The Nature of Embedded Purchasing Activities in SMEs: results from a Dutch multiple case study[1]

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Abstract

Aims: identify and explain purchasing-oriented patterns in Small and Medium Sized Enterprises (SMEs) via case study research.
Scope: Using a conceptual framework and empirical research this article proposes a series of purchasing-oriented patterns in SMEs. These patterns align activities to achieve the SMEs proposed value proposition towards customers and activities to purchase resources needed for realizing the value proposition.
Structure: This paper introduces the research topic. It discusses a conceptual framework and theory. It then continues with the methodology to collect and analyse case study data and describes empirical finding. It discusses these findings related to the framework and literature and ends with summarizing first conclusions.
Conclusion: The SMEs in the dataset use four types of purchasing-oriented patterns related to their customer value propositions These SMEs can strive for low transaction costs can but invest in extrinsic product attributes to realize their value proposition. Both the transaction cost theory and the resource based view help to explain the purchasing-oriented patterns. Further research is needed to strengthen and validate findings.

Key words

Small-Medium Sized Enterprises (SMEs); purchasing-oriented activities; case studies.

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1. Introduction

This research is part of an overall research programme called 'Valorisation of Purchasing by Small and Medium-sized Enterprises (SMEs). In this design-oriented research programme the need for support of purchasing activities executed by SMEs is researched and, according to the explored needs, purchasing management instruments will be developed. A first step in this overall research is reported here. This entails the identification of patterns in purchasing activities deployed by SMEs. After all, to be able to research need for support one first has to understand how purchasing activities in SMEs take place. Knowing how purchasing activities are executed enables the next step in the research programme; to identify the need for support of those purchasing activities.

Drivers to start the research programme are both societal and theoretical. The macro-economic significance of SMEs and the purchasing volume in the turnover of individual SMEs (Christensen, 2003; Ellegaard, 2006; Quayle, 2002) are both significant. It is estimated that purchased goods and services can account for 50-90% of company's costs of goods sold (Emiliani, 2010). Moreover, this topic is a rather scientific terra incognita. Little research has been done on purchasing and supply management (in short: *purchasing*) within SMEs (Christensen, 2003; Ellegaard, 2006; Quayle, 2002) and especially into patterns of purchasing activities. Although there is extensive literature on purchasing, this is based mostly on practices in large enterprises. Theory development and managerial instruments in the field of purchasing are, as a consequence, derived from large enterprise practices (Ellegaard, 2006). As SMEs have different organisational settings and are not miniature-versions of large enterprises, purchasing in SMEs differs from that in large enterprises (see Hagelaar *et al*., 2014). We hence agree with Ellegaard (2006) and Morrissey & Knight (2011) that purchasing within SMEs has not been adequately studied to determine its latitude.

Purchasing research within SMEs must consider specific characteristics such as informal organisation, less specialization in business functions and less available resources. SME owners focus more on the overall operation and not on specific business functions. The approach of SME management to inward-bound purchasing activities is often holistic; its approach to outward-bound purchasing activities is characterized by a relative dependent position in supply chains (see Hagelaar *et al.*, 2014). From research it appeared that purchasing knowledge, skills and capacity in SMEs seem to be less developed (e.g. Morrissey & Pittaway, 2006). However, Pressey *et al*. (2009) concluded that a lack of formalized purchasing does *not* necessarily indicate bad purchasing skills. Ellegaard (2006, 2009) found that owners of SMEs are "effective" in their purchasing practices.

The basic idea underlying this research is that purchasing as a function, although present, need not be explicitly visible in the SMEs' structure (e.g. departments, specialized buyers) but is embedded in its business activities executed from the sales side to the supply side of SMEs. The aim of this paper is to identify patterns of purchasing activities executed by SMEs and capture these in so-called Purchasing-oriented Patterns (POPs). We define a POP as an organized collection of activities which effectuate the value proposition to customers, the purchasing activities and the connection between these activities, all belonging to an identifiable pattern[3]. A POP is an abstraction that reflects a companies' series of activities from customer to supplier, from the orientation of the function purchasing; recognizing how purchasing is taken into account e.g. in the contacts with a customer, in internal activities and of course in activities with a supplier. A POP captures purchasing-oriented activities in its essence as they occur in reality. Developing such abstractions stimulates cross-sectional comparison between companies' purchasing activities. By means of identifying POPs it becomes clear how SMEs execute purchasing.

The paper discusses results from case study research in eleven Dutch SMEs. The research focuses on the purchasing processes embedded in the supply chain of a SME (c.f. Porter, 1985). The paper is structured as follows. We first discuss a conceptual framework and theory used in this research. We then continue with the methodology to collect and analyse data followed by the description of the empirical findings.

[3] This definition is in line with the definition of business patterns by Jackowski (2003, p. 4) as: "*a structured set of activities within the entity that are designed to produce a specific output in accordance with the business strategy*".

We contrast these findings to our framework and literature and end this paper with summarizing first conclusions.

