Organising the Purchasing Function as an Interface between Internal and External Networks

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Abstract

During recent years, increasing specialisation and complex market structures have made companies divide their purchasing functions into several organisational units to cope with increasingly diversified demands on linking the internal operations within the firm with operations at their suppliers. In this paper, we focus on organising of the purchasing function as an interface between internal and external counterparts. We suggest a framework focusing on how the purchasing function works as an interface between the firm's suppliers and (other) firm internal functions, such as production, product development and marketing. The framework builds on two dimensions; one that describes how the purchasing function of a firm relates to other internal functions and one describing how it relates to suppliers. The purchasing situations described by the framework are illustrated with some examples. Also, the ways in which the organising principles can be aligned to purchasing strategies are discussed. We conclude with some possible avenues for further research to explore the insights the framework may generate.

Key words: purchasing function, organisational interfaces, purchasing strategy

Introduction

The purchasing function in most companies has become subject to changes in its internal as well as external relations in recent years. Possibly as a result from this it seems as if the purchasing function in many firms has developed from one 'purchasing department' into a number of organisational units that are organised differently in relation to several other internal functions in order to cope with their different demands. The aim of this paper is to elaborate on the organising of the purchasing function as an interface between firm internal functions and external counterparts.

The way in which the purchasing function is organised has been subject to research interest. In particular, the issue of whether the function should be centralised or decentralised has been studied. This issue is of considerable empirical relevance and many firms have been observed to change back and forth between the two over time. According to Gadde and Håkansson (2001) the main 'internal' reason for centralisation is that it promotes professionalism among buyers and that resources may be allocated efficiently. On the other hand, centralisation can make it difficult to integrate the purchasing operations with those of other functions:

"... it is part of the total operations of the company, implying that integration with those other activities is a main concern. In the decentralized purchasing organization buyers are located together with people from manufacturing and engineering rather than with other purchasers, simplifying inter-departemental interaction, but making purchasing per se less professional." (Gadde and Håkansson 2001: 108)

Hence, a strong argument in favour of a decentralised approach to organising the purchasing function is that it becomes increasingly important for firms to promote internal interaction with other functions. Purchasing has become more complex owing to increasing specialisation and technical sophistication. Therefore, the development seem to be directed towards diversified purchasing functions working closely with other units such as technical development, production, logistics functions etcetera. In the automotive industry, for instance, multi-functional teams including purchasing representatives, has become a vital organisational principle for managing the development of modules (see von Corswant 2003).

Apart from an increasing need for close interaction with product development functions, the purchasing function also has other tasks than to find and manage the co-operation with suppliers of vital components and modules. For instance, designing and managing of the supply chain so that the flow of goods and information can be efficient, may require other internal and external relationships. Furthermore, purchasing and management of MRO (Maintenance, Repair, Operations), purchasing of production equipment, electricity etc. all require different internal interfaces between the purchasing function and other functions within the company. Not only the functions with which purchasing needs to work display a variety, but also the nature of these relationships.

The ways in which the purchasing function of a company is organised also impacts heavily on how it may interact with external counterparts. Gadde and Håkansson (2001) discuss two important aspects: (1) the benefits of supplier involvement in product development, and (2) how the choice between centralised and decentralised purchasing impacts on external interaction. The need for early and close interaction with suppliers in development projects is again at the core of their argument. There is an abundance of literature addressing this issue (see e.g. Burt and Sukoup 1985; Takeuchi and Nonaka 1986; Clarke and Fujimoto 1991; Wynstra et al 2003) and more specifically on how modular technical designs can be used as a means to facilitate co-operation between buyers and suppliers in technical development (see e.g. Baldwin and Clarke 1997; Henderson and Clarke 1990; Kogut and Bowman 1995; Sanchez and Mahoney 1996; Sanchez 2000). However, the purchasing function and how it is organised in relation to inter-organisational issues is not explicitly discussed.

Inter-organisational issues have more often than not been separated from intra-organisational ones. When purchasing is concerned, however, inter- and intra-organisational aspects may be seen as interdependent since how the firm works internally is closely related to how it relates to its environment and vice versa. Moreover, the effects of a certain way of working towards external counterparts may turn out differently depending on firm internal relations. Below we introduce a framework for analysis of the purchasing function as an interface between firm internal functions and external counterparts.

