
The transaction management perspective on procurement in the era of globalisation

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Abstract: Fragmentation of production into more and more complex supply chains is a prominent feature of globalisation. Transaction management purports to minimise the transaction costs associated with this fragmentation of production. In this era of globalisation, transaction costs carry a large weight in total costs of ownership which is the relevant cost function in procurement decisions. This article discusses how transaction management can be helpful to these procurement decisions. An analysis of the various types of transaction costs is essential in the 'make or buy' and location decisions in global sourcing. In general, a distinction can be made between 'hard' and 'soft' transaction costs when making strategic procurement decisions. Soft transaction costs are difficult to quantify but become more important now that formal trade barriers gradually disappear and transport costs are reduced. Business strategies to keep transaction costs low in the long run can also, to a considerable extent, explain socially responsible business conduct from the perspective of rational economic behaviour.

Keywords: procurement; outsourcing; transaction costs; strategic management of the firm; managing transactions; orchestrating the supply chain.

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Biographical notes: Frank A.G. den Butter (1948) is a Professor of Economics at the VU University Amsterdam since 1988. Before he was Deputy Director of Research at the Dutch Central Bank. From 1998 to 2003 he was a member of the Scientific Council for Government Policy at the Prime Minister's Office in The Hague. As member of the council he was, amongst others, responsible for the report on 'The Netherlands as a trading nation; the transaction costs perspective'. It gave inspiration to develop the theory and practice of transaction management, which is his present major research interest. He has published many books and articles, in both Dutch as well as international journals. See his personal website: <http://www.staff.feweb.vu.nl/fbutter/>.

1 Introduction

The split up of the supply chain in more and more parts is a prominent feature of the ongoing globalisation in today's world. In fact, this fragmentation of production is a consequence of the process of specialisation, which is a major source of productivity growth and economic welfare due to the economies of scale that can be attained. In his famous example of the pin factory, Adam Smith already noted the importance of specialisation and division of tasks for productivity. However, a fragmentation of production increases the need for coordinating these production processes and activities. The result is an increase in all kinds of transaction costs, associated with the various forms of coordination. The better the coordination processes are organised, the lower these transaction costs are. Therefore, a decrease in transaction costs enables more specialisation and will result in a further split up of the supply chain, and in a more fragmented production. Transaction management purports to create value by minimising transaction costs and therefore by fostering this kind of worldwide specialisation (see den Butter, 2011). It provides a practical application of the theory of transaction cost economics (Williamson, 1998, 2000).

1.1 *Aim of article*

In the face of globalisation this article discusses how the increasing importance of transaction costs affects strategic decision making in supply chain management (SCM) which is essential to procurement. The main question of the article is how transaction management can contribute to these strategic procurement decisions. Here, procurement is characterised as the acquisition of goods and/or services at the best possible *total cost of ownership* (TCO). A common aspect of all procurement transactions is that they are, explicitly or implicitly, made via a contract. That is why a major emphasis of transaction cost economics, and therefore of transaction management, is in the set-up of institutions for making and enforcing contracts. Simple procurement may involve nothing more than repeat purchasing. Complex procurement could involve finding long term partners – or even ‘co-destiny’ suppliers that might fundamentally commit one organisation to another. Obviously, procurement becomes a more vital element of value creation in economic activities, when (worldwide) fragmentation of production increases. In a global market procurement decisions are directly linked to sourcing strategies, so that procurement, in a broad sense, becomes an integral part of the general management of an internationally operating firm or organisation (den Butter and Linse, 2008).

1.2 *Contents*

Section 2 discusses the relationship between trade and the organisation of production of internationally operating firms. Further specialisation and fragmentation of production imply that the transaction costs will gain importance as part of the TCO. Section 3 shortly reviews the theory of transaction cost economics and transaction management. A major decision in splitting up the supply chain is where to produce parts of the supply chain and whether to do it yourself or let the production be done by local suppliers. These location and ‘make or buy’ decisions of subcontracting and outsourcing, and their consequences for economic welfare, are discussed in Section 4. Section 5 examines how the various types of transaction costs related to procurement can be located within two dimensions,

namely external versus firm specific internal factors, and subjective, qualitative factors that are difficult to quantify versus more easily quantifiable objective factors. Section 6 focuses this debate on the ethical aspects of procurement and on what role rationality, as the fundamental assumption in economic reasoning, plays in the trade-off between people, planet and profits (PPP). Section 7 concludes.