2. Focussing on SME purchasing

To research purchasing activities in SMEs, we first acknowledge that purchasing is a boundary-spanning activity bridging needs of internal customers to services of accommodating suppliers. Thus, purchasing is the crucial activity connecting a company to its supply base (Knudsen, 2003; Kerkfeld and Hartman, 2012; Brewer, 2014) This boundary-spanning activity can be executed in different manners. According to maturity levels in purchasing, purchasing activities can vary from 'serve the company' types of activities (ordering goods) up to 'world class' purchasing in which intensive collaboration with suppliers leads to optimal performance of the overall company (see Van Weele, 2005). A level of purchasing maturity should fit, according to Rozemeijer and Van Weele (2007), with a governance structure with which a company manages the purchasing activities. Governance structure is described, from the perspective of company coherence, as a structure in which different parts of a company operate and are managed as one unit (Rozemeijer and Van Weele, 2007; in line with Williamson, 1985; see Section 3). The alignment between governance of purchasing activities and context of the company, determines the added value of purchasing for the company's competitive advantage (Rozemeijer and Van Weele, 2007). This reasoning implies a level of internal alliance between boundary-spanning functions like marketing and sales, and purchasing. This internal alliance is directed at market opportunities and customer value enhancement (see Piercy, 2008). This kind of integral view on companies is in line with organizational characteristics of SMEs. Specific for SMEs is the holistic, integral view on governing the company. Activities from different functions such as sales, R&D, logistics and purchasing are interwoven. A second characteristic is the dependence of SMEs from its direct chain environment both downstream as upstream (for a literature review see Hagelaar *et al*., 2014).

Following Piercy's (2008) statement on the internal alliance combined with the typical SME characteristics integral organisation and dependency downstream and upstream, purchasing activities seem to be embedded in a chain of activities which link sales and supply. Indeed, these internal cross-functional alliances, directed at competitiveness and customer value, seem to link to the added value of purchasing which is reflected in the SME's needs as communicated towards suppliers. Thus, to understand how purchasing activities are executed, a chain perspective seems relevant. This opens the possibility for research to investigate contribution(s) of suppliers to a focal company's (FC) offering to their customer. Lambert and Cooper already stated that competitive advantage is gained on the chain level, not on the level of individual companies (Lambert and Cooper, 2000, 65) and as we would add, not on the level of stand-alone functional activities like e.g. marketing and sales.

Two major theoretical domains related to research into purchasing and supply chain management are selected as a basis for this research; Transaction Cost Theory (TCT) and Resource Based View (RBV). Brewer *et al.* (2014) concluded in their related study into purchasing, i.e. their research into the decision of outsourcing procurement, that these two theories can be seen as complementary. Defee *et al.* (2010) conclude that TCT and RBV account for 20% of theory-informed studies into supply chain management. The studies can be viewed as complementary as both discuss what activities should be undertaken within the boundaries of the company and what activities should be sourced from the supplier market. In general, TCT focusses on comparing costs of transacting in the market to costs made within a company (hierarchy) and RBV concentrates on comparing skills and abilities (i.e. resources) of companies in the market place (Brewer *et al.*, 2014). Attributes of resources are characterized by the extent in which they are valuable, rare, imitable and substitutable (Barney, 1991). From the perspective of identifying POPs both theories seem to be relevant. The TCT focusses on the costs which are brought by governance of the activities which result in the transaction; i.e. costs brought by collecting supportive information, negotiation, coordination, controll and monitoring within a company and in relation with a supplier.

Furthermore the RBV focusses on the resources of the focal company (FC) itself and the possible complementary resources of a supplier enabling the FC to design, produce and deliver goods and or services to their customer (see Brewer *et al.*, 2014).
To study purchasing activities within SMEs this research is tailored to the specific characteristics of purchasing and of SMEs. From a theoretical perspective TCT and RBV are the pillars. This culminates in a research in which purchasing activities are assumed to be embedded in a chain of activities and can be explained on the basis of being part of this chain environment. Downstream by understanding the value proposition for the customer, and upstream by understanding how this value proposition is specified for suppliers and what the supplier contribution is to the company's value proposition.
In previous research work we introduced an overall framework to identify POPs and to explain the POPs by including influencing factors from the companies' context. Such context factors are the ones mentioned above; SME characteristics (a.o. informal organisation, less specialization in business functions, less available resources), characteristics of SME owners, chain characteristics (dependency, uncertainty, and asset specificity) and the value proposition (for more details see Hagelaar *et al.*, 2014 or Appendix I).