Before doing so, we briefly review existing literature on organising the purchasing function, and its limitations.

The paper essentially is aimed at providing a conceptual contribution to the ongoing debate, both in academia and in practice, regarding the organisation of the purchasing function. Apart from some of the illustrations provided, the paper does not present any empirical evidence to test specific claims. At the end of the paper, however, we set out to discuss some possible avenues for further research along the lines identified by our framework.

Traditional perspectives on organising the purchasing function

In this section, we review four main dimensions along which the organisation of the purchasing function traditionally has been studied: centralisation/decentralisation, department vs. function, strategic vs. operational, and hierarchical position within the organisation. Our brief review of the literature on these three dimensions is aimed at establishing to which extent research has considered the link between these aspects of internally organising the purchasing function on the one hand, and the way supplier relations are organised on the other.

Centralisation – decentralisation

Centralised purchasing structures are characterised by all (or the majority) purchases, being managed by a central purchasing group. In this approach, the operating units are consulted but are not fully responsible for their own buying. Centralised purchasing provides the firm with a single, collective sourcing and buying power. This model captures a large part of the potential corporate purchasing synergies, but there is little user control and responsiveness to local needs. Historically, the primary advantage of centralised purchasing has been to realise a favourable price due to accumulated volumes. Unfortunately, when firms pursued centralised purchasing, they not only centralised the purchasing of parts with suppliers, but also the actual ordering process.

Decentralisation occurs when there are multiple purchasing departments within the organisation and all (or the majority) purchases are managed by individual business units. In this approach, each business unit has its own autonomous purchasing function. Cross business unit co-ordination, if any, is voluntary, ad-hoc and informal. There is no centralised co-ordination or development of policies other than what might appear through financial or other operating policies of the firm. This organisation places all responsibility for purchasing activities at the field locations, and it serves to minimise corporate overhead. A disadvantage of this model is that the local purchasing units lack managerial or operating strength to provide the group with the economies, synergies, and buying power that is often found in companies with centralised groups.
One variation on the decentralised form consists of voluntary purchasing councils that are based at field locations. A council consists of local purchasing personnel with similar product and service needs. They meet voluntarily and co-ordinate a single source and acquisition (negotiation, contracting, and ordering) as though they were one group. In many firms, however, voluntary purchasing councils often disband due to lack of leadership or top management support and commitment.

Only recently, textbooks increasingly pay attention to structures that are not central nor decentral, but something in-between (Van Weele 2005). The hybrid structure should allow selective opportunities to capture the benefits of centralisation and decentralisation, while ideally mitigating the disadvantages. The growing popularity of these so-called hybrid structures is also reflected in recent studies by the Centre for Advanced Purchasing Studies (CAPS) (Leenders and Fearon 2000; 2002). Arguably, two conflicting sets of pressures are driving the development towards hybrid structures (Faes and Mattyssens 1998). Globalisation, standardisation and efficiency pressures are pushing towards greater centralisation. Customisation, differentiation and responsiveness pressures push towards greater decentralisation. In other words, both decentralisation and increased centralisation are simultaneously shaping future purchasing strategy. Eventually, different types of co-ordination (or hybrid structures) might be the resulting mid-range positions.

There are to our knowledge, however, no studies available that discuss in detail how the purchasing function's degree of centralization impacts the way supplier relations are dealt with. The discussion is usually limited to arguing that centralisation has the advantage of being able to present "one face" to

suppliers, but that the disadvantage is that the internal customer has less direct contact with the supplier and vice-versa.

Purchasing department – purchasing function

It is common to distinguish between the purchasing function and the purchasing department. The purchasing department (if there is one) and its specialists may co-ordinate the basic processes of 'specifying, selecting, contracting, ordering, receiving and evaluating', but this does not necessarily imply that these activities should be carried out by this department. There are often groups of internal experts involved in different parts of buying processes covering various aspects. For example, top management is usually involved in important make-or-buy decisions, and engineering is probably having contacts with suppliers regarding the design of new products. These activities are also part of the purchasing function. In other words, purchasing processes cut across the entire organisation. Some purchasing activities may even take place without any intervention by the purchasing department at all.