2 Fragmentation of production and transaction costs

2.1 Specialisation in the organisation of production

In a globalising world we do not only observe specialisation in production but also in the organisation of production (Antràs and Rossi-Hansberg, 2008). On the one hand, there is specialisation within the parts of the supply chain where using economics of scale and factor endowments (e.g., cheap labour, available capital, natural resources) makes production within parts of the supply chain more efficient. These are the comparative advantages described by the traditional theory of international trade. On the other hand, there is specialisation with respect to organising the coordination processes. More efficient methods in linking the various parts of the value chain are developed and implemented. Here, the comparative advantages relate to keeping the transaction costs low or bringing them down. In this case value is created by the ability to orchestrate the supply chain. This is where transaction management contributes to strategic decision making. This ability to organise and orchestrate production characterises not only the function of the headquarters of the multinational companies. Today also specialised small and medium sized firms are confronted with orchestration and linking various parts of the supply chain. Obviously, purchase and sales play a prominent role in this orchestrating function.

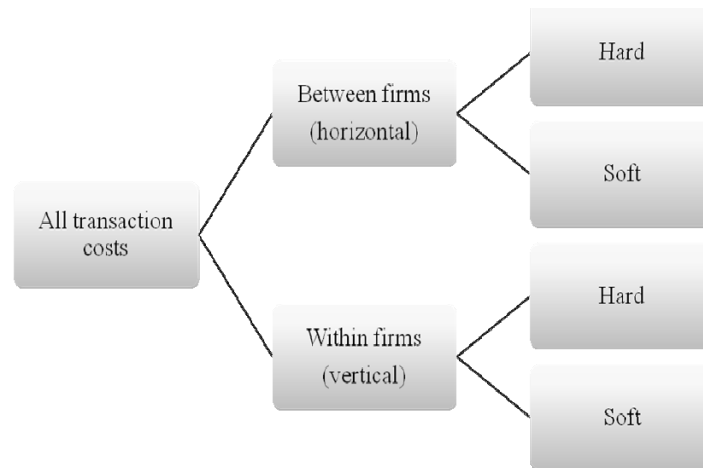
In an industrial organisation with fragmented production it is, from an analytical perspective, essential to distinguish between production costs and transaction costs. Production costs (or 'transformation costs') can be defined as all costs which are made within the links of the production chain, including development costs. Then, loosely speaking, transaction costs comprise all other costs which relate to coordinating and connecting the various links of the production chain.

2.2 Categorisation of transaction costs

From that perspective *transaction costs* can be defined as *the costs which are made in order to coordinate and connect all links in the production chain*. Hence, a considerable part of transaction costs are in fact coordination costs. Transaction costs relate to both coordination and transfer costs within firms where coordination takes place through the hierarchy (vertical transaction costs), and to costs of outsourcing and trade between firms where coordination takes place via the market mechanism (horizontal transaction costs). In the case of 'real' trade through market transactions there is a transfer of property rights. In such a situation transaction costs relate to finding a suitable trading partner, negotiating, setting up and signing a contract, monitoring compliance with the contract, and imposing fines if the agreements are violated. Transaction costs are partly caused by formal trade barriers such as import tariffs, but an important part of these costs stems from informal barriers arising from differences in language and culture, ignorance and

lack of trust. This marks the distinction between ‘hard’ and ‘soft’ transaction costs. *Hard transaction costs* include observable costs such as transport costs, import duties and customs tariffs. *Soft transaction costs* comprise all costs of making and monitoring contracts, information costs, costs due to cultural differences and miscommunication, unwritten laws, trust building, networking, risk costs, costs due to safety regulations and provisions, etc. These costs are related to what Butler et al. (2009) label the hidden costs of outsourcing. These soft transaction costs are much harder to quantify than the hard transaction costs. It is likely that in this era of globalisation these soft transaction costs will become an increasingly important part of the total costs of economic activities. A good business sense is needed to estimate their sizes and to avoid them as much as possible. Indeed, as the hard costs due to trade liberalisation and reducing transport costs decrease, the soft costs gain relative importance. Figure 1 summarises these various types of transaction costs.

Figure 1 Types of transaction costs



Transaction costs can be too high for a trade transaction to take place. In that case the advantages of the division of labour and specialisation do not outweigh the disadvantages. Then, a reduction of transaction costs may imply that more specialisation becomes profitable and that the amount of trade transactions increases. It also means that existing trade becomes cheaper. In both cases welfare is enhanced. A worldwide reduction of transaction costs is one of the major driving forces of globalisation. Obviously, the developments in SCM and procurement play a prominent role in this respect. Those parts of the chain, which can be produced at lower costs elsewhere, and where the lower costs of production outweigh the transaction costs, are outsourced, either to foreign producers or to domestic subcontractors.