3. Theory and framework

Two domains of theory are identified to gain insight into POPs from a chain perspective: TCT and RBV (see Section 2; for an elaboration on the theoretical framework see Hagelaar *et al*., 2014). Governance addresses the coordination of activities within a company and with their suppliers and customers. Transaction cost theory (TCT) prominently represents this domain whereas the Resource based view (RBV) focuses on the added value of resources for competitive advantage. Both theoretical domains render insight in the level of integration of activities within a company and externally with customers and suppliers. Both domains are combined to build a framework to identify patterns in the purchasing-oriented activities of SMEs.
The core of Transaction Cost Theory (TCT) is the relationship between the *degree of alignment or vertical integration* and the related *transaction costs*. Transaction costs are the supportive information, negotiation and monitoring costs necessary for conducting transactions between companies. The degree of governance varies in a continuum from several independent companies operating in a spot-market versus one fully vertically integrated company. With *governance* in this context (Williamson, 1985) we mean ensuring consistency and transparency in management and oversight of an organization, to ensure an efficient and effective achievement of corporate objectives. Transaction cost will vary with the type of governance. A spot market type of governance has less transaction costs compared to levels of integration between a company and its supplier. In literature asset specificity emerges as the predominant influencing factor of the choice of a governance structure. (Williamson, 1985; for an adoption to purchasing see Adams, 2005; Hoffmann *et al.*, 2011; Noordewier, ibid; Brewer *et al.*, 2014).
Because of the nature of a POP in which customer and supplier are linked via aligned activities, we will choose two specific theories within the field of RBV, i.e. *Strategic factor market theory* of Barney (Barney 2012, Barney, 2001; Barney, 1986) and his *Attributes of resources approach* (Barney, 1991). Both Resource Based View (RBV) theories discuss the added value of purchasing and supply chain management for competitive advantage of companies. The basic theoretical reasoning is that knowing how product market competition is developing is not enough to understand sources of competitive advantage. One should also understand the suppliers market and the competition in the suppliers market to anticipate competitive advantages in the downstream oriented product market. In this reasoning, the purchase of certain resources is done on the basis of the expectation that these specific resources will gain added value in the product market after the company has transformed these resources into specific products or services. In this reasoning sales/marketing i.e. the downstream side of a company is directly related to the purchasing, upstream side of a company. This chain-oriented view on competitive advantage by highlighting the aligned relation between upstream and downstream activities of a

company should lead to competitive advantage. This entails that the alignment leads to value creation which is rare amongst competitors and possibly costly to imitate. The question becomes then; to what extent do the attributes of the resources and of the process of how the resources are used (relating downstream to upstream) exhibit the competitive attributes mentioned.

Competitive advantage can be gained in different domains. We characterized these domains through the different value propositions as demanded by and offered to customers. In this paper we define value proposition (Treacy & Wiersema, 1996) as the promise the FC makes to realize a (particular set of) value(s) for its end customer(s). Often these are price, quality, performance, collection, convenience, etc. Treacy & Wiersema (ibid) distinguished three exemplars: (1) product leadership with a focus on the ability to make superior products, (2) operational excellence with an overall focus on lowest overall total cost, and (3) customer intimacy with a focus is on offering customers a total solution. These three exemplars furthermore enable a distinction for the FC between the core product and the extended or augmented product offering as e.g. used by Hoekstra *et al* (1999). Recent thinking (MacBride, 2013) furthermore suggest a relationship between agile and lean supply chains and the value proposition.

The identification of POPs is based on the above presented theories; TCT, RBV and the Treacy and Wiersma threefold categorization of customers' value proposition. We assume that a value proposition is realized within the context of a company, derived from TCT and RBV, which will lead to a specific pattern of purchasing-oriented activities. In this pattern companies' internal parties and suppliers are related in a specific manner to execute the activities We acknowledge that POPs derive from companies' context factors following Rozemeijer and Van Weele (2007) who state that the context of a company can explain why a certain governance structure is deployed (see Section 2).

The combination of context factors are derived from TCT and RBV and used in the following framework. This framework[4] assesses POPs theoretically and distinguishes the following factors:

- TCT's induced level of asset specificity; this ranges from low (in which there is a low need of specialized investments by the FC, the supplier or both in the purchasing-oriented activities to deliver the value proposition)), to high (in which there is a high need of specialized investments by the FC, the supplier or both to deliver the value proposition).
- RBV's induced level of resource position of the FC vis-à-vis their supplier, to deliver the value proposition to their customer; this ranges from weak (in which the FC needs precious (i.e. valuable, rare, non-imitable and non-substitutable) resources from a supplier to deliver the value proposition to their customer) to strong (in which the FC needs commercial available (i.e. non-valuable, common, imitable and substitutable) resources from their supplier to deliver the value proposition to their customer).

The combinations of *level of asset specificity* and the *level of resource position* renders a POP which enables the effectuation of a certain value proposition. Such a combination of levels enables (1) the identification of general characteristics of POPs and relate them to a value proposition (2) elaboration on the governance needed to reach the attached value proposition (3) the indication which party contributes what to reaching the value proposition. The matrix labels reflect the nature of POPs. Figure 1 presents the combination of the dimensions and defines the characteristics of the POPs.

This reasoning leads to four POPs within the framework (Figure 1):

1. *Cross functional purchasing:* is characterized by a weak resource position of the FC (expecting a supplier to deliver precious resources) and a high level of asset specificity (expecting specific investments from supplier and FC) to reach a value proposition which is customer specific. To effectuate this combination of precious resources and high asset specificity a high level of integration of FCs' internal activities (purchasing activities are interwoven with other functions such as marketing, sales, development, production) and between the FC and the supplier is needed.

[4] This framework is derived and adapted from Brewer *et al.* (2014) and McIvor (2009).

