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Outsourcing of Wood-Based Component Manufacturing: Driving Forces Found in Scandinavian Companies

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ABSTRACT

The purpose of this article is to describe and analyze the driving forces for outsourcing in the Scandinavian wood product manufacturing (WPM) sector. Companies in this sector are inexperienced in outsourcing of wood-based components. Historically, they have purchased raw material from a multitude of sawmills and handled component manufacturing in-house. Only recently have they begun to consider outsourcing as part of their overall strategy.

The research design is a multiple case study approach and is based on six leading Scandinavian companies in the door, flooring, and window industries. Research has shown that these companies consider outsourcing based on the following driving forces:

1. component cost reduction,
2. reallocation of resources to marketing and sales,
3. core competence focus,
4. operation/capacity constraints, and finally
5. financial driving forces.

Contrary to other studies, WPM firms do not outsource to gain access to outside competence.

Keywords: outsourcing, driving forces, wood product manufacturers

Introduction

The wood product manufacturing (WPM) sector in Scandinavia, including companies manufacturing floors, doors, and windows, is a sector in which outsourcing is becoming more important (Brege et al. 2006). Such companies have traditionally and until recently handled most of

the value-added wood manufacturing activities in-house (Brege et al. 2004, Nord 2005). This paper focuses on identifying and categorizing the different driving forces to outsourcing in the WPM sector. Wood manufacturing is defined as the value-added processes that take place after the primary production at the sawmills (Brege et al. 2004). The WPM sector includes the wood-based production of details, components, products, and systems used in the manufacturing of houses, doors, windows, floors, kitchen and bath units, stairways, and various joinery. But, in the definition used in this study, furniture manufacturing as part of WPM is excluded.

Historically, manufacturers of flooring, windows, and doors have primarily focused on standard or bulk delivery of wood raw material directly from primary production at the sawmill. This limited experience of buying wood details or components has been accompanied by a lack of confidence in the abilities of the sawmills (Nord 2005). A lack of confidence that very often has worked both ways. The companies within the WPM-sector have guarded themselves from uncertainties in the supply market and also from their own deficiencies in planning by having multiple suppliers, large inventories, and in some cases, running sawmill production in-house (Fransson 2005).

Outsourcing is a widely employed strategy for cost reduction, increased productivity, and company growth. In the academic context, this phenomena has been extensively studied not only in different business settings, e.g., the automotive and IT industries, but also in the public sector (e.g., Lonsdale and Cox 1998, Kakabadse and Kakabadse 2001). In this paper, outsourcing is defined as the transfer of in-house activities to external suppliers.

In recent years, the outsourcing trend has been debated and challenged (e.g., Doig et al. 2001). Critics say that the decision to outsource has been taken far too easily and there is a lack of in-depth analysis of the often very complex links between design, industrialization, and manufacturing (e.g., Berggren and Bengtsson 2004). Instead of focusing on improved in-house productivity (e.g., manufacturing operations), companies have, according to the critics, divested essential resources too easily. Bettis et al. (1992, p. 21) finish their analysis of outsourcing with a stark summary:

“Outsourcing is a tool of management and like any other tool it can be used properly or abused. Unfortunately, the penalties that abuse brings can be severe and even fatal. Research suggests that many are, at present, abusing the concept, and indeed, many complain of poor results.”

As has been noted, previous outsourcing decision analyses have been criticized for a lack of rigour and there is now also an insourcing trend. Therefore, it is of interest to understand why the WPM sector has increased their focus on outsourcing and what type of analysis is being made. Furthermore, the majority of outsourcing papers have not been about manufacturing outsourcing (Berggren and Bengtsson 2004) which constitutes the context of this paper. Subsequently the aim of this paper is to answer the following question: What are the underlying driving forces for outsourcing of wood-based component manufacturing in the Scandinavian WPM sector?

Frame of Reference

In the outsourcing literature, different driving forces for outsourcing are mentioned, and these are to some extent dependent upon the choice of theoretical perspective. According to Kakabadse and

Kakabadse (2001), there are two contrasting views on outsourcing, one emphasizing the core competencies perspective and the other adopting a cost discipline view. The possibility of reducing costs is commonly identified as the main driving force for companies to change from in-house production to sourcing from external suppliers (e.g., Welch and Nayak 1992, Lonsdale and Cox 1997, McIvor et al. 1997). As early as 1955, Higgins pointed out that the principal factor of the make-or-buy decision is a cost comparison between internal and external alternatives. Later, transaction cost analysis (TCA) has frequently been used as a theoretical framework for the analysis of outsourcing decisions from a cost perspective, and a number of authors have claimed it to be a suitable framework for outsourcing decision making. According to Espino-Rodriguez et al. (2006), transaction cost analysis has been the predominant theory applied to outsourcing analysis during the last 25 years.