2.3 Trade in tasks

This fragmentation of production has changed the character of the trade in such a way that a new kind of trade theory is in order. As Grossman and Rossi-Hansberg (2008) argued, trade in products and services should no longer be the focus of the theory, but

Figures 2(a) and 2(b) picture the transition from trade in finished products and services to a trade in tasks. Trade induced by comparative cost differences implies that a country will specialise in producing goods or services where its comparative cost advantage is larger than its trading partner. Figure 2(a) illustrates this traditional Ricardian trade theory for two countries, A and B. Country A produces product X and the whole production process with tasks X1, X2 and X3 is executed at home. A similar situation applies for country B with product Y. Here, the tasks Y1, Y2 and Y3 are conducted in the home country. In this traditional trade situation, comparative advantages in production lead country A to export X to B and country B to export product Y to A.

However, when the potential for increased fragmentation of production becomes exploited, specialisation will take place at a more detailed level, namely at the level of tasks. Now the international division of labour no longer covers the different products but rather the tasks in production. The higher the degree of standardisation and the lower the customer contact, the easier it is to separate tasks that can be outsourced. Figure 2(b) assumes that the organisation of the production of both product X and product Y takes place in country A. This country has an apparent comparative advantage in orchestrating production. All tasks with respect to product Y are outsourced to country B, whereas for product X only task X3 is conducted at home, for instance, because that task requires specific skills that cannot yet be outsourced or because the transaction costs of outsourcing are higher than the reduction of the costs of executing the task abroad. It is clear that a major change in trade flows between the countries results from this new organisation of production. Country A is exporting both products X and Y, whereas it is importing tasks. For country B, which has a comparative advantage in the execution of tasks, the opposite is true.

Globalisation and fragmentation of production imply that the share of the transaction costs in the total costs increases. In that case a firm, or a country, may obtain a comparative advantage in coordinating the production, and hence in orchestrating the value chain. SCM and procurement are important parts of this orchestrating function.

3 Transaction cost economics and transaction management

The role of transaction costs in economics is well established: three economists have been rewarded the Nobel Prize for Economics for their contribution to the theory of transaction costs, namely Coase, North, and finally Williamson in 2009. Coase (1937) formulated the first ideas about it no less than 70 years ago. The motive for Coase to consider transaction costs was to explain why firms of any size do exist in a world where the invisible hand of the market mechanism provides an optimal allocation of goods and resources. The reason is the existence of transaction costs: when vertical transaction costs are, at the margin, lower than horizontal transaction costs, it is more profitable to organise production through the hierarchy than through the market, and firm size increases.

The economic theory of transaction has subsequently been implemented primarily by Oliver Williamson, who defines transaction costs as the costs of running the economic system. Williamson (1999) explicitly discusses the link between transaction cost economics and management and organisation theory. The upshot is that firms and markets are alternative modes of governance. In this sense, transaction management can be regarded as a methodology to make the management of the firm decide about the best

way of exploiting these alternative ways of governance. In the case of technological non-separabilities it is better to organise production within the hierarchy, but when there is a possibility to separate the production process in various parts, outsourcing of some of these parts may be the lowest cost option. In other words, transaction management is concerned with the optimal way for a firm, or more generally, for a hierarchical agency, to solve the coordination problem (den Butter, 2011). This includes not only the internal organisation of the firm or agency, but also the external organisation. From the perspective of strategic procurement management of a firm it is the positioning in the supply chain that matters. In that respect, the 'make or buy' and location decisions when outsourcing of parts of the chain is considered, play an important part.

3.1 Lessons for procurement

A central notion in the work of North (1991) is that the ongoing interaction between rules and players, or between institutions and organisations, underlies the success or failure of an economy. He thereby emphasises the importance of institutions. Following this perspective, Greif (1993, 1994, 2000) has shown that institutions play a crucial role in order to satisfy the basic condition for exchange, namely to be able to commit to a trade contract. Institutions are a solution to the 'game of trust', which is needed to make contracts enforceable. In the early Middle Ages Jewish merchants – the 'Maghribi traders' – were bound to keep their promises on trade agreements through family ties and other social networks, even though their deeds could only be controlled much later because of the large distances and travel times. Later, this institutional system of using family ties was replaced by legal systems as institutions.