Part of this discussion obviously ties back to the well-known concept of the Decision Making Unit (….), but one can argue that the DMU as a cross-functional unit has primarily been studied in relation to actual buying decisions. Increasingly, tactical and strategic processes that are not directly related to a particular buying decision are carried out by cross-functional teams. Particular examples of these are so-called 'commodity teams' that, for example, deal with the selection of preferred suppliers and supplier development and evaluation, and new product development (NPD) teams in which buyers participate to discuss potential outsourcing and manage the involvement of suppliers in the development project (Lakemond et al. 2001).

Nearly all of these studies, however, focus on the details of effectively and efficiently organising these teams, in terms of the number of participants, the allocation of roles and responsibilities, reporting structures, review and reward systems, etcetera. There is little or no discussion on how certain cross-functional organisation structures are affecting supplier relations and the other way around. How exactly specific team structures enable particular supplier relations, and vice versa, is not studied.

Strategic vs. operational activities

The overall purchasing process can be divided into operational, tactical and strategic activities. Traditionally, these activities were carried out by one and the same (group of) person(s). For example, a buyer of mechanical parts would be in charge of both setting strategy (number of suppliers, type of contracts) and executing operational tasks (chasing orders, payment). Increasingly, in particular at larger organisations, these different activities are allocated to specific units within the purchasing function. Ordering may be allocated to internal users, tactical decisions may be left to buyers participating in cross-functional NPD teams, and strategic decisions are left to senior buyers / high-level commodity teams. When operational and tactical/strategic tasks are to be performed by the same persons, the often more urgent (which is not the same as important) operational tasks tend to get the most attention (the "fireman" syndrome). On the other hand, however, a very high degree of complexity may make it more difficult to co-ordinate various activities within the purchasing department itself (Wynstra et al. 2001).

The division of these functional activities is obviously tightly related to the aforementioned aspects of centralisation and 'cross-functionalisation'. One of the main reasons for splitting up strategic, tactical and operational units within the purchasing department is that the remaining units can more easily coordinate with different other functions: for example, the R&D function as counterpart of the initial buyers and factory management as counterpart of the operational buyers. Also, by splitting up these units, one can more easily design hybrid organisations in terms centralisation/decentralisation.

There are, however, also apparent disadvantages. The main disadvantage is that there is an increased need for communication and coordination within the purchasing department itself. Think of a situation where one supplier is dealt with by three different purchasing representatives: one strategic buyer, responsible for commodity strategy development in the supplier's product segment, one tactical buyer that is negotiating with the supplier regarding its participation in a development project, and a factory buyer that is chasing the deliveries of that particular supplier. Increased task division leads to

increased coordination needs, for example to feedback operational performance into the supplier evaluation process.

Unfortunately, there are no detailed studies on how these task allocations affect the organisation of supplier relations.

Purchasing's hierarchical position

The final dimension which is commonly discussed in relation to the organisation of the purchasing function is its position in the organisational hierarchy. By hierarchical position we refer to the level in the organisation at which there is a manager solely responsible for the purchasing department. Traditionally, purchasing has been part of the production or logistics department, but increasingly we see that purchasing (under the name of Procurement, Sourcing or similar) has its own representative at Executive Board levels, as witnessed by the increasing numbers of Chief Procurement Officers one can find in large companies nowadays.

Obviously, the hierarchical position of the purchasing department, and in particular how its reporting structure relates to other departments, is closely related to the cross-functional organisation of the purchasing function. A purchasing department that is made subordinate to the production department is usually put in that position to promote collaboration between these two departments.

As for the other dimensions of organising, we know of no studies that study the interdependence between purchasing's hierarchical position and its way of dealing with supplier relations.

Internal and external dimensions of organising the purchasing function

Concluding from the discussion above concerning the dimensions by which purchasing organising issues have been discussed, mainly internal aspects have been brought to the fore. In this section we focus on how internal and external activities need to be linked in different ways. We argue that this has implications for how the purchasing function needs to work as an interface between internal and external counterparts.