Adapting a broader strategic perspective, however, cost is not the only factor, it has been argued that outsourcing enables companies to focus on their core competencies (e.g., Venkatesan 1992, Quinn and Hilmer 1994, McIvor et al. 1997). Outsourcing companies can also obtain access to superior supplier resources and knowledge that otherwise would be costly and difficult to develop in-house (Quinn and Hilmer 1994). A large number of articles have used this so-called resource based view (RBV) as a more relevant theoretical framework for the analysis of outsourcing decisions (Kakabadse and Kakabadse 2001). Espino-Rodriguez et al. (2006) argue that the RBV offers a more recent (i.e., since the last 10 years) and up to date theory for outsourcing decisions, in that it offers a strategic perspective on these decisions.

According to Espino-Rodriguez et al. (2006), transaction cost analysis and the RBV are two theoretical perspectives that complement each other when studying outsourcing. The authors argue that TCA explains the negative consequences of outsourcing specific assets while RBV focuses on the positive effects of not outsourcing activities comprising specific assets. Another way to describe the differences is to note that TCA is only concerned with the cost effects of both governance costs (including transaction costs) and production costs. The latter are assumed to be mainly influenced by economies of scale since the production systems are believed to be homogenous. In this framework there is no room for the analysis of factors influencing the revenues, which is focused on in the RBV (based on assumptions of heterogeneous resources).

Transaction Cost Analysis

The use of the TCA in outsourcing decision-making brings the basic cost question of “make or buy” into focus, and most of the work is based on the publications made by Oliver Williamson. The objective of TCA (Williamson 1985) is to minimize the sum of governance and production costs by choosing an appropriate governance structure, market, or hierarchy (i.e., in-house production) or some hybrid form, which Williamson developed in his later work (Williamson 1991). TCA is built on a cost comparison between the in-house and external alternatives, and in addition to previously analyzed production costs, an emphasis is now placed on the transaction costs, i.e., the costs involved in searching suppliers, negotiations, deliveries, etc. Williamson (1975) discussed three different transaction costs: information cost, bargaining cost, and enforcement cost and in later works he divided the transaction costs into *ex ante* and *ex post* types (Williamson 1985). The first type, *ex ante*, includes drafting, negotiating, and safeguarding an agreement and the latter, *ex post*, includes costs related to maladaptation, haggling, the running of governance structures, and the bonding costs of effecting secure commitments.

TCA is built on the theoretical assumption of bounded rationality and takes into account that parties in the marketplace may act opportunistically. These aspects are of special importance when the resources have a high degree of asset specificity which suppliers may take advantage of in order to strengthen their position. In situations with high asset specificity, TCA points in the direction of in-house production. The asset specificity is one of three principal dimensions, which according to Williamson (1985), define a transaction, the other two are frequency and uncertainty. Bounded rationality is closely linked to uncertainty which has been shown by Williamson (1975) and also one of the reasons why uncertainty will occur. But for bounded rationality, all economic exchange could be efficiently organized by contract (Williamson 1981). Bounded rationality makes it impossible to deal with complexity in all contractually relevant aspects, thereby incomplete contracting has to be used. This kind of contracting could be feasible if it was not for human opportunistic behavior (or at least the risk that someone will act opportunistically). From a TCA point of view, one of the reasons for the fact that transactions cannot be performed in the market, when there is uncertainty, is the opportunistic behavior of man. If there was no opportunism, unanticipated events could be dealt with by issuing general clauses to the contract. In these clauses, the parties could agree to disclose all relevant information and direct all of their actions in order to maximize joint profits.

If there are no significant transaction costs, a market solution is the most probable choice, since suppliers are in better positions to reap the benefits of economies of scale and perhaps also economies of scope by also supplying other customers. Vining and Globerman (1999) point to a number of reasons why outsourcing may lead to lower production costs: economies of scale, strong incentives to reduce cost, diseconomies of scope, and finally internal production may generate negative externalities. Vining and Globerman (1999) argue that when the product complexity increases it is more likely that the production is carried out in-house. This could be linked to the fact that the degree of product/activity complexity largely determines the level of uncertainty, information asymmetry, and externalities.

Resource Based View

A number of scholars such as Penrose (1959), Wernerfeld (1984), Nelson and Winter (1982), Schoemaker (1992), and Prahalad and Hamel (1990) have argued that the success of a firm is rooted in its competences and thus its ability to configure its resources and skills. The RBV on strategy is concerned with the uniqueness of company resources, which can create a difference in the marketplace and thus increase competitiveness (Barney 1991, Penrose 1995). An outsourcing strategy can provide better focus on the firm's core competencies and also improve the utilization of the capital resources (Quinn and Hilmer 1994, McIvor et al. 1997). Espino-Rodriguez et al. (2006) conclude that in order to achieve a competitive advantage it may be necessary to acquire resources from other firms, i.e., there may be a lack of in-house resources which result in outsourcing. These authors find arguments for this by referring to Grant (1991), Teng et al. (1995), and Argyres (1996). A company has to decide whether or not to develop certain resources internally or to acquire them from others and when the business performance is below the expected or desired level outsourcing of substandard activities may be an option. In that case organizations outsource what they do less well and develop in-house what they do better than the suppliers (Espino-Rodriguez et al. 2006). Organizations tend to outsource when the capabilities of the suppliers are better than those in-house, and simultaneously the time and cost associated with developing them internally is not accepted (Espino-Rodriguez et al. 2006).

