad meeting: “The guy was very nervous and shy. He didn’t say anything and we got very shallow answers.”

The respondent particularly emphasizes the importance of a pleasant environment within the meeting. Comfort and trust usually corresponds to an
interactive customer. Another respondent describes a scenario that further strengthens this argumentation. In this example, 40 VIP-customers participated in the meeting.

“A good sign is when the meeting evolves into a more friendly environment and they start asking questions, they laugh, they make a joke… that usually gives a good interaction.”

Two respondents also mention the timeframe as an important factor. Visiting a customer at a bad occasion or when the customer is stressed usually corresponds negatively to an active interaction. If customers seem stressed about taking time to play the game, they are in general not very interactive. Thus, informing and preparing the customer (e.g. through a sales engineer) is important. He/she should be informed that the game could take up to an hour to perform. The prioritization steps are usually the most time-demanding for the customer, and it is important to provide enough time to reflect on these decisions. If a customer is stressed or uninformed about the timeframe of the meeting, it usually performs the prioritization quickly without any interaction.

“If the customers are properly informed, for example through a sales representative, about the procedure, we usually get a positive feedback.”

Another respondent highlight the understanding of the purpose as important for the dialogue.

“When we are successful in explaining that this products will benefit them because we will be able to manufacture and produce and develop products that are exactly what they are expressing they want, that is when they say “yes, this has a potential for me” “there is a reason for me to answer this… Usually, our customers are very ambitious in their work. The card game enables the expression how they actually feel.”

Four of the respondents argue that listening and showing interests usually gives a good feedback from customers. Listening in general promotes the willingness to interact. One respondent states:

“If you show interest and listens to them, they usually get more talky… Listening makes the customer feel appreciated.”

Cards as a support for interaction

The cards perform as a great conversation starter and as an initiating tool for starting a dialogue with customers. Complementary to the quantitative
research data provided by the cards, the dialogue allow for more detailed customer information and experiences. One respondent explains:

“Every card can bring a discussion. What products they have, what problems they have. You can talk about the cards deeply, independent of topic.”

The same respondent provides an example of how cards can initiate a dialogue.

“If the customer asks: what do you mean with running cost? I have a chance to explain this to him/her… I explain the running cost is holistic, it considers depreciation, insurance, fuel, operation, maintenance etc. When we are more precise, they usually understand.”

The customer could then choose to evolve the dialogue one step further and ask: “What do you consider as low running cost”. These questions are valuable not only for the sake of the dialogue, but that it implies that the customer is participative in information search. In addition to providing statistical information about customers, the card game also enhances a more elaborative approach to conversation.

Another respondent supports the notion of the value statements as a supportive tool for conversation by providing an example of how a dialogue can emerge:

Customer: “What do you mean with high penetration rate?”
Supplier: “The penetration rate is referring to…”
Supplier: “Do you consider high penetration rate as an important feature to your machine usage?”
Customer: “Yes”
Supplier: “Why is that feature important?”
Customer: “Because…”

A dialogue can also be formed around customers’ satisfaction rating. When comparing AC and competitors current fulfillment of the values, the customer usually has a motivation to why one part is better in some aspect. From experience, customers often utilize multiple types of machinery from different brands, thus a comparison can be made from a brand-brand perspective but also between different machines.
4.2.3. AC representatives' reflection regarding customer learning

Five of the respondents argue that it is important to make sure the customer understands the purpose of the card game. As described earlier, the customer should be aware that the card game meeting is not for selling purposes, but for collecting valuable information that are to be utilized in future development projects.

"With these card game the customer will be able to see results within the next years or in the next generation of products. Understanding that is the start of a successful meeting."

When describing a good customer meeting one of the respondents argues about the importance of customer “self-reflection” during the prioritizations phases. This is usually noticed when the customer puts a lot of effort into sorting the cards.

"You see that the customer starts to reflect. Some of them even start to talk to themselves."

Sometimes during this self-reflection phase, the customer could ask questions regarding the meaning of a specific card. Three respondents believe that representatives performing card games must possess the ability to describe each card. If the customer has a question regarding a statement on a specific card, the representative should be able provide the customer with an accurate interpretation of the statement. Therefore, representatives required knowledge goes beyond the understanding method of the game.

From experience, representatives may also possess enough knowledge to diagnose customers’ process of usage, or affect them in prioritization of cards. Table 1 provides three examples of this.
Table 1. Customer representatives learning outcomes from discussions regarding a specific card.

<table>
<thead>
<tr>
<th>Value statement(s)</th>
<th>Customer representative's learning outcomes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Low purchase price of new machine vs. Long lifetime of shanks, bits and rods</td>
<td>The customer highly prioritized “low purchase price of new machine”. This subject opened up for a deeper dialogue. Consequently, the conversation lead to insight that the customer was actually more aware of the lifetime of shanks, rods and bits. “The discussion made him think more thorough of the situation. There might actually be money to save here”</td>
</tr>
<tr>
<td>Long time between overhaul</td>
<td>Customer are aware that the service intervals should be observed, but in reality the customer does not care to formally keep the exact overhaul times. Many parts of the drill are worn out from time of usage. However when a particular part breaks down, it is a small chance that this part will affect or destroy other parts of the drill. As long as there are no leakages, and you oil the drill frequently, there are no problems.</td>
</tr>
<tr>
<td>Straight and stable holes of high quality</td>
<td>The customer had some problems with drilling straight and stable holes. “We had a service engineer present at the meeting…It turned out to be a failure with the calibration of the machine preferences…We described to him how to calibrate the machine correctly”</td>
</tr>
</tbody>
</table>

4.2.4. Organizational learning.

Four respondents unanimously believe that the most important thing is not what customers’ value, but why they value it.

“It doesn’t matter if they want a black or a blank screw, the only thing that matters is why they want it.”

AC-representatives aim to extract the most relevant information from customers’ prioritization. The top prioritized cards represent the customer’s
most valuable sacrifices when making purchase decisions. Therefore, its especially important to question why they choose to put these cards in their top priority. A majority of respondents argue that understanding the underlying motivations for top prioritizations (cards in the decisive pile) is more important than understanding middle-low prioritizations (desirable and irrelevant pile). One respondent describes how to explore this underlying motivation:

“If there has been a really good meeting, the customer has already explained why the highly prioritized cards are important. Otherwise, I take the top three cards and ask them why.”