Different institutions may bring about different types of transaction costs. A major example is whether transactions take place according to formal or informal contracts. It is true that globalisation brings about some convergence of institutions, or to formulate it more specifically, some dominance in Anglo-Saxon trade institutions. Yet, cultural, legal and social differences between the various countries and regions of the world will remain. A deep understanding of these differences is of utmost importance for keeping transaction costs low in international trade relationships. Obviously, a feel for cultural differences in how to make and maintain good relationships with suppliers is of great importance for procurement. Openness towards these differences, and the possibility to establish links between the various institutions of trading, should be a major focus for procurement directed at global sourcing and worldwide purchase at lowest costs, and for the skills of the professionals that are responsible for procurement decisions. When a firm is really involved in world wide sourcing, it should balance between the Anglo-Saxon, the European continental (Rhineland), the Middle Eastern and the Asian ways of trading. Each of these ways of trading requires specific knowledge on how to keep transaction costs low.

4 Outsourcing and foreign direct investments: the 'make or buy' and location decision

A major question in the globalising world is whether to produce at home or move (parts of the) production abroad. Together with the make-or-buy decision, this location decision leads to the following possibilities:

- 1 production at home: internalised production in the home country
- 2 subcontracting (or outsourcing) at home: externalised production in the home country
- 3 offshoring: internalised production abroad; part of foreign direct investments (FDI)
- 4 offshore outsourcing: externalised production abroad.

In a more general sense the term outsourcing is used for all kinds of moving production to other places. Then it relates to existing jobs and production activities, whereas the term *global sourcing* is used in case of new jobs and production activities (job creation). Evidently, all of these decision problems are very much connected with procurement. Table 1 summarises the various choices to be made in the location and ‘make or buy’ decisions.

Table 1 Make or buy and location decisions

<i>Ownership location/decision</i>	<i>Make</i>	<i>Buy</i>
Home	Domestic integration	Domestic outsourcing (subcontracting)
Abroad (offshoring)	Foreign direct investment (FDI)	International outsourcing

4.1 Numerical illustration of gains from outsourcing

The possible gains from international coordination can be illustrated with the help of the simple accounting model of a firm that first produces a product itself but then decides to specialise in coordinating the import (or more generally: the production elsewhere) of that good. The model reads as:

$$NG = M \times p(M) - T(M) - C(M) \quad (1)$$

where:

NG = the net gain for the firm when it decides to give up producing and to start coordinating production

M = the number of imported (or offshored) goods

p = the sales price of the product

T = the transaction costs induced by offshoring

C = the total production costs.

Now, consider the following stylised case. A firm that produces a final product decides to stop producing the product and to import it from abroad. In the initial situation it employs ten workers to produce 100 final products. Assuming no capital costs it implies a productivity and wage level of ten per worker. In the new situation 400 products can be bought abroad for half the price (200) on the condition that all ten workers of the firm stay employed to coordinate the transaction (their wage bill now represents total transaction costs). So we assume no net job losses or gains in the home country. If the sales price of the final product is not expected to change (let us say it remains constant at $p = 1$), the total revenue of outsourcing (i.e., $M \times p$) is 400. The transaction costs (T ,

valued on the basis of opportunity costs) are 100. Since the costs of production abroad are 200, the net gain (NG) is 100 (i.e., $400 - 100 - 200 = 100$). Productivity statistics would in this case indicate that the productivity of the firm's workers has doubled, since the firm of ten workers first had an added value of a hundred, which grew to 200. Such a productivity growth is probably a lot harder to achieve with an improvement in the production technology. It also illustrates how productivity increases which are in the statistics attributed to industry and the production sector, can in fact be attributed to a reduction of transaction costs. Grossman and Rossi-Hansberg (2008) labelled this the productivity effect of a trade in tasks.

Of course, the case described above only aims to illustrate which decisions are to be made, and what mechanisms are at work in the 'make or buy' and location choices. In practice it is a dynamic decision problem where all elements of the problem should be modelled in a more sophisticated way. Yet, at least the example shows that, in the short run, considerable efficiency gains can be achieved with performing the coordination function, whereas, by assumption there is no loss of jobs associated with the outsourcing in the home country. The implicit assumption of the numerical example is that in the country of outsourcing, employment increases. With how much depends on the relative productivity of the workers in that country.

4.2 Three major factors govern the 'make or buy' and location decisions

From a more general perspective this accounting exercise shows that there are three major factors that govern the 'make or buy' and location decisions. First of all, the net gain depends on the relative costs of producing abroad (depending on C). The lower unit production costs abroad, the more attractive it becomes to perform the coordination function. Conversely, outsourcing also becomes more attractive when unit production costs (e.g., real wage costs corrected for productivity increases) at home are rising faster than abroad. Of course, in reality the strategic decision to outsource – and where to produce – should be based on dynamic expectations of these relative prices. Higher expected domestic production prices, e.g., because of a fall in labour capacity, should be anticipated in the decision to outsource. On the other hand, when wages and production prices are expected to increase in the country or region of outsourcing, it calls for cautious decisions with respect to outsourcing. Obviously, exchange rate expectations also play a role in this respect.