Resources are the strengths or weaknesses of a given firm and can be defined as both tangible or intangible assets (Itami 1987, Wernerfelt 1984). Hofer and Schendel (1978) elaborated these terms a little more and defined the following resources: financial, physical, human, technological, and organizational. These terms are also used by Grant (1992) who instead of organizational, defines reputation as a resource.

In a wider theoretical perspective, RBV is a “counter force” to the Porterian market-based view on strategy (Porter 1980, 1985), i.e., an outside-in perspective implying that the market is the “main determinant” of strategy. In comparison, RBV represents the inside-out perspective i.e., the strategy process is based on the strengths of the resources and in a next step suitable markets are identified. The two perspectives are complementary and overlapping. For instance the value of resources is externally determined by demand from specific market segments. The use of core competence as a determining factor in outsourcing decisions, however, has been criticized in several ways: it may be based on an overly static analysis of what constitutes core and it is very difficult to determine what is core (Berggren and Bengtsson 2004).

“... Quinn and Hilmer’s statement that a core competence can only exist in areas where the firm can dominate. This may be true, but it does not necessarily assist managers with identifying what are their core competencies. In addition, their theory could be interpreted as being somewhat static. This is in reference to the previously discussed statement that seems to imply that core competencies will involve existing skills.” (Lonsdale and Cox 1998, p. 87)

Driving Forces for Outsourcing

The transaction cost and the RBV complement each other, and it may be interesting to combine the two theoretical perspectives. This is, however, a complex and daunting task, since they are based on somewhat different assumptions. Arnold (2000) and Cox (1996) have both attempted to combine TCA and RBV. Attempts to synthesize them will not be made in this paper, instead vital aspects of outsourcing decision making are discussed by reviewing and highlighting driving forces that can be categorized into either of these frameworks. The compilation of different types of driving forces (**Table 1**) is primarily based on publications produced during the 1990s, a period when there was a great interest in this issue, but newer articles have also been taken into account.

Table 1. Five areas of driving forces for outsourcing.

	Cost	Financial	Core competence	Capacity constraints	External capabilities
Why:	Reducing costs	Avoiding large fixed costs, investment risks.	Maximize returns and improve internal usage on capital employed.	Operational flexibility	Learn from business partners.
What does it imply:	Reduce costs by outsourcing to external sources that have comparative cost advantages.	Improve the balance-sheet and financial performance.	Improve focus of resources.	Cope with operation/ capacity constraints.	Access outside sources’ competence or technology advantages.
How:	Select suppliers who have economies of scale, better	Convert fixed costs into variable costs,	Outsource non-core activities. Focus	Let external supplier handle	Choose an outsourcing partner

	cost structure through lower factor costs or higher productivity etc.	downsize and avoid investments.	resources on the core competences of the corporation.	operational overload or bottlenecks.	with comparative competence/ technology advantages.
Based on:	Arnold (2000), Bragg (1998), Brandes et al. (1997), Brück (1995), Cádiz et al. (2000), Deavers (1997), Ellram and Billington (2001), Fill and Visser (2000), Greaver (1999), Harrison and Kelly (1993), Hendry (1995), Jennings (1997), Lonsdale and Cox (1997), McIvor (1997, 2000), Quinn and Hilmer (1994)	Bragg (1998), Brandes et al. (1997), Cádiz et al. (2000), Fill and Visser (2000), Greaver (1999), Gilley and Rasheed (2000), Hendry (1995), Lonsdale and Cox (1997)	Arnold (2000), Bragg (1998), Brandes et al. (1997), Deavers (1997), Fill and Visser (2000), Gilley and Rasheed (2000), Lonsdale and Cox (1997), McIvor (2000), Quinn and Hilmer (1994)	Bragg and Deavers (1997), Fill and Visser (2000), Fine and Withney (1995), Harrison and Kelly (1993), Hendry (1995), Quinn and Hilmer (1994)	Bragg (1998), Cádiz et al. (2000), Deavers (1997), Fill and Visser (2000), Fine and Withney (1995), Greaver (1999), Harrison and Kelly (1993), McIvor (2000)

Research Methodology

This study is based on data from in-depth interviews with key actors in the companies willing to participate and have been supplemented by secondary data from internal reports and public annual reports. To validate the descriptions and conclusions, follow-up interviews were conducted. In order to give a holistic view of the outsourcing decision and put it into its strategic and operational context, empirical data has been presented case by case thereby taking advantage of the wide-ranging and deep character of case description (Eisenhart 1989, Bengtsson et al. 1997). This will give both the researchers and the readers a better understanding of the complexity and the relationships between different variables.