The majority of respondents argue that experience and knowledge about products correspond to representatives’ ability to provide accurate responses to customers’ questions. One product portfolio manager at RT argue that even though the representative have knowledge within a specific area (e.g. production or service engineering), he/she usually have enough experience to understand what the customer is describing and answer with relevant questions. If the representative lack of knowledge in a certain field (which sometimes is the case), he/she should not hesitate to reveal this for the customer. The product engineer still has enough knowledge to form relevant questions. One respondent exemplifies:

“Let's say I'm a production engineer. I don't have much knowledge of how to build a tunnel. But please, tell me more and I might be able to understand you.”

When asked about their personal learning from the dialogue, all respondents had the ability to point out one or more examples. Table 2 provides an overview of which learning outcome was generated by a particular card, and what feedback the respondent gave to the customer.

Handling of quantifiable data

AC has a system to handle the quantitative information recovered from the card games. Quantitative data refers to key attributes (See Fig. 5), prioritization and customer satisfaction is compiled within an excel database. The product managers and product portfolio managers handle this information. The database allows the marketing department to identify and configure customer segments.

“The database let us sort out by region, by country, by application and per type of customer etc.”
<table>
<thead>
<tr>
<th>Value statement</th>
<th>Supplier representative learning outcome</th>
</tr>
</thead>
<tbody>
<tr>
<td>High machine safety</td>
<td>Normally, “high machine safety” ends up in the top of prioritizations. However, some customers chose to put it in the bottom of the deck. This does not necessarily mean that they do not value the safety of the machine, but instead they find it so elementary that it should already be solved.</td>
</tr>
<tr>
<td></td>
<td>“That type of customer actually has a higher valuation of “safety” than the others. But you don’t realize that until you talk to them. If you see the safety card in the bottom you might interpret that they do not care about safety at all.”</td>
</tr>
<tr>
<td>Low purchase price of new machine</td>
<td>Many people within AC may preconceive that the market in China is all about having the lowest price. However, the card deck shows that this preconception is actually a fallacy.</td>
</tr>
<tr>
<td></td>
<td>“The customer card game show that price is not the most important factor. This reflects the customer situation.”</td>
</tr>
<tr>
<td>The machine warns about potential failures</td>
<td>The dialogue during and after the game may bring valuable improvements to existing products. In this scenario the representative asked the customer about potential improvements regarding the machines’ warning system. The customer responded by comparing it to another type of machinery.</td>
</tr>
<tr>
<td></td>
<td>“The caterpillar trucks provide online data of the status of all the fluids in the truck. Our machines provide data on event (at the instant of failure), but the customer wanted to know the level of fluids. That is something we might think of applying to our machines. I would never have asked if I didn’t have the card.”</td>
</tr>
<tr>
<td>Easy to uncouple rods vs. High penetration</td>
<td>Explanation: The drills have external rods that can be coupled to each other to provide deeper drilling from the surface.</td>
</tr>
<tr>
<td>rate</td>
<td>One customer expressed its difficulty to disassemble the rods. The penetration rate did not matter because the uncoupling rods was much more time consuming.</td>
</tr>
</tbody>
</table>

Table 2. Examples of supplier representative learning outcome from the interaction.
Through the quantitative information, the marketing department sort out what prioritizations is most valued in a specific segment. Further they can from the satisfaction rating conduct a SWOT-analysis. One product portfolio manager at RT describes that the SWOT-analysis is linked to the existing performance of the machines today and how it stands up against the competitive machines.

Three of the respondents argue that an accurate analysis depends on the quantity of collected data. The more customers that play the game, the more reliable is the data.

“I think the power of these type of tools lies within a massive attack. At the moment we may have around 200 of these, which is good, but I would like to have 1000.”

AC wants to see what the majority of customers think. More respondents provide a more depending normal distribution. As of today SD has just performed a range of geographical widely distributed games. One respondent describes that the data must be more concentrated on a specific region (e.g. Europe).

At RT, the product portfolio managers are the ones performing the majority of card games with customers. To promote the card game in other parts of the organization and to achieve a bigger quantity of data, RT performs campaigns in the CC’s.

SDE is just in the initiating phase of making use of the quantitative data, while RT has implemented this method for some years. Therefore they also have a lot more data to build their analysis on.

Handling of qualitative data

Qualitative data refers to the learning received from the interaction with customers. A majority of respondents argue that the organization lacks a concrete system of handling and sharing quality data received from card game encounters.

“Individually, I learn from the interaction. But sometimes it’s hard to communicate this and get others onboard.”

One product portfolio manager, who performed several card games around the world, argues that individual understandings of customer preferences form over time. It is not necessarily that assumptions are based on one customer in
particular. Over time, several insights form a bigger picture of certain customer segments.

“Over time, this enables me to articulate more direct questions if there is something I’d like to understand better.”

In order to spread the knowledge throughout the organization, one product portfolio manager at RT argues that they try to get cross-functional teams to perform card games as well. The cross-functional teams is selected from different areas of the organization e.g. construction engineers, sales engineers and R&D-personnel. One of the product managers at RT states:

“With cross-functional teams we aim to spread the knowledge further down in the organization. If the construction engineers directly hear what the customer prioritize, it becomes prioritized in their world.”

Both product portfolio managers at RT argue that this method allows the organization to become more customer-centralized and also helps to leverage their personal workload.

**Continuous follow-up**

Four respondent state that it has never occurred that they have performed the card game on the same customer more than once. One of the portfolio managers at RT states:

“We don’t have a continuous follow-up, and I see no value in it either, not in our purpose”

**4.2.5. Customers’ misinterpretation of the value statements**

The interviewees where asked if there where some value statements in particular that the customers found hard to interpret. Table 3 gives an overview of some cards that they believe customers have a hard time to understand.