2. *Coordinated purchasing:* is characterized by a strong resource position of the FC (expecting a supplier to deliver commercial available resources) and a high level of asset specificity (expecting specific investments from the FC) to reach the value proposition of the customer. The specific investment of the FC implies a high level of integration of companies' internal activities. Between FC and supplier a level of integration is needed in the design stage of the product/service to connect the commercial available product/service to the specific investment by the FC.
3. *Serve the value proposition:* is characterized by a strong resource position of the FC (expecting a supplier to deliver commercial available resources) and a low level of asset specificity (not expecting specific investments from supplier) to reach the desired value proposition. A low level of integration of the activities of the FC and between the FC and supplier is needed.
4. *Negotiating purchasing*: is characterized by a weak resource position of the FC (expecting a supplier to deliver precious resources compared to the value proposition) and a low level of asset specificity (not expecting specific investments from supplier). The combination of precious resources from suppliers and the low level of asset specificity (either from supplier or from FC) presupposes a value proposition including a product/service which is commercially available but with some small changes which make it possible to reach the value proposition.

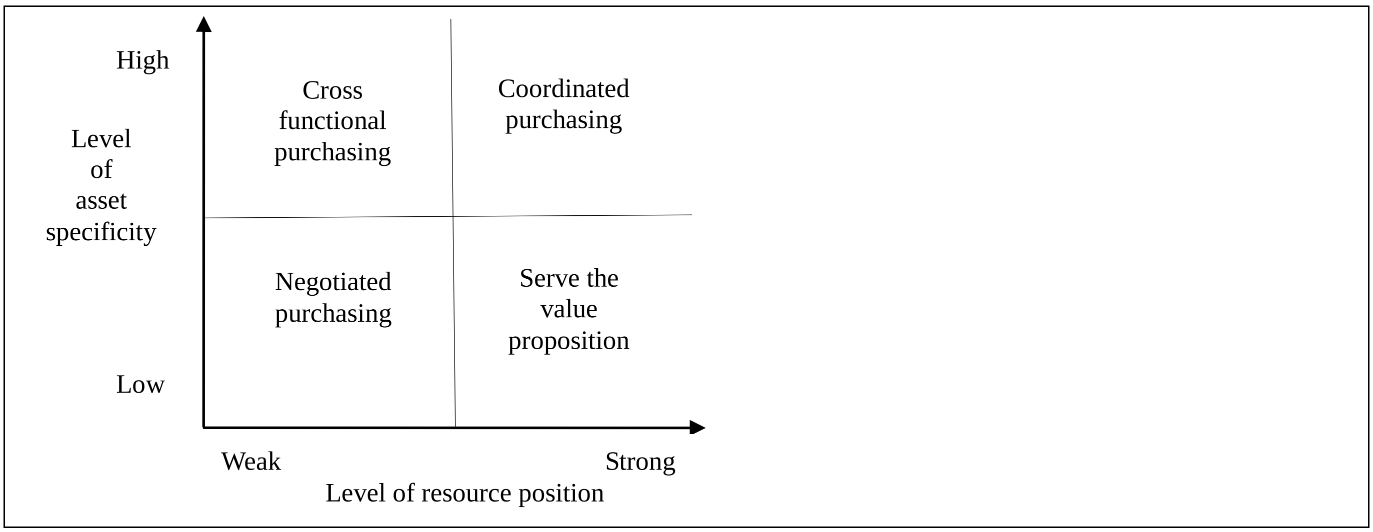

Figure 1: Framework of Purchasing-Oriented Patterns (POPs) as derived from theory

The Section 5 'Empirical findings' will discuss how these theoretical POPs are elaborated in the reality of SMEs and how these POPs are embedded in the supply chain of these SMEs; starting from the downstream customer's value proposition to the upstream supplier's contribution to that value proposition. The detailed POPs embedded in the supply chain will be called extended POP. But first we will discuss the methodology used in this research.

4. The case study methodology

Approach

When trying to distinguish and classify purchasing-oriented activities into POPs, research could use extant classifications by e.g. Van Weele (1998, 2010) or older classifications by Aljian (1958) and England (1970) as both cited in Wind (1970), or by Robinson *et al.*, (1967). However as e.g. argued in Hagelaar *et al.* (2014) and Torres & Julien (2005) and as originally stated by Cohn & Lindberg (1972): *small companies are not mini-big companies*. Hence their procurement activities will also differ (see also Ramsay, 2007). This is even more so due to the (extremely) wide variety in small companies (e.g. Morrissey & Knight, 2011).

The small extant body of literature on purchasing activities within small companies, e.g. Adams (2004, 2011), Ellegaard (2009), James *et al.* (2011, 2012), Morrissey & Knight (2011), Paik (2009) do not classify purchasing-oriented patterns[5]. This research hence cannot benefit from a priori guidance from extant research. The team therefore developed another analysis methodology and combined two basic approaches:

- A *deductive theory approach* in which the theoretically developed POPs are used to classify the cases.
- An *inductive grounded-theory approach* (cf Miles & Snow) in which the purchasing data is inductively analysed to explore (1) the identified POPs on how the internal and external purchasing activities are governed and (2) the relationship between the POPs and the value proposition.