Case Selection

In a multiple case study, a case should be chosen for its potential to be interesting both from theoretical and empirical perspectives, instead of reasons of statistical significance (Yin 1989, Bengtsson et al. 1997). In this study, the largest and second largest company on the Scandinavian market were chosen in three wood manufacturing industries – doors, flooring, and windows. These companies have a good reputation for strategic thinking including the first steps in outsourcing. This decision was discussed with outside specialists, one major supplier of raw material and components and Invest in Sweden Agency (ISA) – which is the government agency assisting and informing foreign investors about business opportunities in Sweden.

Table 2. Overview of data collection.

Industry	Company	Position	Interview round	Secondary data
Flooring	Kährs	CEO	1 and 2	Public data: Annual report: 2002, 2003, 2004; Company's and owner's website; Press releases; Product catalogues Internal data: Business strategy presentation 2004, 2005; Company presentation about hardwood wood supply situation in Sweden 2006; Outsourcing calculation material
	Tarkett Wood	Process Manager	1 and 2	Public data: Annual report 2002, 2003; Company's website; Press releases; Product catalogues Internal data: Business strategy presentation 2004
		R & D Manager	1 and 2	

		Product Manager	1	
Doors	Vest-Wood	Group Director	1 and 2	Public data: Annual report 2001–02, 2002–03; Press releases; Product catalogues; Company's website; Company profile presentation Internal data: Business strategy material
		Dooria Kungsäter	Managing Director	
	Dooria Sverige	Managing Director	1 and 2	Public data: Annual report 2001–02, 2003; Group company's website
	Dooria	R & D Manager	2	
Windows	Elitfönster	CEO	1 and 2	Public data: Annual report 2002, 2003, 2004, 2005; Company's and owner's website; Press releases; Product catalogues
		Plant Manager	1	
	Svenska Fönster	Managing Director	1 and 2	Public data: Annual report 2002, 2003; Product catalogues
		Manager purchasing	2	
		Manager sales	2	

Collection of Data

Collection of data was conducted during two rounds of interviews. In the first round, 10 interviews with representatives from the six companies were conducted (**Table 2**). Questions about outsourcing manufacturing activities were approached from a broad perspective. The main purpose of the interviews was to identify the different and most dominant driving forces leading to outsourcing. Based on these interviews, a research report was written and sent back to the participating companies; the findings in this report were also the basis for the second round of interviews.

One objective of the second round of 11 interviews with the same six companies was to discuss the initial findings and to validate them. A second objective was to further develop the analysis and gather new and more in-depth information, specifically trying to go in-depth into specific outsourcing discussions and decisions. The second round of interviews had more open-ended questions than the first. The respondents were in many cases the same and from the top management levels of the companies (**Table 2**).

The respondents were asked in advance whether they considered themselves as the most suitable interviewee, or if they would rather recommend another person in the company. The interviews were, with one exception, carried out in the interviewee's office and lasted for about 1-1/2 to 2 hours. The recorded interviews were transcribed into written documents. For both the first and the second round of interviews, an interview guide was used (the first guide is somewhat more detailed and the second more open-ended). In addition to the scheduled interviews, primary data was also collected through informal telephone calls and e-mails. Secondary data in business and strategic plans has been used to provide better in-depth descriptions.

Validation of the Study

Yin (1989) advocates that four logical tests should be applied to secure the quality of a case study:

1. construct validity,
2. internal validity,
3. external validity, and
4. reliability.

Construct validity is how well the case descriptions concur with the view of the respondents (Yin 1989). Yin (1989) states that the most important information source of a case study is the interview. When written internal material has been available, however, it has been used to increase construct validity. In addition, construct validity has also been improved by discussing the result from the first round of interviews with a broader group before the second round of interviews. This is closely related to achieving a high degree of conformability, which Leininger (1994) advocates as one important criterion to evaluate qualitative studies. The case descriptions have been sent to each case company for consistency and comments.

Internal validity deals with the possibility of establishing causal relationships between different independent and dependent variables. This validity measure is more difficult to pinpoint in this kind of qualitative study with a very broad theoretical as well as empirical scope. Internal validity is more closely linked to explanatory studies with predefined independent and dependent variables that could be statistically verified in comparisons between the empirical patterns of the case studies and the theoretically derived patterns. The concept of internal validity does not conform well with descriptive and exploratory studies, such as this one (Yin 1989).