One product portfolio manager describes that it is hard to find an equal abstraction level of each card in the deck. For example “low running cost” can have multiple meanings, consequently some cards may be indirectly linked to the running cost of the machine.

“I’d like to remove this card because it could mean several things to the customer. For example low running cost can contain ‘low consumption of fuel, electricity and water’ and ‘small environmental footprint.’”
Thus this card does not provide an accurate focus on a specific problem. Some cards are more comprehensive than others. This is sometimes a problem when interpreting customers’ prioritizations.

<table>
<thead>
<tr>
<th>Value statement</th>
<th>Explanation of the misunderstanding</th>
</tr>
</thead>
<tbody>
<tr>
<td>Small environmental footprint</td>
<td>Many customers have a hard time to understand what the underlying meaning of this card. “Environmental footprint” is an ambiguous expression. It could mean everything from using environmental friendly material to zero oil leakage.</td>
</tr>
</tbody>
</table>
| High machine safety              | Many customers believe this to be an obvious matter. One respondent argues:  
  
  “One should avoid the needs that is obvious to the customer, for example, some customers perceive “safety” as an obvious feature in our machines.” |
| High degree of customization     | Some customers (i.e. South America) are used to only have standardized products and do not understand the meaning of the word “customization”. In contradiction, customization is key in Australia. One respondent explains:  
  
  “If you cannot customize a rig for a particular customer, it is not going to be accepted” |
| Correct dimensions               | Customers are sometimes uncertain of what dimensions the card anticipates.                                                                                                                                                   |
| Low running cost                 | Sometimes customers question what is included in the “running cost” of the machine.                                                                                                                                          |

Table 3. Examples of ambiguous understanding of the value statement
5. Analysis

This chapter combines the theories presented in the literature review with supplier-representatives’ observations, thus providing a more descriptive view of the value co-creation process within the moment of the card game encounter. Through providing an argumentation of the mechanism within discrete interactions, the analysis contribute to an understanding of how employees and customers engage in learning process by co-creating value.

5.1. The card game as a platform for value co-creation

The initial part of the analysis concerns RQ1. It emphasizes the S-D Logic perspective of value as created by the customer (value-in-use) (Grönroos 2008, 2011; Vargo & Lusch 2004a) and the joint sphere of value co-creation (Grönroos & Voima 2013).

The literature suggests that “marketing has moved from a goods-dominant view, in which tangible output and discrete transactions were central, to a service-dominant view, in which intangibility, exchange processes, and relationships are central” (Vargo & Lusch 2004a, p. 2). Accordingly, the perception of customer value has shifted from value as produced and “embedded” in products (G-D Logic) to value as created by the customer’s integration of operand and operant resources in their usage process referred to as value-in-use (Grönroos 2006, 2008, 2011; Korkman 2006; Heinonen et al. 2010; Echeverri & Skålén 2011; Grönroos & Ravald 2011; Grönroos & Voima 2013). The value-in-use concept will support the analysis of RQ1.

As stated by a majority of respondents, the card games main purpose is the one of gathering statistical information of customer needs and satisfaction. This quantitative data is in general utilized for traditional marketing purposes (e.g. SWOT and segmentation). Following Vargo and Lusch (2004a), this argumentation is more corresponding to the theories of G-D Logic. In relation to RQ1, utilizing the card game merely as a tool to engage in traditional marketing purposes implies customers as operand resources that are to be segmented, penetrated, distributed to and promoted (Vargo & Lusch 2004a). S-D Logic contradicts this view by implying the customers should be viewed as an operant resource, thus enabled through interaction, to contribute to marketing, innovation and production for the firm (Echeverri & Edvardsson 2012; Sawhney & Prandelli 2000). Therefore, interpretations of the card game as a tool for statistics potentially inhibits the exchange of skills and knowledge necessary to engage in value co-creation.
However, respondents also underline interactions dependency of understanding the quantitative data received from encounters. Literature review has identified that interaction is inherent to value co-creation (Vargo & Lusch 2006; Grönroos & Voima 2013). Within the context of S-D Logic, interaction provides the opportunity of exchanging and integrating operant resources (Vargo & Lusch 2004a) embedded in the customer’s value creation process (value-in-use). Empirical findings suggest that by interacting, customers articulate motives to their individual quantitative outcome (i.e. prioritization of value statements and satisfaction rating), and also provide explanations of the practices carried out in their integration of resources. Korkman (2006) argues that value is embedded in customer practices. Accordingly, understanding the customer’s value creation is essential for engage in merging of processes that shifts the supplier from merely a facilitator of value to a co-creator of value (Grönroos & Voima 2013). By identifying interaction as a central element within card game encounters, the study suggests that it provides the opportunity to engage in co-creation activities. Thus, the interactional dimension stands in relation to the card game encounter as a platform for value co-creation.

Interaction provides the opportunity to gain access and form an understanding of customers’ value creation process (Grönroos & Voima 2013). Empirical results suggests that AC-representatives can - with support from the card deck - form customer-focused interactions and encourage articulation of processes and operations embedded in value creation. In relation to RQ1, the study suggests that the card game encounter allow supplier representatives’ to an interpretation of customer processes, inaccessible in absence of direct interaction. Understanding these processes is significant in order to move from value facilitation to value co-creation (Grönroos and Voima 2013). By forming an understanding of the customer process, the supplier has an opportunity to gain insights, and accordingly provide improvements to the usage of products and services, that may enrich the customer experience during usage. Thus, value co-creation is an outside-in process (Payne et al. 2008), where the ideal value proposition is formed from understanding customers’ situation through direct interaction.

However, engaging in direct interaction does not automatically assure a positive influence of customers’ value creation. Interactions can be insignificant but also have negative influences (Grönroos & Voima 2013). Thus, interaction within the card game encounter does not guarantee a value-
creating outcome for the customer. Empirical results support this thus some customers may show unwillingness to revealing their processes to sales personnel. Encounters may be perceived as time consuming for the customer and even provoke negative reactions suggesting that card games also may serve as a vehicle for co-destructing value (Echeverri & Skålén 2011).