The POP are identified via combining resource position and asset specificity. Management of the activities within a POP executed by different (internal, external) parties, is of importance because it glues these activities together. After all, following Malone and Crownston (1994) a manager's key tasks are: (1) align activities within organisations and between organisations; (2) ensure that this alignment is executed with a certain objective. Management is represented by coordination mechanisms as e.g. defined by Mintzberg. Meijaard *et al.* (2005) found these coordination mechanisms (direct supervision, standardisation, knowledge and mutual adjustment) applicable to SMEs.

Case selection

This sub-section discusses the research design in data collection and analysis. The overarching aim of our three-year research programme on purchasing within SMEs is to develop specific purchasing instruments. To bridge the gap from the current state of limited knowledge and to develop these more generally applicable instruments we need to collect in-depth (rich) data from multiple case studies and data which facilitate more general statements from a quantitative survey and a Delphi study. This article focuses on results from case study research.

The company cases are selected on the basis of their value proposition. This criterion was deployed following the reasoning that how purchasing activities are organized is formed by how a company wants to realize its value proposition. When a value proposition can be considered as a goal/strategy of a company it can be assumed that a governance of purchasing activities will support that value proposition. This reasoning is in line with the interwoven character of functional activities within a SME as explained earlier. From this we assume a business driven manner of purchasing within SMEs (c.f. Rietveld, 2009). We selected 11 companies according to the value propositions: operational excellence, product leadership and customer intimacy (Treacy & Wiersema, 1995).

The interview questions were focussed on purchasing activities related to one specific key commodity. Such key commodities are those commodities which are most important in enabling the SME to create the value proposition to it's customers.

Data gathering

On the basis of the conceptual framework as described in Section 3, this paper describes case studies to explore the purchasing activities, and focusses on (1) recognize POPs in companies' activities, to underpin and strengthen their validity, and (2) analyse the internal and external governance, of the relation between POPs and their environment. (Information on the focal companies in the case studies can be found in Appendix II). The cases were investigated via multiple interviews. The thread of the interview was mapping the activities from the customer end of the FC up to contacts with suppliers of key commodities. When defining the process flow via process mapping the team used the following three step approach as e.g. described in Jacka *et al*. (2011).

1. Process identification: attain a good understanding of the steps in a process.

5 But this research did reveal variables affecting the purchasing process as evaluated in Hagelaar *et al.* (2014).

2. Information gathering: identify objectives, risks, and key controls in a process.
3. Interviewing and mapping: understand the position of individuals and design maps.

Based on Jacka *et al.* (2011) and Eisenhardt (1989) Figure 2 shows the five steps for collecting and analysing the data in more detail. *(Step 5 will be discussed in parallel and future papers).*

1. Drafting a flow chart of primary activities within FC.
a. Goal: A flow chart per case (FC) is made of the activities from customer oriented initiation to resource requisition, and who were involved from developing and/or selling the product to purchasing resources.
b. Method: individual case studies focussing on strategic/critical/main product offering & the upstream supply base.
2. Analyse the flow charts with the primary activities within FC
a. Goal: (1) to identify steps in the overall process flow between the supplier (base) and the customer(s), and (2) to (classify) the coordination mechanism between the different steps. The coordination between different steps is typified by means of the coordination mechanism as defined by Mintzberg
b. Method: individual case studies focussing on strategic/critical/main product offering & the upstream supply base.
3. Identifying natural configurations of the purchasing-oriented activities embedded in company's activities
a. Goal: to identify for each FC the configuration of the steps and the coordination between the steps.
b. Method: individual case studies.
4. Identifying POPs
a. Goal: to identify ideal-typical patterns (POPs) in the overall process/activity flows between supplier(s) customer(s). This is analysed by using three criteria: (1) analyse similarities and differences between the observed natural configurations both in and between the case studies, (2) internal logic of the sequence of activities (3) the frequency of specific patterns observed.
b. Methods: cross case analysis, analysis survey and cross methods comparisons
5. Validity testing of POPs (future steps)
a. Goal: to establish POPs as the basis for further research. Two criteria will be used in our next research step: (1) confirmation of the configuration and internal logic of POPs (2) the level in which POPs occur in SMEs reality.
b. Method: Delphi study and survey.

Figure 2: The steps used for collecting and analysing case data

5. Empirical findings

Basic findings

Deductive and inductive analysis of FCs with the intention to derive POPs reveals the following:

1. From the analysis it appears that the FCs effectuate their value proposition in a targeted manner with as low as possible transaction costs. The activities through which the value proposition is realized encompass activities towards customer(s), the internal purchasing-oriented activities and the suppliers oriented activities. The value proposition seems to function as an aligning principle for the activities happening between the customer side and the supplier side of the company. In that sense one could state that purchasing is business driven.
2. We identified 3 steps in the overall business flow of activities: (1) outside-in, (2) inside, (3) inside-out. Each step centres around a specific transformation: (1) *outside-in* centres around the transformation of the added value proposition for the customer into requirements, (2) *inside* centres around the transformation of requirements into specifications of resources, (3) *inside-out* centres around the transformation of specifications to requisition of the resources. Going from step 1 to step 2 the focus is changes from overall performance directed at the customer to the purchasing function.
3. In line with the two theoretical dimensions of POPs i.e. level of value chain integration and level of specificity of supplier's added value, we conclude that (1) the FCs realize their value proposition stand-alone or in cooperation with a supplier and (2) FCs require their suppliers to supply offerings on regular delivery conditions (price, time, transport) and regular products, or require special offers.
4. Concluding from the cases, we witness a stability in the supplier base of SMEs.