External validity is related to the possibility of generalizing the findings from the case studies. To ensure a high external validity, a replication approach can be used to see if findings from one case could also be found in other cases (Yin 1989), and by this, generalize, by means of a theory that goes beyond the case studies and thus transfer the findings to a similar context. By selecting three industries and the two largest and in other respects dominant companies in each industry, some important best practice cases have been identified for the WPM-sector which is an indicator of a reasonable and good external validity.

Finally, reliability concerns the possibility of repeating the study and attaining the same results (Merriam 1994, Lekvall and Wahlbin 2001, Yin 1989). For the collection of data, standardization of the interview becomes central and here the interview guide (use case study protocol) has contributed to increasing the reliability (Lekvall and Wahlbin 2001, Patel and Davidson 2003). However, it has been difficult to carry out each interview in precisely the same way and perhaps this is not advisable in an in-depth study of this nature. Attempts were made to keep up a good degree of reliability by:

1. initially asking the interviewees if they considered themselves the most suitable respondents for this study,
2. performing the interviews at the offices of the respondents at a time suitable for them, and
3. ensuring that all of the respondents showed a great interest for the study.

Case Descriptions

The flooring market is international, and both Kährs and Tarkett Wood market their product lines in 40 to 50 countries. They have well established international sales organizations, and the brand names are being recognized as “global” brand names. According to these companies, the competitive pressure has also been very strong during the last 5-year period, perhaps as a reaction to a long growth period in the 1980s and 1990s. A combination of decreasing demand, increasing competition with new actors coming in from low-cost countries and also severe competition from substitutes are a serious threat to profitability. Both Kährs and Tarkett Wood have recently gone through strategic turnarounds.

The door industry is more domestic, partly because technical standards can vary between countries. International expansion, as in the case of Vest-Wood, is based on a multi-domestic approach, with national product lines and brand names. At least if we look at conditions on the Swedish market, the door industry is in general more profitable than flooring. Competition is strong, but not as severe. Kungsäter shows weak profitability records, which could be due to the fact that Kungsäter has been involved in the merger of the Dooria Group (and has had some severe technical problems internally). Conversely, the Vest-Wood group has exhibited healthy operating profits.

The window industry is the most nationally oriented. Wood windows have strong footholds in the Nordic countries, but not so much in the rest of Europe. Elitfönster is the market leader on the Swedish market and shows an impressive profitability record. The number two competitor, Svenska Fönster, is equally profitable. In general it can be concluded that the Swedish window industry is more profitable compared to the Swedish wood flooring and doors industry (Brege et al. 2004).

Kährs (Flooring 1)

The Swedish company Kährs is a specialized wood flooring manufacturer and part of Europe’s largest wood flooring group, Nybron Flooring International (seated in Switzerland). Kährs is the largest business with a turnover of Euro 230 million (2005) and employs about 1,400 people. Kährs is a very international company, selling to about 40 countries with it’s own sales organizations in 11 of these. The business mission is to be the leading brand and business partner in lamella parquet. Over the last several years, Kährs has experienced a positive turnaround.

Until recently, the European and U.S. markets for wood floors have experienced a long and steady growth and the main strategic problem was investing in new production capacity. During the last several years, however, market growth has stagnated and sales have declined.

“... it has been a shock for all of us because everyone has worked for expansion” CEO of Kährs

The company has a tradition of handling all of their activities in-house (including several side activities such as the running their own power plants). Consequently, Kährs has shown excessive cost figures and has also had too much capital tied up in non-core activities. Today, the company is experiencing tough price competition on a fragmented and increasingly global market. Even though Kährs is considered a major player, the company is forced to follow and adapt to the general market developments. In addition to the increased competition in which the main competitors are expanding

from their own home markets in Europe and the United States, Kährs is also meeting increased competition from small off-shore niche manufacturers. According to Kährs, being fully vertically integrated back to the sawmills contributes very little or nothing to competitive the advantage. On the contrary, handling all activities in-house, Kährs have been very inflexible. Unfortunately, this lack of flexibility has led to situations where the company has had difficulties exploiting market growth during upswings and their fixed costs were too high during market recessions.

“Kährs’s main problem has been that we have not mobilized the strength to change in line with the market [development]... we have spent too much time and too many resources on power plants and on sawmills and on all kind of other things... we have not had the strength to focus on the areas that really build up to a customer offer”. // “For a number of years many people thought that our core competence was in the sawmilling” CEO of Kährs

Therefore, outsourcing has become an important tool to hold down the need for large investments and to improve flexibility, e.g., facilitating faster switchovers to new product types. The outsourcing plans are very much in line with the overall strategic intentions to focus more resources on critical manufacturing activities, such as surface treatment and profiling, and to manufacture components that create differentiation on the market, such as the wear-layers. In this way, Kährs will better utilize their available resources on core activities that will create value for customers. And as focus shifts toward these areas, sawmill competence becomes less critical. Kährs has also sold several of their sawmills and in the future, sawn timber will be purchased from sawmills that are located close to the forests. According to the Kährs plan, this will decrease transport and spillage costs.