Grönroos and Voima (2013) (see also Grönroos & Ravald 2011) defines interaction as a merging of supplier and customer into a coordinated process, where both parties are active, accordingly allowing both actors to also influence each other’s process. This merging of processes is visualized in the joint sphere in which value co-creation takes place (see Fig. 2). Through exchange of operant resources, the customer can influence the processes of the supplier. Accordingly, the supplier has an opportunity to positively influence customer’s value creation process thus shifting to a co-creator of value (Grönroos & Voima 2013). To function as a platform for value co-creation, the card game is to be utilized as a tool for interpreting and facilitating the coordination of customer and supplier processes, thus acknowledging the joint sphere and the merging of processes. Exchanged knowledge and skill are to be implemented in processes where AC chooses to support the customer’s value creation process. Therefore, the handling and implementation of operant resources received within card game interaction is key for allowing it to function as a platform for co-creation. Utilizing the card game strictly as a tool for traditional marketing purposes (i.e. knowledge received is only for marketing division’s disposal) inhibits the activity of merging customer processes with processes in product and service development. Empirical results suggest that AC lacks solid methods to integrate learning outcomes received from interaction within card game encounters, thus inhibiting the card game encounter as an coordination of processes within the joint sphere (Grönroos & Voima 2013).

Merging of processes occurs only in direct interaction with customers (Grönroos & Voima 2013). As suggested by the empirical findings, employees from the marketing division are the ones performing the majority of card games, thus cross-functionality are utilized to a limited extent. With more emphasis on implementing cross-functionality within card game encounters, marketing efforts would imply a more complete and diverse study of the customer process (Lindstedt & Burenius 2003). In that sense, more business processes builds an understanding of customer value, and put more emphasis on identification of opportunities to co-create value with customers (Sawhney
and Prandelli, 2000). In relation to RQ1, including other divisions (aside from marketing) to coordination with customer processes allows for a more extensive implementation of operant resources within the organization, and also creates the opportunity for several functions to influence customers’ value creation. As suggested by the empirical findings, employees from the product company may possess a higher degree of product-specific knowledge, accordingly having the capability to also provide improvements of product usage. Thus, utilizing the card game encounter as a platform for exchanging product-specific knowledge facilitates a merging of processes that may result in a value-creating outcome for the customer.

Considering the dynamism of the spheres (Grönroos & Voima 2013), the empirical results does not provide enough evidence to identify which part of the provider process is influenced by the interaction. Some respondents argue that customer insights received from the encounters will have an impact on the development of new machines, but acknowledging the lack of concrete examples, no exact conclusions can be drawn.

5.2. Framework for customer and organizational learning within discrete interactions

To investigate the processes of customer and organizational learning within the card game encounter, following analysis presents an adapted version of the framework offered by Payne et al. (2008) that was presented in the literature review (section 2.4), relevant for answering RQ2 and RQ3. The process-based and ongoing framework includes several different encounters at different occasions. In contrast, this model identifies the learning processes of discrete interaction, thus focusing on processes occurring in the moment of the card game encounter. Figure 7 provides an overview of customer and supplier processes, and further identifies the factors affecting customer and organizational learning.

In order to define the model as a process of discrete interaction, fig. 7 identifies “customer representative learning”, thus referring to the learning outcome of the representative(s) attending the encounter. The same argumentation applies to the supplier side of the model. Accordingly, the supplier organization engages in an encounter-external process of integrating the knowledge-outcome from the encounter.
5.2.1. Customer learning

Payne et al. (2008, p. 87) states: "The customer’s experience of a supplier and its products is a culmination of the customer’s cognitions, emotions and behavior during the relationship". The relationship experience is the passage to customer learning. In the context of discrete interactions, the customer engages in a set of internal and interactional processes. Accordingly, understanding these processes is significant for answering RQ2.

Information-processing and experiential approach

According to the information-processing perspective, customers are expected to make rational decisions about benefits and sacrifices based on their present and need for future products, services and relationships (Payne et al. 2008; Oliver 1999). Viewing behaviors simply as an outcome of information-processing would imply customers to have sufficient knowledge to rationally prioritize each value statement according to past, present and future experiences. In an ideal scenario, all customers share a mutual interpretation of the value statement, thus allowing them to act rationally through information-processing and providing accurate quantitative data. Accordingly, a diversified interpretation amongst customers could affect the outcome of traditional marketing efforts. Empirical results suggest that customers find some value
statements hard to interpret (see Table 3). Engaging in information searching (Payne et al. 2008), the customer strives for an accurate description of the value statement. In the absence of interaction, customers is jeopardizing of executing the steps of the card game based own interpretations of the value statement. Considering the value statement may be misinterpreted, empirical results suggests supplier representatives to take the role as interpreter, thereby facilitating the customers understanding of the statement. In relation to RQ2, for the sake of marketing efforts, performing rational actions based on past, present and future experiences, requires an accurate comprehension of the value statement. Exerting information search through interacting, the customers have an opportunity to expose possible misinterpretations of statement. Accordingly, supplier representatives seize the opportunity to rectify customer understanding of the statement, thereby supporting customer learning in information-processing. When the customer has established an interpretation of the value statement, they engage in the internal process of self-reflection (see Fig. 7 upper right side). From the perspective of information-processing, this refers to the customer process of relating the value statement to its objectives and goals (Payne et al. 2008) in their actual utilization of resources (value-in-use).

However, the literature review suggests that value does not merely reside from objectifying benefits and sacrifices (Payne et al. 2008; Fournier 1991). To embrace a complete view of customer influences, one must account for sub-conscious and non-utilitarian aspects of customer experience. In contrast to information-processing, experiential approach suggests that value resides from the experience of “consumption” rather than the object of consumption (Payne et al. 2008). As suggested by empirical results, interaction within card game encounters allows customers’ to express feelings of behaviors. The perspective of behavior stretches beyond the actual purchase decisions and also includes experiences of using product and services (Payne et al. 2008). Strandvik et al. (2012) argue that customers do not assess products separately, but instead what the matching of products implies for the customer. Following Payne et al. (2008) and Strandvik et al. (2012) requires a clarification of the discrete interaction model. Value-in-use (Fig. 7) therefore also include behaviors and emotions embedded in the customer sphere (Payne et al. 2008). Value-in-use represents the customer’s actual value creation process (encounter-external). Considering that value resides from experience, self-reflection also includes the customer’s internal processes of comprehending underlying emotional elements in value creation. Accordingly, the customer
has an opportunity to engage in interaction to address an expression of the experiences. As suggested by the empirical results, the process of self-reflection occurs during the prioritization and satisfaction phase of the game. In relation to RQ2, the supplier takes the role as a listener and aim for an understanding of the customer’s emotions from experience in value creation. In this phase, empirical results indicate that listening is essential to promote the customer-focus, as listening and showing interest makes the customer feel appreciated.