The second and from the perspective of this article most important parameter is the transaction costs (i.e., T). The lower these costs are, the bigger the efficiency gain is. Therefore, the ability and knowledge to reduce transaction costs by profitable 'make or buy' and location decisions can be regarded as trade innovations which enhance productivity in a similar manner as innovations in the production process. Given production costs at home and abroad, the numerical example above assumes that transaction costs have fallen from at least half of the production price at home to one quarter. Such a change in transaction costs makes outsourcing profitable, at least when we assume that wages of the domestic workers remain the same and when we disregard the costs of substituting (or schooling) the production personnel to personnel engaged in transactions and in orchestrating the production. As a matter of fact, these replacement or schooling costs are part of the transaction costs and constitute, together with other transition costs, an important element in the dynamic cost/benefit analysis of outsourcing.

It also shows that such cost/benefit analysis should distinguish between once and for all costs and recurrent costs.

Of course, a dynamic cost/benefit analysis of outsourcing should not only be conducted in order to determine whether to outsource or not. The analysis should also look at various expected transaction costs in the selection of the location and in the decision to 'make or to buy'. Here an analysis of the various risks is essential. Sometimes it can be preferable to make use of local suppliers, even when the transaction costs to guarantee the warranted quality of the outsourced production or tasks will be higher than when production at location was done in a plant owned by the mother firm (FDI). A choice in favour of local suppliers can be justified when the expected transaction costs of setting up a plant owned by the mother firm – compliance with local cultures and laws – outweigh the additional transaction costs of letting local producers comply with the warranted quality standards. Taking these different transaction costs into consideration is an essential part of modern procurement and hence part of transaction management to support procurement decisions. In this vein, Visser and Lambooy (2004) assessed the importance of transaction cost economics for analysing location decisions of logistic service firms.

The third factor that influences the efficiency gain is the sales price (i.e., p). Of course, especially in the long run, the sales price is not fixed, but will change as a consequence of the increased supply of the product. It especially happens when competitors embark on producing abroad too. The price changes will depend on the characteristics of the product market. If there is perfect competition, the efficiency gains will lower the price of the product until all gains for firms are zero (i.e., $NG = 0$). In market equilibrium, the entire efficiency gain will be converted into consumer surplus. Without perfect competition part of the gain from outsourcing will be kept by the producer so that it leads to higher profits.

5 Procurement, globalisation and transaction costs: discussion in a matrix

The foregoing discussion emphasises the importance of the concept of transaction costs for procurement in the globalising world economy where supply chains are split up in more and more parts. The types of transaction costs that play a role in procurement, depend much on how procurement is defined and what aspects are included in the decisions to purchase. Wynstra (2006) collected a number of definitions of purchasing and supply management which relate to procurement. A common element of these definitions is that they describe procurement (or purchasing and supply management) as a decision process where, in a very broad and dynamic sense, total costs for the firm (or formal organisation – including also both non-profit organisations and governments) are minimised. Moreover, these definitions restrict procurement to purchase from market suppliers, so that it is assumed that the 'make or buy' decision has already been taken in favour of 'buy'. However, this restriction does not imply that transaction management for procurement is confined to horizontal transaction costs. Indirectly, coordination costs within the firm may depend upon the decision on which supplier gets the procurement contract. In general, the total costs for the firm or institution in a procurement transaction are labelled as TCO. TCO can be split up in direct costs of purchase – the price paid to the supplier – and several types of transaction costs. Minimising TCO implies that not always the supplier with the lowest direct costs will be selected. A supplier with higher

direct costs is to be preferred when this higher price is matched by a larger reduction of transaction costs. Both the direct costs, e.g., in case of licensing, and the transaction costs include an element of discounted future costs. They comprise not only the costs made up to the moment of purchase and the exchange of property rights (or right to use), but also expected future costs. Moreover, the split up of TCO in direct costs of purchase and transaction costs can be somewhat arbitrary, e.g., in the case of maintenance costs and costs of repair. Yet, the major contribution of the concept of transaction costs and therefore of transaction management to procurement is that it enhances the awareness of which costs to include in TCO. It provides a clue of which costs to consider in the selection of a supplier. However, again there is a measurement problem: some types of transaction costs to be included in TCO are hard to quantify.