“Transport costs are increasing quite rapidly today and they contribute to driving our outsourcing decision. Transport costs make up a rather large part of total costs and it makes it more interesting to locate sawmilling close to the forests. In this way, we will avoid transporting sawdust” CEO of Kährs

The drive for cost effectiveness is also putting labor costs in focus.

“To avoid losing competitiveness to the low-labor-cost industry, our goal is to have a turnover of at least SEK 2 million per employee... otherwise we become very exposed and this is a very important reason for outsourcing” CEO of Kährs

The CEO states that, in the past, Kährs had insufficient focus on improving internal effectiveness. Outsourcing will facilitate benchmarking internal processes, to evaluate competitiveness with respect to cost effectiveness.

“When we don’t buy... we don’t know how efficient different parts of our internal processes are... What we are doing right now, is that we buy on all levels... we start with small volumes...and we can see how competitive we are” CEO of Kährs

Tarkett Wood (Flooring 2)

The Swedish company Tarkett Wood is a business which develops and manufactures wood floors and distributes them worldwide. Tarkett Wood is part of the Tarkett Sommer Group with its headquarters in Germany. Tarkett Sommer has a very broad product range including resilient hardwood flooring and to some extent textile flooring.

Tarkett Wood is somewhat smaller in size than Kärhs with a turnover of about Euro 130 million. The company has a long tradition on the international market and still holds a strong competitive position. During the last 4 to 5 years, there has been a down-turn in demand because of increased competition from new players in hardwood flooring as well as increased competition from substitutes such as laminate flooring. Profitability in recent years has been very weak, and Tarkett Wood has gone through a turnaround process.

Tarkett Wood has a long tradition of handling all activities in-house. But from a customer viewpoint, being vertically integrated is not necessarily an advantage. This calls for a need to rationalize in-house manufacturing to enable higher flexibility and lower costs as well as increased capital investment possibilities.

The Process Director states that the major driving force for Tarkett Wood is to lower costs.

“Opening up Eastern Europe gives us the opportunity to lower both labour and material costs and offers new possibilities for our outsourcing strategy. This will increase our internal focus on manufacturing activities on components that give us a competitive platform” Process Director, Tarkett Wood

Tarkett Wood is outsourcing those components that are not visible to the consumers, i.e., the mid-layer and bottom board and as separate or preferably one single component. These components create little differentiation and resources can, therefore, be better utilized on other activities in the value chain, e.g., manufacturing of surface layers and profiling and final surface treatment of the floors. Other strategically important areas are the development of the supply chain and the expansion of distribution and sales channels as well as their positioning on emerging markets. In this sense, component outsourcing implies that Tarkett Wood can lower the need for investments for the manufacturing activities, which ties up capital but create little differentiation for the customer. The Process Director and R&D Director emphasize that important competencies for Tarkett Wood are:

1. handling and coordinating flows,
2. managing the “final” value-added activities for differentiation, and
3. handling the customers.

The company has sold one sawmill and intends to sell others.

Vest-Wood (Door 1)

The Danish corporation Vest-Wood is Europe's largest wood door manufacturer, with strong market footholds in the Nordic countries, Germany, and Austria. The group has 14 manufacturing sites in seven countries and each factory is either specialized in products for the consumer segment or the project segment. Turnover is approximately Euro 450 million and there are about 4,000 people employed. Vest-Wood has over the last 20 years expanded rapidly, mainly through acquisitions, and has developed from a wood manufacturer to a specialized door company. The business statement says: "The business concept of Vest-Wood is to develop, produce and market wood door solutions adjusted to selected markets." Vest-Wood holds nine different brand names. International competition is tough but the Vest-Wood Group has nevertheless been quite profitable.

Today Vest-Wood is outsourcing about 10 to 15 percent of its production. Components make up 80 percent and products 20 percent of total outsourcing turnover. Vest-Wood has cost control and lean thinking in focus, which is a legacy of being a long-term supplier to IKEA (the Swedish furniture retailer). So, if a supplier can offer a price 20 percent lower than the Vest-Wood's own "internal price", the company considers either outsourcing or using the information as a benchmark to develop the processes internally.

"Then the discussion about outsourcing or in-sourcing came up, we are extremely focused on cost efficiency in our own plants... we must constantly be able to see how much this or that component costs in-house and what it costs externally" Group Director of Vest-Wood

According to Vest-Wood, outsourcing of wood components is motivated by possibilities to substantially lower:

1. raw material costs,
2. labor costs,
3. transport costs by doing the sawing and drying activities close to the location of the raw material, and
4. costs for spillage by component manufacturing.

Vest-Wood's outsourcing strategy for components is mainly motivated by its ambition to lower total costs.