Empirical results suggest that listening and showing interest - thus keeping a customer-focused dialogue - corresponds to customer’s willingness to interact. In general, customers have shown signs of positive emotional experience (e.g. feel appreciated and recognized) when interaction is focused on their individual situation. In relation to RQ2, supporting the emotional element of customer learning (Payne et al. 2008) implies a customer-focus within card game encounters. Acknowledging the impact of sales representatives, the customer-focused dialogue may be overruled by positioning and price discussions, thus potentially inhibiting the elaboration and explanation of value creation processes. Lessons can be learned from Strandvik et al. (2012, p. 135), suggesting: “listening instead of persuading is the key to successful sales”. Consequently, supplier representative learning may suffer due to incomprehension of customer practices during usage.

In addition, respondents highlight the impact of consultancy and dishonest dialogue (see section 4.2.2). Empirical results suggest that supplier representatives should possess required knowledge to comprehend customer descriptions of practices. Accordingly, allowing them to respond with relevant “follow-up” questions. With regards to RQ2, facilitating information-processing and the experiential approach (Payne et al. 2008) - through self-reflection - requires supplier representatives to maintain customer-focus and credibility by exposing an understanding and comprehension of customer descriptions. Strandvik et al. (2012) argues that customers showed higher willingness to reveal business goals and strategies if expecting this would benefit their business in the future. Thus, supplier representative’s inability and ignorance to comprehend customers value-in-use may potentially inhibit:

- The customer information-process through lack of knowledgeable feedback (i.e. providing relevant follow-up questions). Supplier ignorance in supporting customers’ cognitive ability in information search (Payne et al. 2008) influences the process of self-reflection of how to align value statements with the actual value creation process.
• The emotional experience of the encounter, thus a lack of supplier representative credibility may be perceived as inhibiting potentials of value co-creation. As argued by Strandvik et al. (2012) customers showed higher willingness to reveal business goals and strategies if expecting this would benefit their business in the future. Empirical results suggest that customers perceiving supplier representatives as “unworthy” of the information inhibits the efforts of interaction.

Supporting the levels of customer learning within card game encounters

Payne et al. (2008) distinguish between three different levels of customer learning. The simplest form of learning is remembering, which refer to customer attention of a company or product. In relation to RQ2, empirical results suggests that customers have proven awareness of AC products and also expressed experiences of utilizing products in their processes. Thus, there is much evidence pointing towards AC has moved beyond the level of remembering.

Encounters provide an opportunity to interact and affect the feelings the customer has about the supplier, thus potentially creating a memorable experience for the customer. Based on the emotional experiences of the encounter, the customer engages in a process of interpretation and assimilation of the supplier message, thus encouraging the customer to take an emotional stand about the supplier (Payne et al. 2008). The supplier thereby moves beyond the remembering stage and engage in internalizing of customer learning (Payne et al. 2008). Accordingly, supplier representatives engaging in customer interaction have a crucial role as part-time marketers (Gummesson 1991). Their actions during encounters influence the process of internalized customer learning (Payne et al. 2008). As pointed out by the empirical findings, supplier representatives have described both positive and negative experiences within encounters. However - as argued by a majority of respondents – card game encounters are in general perceived as a positive experience. In relation to RQ2, empirical results suggest that keeping a customer-focus is vital for making the customer feel recognized by the supplier. In the context of the encounter, customers have the opportunity - through direct interaction (Grönroos & Voima 2013) - to articulate explanations of their own situation. If supplier representatives have the ability to provide a credible impression through listening, asking relevant question and comprehend an understanding of the value-in-use process, the card game encounter is in general perceived as a positive experience for the customer. Hopefully, customers will take a positive stand, and subconsciously (Payne et
al. 2008) build a positive impression of the supplier that will benefit the company in future businesses.

However, acknowledging the influence of the “selling approach” and consultancy, the encounter may also provoke negative (or insignificant) emotional experiences for the customer. Thus potentially creating a negative impression of the supplier in the phase of internalization. As suggested by the empirical results, the customer may perceive the encounter as a casualty of price negotiation or just another marketing research activity. As argued by Strandvik et al. (2012), focusing more on learning about customers instead of promoting own products generated positive feedback.

The third, and most complex form of learning is proportioning. Through reflecting on their own processes the customers engages in a “double-loop learning” (Payne et al. 2008), that may give them insights to perform new or disengage from old practices within their integration of resources. Though empirical results lack of evidence to support the notion of proportioning (i.e. customer studies are required), respondents have provided examples of supporting customer usage of products within the encounter. This may provide a valuable insight for the customer, thus engaging in a change of behaviors (Payne et al. 2008). However, empirical results cannot evidently establish that customers have understood the complete value proposition through card game encounters. Nor is there any evidence in the present study that customers have engaged in the phase of double-loop learning. In relation to RQ2, the moment of the encounter merely provides the opportunity to engage in a single-loop customer learning, that may potentially facilitate their understanding of the value proposition. As argued by Grönroos and Voima (2013) it is only in the merging of processes that supplier can co-create value. In the phase of proportioning, the customer not only forms a complete understanding of the AC’s value proposition but in addition engage “in new types of behavior in terms of how the value proposition relates to their lives, objectives and aspirations” (Payne et al. 2008, p. 87-88).