In order to distinguish among situations in terms of how the purchasing function needs to link internal and external operations we rely on a modified version of the three generic forms of organising; markets, hierarchies and networks (Thompson et al 1991). In a simplified version these forms of organising represent three different co-ordination patterns. Market exchange entails independence and thus requires standardised use interfaces to fit with a range of standardised options. Hierarchy implies a fixed connection between supply and demand, while the network mode represents situations wherein interaction, interdependence and adjustments are characterising the exchange. The latter also permits influence among relationships.

Three principal ways in which the purchasing function may be positioned in relation to other internal functions are suggested. First, it may be operating as an 'order-taking unit' that gets information on specifications, required volumes and delivery dates from e.g. the production function, and based on this carries out operational purchasing tasks as required. In contrast, the purchasing unit may have a very strong position and thus more or less be dominating the conditions for other firm internal functions. Third, the purchasing function may rely on interaction with the other internal functions permitting them to influence each other in decision making regarding purchasing, production, logistics, etc.

The external dimension captures the way in which the firm deals with its suppliers. First, the firm may buy in a 'playing the market' fashion. By this way of working the firm relies on numerous available suppliers and on finding the 'best' one for each purchasing situation. Second, the firm may have an organised set of suppliers, which may be referred to as a supplier hierarchy, where *what is bought* and *from whom* is more or less 'built into' the structure. Hence, in these situations the external structure is more or less 'given'. Third, firms may interact with suppliers which permit adjustments of what is done within the focal buyer-supplier relationship to other supplier relationships. Hence, we may describe this structure and way of working in it as a supplier network.

Putting these two dimensions, and the three situations in each, into a matrix results in nine principle cases (see Figure 1).

	Purchasing conditions decided by other internal functions	Purchasing dominates	Purchasing interacts with other firm internal functions
Supplier market	1. The purchasing function identifies the best offer based on internal orders	2. The purchasing function identifies the best offer on the market and other functions adjust to what is bought	3. The purchasing function decides what to purchase on the market in interaction with other internal functions
Supplier hierarchy	4. The purchasing function administers purchases from 'given' suppliers based on internal requests	5. The purchasing function buys from 'given' suppliers and other functions adjust to it.	6. The purchasing function decides what to order from 'given' suppliers jointly with other functions
Supplier networks	7. The purchasing function interacts with suppliers to fulfil internal orders	8. The purchasing function interacts with suppliers to develop the best buy to which other functions adjust	9. The purchasing function interacts with internal functions and suppliers to decide the content of the exchange

Figure 1. Internal and external dimensions influencing the purchasing function's role

The two dimensions have different features that together produce different outcomes. The framework suggests that the effects of external relations depend on how the firm works internally and vice versa. For instance, there are two situations, one in each dimension, that are *interactive* to their nature; one focusing on internal and one on external interaction. Interaction permits adjustments of different kinds and the direction of these adjustments are made in the dimension that allows forinteraction. Hence, the way in which a supplier network may be utilised depends largely upon how the purchasing function relate to other firm internal functions.

The main unit of analysis for the proposed framework are the organisational units that together form a firm's purchasing function. Although it would be conceivable to use the framework to characterise an entire purchasing function as a whole, we think it would be much more useful to use it to describe particular units within this function, given our earlier observations on the increasing fragmentation of the purchasing function into specialised subunits.

The cases represent different purchasing situations and the framework describes how different parts of the overall purchasing function relate to internal and external parties. This may be taken into account when organising the purchasing function into different organisational units with different internal and external interfaces. Below we discuss three examples of diversified purchasing functions.

Principle examples of diversified purchasing functions

The chemicals producer

This company buys raw materials from a more or less permanent set of suppliers where the prices on these materials are decisive of the firm's profit. The general manager and the business area managers are involved in these purchases in order to manage the adjustments that are needed within other firm internal functions. In contrast to this purchasing situation, the company also buys production equipment and MRO-materials. For some of these purchases the indirect purchasing costs are

extensive. To manage purchasing of these items the firm needs a purchasing function that interacts both internally and externally to maintain and develop efficient relationships with suppliers.