5.1 Stages in the procurement life cycle

The procurement life cycle in modern businesses can be described in seven stages (see e.g., Archer and Yuan, 2000):

- 1 information gathering
- 2 supplier contact
- 3 background review
- 4 negotiation
- 5 fulfillment
- 6 consumption, maintenance and disposal
- 7 renewal.

These stages can be regarded as a more detailed description of the three stages distinguished in a trade transaction:

- a contact
- b contract
- c control.

All three stages bring about transaction costs (see den Butter and Mosch, 2003). In the *contact* phase of a potential transaction, the buyer is looking for information about his preferred product (price and quality), potential supplier, or, when the product does not yet exist, which producer could invent and/or produce it for him. The seller is trying to find a buyer for his product through marketing activities. Here, transaction costs are mainly search and information costs. The *contract* phase starts directly after the moment the potential trading partners have found each other and are inclined to make a deal. Here, transaction costs are made in negotiating the terms of the contract (see Bajari and Tadelis, 2001). Parties have to decide on how to make a reasonable split up of the expected rents of the transaction and what to write down in the contract. The phase of *control* consists of the monitoring and enforcement of the contract. Both involve high transaction costs, especially across large distances. Monitoring means that business partners check whether the other party is doing what he promised to do. If it turns out that one party violates the terms of the contract, the next step will be enforcement of the contract. The most

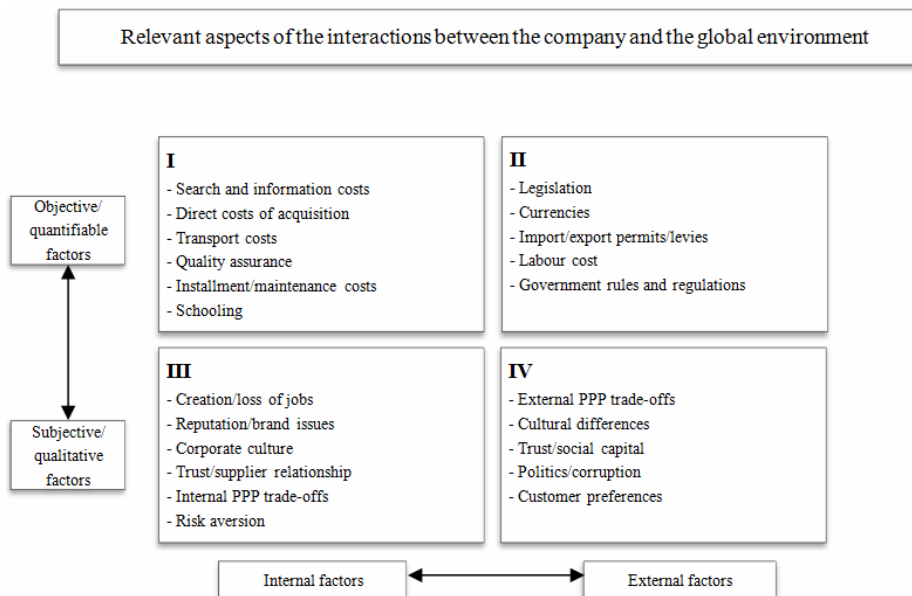
common solution for enforcement is to start a legal procedure. Especially in international trading relationships, this is often a troublesome affair. It takes much time and money, and foreigners often feel being mistreated by prejudiced national courts when they file a claim against a national firm.

It should be noted that Gebauer et al. (1998) used an alternative wording for these three phases in the case of procurement, namely information, negotiation and settlement. An important difference between the costs made in the contact (or information) phase and in the other two phases is that contact or information costs are sunk costs which are to be made anyhow, even if no trade relationship results from it. These costs are comparable with search costs in labour contracts, which provide an option value to successful matches. It also requires negotiation on the distribution of the proceeds of these matches between the partners in the labour contracts. A similar negotiation is needed between trade partners, where there is the threat of a hold-up when one of the partners, due to enhanced negotiation power, wants to renegotiate. From this perspective Cox (2007) discusses the role of power in business relationships.

5.2 Four types of transaction costs in procurement

The influence of globalisation on TCO, and on the role of transaction costs therein, is summarised in the matrix of Figure 3. The figure shows a split up in four blocks where the subject of globalisation is addressed along two main directions. Here, possible sources of transaction costs, or more broadly, welfare costs, are considered to stem from objective and quantifiable factors, or from subjective factors that are not easily quantifiable. The latter are the soft issues for which transaction costs can only be determined in a qualitative sense. A different distinction can be made along the lines of internal and external factors. Internal factors are issues that specifically affect the firm at the micro level, whereas external factors relate to the generic issues of globalisation.