Vest-Wood's overall strategy is moving away from production to customer orientation in combination with a strong growth ambition and to win a dominant position on the European market. Instead of selling "building products," their focus is on the marketing of life-style products to consumers. They offer complete solutions, which include installation as well as the service of doors. Focus has also moved away from production toward supply chain management.

"In my opinion, logistics and supply chain management are considerably more important core competences than production... it is definitely strategically

important to have more control [over flows] to avoid losing contact with our end-customers” Group Director of Vest-Wood

Kungsäter (Door 2)

The Swedish company Kungsäter has a long tradition of manufacturing interior doors. Since Kungsäter is today a division of the Norwegian door corporation Dooria Group which is a merger of one Norwegian and three Swedish companies. With a market share in Sweden of approximately 30 percent and about 20 percent in Norway, the group is the second largest door manufacturer in Scandinavia. The Dooria Group was established with a clear strategic objective to take second place on the Nordic market, to be an alternative to Vest-Wood in the negotiations with building merchants and DIY-retailing chains. The Dooria Group has a turnover of about Euro 50 million (2005) and employs 350 people. Kungsäter has a turnover of slightly less than Euro 6 million and employs about 50 people. Profitability for the Group over the last 3 years has been very weak and Kungsäter is in the red.

The major driving force for outsourcing at Kungsäter is to increase the internal focus on core activities, which creates differentiation and lasting value for customers while simultaneously lowering total cost and increasing profitability. Within the manufacturing field, assembling and surface treatment (final activities in the production process) are considered to be critical areas. Customer relations are vital. The requirements of customers have increased and in the future it will become very important for the company to extend their product range to include more services.

“The building merchants and DIY-chains are much more demanding today... partly to increase their own competitiveness and they want help with marketing... and they also put forward demands on environmental and quality policies”. // “We will also meet increased demands on supplementary elements of value-adding services” CEO of Dooria Sweden

Kungsäter’s strategy is to work closer in partnership with the retailers. This will increase the need for marketing and sales resources. Consequently, there is strong pressure to relocate cost from production and purchasing to marketing and sales. Components that add very little to differentiation will be outsourcing candidates.

“Capital is scarce and the question is how to allocate this capital? Our answer is that it should be spent so close to the customer as possible. Why should we then build and run production plants, that will mostly handle raw material when we can utilize our money much better in customer services.” R&D Director of Dooria AS

Elitfönster (Window 1)

The Swedish company Elitfönster develops, manufactures, and sells windows and is the domestic market leader with a market share of more than 40 percent. Elitfönster has a turnover of about Euro 100 million (2004) and employs 600 people. Profitability has been very good for a long period of time. Elitfönster is part of a larger Swedish group, Inwido, which is a holding company for acquisitions in the Nordic markets.

Elitfönster has signed an outsourcing agreement with the international forest company Stora Enso covering up to 80 percent of their blanks (consist of finger-jointed glue-laminated wood) for window and door manufacturing. The outsourcing agreement was triggered by capacity problems. Elitfönster had problems in expanding their internal manufacturing plants, and at the same time, they wanted to avoid the investment costs. The in-house production lines needed both volume expansion and technical upgrading (finger joining).

“It is only the [total] economy, nothing else”. // “...if we had done it [invest to manufacture the blanks in-house] alone, we would have had to invest 70-80 million SEK in a new plant... that was too much money for a relatively simple operation”
Group Director of Elitfönster Group

According to the CEO of Elitfönster, the outsourcing of blanks has led to lower costs compared with earlier in-house production; they can today buy components at a somewhat cheaper price than their earlier internal cost. In addition, costs as a driving force comprise several other elements. With the earlier production structure the company experienced severe problems in obtaining the right quality of sawn timber from their suppliers. Elitfönster had several minor suppliers and supplier co-ordination was very costly and time consuming. Secondly, to buy raw material from all of these suppliers created a lot of uncertainty in terms of quality. As a consequence, the company had a lot of unnecessary spillage costs from their manufacturing of blanks. Finally, transport costs were high due to the fact that all the blanks were manufactured in one plant, but 80 percent was shipped to the other main production site. Elitfönster is also outsourcing some finished products, because of insufficient in-house capacity. In the future, windows will become more and more technically complex.

Today, Elitfönster is constantly expanding its products and services to meet the consumer market as well as the projected market by offering packages including both product and added services which requires additional resources.

Svenska Fönster (Window 2)

Svenska Fönster is the second largest wood window manufacturer in Sweden and is owned by the Danish window group VKR (Villum Kann Rasmussen). Turnover is about Euro 62 million (2005) and 500 people are employed. Profitability has been very good, in line with or better than Elitfönster.

In the past, Svenska Fönster internally controlled the entire production process, from sawn timber to finished wood windows. Being fully vertically integrated, however, will not be the strategy for the future. Instead, Svenska Fönster intends to focus more resources on activities downstream in the value chain (e.g., assembling, marketing, and sales). Outsourcing so far is very much in the planning phase.