Purchasing-oriented Patterns

Here we present the POPs with governance details and environment as derived from the case studies.

<u>POP 1 Serve the value proposition</u>

Table 1 below shows the variables as found in this POP. *(Example: IT turn-key design company).*

POP characteristics	FC[6] ICT turn-key designer
VP	ICT Design and assembly of offices on a high quality level at a reasonable price
party added value	FC: designs and assembles
Added value supplier	Standard ICT software and hardware
Internal integration	Low: ICT designers design on the basis of the regular offerings of suppliers
Internal coordination	Standardization: checklist standard soft- and hardware
External integration	Low: general market conditions for ordering commodities
External coordination	Standardization: checklist on the website of the supplier
VP in terms BM	Operational excellence: standardization in commodities, low transaction costs internally and externally

Table 1: Extended POP 1- Serve the value proposition

Standardization in products and processes characterizes this POP in its governance and in its environment. In essence the FC delivers to their customers the commodities that they order from the supplier. The FC's adding value is assembling the separate parts into a functional ICT design for their customers. This leads to standardized, checklist-ordering which is in line with the intended value proposition. It results in the following POP (Figure 3).

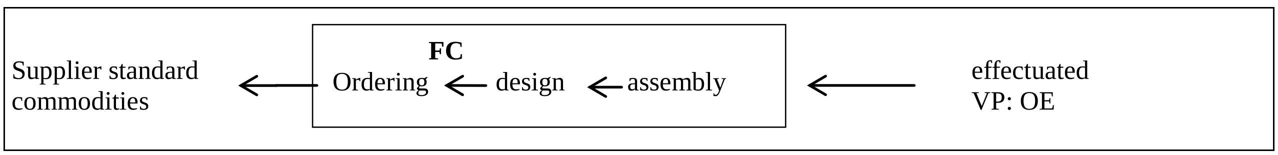

Figure 3: Extended POP 1- Serve the value proposition

<u>POP 2 Negotiated purchasing</u>

Table 2 below shows the variables as found in this POP. *(Example: horse shoe manufacturer).*

POP characteristics	FC: horse shoes manufacturer
VP	Standard horse shoes assortment at reasonable prices in a competitive environment
party added value	FC: manufactures and delivers to hypo sector
Added value supplier	Standard quality iron, reliable delivery
Internal integration	Higher: internal exchange between marketing, production, procurement to be able to order right amount
Internal coordination	Mutual adjustment
External integration	Lower: agreement on price for a longer time
External coordination	Mutual adjustment on the basis of negotiation; standardization
VP in terms BM	Operational excellence plus: price is negotiated for (periodic) reduction and stability; low transaction costs because of ordering within contour of agreement

Table 2: Extended POP 2 - Negotiated purchasing

Standardization is also an important driver for the value proposition in this pattern. However negotiation gives an extra value based on delivery conditions. In this example it is price but it can also be negotiating regular product characteristics. In the latter case the effectuated VP will be on product leadership. The deviation from the regular delivery conditions and/or product characteristics gives this pattern its competitive advantage. It results in the following POP (Figure 4).

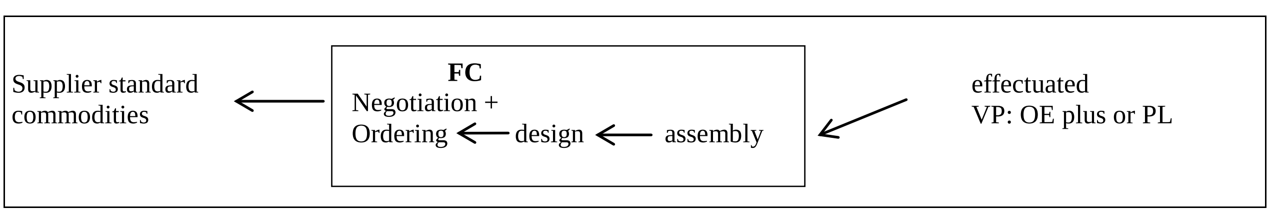

Figure 4: Extended POP 2 - Negotiated purchasing

POP 3 Coordinated purchasing

Table 3 below shows the variables as found in this POP. *(Example: innovative IT company).*

POP characteristics	FC: IT innovation driven company
VP	Developing innovative software made applicable for practical usage at a reasonable price
party added value	FC + supplier: in cooperation developing the overall product
Added value supplier	Delivering applicable solutions on the basis of regular soft- and hardware, to enable the companies' innovative software function in practice
Internal integration	High: internal exchange between marketing, production, procurement to be able to develop software and relate to the supplier
Internal coordination	Professional knowledge exchange
External integration	High: external exchange matching regular soft- and hardware to innovative FC's software
External coordination	Professional knowledge exchange
VP in terms BM	Product leadership: joint development of innovative IT equipment