These two purchasing situations correspond to case 5 and case 9 in Figure 1. For raw materials the purchasing is mainly concerned with making other functions adjust to the features of the materials purchased, and also to manage the effects of price variations e.g. in adjusting prices to the firm's own customers. Hence, the 'hierarchical' nature of the supplier structure and the difficulties in influencing prices and product features makes it necessary to make adjustments elsewhere. As an interface between the external and internal counterparts the purchasing function thus needs to analyse the needs for adjustments and to co-ordinate these adjustments among the internal functions that become affected. Hence, the situation can be described by case 5 in Figure 1. In contrast, the purchasing situation for equipment and MRO-products is different. In this case purchasing is focused on interaction with other internal functions as well as with suppliers. In order not to be involved in too many supplier relationships the internal requirements need to be channelled to a limited set of key suppliers. Thus, in interaction with these suppliers the purchasing function needs to continuously develop the range of products that each supplier can handle in a cost efficient way. Also the exchange routines need to be monitored and developed in interaction with internal and external parties. Hence, this situation corresponds to case 9 in Figure 1.

The truck producer

This company is involved in close co-operation with key module suppliers. The suppliers' involvement in technical development ranges from having a total responsibility for a certain module to having very little influence on modules that are mainly developed by the buying company's technical development function. The main challenge for the purchasing function is to deal with the situations in between these two extremes. Apart from purchasing units in charge of co-ordinating internal and external development activities, this company also has purchasing units responsible for co-ordinating the internal and external production activities. Some of these work on a global basis, co-ordinating some of the exchange for all factories while others works on the factory level. A third kind of purchasing unit works with so called NAP (Non Automotive Products) including a wide variety of products such as MRO, production equipment and services of different kinds. The people working in this unit are further specialised on different product areas. One challenge is to keep the number of suppliers at a reasonable level and to channel the diverse internal purchasing needs to these suppliers in order to maintain low indirect purchasing costs.

To manage these different situations the firm needs to organise its purchasing in relation to different internal and external parties. First, in situations concerned with close technical development co-operation purchasing may need to interact with various internal and external parties. The more interaction is needed, i.e. in between the two 'extremes', the more extensive this need for 'interfacing' might be. Hence, this situation corresponds to case 9 in Figure 1. Second, for production related purchasing, the set of suppliers as well as their operations towards the buying firm may be considered more of a hierarchy than a network in that at this stage suppliers cannot be replaced or asked to make any greater adjustments. This situation corresponds to case 4 in Figure 1. Third, for NAP-products the situation may resemble the MRO-purchasing in the previous case. However, in order to manage the diversity of internal needs in large firms the situation may also be managed as case 8 wherein the purchasing function dominates the purchases and other functions adjust to it.

The construction company

The challenge for this large construction firm is to capture economies of scale in their operations, not least for purchasing. Hence, buying for individual construction projects is usually not very problematic, but to co-ordinate purchasing across construction projects is difficult. Also, the company wants to co-ordinate their purchases among several geographic regions in which the local conditions for these purchases varies. The company therefore has three kinds of purchasing units. First, a central purchasing unit that develops purchasing strategies and forms framework agreements with major suppliers to be used in all regions. Second, local purchasing units that co-ordinate purchases within the region and forms agreements with suppliers that should be used in that region. Third, purchasing units dealing with purchasing for the individual projects. The latter are mainly responsible for buying from central and regional contracts and to co-ordinate the exchange with the suppliers on a day-to-day basis.

Since the most construction materials are standardised there is a supply market situation wherein there are a number of interchangeable, if not identical, products available. In order to capture purchasing volume advantages and to be able to make adjustments in exchange routines the central and regional purchasing units are all active on the supply markets and try to identify the best offers. This also makes it necessary to agree on the scope of different purchases, i.e. whether a particular agreement should be made centrally or regionally. Hence, they need to interact with each other and with suppliers. Owing to the standardised nature of the materials bought these units work according to case 2. The project purchasing units are then required to buy in accordance with the agreements from 'given' suppliers and thus need to make adjustments in interaction with other firm internal functions, i.e. as described by case 6 in Figure 1.