Figure 3 Transaction costs related issues of procurement and globalisation in a 2 × 2 matrix



Obviously, the demarcation between these issues is rather fuzzy. Governance, legal issues, export controls and taxation are topics that have a direct effect on the transaction costs of a firm. The generic aspect of it is that these issues cannot be solely determined by the firm itself but that they are, to a certain extent, exogenous conditions for a firm when making optimal procurement decisions. However, offshoring and (out)sourcing decisions of firms, that are solely made on the judgement of various expected transaction costs by the firm as described in the previous section, may bring about external effects that have consequences for the rest of the world (e.g., employment and changes in economic structure). These external effects – externalities in economic theory – play a major role in the subjective or ‘soft’ issues mentioned in quadrants III and IV of the matrix. The following section discusses these issues further. As a matter of fact, some of the objective or ‘technical’ issues of quadrants I and II do not only bring about ‘hard’ and easily measurable transaction costs. The discussion above shows that e.g., quality assurance, supplier selection and qualification, but also legal issues and protection of intellectual property rights bring about transaction costs that are difficult to quantify. For that reason they can be characterised as ‘soft’ and could also, to some extent, be located in quadrants III and IV of the figure. Burki and Buvik (2010) considered the duration of a relationship with suppliers as an important aspect in procurement decisions. This is an example of concern about ‘soft’ transaction costs.

6 Ethics and rational behaviour in the PPP trade-offs

Some of the issues in quadrants III and IV of Figure 3 relate to ethical and societal aspects of firm behaviour in procurement. From the broad perspective of welfare economics two problems are relevant in this respect, namely *income (re)distribution* associated with equity issues, and *external effects*.

6.1 Procurement and welfare economics

The issue of (re)distribution has the broadest scope. It plays a role at the national level and in the discussions on the effects of globalisation at a worldwide level. Distribution is a core element in welfare analysis: it is the *trade-off between equity and efficiency* which is fundamental in economic discussions on political decision making. More equity, i.e., a more equal distribution of income or wealth, will, according to most economic analysis, be obtained at the cost of less efficiency, e.g., less economic growth. The relative weights in the social welfare function, i.e., the ‘price’ in terms of less economic growth that a nation (society) is willing to pay for more equity, are determined by political preferences, and are considered to be exogenously given for economic welfare analysis. A similar trade-off exists between the triple P aspects: profit, people and planet. More attention in the decisions of firms (or governments) for the planet, i.e., environmental aspects, may imply less profits (or economic growth), especially in the short run. This may also be true for the pursuit of sustainable procurement (Philips and Walker, 2009). A similar trade-off holds for the choice between profit and people. Here ‘people symbolises a generous social security system at the macro level (quadrant IV) and a friendly personnel policy at the firm level (quadrant III) where the interests of the workers carry a large weight. Issues of (re)distribution, which stem from the equity efficiency trade-off, are essentially the responsibility of the government. Political discussions on how to influence the purchasing

power for various types of households are a consequence of this responsibility. The responsibility for the triple P trade-offs are less clear cut. Although it is sometimes regarded as a social responsibility of business to take the triple P aspects into account, in essence it is also the responsibility of the government to guarantee a healthy environment and a good social climate, which may go at the cost of the profitability of the business sector.

This discussion on effects of globalisation on worldwide welfare and income distribution goes far beyond the scope of individual strategic decisions by firms. In this respect the discussion on external effects is more relevant. These externalities relate to decisions of firms which bring about positive or negative effects for others which are not taken into account by these individual firms. A well known example of a negative externality is environmental damage, and of a positive externality the use of knowledge by others than those that invested in acquiring that knowledge. In principal it is the government that has to repair the market failures that the externalities bring about. The government can internalise external effects e.g., by imposing taxes for the use of the environment, or by subsidising R&D. However, policy measures to repair market failures can bring about rather high implementation costs, which have the character of transaction costs. Examples are the bonding and monitoring costs in the principal agent situation when firms or citizens have to comply with government regulation. Such government regulation evokes costly extrinsic motivation to obey the rules. Transaction costs would be much lower when firms or citizens would be intrinsically motivated to internalise externalities. Keeping or regaining such intrinsic motivation to comply with rules and regulations, and to avoid decisions which are harmful to society, should, from the perspective of ethical economics, be a major behavioural lead in socially responsible business conduct. To take into consideration the societal effects of business decisions where the decision making process goes beyond merely maximising profits or minimising costs for the firm can be regarded as an economic virtue in business conduct.