Table 3: POP 3 - Coordinated purchasing

The added value is jointly delivered by both FC and supplier. The product is based on standard components from the supplier but these must be matched with the FC's specific input into the design of the overall product. This specific contribution of the FC implies that knowledge and skills of the supplier are needed to integrate the suppliers' components to the FC components of the product. There will be transaction costs in this matching process and possibly in formulating specific delivery conditions. Additional transaction costs can occur when parties formulate an agreement for their cooperation. The customer value proposition will be Product Leadership when the matching process is dominant. Should there be other specific requirements for the delivery conditions (price, transport), the customer value proposition will be Product Leadership Excellence (PLE). It results in the following POP (Figure 5).

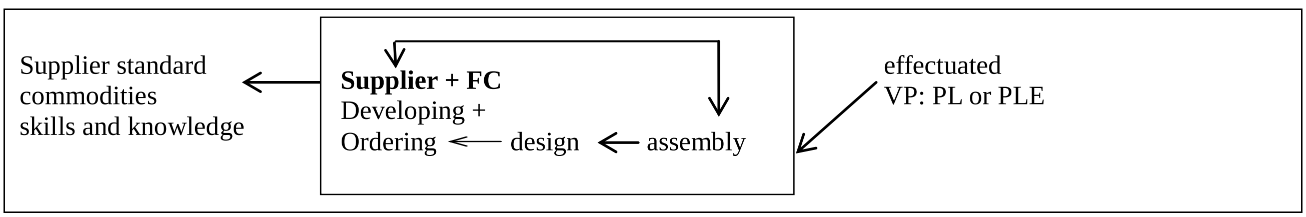

Figure 5: Extended POP 3 – Coordinated purchasing

POP 4 Cross functional purchasing

Table 4 below shows the variables as found in this POP. *(Example: trailer designer and manufacturer).*

POP characteristics	FC: designer and manufacturer of trailers
VP	Designing and manufacturing trailers tailor made for specific requirements of customers
party added value	FC + supplier: in cooperation developing the overall product
Added value supplier	Designing and manufacturing axles which align to the specific trailer wishes of the customer
Internal integration	High: internal exchange between marketing, production, procurement to be able to develop software and relate to the supplier
Internal coordination	Professional knowledge exchange
External integration	High: external exchange matching regular soft- and hardware to specifically customized trailer
External coordination	Professional knowledge exchange
VP in terms BM	CI: tailor made trailer for specific customers' requirements

Table 4: POP 4 - Cross functional purchasing

In cooperation a FC and a supplier jointly design a product which the FC brings to the market. The product is based on knowledge and skills of each partner and their joint product development trajectory. Transaction costs occur in exchange of knowledge and skills in the course of the development trajectory. The development may lead to joint investments. Specific delivery conditions can be made for tailoring the supply. Extra transaction costs can occur in establishing the relationship between FC and supplier.

The actual customer value proposition is Customer Intimacy when the activities of the design process are dominant. Should there be specific requirements for the delivery conditions (price and transport) the customer value proposition can be Customer Intimacy Excellence (CIE). It results in the following POP (Figure 6).

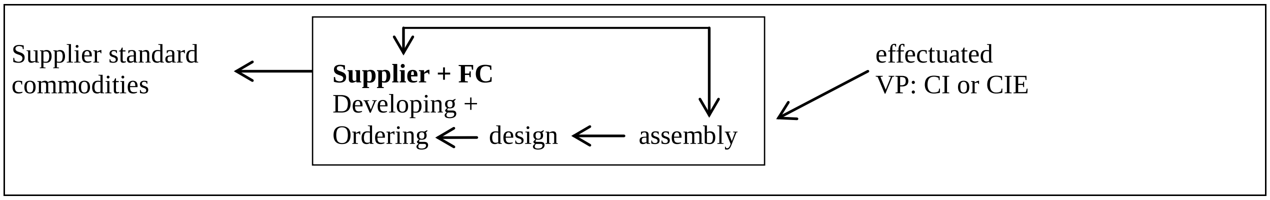

Figure 6: Extended POP 4 – cross functional purchasing

6. Discussion

Transaction Cost and Resource Based View

At the basis of the POP lies the combination of TCT and RBV. TCT in the sense of the governance, level of integration within the chain and the added value of resources both in the sense of the intrinsic and extrinsic product attributes. This combination seems to capture the nucleus of the way purchasing activities are organized to reach the value proposition. This gives insight in how SMEs organize their purchasing activities in line with their value proposition.

Business driven purchasing

Although in literature Business driven purchasing as a concept is presented as a concept for the future, on the basis of these case study results we can conclude that it already is in action. This is in line with the characteristics of SMEs being companies with interwoven functional activities. This has as consequence that purchasing part of the detailed POP in its environment can only be understood and well explained by having the eye on the extended POP.