Organising in relation to purchasing strategy

The examples illustrate how the organising of the purchasing function links to strategic purchasing issues. Purchasing strategies have implications for the purchasing function's role as an interface. Therefore, the strategic implications of both internal and external relations need explicit consideration in order to develop an understanding for the purchasing function as an interface. Some strategic issues are highlighted in this section, in relation to what has been referred to as the three strategic roles of purchasing.

On a general level, purchasing can be argued to perform three roles within each organisation: a *rationalisation* role, a *development* role and a *structure* role (Axelsson and Håkansson 1984; Gadde and Håkansson 2001; Axelsson et al. 2005).

The *rationalisation* role comprises the activities of the purchasing function to contribute to the company's competitive advantage through keeping total costs down. This role focuses on three main areas of costs: *direct costs* (price in relation to volume, freight, insurance etc.) of buying goods and services; *indirect costs* down of purchasing a certain functionality (this could include administrative aspects such as handling invoices and costs of keeping and maintaining a supply base); and *internal production costs* down by, for example, reducing the resource consumption.

The purchasing function's *development* role involves matching the organisation's development or innovation process with those of individual suppliers and the overall supplier network. This includes building, accessing and maintaining a structure of capable suppliers; making sure that existing technological capabilities of suppliers are leveraged in the internal innovation process; and mobilising suppliers to develop particular technologies, processes and products that the buying organisation needs.

The *structure* role, finally, concerns the endavours of the purchasing function to strike an optimal balance in term of dependence vs. independence on suppliers. On the one hand, the organisation should not end up in situations of dependence that are difficult to handle and possibly detrimental to the position of the buying organisation. On the other hand, creating situations where a buying organisation is dependent on a particular supplier may be necessary in order to create unique values (products, processes, procedures etc.) in the relations with suppliers. This involves activities such as identifying and monitoring developments in supplier structures and influencing the level of standardisation of supplier offerings.

The three roles are complementary to each other, and partially overlapping. The rationalisation role focuses on matching the organisation with suppliers in such a way that production and indirect costs are minimised, and the development role focuses on matching too, but now with the purpose of achieving synergetic effects in technological development. The structure role sets some conditions - restrictions - for the solutions that the other two roles may come up with. The weight of the different roles, and the extent to which there are potential conflicts between them, is contingent on the specific characteristics and objectives of the purchasing strategy and the overall competitive strategy of the organisation at hand.

One major issue regards the achievement of benefits from developing close relationships with suppliers. Efforts in this direction have surely had different effects for different companies and in different situations. To some firms the efforts made to develop 'partnerships' with suppliers have meant a move from case 1, where the purchasing function plays the market, to case 7, where they try to develop supplier relationships and networks. However, if the purchasing function is tied to

conditions set by other functions, as in case 7, the scope for interaction with suppliers is limited and therefore necessarily focused on what can be done by the suppliers in order to adjust to firm internal demands. A purchasing function in this situation may identify potentials in also making internal adjustments to be better able to take advantage of the suppliers' resources. As a result they may try to develop their ways of working into the situation described by case 9 in Figure 1, in which adjustments are made possible by external *and* internal interaction. If this is not perceived as a possible route, the purchasing function may have to adjust to the situation. This may imply that certain problems, e.g. with complex technical specifications, are solved mainly by the supplier(s), instead of being subject to interaction between internal and external counterparts e.g. the firm's development engineers and the supplier's production staff.

In situations as the ones described by case 9, the purchasing function typically gets another role in that it becomes a co-ordinating function in between firm internal functions, such as production, R&D and product development, and some of the supplier's internal functions. Particularly in the automotive industry multi-functional teams including buyer and supplier representatives have been a means to achieve an organised way of interacting during product and production system development. In these situations where technical interdependencies within some kind of end product, such as a car or a truck, stretches across the boundaries of several firms the challenges become directed towards developing other boundaries or limits for interaction. In the automotive industry these challenges are dealt with by 'modularisation' where efforts are made to keep technical interdependence within modules while the interfaces between them should be as clear cut as possible. This way of organising interfaces hence implies directions for interaction, i.e. with whom to interact and with whom *not* to interact (von Corswant 2003).