6.2 How rational is ethical business behaviour?

However, given the reasoning from transaction cost economics, it is very difficult to separate this ethical business behaviour from rational behaviour for the own interest of the firm. Reckoning with environmental issues of sustainability, or creating a good social climate and working conditions for the workforce, may bring about additional transaction costs in the short run, but on the long run such behaviour may deserve large reductions of transaction costs. Through such seemingly correct socially responsible business conduct costs stemming from adverse public opinion formation or shirking of workers can be avoided. Obviously, judgements on the sizes and relative importance of these transaction costs are difficult to make, as different corporate policies between e.g., Shell and Exxon with respect to environmental issues show. Yet multinational enterprises seem to employ the same ethical business norms in all countries they operate (Bowie and Vaaler, 2010).

Given the postulate of rationality in economics it is an intriguing question why firms should engage in genuine altruistic behaviour towards society. Assuming rational behaviour, Graafland and Mazereeuw-Van der Duyn Schouten (2007) conducted a survey amongst 20 Dutch business executives about the influence of their eschatological beliefs on socially responsible business conduct. By extending the personal utility functions of business executives with three elements, namely the probability to enter heaven (rather than hell), utility in the heavenly state and utility in the hellish state, they

tried to measure to what extent their decisions and ethical behaviour were driven by these motives. Their empirical results were somewhat mixed. They found no relationship between socially responsible business conduct and the belief that good works influence the eternal destination. Yet, in a partial correlation a significant positive result was obtained for those executives who believe that good works influence the heavenly utility and their socially responsible business conduct. All in all, it seems that the extension of rational behaviour to include eschatological beliefs provides some further explanation of ethical conduct of businesses, but that the additional explanatory power is limited.

A major element in the relation between globalisation and procurement, that is mentioned both in quadrant III and in quadrant IV of Figure 3, is *trust*. On the one hand, trust formation and building up the reputation of a reliable partner in trade can involve transaction costs, but on the other hand, when trust between suppliers and clients is established, it can considerably reduce the transaction costs of procurement (quadrant III).

6.3 Trust and transaction costs

Building trust and trustworthy firm behaviour can also be beneficial to society as a whole (quadrant IV). In other words, trustworthy behaviour brings about positive externalities. On the other hand, loss of trust and reputation will not only involve high transaction costs for the firm itself but also for society as a whole. An example is the case of Enron which could, just like banks, be considered as a market maker (McAfee, 2004). Its largest business was in natural gas contracts, where it created a long-term natural gas market by offering to buy or sell long term natural gas contracts. Trust is a major asset of such market makers. When Enron revealed \$1.2 billion in hidden debt, which represented the visible portion of something over \$8 billion of hidden debt, in a matter of months Enron's revenues went from over \$100 billion per year to nearly zero. Enron collapsed while other firms with questionable accounting survived, because Enron's operations were completely dependent on being trusted by its clients. Obviously, this loss of trust was not only harmful to Enron itself, but caused a loss of trust and therefore higher transaction costs in the whole business community. In this respect the rational behaviour of a firm to be and remain trustworthy, can also be seen as socially responsible business behaviour.

7 Conclusions

This article discusses how transaction management, based on the theory of transaction cost economics, can provide a useful lead in strategic procurement decisions. In the era of globalisation where the supply chain is split up in more and more parts, procurement decisions will become an important and inseparable part of strategic management. The focus of procurement still is on minimising TCO. However, transaction costs, and more specifically the 'soft' transaction costs, will gain importance relative to the direct costs of acquisition in TCO. Transaction management can be helpful to categorise these costs and provide some quantification of all of these transaction costs in various procurement alternatives. Still some 'soft' transaction costs are difficult to quantify. An example is how to compare the net gains of a bribe in order to get valuable equipment through customs with the costs of loss of reputation when the firm becomes publicly accused of being involved in corruption. In such cases procurement decisions are a matter of concern

of the top management of the firm and can only be based on intuition about expected gains and losses. Ethical aspects of firm behaviour may play a role of their own for strategic procurement decisions in a global business environment, but socially responsible business conduct can, to a large extent, be explained from rational behaviour to keep transaction costs low in the long run.

7.1 *Scope for future research*

A scope for future research is to make the use of transaction management, as sketched in this article, operational for practical decisions in strategic procurement. To that end a more extensive taxonomy and categorisation of various types of transaction costs is needed than the distinction made in Figure 3. A first step has been taken by Jongerius and Sie (2010), who, by way of case study, constructed a list of about 240 different transaction costs that firms in The Netherlands may encounter when they outsource part of their production to China. The next step is to gain experience in using such lists, both in procurement decisions (ex ante) and in evaluation of these decisions (ex post).

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