Payne et al. (2008) further suggest that through forming an understanding of cognition, emotions and behavior in broader experiential sense, the supplier have the opportunity to support customers in the proportional learning phase. In relation to RQ2, emphasizing the card game encounter as an interactive process purposed to assists customers utilization of resources, the supplier has the opportunity to explore and support customers value creation process, thus shifting from attention seeking to proportioning (Payne et al. 2008). Empirical
results suggest that supplier representatives have – within the context of the card game – provided recommendations to improving customers’ utilization of resources (see Table 1). If these recommendations are enough to achieve support for cognition, emotions and behaviors of value-in-use cannot be established due to lack of empirical support.

5.2.2. Organizational learning through value co-creation

The following section provides argumentation regarding RQ3. As seen in Figure 7, the model presents three factors in relation to the supplier representative learning within the card game encounter: Product-specific knowledge, supportive behavior and absorptive capacity. To further enable the organization to interpret (Sawhney & Prandelli 2000) the representatives learning outcome and integrate it within the organization, the model identifies organizational sharing capacity and cross-functionality as moderators to achieve organizational learning.

Absorptive capacity, knowledge and supportive behavior of supplier representatives

As Payne et al. (2008) argues, planning for co-creation can be viewed as an outside-in process where the ideal value proposition is formed from customers’ value-in-use. Understanding of the customer value processes comes prior to the implementation and developing phase of new products and services. Further, the literature review show consistency that interaction is the key for understanding the customer’s process of usage (Grönroos & Voima 2013) and engages in knowledge communication with the customer (Sawhney & Prandelli 2000). Considering the dependency of dialogue and representatives knowledge of customer representative learning outcome, empirical results show that this type of knowledge also supports the learning outcome of supplier representatives. Product-specific knowledge enables supplier representatives to (a) understand the customer’s descriptions of process and (b) provide relevant follow-up questions to engage in deeper understanding of these processes. In addition to supportive behavior in terms of emotional experience and customers information search, these behaviors (See Fig. 7) also include the supplier’s activity to extract the relevant information for facilitating organizational learning.

As empirical results suggest, much of the knowledge absorbed by supplier representatives within the card game encounter is explicit descriptions of how customers use products. This corresponds to the view of Goffin and Koners (2011) that an effective transfer of explicit knowledge generally requires
personal contact and shared experiences. Further Sawhney and Prandelli (2000) argue that absorptive capacity of customer knowledge aims to assist learning of customer processes. Respondents argue that interaction within encounters promotes the sharing of underlying explanations and motivations to customer's actions. In the context of the card game, customer actions (or behaviors) refer to the sequences of prioritization and customer satisfaction rating (mood-scale). Accordingly, supplier representative can form a question (why?) to reveal underlying motivations to customer action. With regards to RQ3, the card deck facilitates statistical information of customers, but also function as a supporting tool for supplier representative learning through interaction. Inabilities to form a common dialogue (see section 4.2.2 Interaction, Approaching the customer) with customers are considered an absorptive capacity failure, consequently inhibiting the process of organizational learning (Sawhney & Prandelli 2000).

Much of the customers shared knowledge is tacit (von Hippel 1994), thus difficult to communicate, and can only be acquired through direct sharing of experiences. Empirical result lacks evidence to prove the exchange of tacit knowledge within encounters. However, there exist assertions of supplier representatives who, through performing several card game encounters with different customers, argued to have formed a more general view of the customer situation. From these findings, I argue that tacit knowledge about the collective customers have a potential to form over several card game interactions. However, considering the card game encounter is performed once on each customer (“one time thing”), this does not follow the encounter process (Payne et al. 2008) of continuous learning from several occasions. Providing insight for RQ3, this argumentation does not emphasize the card game encounter as a process of continuous learning over time, rather a single occasion of interaction to reveal individual customer processes.

**Organizational sharing capacity and cross-functionality**

Lindstedt and Burenius (2003) argue that employees from different departments of the organization may have different views on customer processes, thus providing a more complete, detailed and diverse study. Empirical results suggest that AC (to some extent) utilizes cross-functional teams within card game encounters to make the organization more customer-oriented. Literature review supports this notion, thus it provides a diversified insight of the customer process (Lindstedt & Burenius 2003). Further, empirical results and literature unanimously suggests that cross-functionality
allows for a more efficient transfer between supplier representative learning (encounter-internal) and organizational learning (encounter-external). In theory, this transfer represents the link between absorptive capacity and the organizational sharing capacity (Sawhney & Prandelli 2000). As shown in Figure 7, organizational sharing capacity function as the moderator between supplier representative learning (within the meeting) and organizational learning (outside the meeting). An efficient organizational sharing capacity reflects an effective transfer and implementation of supplier representative learning within the organization. According to the knowledge-based view (Wernerfelt 1984), knowledge cannot simply be imported like an asset but reproduced and interpreted by internal sources of the firm. Empirical results suggest that AC has an implemented system of handling quantitative data (value prioritizations and customer satisfaction), however lacks a system of quality data handling (learning from interaction). With regard to RQ3, suppliers utilizing the card game for value co-creating reasons should emphasize the need for an efficient method to reproduce, interpret and integrate (Sawhney & Prandelli 2000) the supplier representative learning outcome within their organizations.
6. Recommendations, discussion and contribution to practice

This chapter will provide a summary of recommendations to how employees and customers engage in learning process by co-creating value. Further the chapter will address limitations and call for further studies.

6.1. Final conclusions

RQ1 How do card game encounters work as a platform for value co-creation?

It is only the customer itself that fully understand the behavioral elements of their value-in-use, but supplier can through direct interaction form an understanding of processes embedded within this process.

The card game encounter represents a form of direct interaction between supplier and customer. The card deck function as a supporting tool for keeping a customer-centered dialogue and allow for an exchange of operant resources (knowledge and skills). With support from his/her internal operant resources, the supplier representative aim to identify and comprehend a deeper understanding of the actual value creation process comprising the customer sphere. However, interaction merely provides the platform for potential value co-creation.