Aligning organising in relation to purchasing maturity

Individual business units or corporations – or even entire industries – will be characterised by a certain mixture of purchasing roles, or a dominance of particular objectives, at any given point in time. Often, such characterisations or *orientations* have been referred to as stages or phases, reflecting the notion that there is a certain logical or even chronological sequence in these different orientations.

Against this background, there have been several attempts to classify these orientations, often in terms of different degrees of maturity. Such maturity models are helpful not only in terms of classifying organisations in terms of their current position, but are especially relevant for determining possible directions for strategic change. It would be beyond the scope of this paper to present and discuss all available 'models' of development phases in purchasing and supply, so we focus on one particular, relatively recent version which also builds on existing models (Reck and Long 1988; Freeman and Cavinato 1990; Keough 1993).

The framework distinguishes six levels of purchasing maturity (Figure 2; see also Axelsson et al. 2005, Chapter 2). The lowest level of maturity, or professionalism, is said to be prevalent for the *transactional orientation* phase. This is recognised in a very passive or reactive purchasing operation where the purchasing professionals, in principle, merely 'administer' the purchasing tasks. Phase 2, *commercial orientation*, regards a somewhat more developed commercial process with regular requests for tender, comparisons of various bids from suppliers and negotiations, as well as operating with pre-qualified suppliers. Phase 3, *purchasing coordination*, emphasises a work-mode where the buying company has a strong control over purchased volumes, the number of suppliers and of purchased items. This enables the organisation to exercise more powerful and co-ordinated actions – across factories, business units and divisions (where applicable).
Common for all of these three levels are a functional approach where the purchasing department acts – more or less – on its own, while levels 2 and 3 additionally call for increased coordination or even centralisation of purchasing operations.
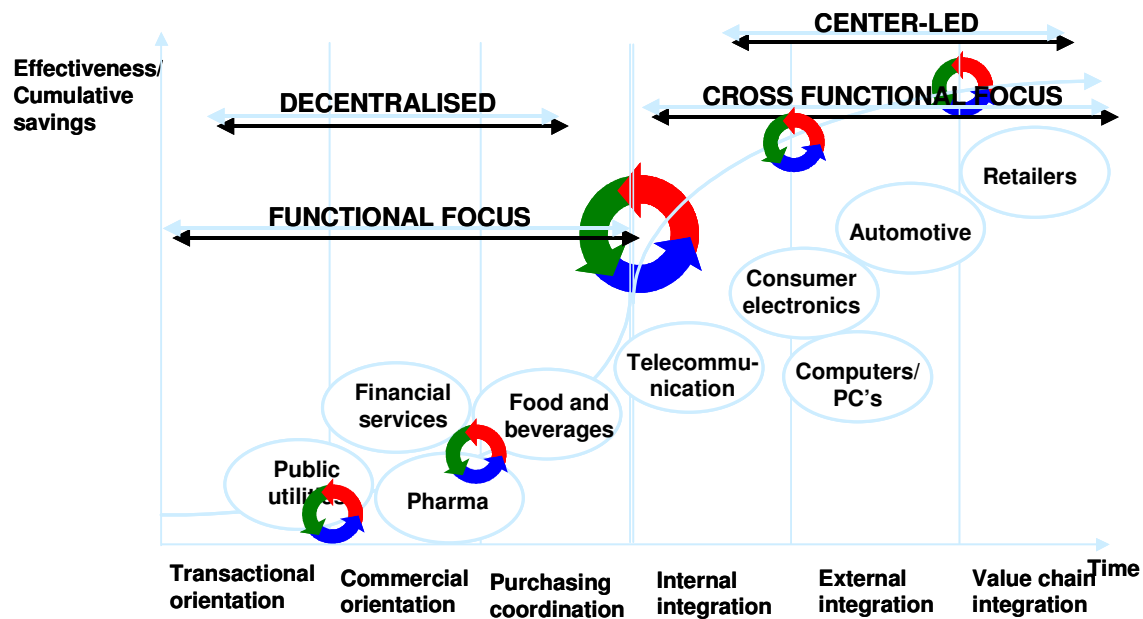
Figure 2: Six levels of purchasing maturity. Adapted from: Van Weele, A.J. (2005), *Purchasing and Supply Chain Management,* 4th ed., Thomson Learning: London, p. 94.