Supplier influence

In these four basic patterns we see that suppliers to a varying degree help to realize the value proposition for the final customer. In line with managing the customer decoupling points within a company's supply chain (cf. Romme *et al.*, 1992) this paper proposes a decoupling point indicating the impact of the suppliers in the chain. We would (somewhat boldly) define[7] this as: *the extent to which a supplier impacts (influences, contributes to) the realisation of a value proposition by the FC for its end customers*. This supplier contribution will vary between a *high impact* where the specialised supplier and the FC jointly conduct the product offering to end customers, and a *low impact* where supplier conducts the product to the end customer and uses a commodity supplier.
One explanation for the structure of these four types of demand chains can be the FC's external environment (cf see e.g. Welker, Van der Vaart, Van Donk, 2007). A possible environmental variable could be the dependency on a sole supplier. This dependency can result in an additional purchasing activity in order to safeguard the Operational Excellence value proposition, for instance arranging a long term contract. Another way in which the environmental variables can affect the FC appears from the ICT- turnkey company. Its customers appreciate the value proposition i.e. designing the ICT for their organisations based on standard components. These standard components enable this FC to realize a value proposition. The IT designers of this FC use a standard checklist (components available with several suppliers) to design an IT offering to customers. In daily practice the FC then orders necessary components with one of the two of its regular suppliers. These suppliers will deliver the components

6 In line with Romme *et al.* (1992) we would phrase this as: *Supplier Influence Decoupling Point*.

based on standard conditions. The FC has no explicit agreement with these suppliers the supplier market has sufficient other potential suppliers for these standard components and as the suppliers' terms of delivery have been incorporated in the FC's terms of delivery towards its customers. In this case the environment enables a streamlined operation for the FC without further transaction costs. Worded differently, the FC and his supplier (upstream) and customer (downstream) form a seamless chain.
Within the dataset only this ITcompany exhibits such a seamless chain. The other FCs do not show such a seamless chain with regard to their purchasing-related activities. In such instances the FC for example arranges a long-term contract or the FC organizes transport from the supplier. We interpret these additional activities (see Hoekstra *et al.*, 1999) as necessary for realizing the value proposition to customers. Considering the FC's competitive environment and its scarcity in resources (Hagelaar *et al.*, 2014) we suggest that SMEs will try to avoid such 'extra activities' because of the extra transaction costs they entail. Transaction costs we found in the FC include extra man hours, specialist know-how or extra supporting equipment or control systems.

Low transaction costs

In line with the simple organisation of Mintzberg (1971) the FCs in our dataset keep their techno-structure and support staff as small as possible. In the FCs show some activities from these business functions (ordering products and aligning ordering with production planning within more or less explicit company policies). However these activities seem interwoven with the activities within the strategic apex and sometimes between the apex and middle management and operational core. The dataset shows that all activities are preferably executed within the operational core. In this manner it becomes understandable how the FCs 'cope with purchasing' without labelling certain activities as purchasing activities. The FCs integrate purchasing directly in their other primary activities (Porter, 1985). This is in line with our demand chain thinking from the value proposition. The purchasing activities appear to be aligned within the value adding primary activities. Hence it becomes clear that with everything an SME is said to *lack* (from a negative perspective) the FCs in our dataset do achieve certain results.
We could interpret the fact that FCs have stable suppliers (either deliberately planned or emerged over the years) for the FC results in stability at the upstream side of the FCs. This could explain the low priority SMEs in general have for the purchasing processes. The supply side has lower levels of risks and uncertainties compared to the downstream customer side. The FC sees itself in a dependant position towards the customer side in relation to financial turnover and business continuity of his company.
The previous two paragraphs discuss ways to keep the span-of-control as low as possible as each addition would cause higher transaction costs and will only occur when this brings clear benefits. Having regular suppliers (emerged or planned) can be interpreted as realizing stability at the supply side of the FC. Restating the core of the transaction cost theory – when the environment cause uncertainties or causes the need for asset specificity (investments in a specific supplier relationship), only then the FC will extend the span of control. The above observations can hence be explained from the theory of the transaction costs, including stabilizing the supplier base for reducing uncertainties with regards to the supply of critical goods and services needed for the customer value proposition. A simple solution here is selecting and maintaining a relationship with good suppliers without formal agreements.

7. Conclusions

This empirical paper uses a conceptual model and framework as developed in the conceptual paper of Hagelaar *et al.* (2014).

1. This paper finds that purchasing-oriented patterns (POPs) within the FCs can be related to the customer value proposition of the FC. The paper distinguishes for types of POPs for critical purchasing activities.
2. The supplier influence downstream is comparable to the customer influence upstream.

3. Findings suggest that FCs can strive for low transaction cost but can also invest in extrinsic product attributes to realize their value proposition.
4. Findings suggest that POPs of the FC can be explained by both the Resource Based View and the Transaction Cost Theory. Findings suggest that a combination of deductive and inductive approach works in deriving purchasing patterns.
5. More research is needed to strengthen and validate the findings.

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Appendix 1 – *Conceptual framework from Hagelaar et al. (2014)*