Following the literature review, direct interaction lead to a merging and coordination of processes, consequently also allowing them to influence each other's processes. From achieving an accurate understanding of parts of the value creation process, the supplier absorbs customer operant resources, thus providing it with knowledge to also influence the customer in their value creation process. There are no guarantees that influences from the supplier is value creating, it can also be value destructing, or insignificant. Essentially value co-creation within the context of the card meeting therefore requires an influence that enriches the customer experience during the value-in-use phase, thus making the customer feel better off in some aspect.

To function as a platform for value co-creation, the card game are to be utilized as a tool for facilitating the coordination of customer and supplier processes, thus acknowledging the joint sphere and the merging of processes.

Accordingly, a merging of processes may take place at different phases within the supplier processes (e.g. design, development, manufacturing, delivery). The
magnitude of the merged joint sphere area depends on the processes the supplier chooses to support. Figure 8 illustrates the card game as a platform for value co-creation.

![Figure 8. The card game as a platform for value co-creation](image)

RQ2 How do supplier representatives support the customer learning process during the card game?

With support from the theoretical review and empirical findings, the study contributes with a framework of learning process during discrete interaction. Building on the process-based framework presented by Payne et al. (2008), supporting the customer learning process entails an understanding of the cognitive, emotional and behavioral elements of the value creation process. The present study suggests how these elements to be supported within the context of the card game encounter.

As suggested by the study, the customer’s cognitive information-processing entails forming an interpretation of the value statement and how it relates to the present integration of resources. Through information search and self-reflection, the ideal customer aims for a comprehension of the value statement and how it relates to its individual objectives and goals. An accurate understanding of the statement can only be insured through interaction. Accordingly, this requires the supplier representative to have the ability to articulate an accurate, company-representative, description of the value statement. Thus preventing potential misinterpretations that may generate errors in the phase of customer self-reflection.

Emotions refer to the customers’ feelings, moods and affect-based personality characteristics. The moment of interaction within the card game encounter allows supplier representatives to the opportunity of influencing the
customer’s emotional experience of the encounter. As suggested by the study, maintaining a customer-focused dialogue makes customer feel recognizing and appreciated, accordingly, generating a positive emotional outcome for the customer. Based on the experiences of the card game encounter, the customer interprets and assimilates the company message, thus engaging in a process of internalized learning. Feelings of recognition and appreciation during the encounter may consequently influence the customer to embrace a positive emotional stand of the supplier.

Behaviors include actions embedded in the process of value creation (Payne et al. 2008). Interactions within the card game encounter provide an opportunity for the supplier – through sharing of operant resources – to engage in supporting of customer processes. Through keeping a customer-oriented dialogue, supplier representative engage in a process of comprehending the objectives and emotional experiences during value creation. Accordingly, a supplier representative possessing the right operant resources (i.e. product specific knowledge) has the ability to analyze customer’s behaviors, thus critically question customer practices in value creation and propose potential improvement to the utilization of resources.

In addition, the study suggests that supplier representatives with product-specific knowledge have the ability to search for errors in the phase of product usage, and suggest options of improvements. Consequently, this may promote an understanding of the value proposition and change behaviors in the customer’s own production phase. In that sense, the exchange of operant resources within the card game encounter may potentially engage customers in proportioning, consequently resulting in customers examining its present behaviors in value creation activities.

RQ3 How do customer card game encounter contribute to organizational learning?

The organizational learning outcome stands in relation to interpretation of the quantitative and qualitative learning. The qualitative learning entails the supplier representative’s interpretation of the quantitative data outcome and operant resources assessed from the interaction. Suggesting from the study, the supplier representative can only gather and understand qualitative learning through interacting with the customer. Thus the card game encounter facilitates statistical information of customers, but also function as a supporting tool for supplier representative learning through interaction.
Inabilities to form a common dialogue with customers are considered an absorptive capacity failure, consequently inhibiting the process of organizational learning. Suggesting from the empirical study, avoiding absorptive capacity failures within encounters entails avoiding position (price negotiations) and maintaining credibility (showing comprehension of the customer processes).

With conversation-support from the value statements, the supplier representative engages in the learning process by keeping a customer-oriented dialogue, thus focusing the interaction around customer practices and experiences during usage. Dialogical interaction thereby function as medium to communicate the motivations to the quantitative data, and further explore customer’s resource integration. The sharing of knowledge within encounters is in general explicit. However empirical results suggest that supplier representatives performing several card game encounters can form tacit knowledge about the collective customer.

To comprehend explanations of the customer situation, supplier representatives need to possess some product-specific knowledge, thus enabling them to form an understanding customer’s internal processes. Empirical studies suggest that product-specific knowledge corresponds to the supplier representative’s ability to ask relevant follow-up questions and thereby promote a deeper learning and identification opportunities for value co-creation.

Empirical evidence suggests that the card game encounter is not emphasized as a process of continuous learning over time, but rather a single occasion of interaction to reveal individual customer processes. Suppliers utilizing the card game for value co-creating reasons should emphasize the need for an efficient method to reproduce, interpret and integrate the supplier representative qualitative learning outcome within their organizations, thus taking into consideration of organizational sharing capacity. Employees from different parts of the organization may have diversified perspective on the usage of products. Thus applying a cross-functional approach provides a more unanimous view of customer processes between the functions of the organization. Applying cross-functionality also assists the organization-sharing phase by allowing a more efficient knowledge-transfer between representatives attending the card game and their respective divisions.
6.2. Contribution to research

Through the explorative approach of investigating value co-creation between supplier and customers within the context of card game encounters, this study has provided additional empirical evidence to theoretical frameworks of value co-creation within interaction processes. With support from theory (e.g. Grönroos and Voima 2013) the study has also given empirical insights of the card game encounter as an activity for supplier-customer interaction. Thus, working as a platform for the merging of processes and collaborative activities of value co-creation.

Considering the relative new research field of S-D Logic, the present study has contributed to findings of how the card game can be utilized as an activity for value co-creation. Customers’ understanding of the purpose of these encounters is important in order to avoid positioning that may potentially inhibit the efforts of value co-creation and exchanges of operant resources.

Further, the study has contributed to the lacking research regarding card game deck as a tool for supporting customer-supplier dialogue, and the revealing of customer value creation processes. Thus identifying value statements as a support for conversation between actors.