Phase 4, *internal integration*, implies that the organisation deals with purchases and suppliers in a more process-oriented way, utilising cross-functional teams with the relevant competencies and expertise, who naturally take responsibility for important goods and services (functions) bought. A natural pre-requisite for such a process-orientation are well-functioning and well-communicated systems (f.e. purchasing systems, ERP systems, and MPS systems).

Phase 5, *external integration*, adds one level of professionalism as it introduces synchronisation and optimisation of supply chains. In doing so, it requires an increased awareness of where in the supply-chain the relevant business conditions are determined, and systematic efforts to co-ordinate suppliers on various levels upstream into a (proposed) supply-chain. For this to function, there is a need for an active utilisation of ICT, e.g. (web-based) EDI-systems and Collaborative Planning, Forecasting and Replenishment (CPFR) systems.

Phase 6, *value chain integration*, which is looked upon as the most sophisticated development phase, adds a clear connection to the buying organisation's own customers. In other words, purchasing here means to do all of the synchronised purchasing and supply operations from the previous phases *plus* actively contributing to the creation of customer value, for example in the form of superior quality, functionality and availability of final products (Anderson and Narus 2004). In-depth understanding of customer needs and willingness as well as capabilities to satisfy these are the basic requirements for reaching phase 6. This pre-supposes that purchasing, in addition to the demands of the previous steps, also needs to have a global perspective on suitable suppliers and is sufficiently positioned and equipped to undertake entrepreneurial collaboration with suppliers.

In terms of the organisation of the activities, there are some common ingredients for phases 4 through 6. Cross-functional teams and a hybrid form of centralisation/decentralisation appear to be important pre-requisites.

A critical reader of this purchasing maturity model could also question why one phase should be considered more advanced and sophisticated than the other. A buying organisation could do a very good job in terms of performance even though it is not operating at a highest possible level of sophistication. It could very well be the case that the more advanced ways of operating demand higher skills and thereby higher salaries among the purchasing staff. It could also demand more expensive supporting technologies (ICT hard- and software, for example). Altogether, this could in specific cases (e.g. in small firms) turn out to be a too a high price to pay in comparison with the potential improvements. Another important note of caution related to maturity models concerns the fact that there is not always a natural growth path from left to right; sometimes organisations may revert, or 'fall back' one or several phases.

By relating these maturity phases to our framework, we can discuss which principal forms we expect to find in the different phases. In the early phases, 1 to 3 , we would expect purchasing functions to be dominated by forms 1 and 4: the purchasing function mainly operates under conditions set by other functions, and there is little coordination with suppliers. In a purchasing function operating in phase 3, we would expect to find more examples of units according to form 2 and 5, as the function has gained a more powerful position in the organisation.

In phase 4, we would expect to find more examples of form 3 and 6, as the function increasingly interacts with other functions. Finally, in phases 5 and 6 we would expect to increasingly find form 9. Forms 7 and 8 could possibly occur in several phases; at least, we would not expect these forms to be dominant during one particular phase.

Although the phases overall seem to match with different situations described by the 'purchasing as an interface' framework the variety among purchasing situations that companies are in suggests that they to an increasing extent may have to deal with this variety by having a number of organisational units working differently as interfaces between various internal and external counterparts.

Concluding remarks

In this paper we have discussed the need for considering a variety of purchasing situations and developed a descriptive framework to categorise these situations. Although different firms are subject to different purchasing situations, there may also be very different situations to manage in one and the same firm. We have discussed some of the strategic aspects in sorting among these situations and in adjusting the organising of the purchasing function to the different requirements on internal and external interfaces.

The firm's capacity to deal with a variety of relationships in different ways is arguably of huge importance for its performance (Gadde and Snehota 2000). This variety, however, is subject to dynamic forces in that the firm's requirements as well as individual suppliers and the supply markets change over time. As a means for considering how to cope with internal and external change the framework may be useful as a platform for discussions dealing with directions and limits for interaction. These decisions translate directly into how the purchasing function needs to be organised as an interface between different internal and external parties.

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