Suggestions from empirical results and the process-based framework for co-creation of value (Payne et al. 2008) enabled the author to the formulation of a model presenting the learning processes within the context of discrete interaction. Payne et al. (2008) visualize the process of actors’ learning through co-creation by emphasizing an ongoing framework from several occasions of interaction. In contrast, this study suggests a model of actors’ learning within a single entity of interaction. Thus, a cross-sectional approach has been applied revealing the opportunities and the mechanism of learning within the moment of supplier-customer interaction. Considering the empirical research is focused on the supplier side of the model, the mechanism of the supplier representative has been especially emphasized, thus providing more insights of the behaviors for elevating customer learning within card game encounters.

From interviews with supplier representatives, the study has also provided further empirical supports to the theories of customer needing (Strandvik et al. 2008). Respondents highlight the importance of exposing the product company’s interest in customers rather than applying a selling approach to promote own products. The empirical study also identifies the importance of
representatives’ credibility through exposing product-specific knowledge, thus indicating the negative impact of involving product-ignorant consultancy in value co-creation activities.

6.3. Limitations

Considering the absence of respondents representing the customer side, further studies are required to reveal the actual impact of co-creation potentials within card game encounters. Even though respondents of the study has the ability to elaborate on perceived experiences of customer emotions and behaviors, it would be elevating for the research field to include a customer perspective.

The present cross-sectional research approach (see section 3.2) of the study delimits the investigation of indicating the actual changes in customer behaviors, before, as compared to after the card game encounter. The study suggests that supplier representatives have been able to articulate potential changes in the practices within customer processes, however if these suggestions have been implemented by the customer requires a longitudinal study. The cross-sectional study also delimits the investigation in terms of efficiency when implementing representatives’ qualitative learning within the organization.

6.4. Further studies

Considering the topics that still remain unclear by the study, the author calls for further studies of the following topics:

(1) Investigate the customers actual learning outcome from card game encounters. Further investigations of the customer side can identify correspondence between supplier’s perceived learning outcome of customers and the actual learning outcome within card game encounters.

(2) Empirical results suggest that customers in general perceive the encounter as a positive experience. Providing a customer perspective of the research would be enriching considering the further identification of what types of supplier behaviors that facilitates a positive emotional experience within card game encounters.

(3) Studying the customer side may also provide further insights of the level of customer learning (i.e. remembering, internalizing, proportioning). The author especially calls for further studies regarding the level of customer learning in
proportioning. RQ’s relevant for identifying the level of proportioning would for example entail: (A) How do customers perceive interaction and exchanges of operant resources, within the context of card game encounters, to assist their comprehension of the suppliers’ value proposition? (B) Does/how does exchanges of operant resources within card game encounters benefit customer’s value creation process?

(4) A longitudinal study would allow a follow-up investigation of how the qualitative learning within the card game encounter is implemented in product development programs and quality function deployment. Thus revealing the relation between representatives’ qualitative learning and the specification of new products. Topics of issue would imply further studies of implementing representatives’ qualitative learning within Quality Function Deployment (e.g. Akao 2004; Chan & Wu 2002).
7. References


Normann, R. (2001). *Reframing business: When the map changes the landscape*. Chichester: John Wiley & Sons Ltd.


8. Appendix

8.1. Appendix 1 - Value statements comprising the card game deck

1. High flexibility to drill in different rock conditions.
2. Straight and stable holes of high quality
3. High Penetration rate
4. Low numbers of unplanned stops
5. Fast rod handling
6. High degree of automation
7. Fast trawling and positioning
8. Easy to maintain and adjust
9. Easy to repair and troubleshoot
10. The machine warns about potential failures
11. Long time between overhaul
12. Low energy consumption
13. Low running cost
14. Low purchase price of new machine
15. Long life time of drill consumables
16. Long time between overhaul
17. Long life length of machine
18. Easy to operate
19. Good operator environment
20. Nice look and feel
21. Low environmental impact
22. Low energy consumption
23. High machine safety
24. The machine warns about potential failures
25. Short delivery time of new machine
26. High spare parts availability
27. Supplier presence and quick support
28. High degree of customization
29. Correct dimensions
8.2. Appendix 2 – Interview guide

Questions for the semi-structured interview

Respondents Background

When did you start working at Atlas Copco?

What was your position before you started working here?

What did you do?

What previous experiences have you applied to your present job?

Respondents description of AC’s organization

Describe the operations at Atlas Copco. What do you work with?

What differentiates Atlas Copco from the competition?

Describe a general workday…

Interpretation of the card game purpose

How would you define the purpose of the card game encounter?

Do you think the meetings fulfill this purpose?

Example?

Give me walk-through of a typical customer card meeting…

Example: A good meeting?

A bad meeting?

What have you learned from using the customer cards?

Do you believe this type of meeting is a better way than just handing out a survey?

Why?
Interaction

Think of a good customer dialogue, how would you describe it?

How do you engage in a dialogue with the customer during the meeting?

From your own perception, do customers have the ability to express their needs at the meeting?

From your own perception, is the customers given the possibility (e.g. time) to express their needs during the meeting?

Give me one example how a customer have described its internal process (e.g. use of products) for you…

Customer learning

How do you present the card game for the customer?

Can the customers easily understand the instructions?

Do you think the customers understand the purpose of the meeting?

How would you describe the customer's attitude towards meeting?

Examples?

Do you perceive the customer as committed and ambitious during the meetings?

What do you think the customer learns/takes away from the meetings?

From your perception, can the customer reflect on previous learning from meetings?

Organizational learning

Can you give me an example of things you’ve learned about the customer by attending the customer card meetings?

What do you learn about customer’s internal processes (e.g. usage of products) during the meeting?

How is the information learned from the meeting handled/carried out to the rest of the organization?
How does the information reach everyone within your organization?

How do you follow up information from previous meetings?

**Customers understanding of the value statements**

From your perception, what card(s) do you think the customer has the hardest to interpret/understand?

**Improvements of the card game method**

If you were to improve the method of the customer card, what would you do?