“...it is difficult to be good and best at everything in the entire value chain, today we are focusing on activities that are at the end of the value chain, marketing, selling and assembling.” CEO of Svenska Fönster

Svenska Fönster is contemplating outsourcing the manufacturing of blanks and in the future some complete products. The major driving forces for outsourcing are capacity constraints and costs.

“Today when considering [outsourcing] blanks perhaps the thing that is most in focus is capacity, we are growing rapidly and the capacity limit will be reached next year [2006] and we must find suppliers... but certainly the cost factor is also very interesting” CEO of Svenska Fönster.

“The main overall driving force is the need for capacity” Head of Sales, Svenska Fönster

Svenska Fönster wants to achieve market and sales expansion without spending new investments in manufacturing facilities. So, when outsourcing blanks space can be saved and at the same time costs can be lowered (in a comparison between in-house production and purchasing). External suppliers are in a better position to create economies of scale and determine a competitive price. After outsourcing, the internal production flow could also be less complex and more efficient, but at the same time more products need to be handled through the in-house manufacturing process. These products are needed to broaden the product line that already exists. Due to insufficient in-house capacity and a complex internal production flow, however, these products have been outsourced. Another driving force for outsourcing blanks is the need is to secure raw material having the right properties.

Analysis of the Cases

In all of the cases, outsourcing is focused upon manufacturing of components. The case descriptions have given an overall impression that the driving forces for outsourcing are quite similar even though the main driving forces differ somewhat. By considering strategic and contextual differences between case companies, the differences in observed driving forces may be explained. The domestically focused and relatively profitable windows manufacturers have mainly considered outsourcing due to capacity constraints.

The window manufacturers have a much more favorable position compared to flooring or door manufacturers, and the focus is not entirely on reducing operational costs. For these companies the main driving force seems to be outsourcing to support market expansion in combination with a strategic aim to avoid new and costly investments in their in-house component manufacturing. In these cases outsourcing could also open up a more productive utilization of in-house resources, and finished products produced by suppliers could be brought in-house as component manufacturing is being outsourced. In contrast the much more international floor manufacturers, which are less profitable, are under severe competitive pressure which explains why cost rationalization has become a very important driving force for outsourcing. Both Kährs and Tarkett Wood have also divested sawmills.

Table 3. Summary of case companies' contextual factors and main driving forces.

Case company	Geographical market	Competitive pressure	Main driving force for outsourcing
Kährs Flooring 1	International	Very strong	Cost pressure – overall cost cutting Divestments
Tarkett Flooring 2	International	Very strong	Cost pressure – overall cost cutting Divestments
Vest-Wood Doors 1	Multi-domestic Europe	Strong	Cost pressure – reallocation to marketing and value added

Kungsäter Doors 2	Multi-domestic Nordic	Strong	Cost pressure – reallocation to marketing and value added
Elitfönster Windows 1	Domestic	Moderate	Capacity restraints – no new investments in components
Svenska Fönster Windows 2	Domestic	Moderate	Capacity restraints – no new investments in components

The door manufacturers, one profitable and one less profitable, and essentially domestic have also outsourced because of cost reasons. In these cases, however, it is not primarily a matter of cost rationalization for survival. Instead, they need to reduce operational costs, in order to increase spending in product development, supply chain management, and sales and marketing. In other words, the element of reallocation of cost is much stronger in the door industry than in the flooring industry.

In the frame of reference several different types of driving forces for outsourcing were compiled into five different areas, and the observed driving forces can be allocated to four of these. The “missing” driving force is access to external capabilities and special competencies (Deavers 1997, Greaver 1999), which is not (so far) valued very high among the WPM-companies. This could be explained partly by the characteristics of the components outsourced and partly by the fact that there is no actual supplier base with superior knowledge (the expertise and development in the hands of the WPM firms). Cost reduction in general is a very strong driving force as are operations/capacity constraints, financial drivers, and core competence (**Table 4**).

Table 4. Summary of the case companies’ driving forces for outsourcing.

Case company	Component cost -> overall cost cutting	Component cost -> reallocate to marketing and value added	Core competence focus	Operation/capacity constraints	Financial -> no new investments/divesting
Kährs Flooring 1	+++	+	++	+	++
Tarkett Flooring 2	+++	+	++	+	++
Vest-Wood Doors 1	++	+++	++	+	+++
Kungsäter Doors 2	++	+++	++	++	+++
Elitfönster Windows 1	+	++	++	++	++
Svenska Fönster Windows 2	+	++	++	++	++

When comparing the empirically derived driving forces with the contents of the literature, it can be concluded that arguments have been made for outsourcing from both a cost efficiency perspective as well as from a resource perspective. The potential for different cost reductions by employing an outsourcing strategy is related to the arguments put forward in the transaction costs analysis. But, it is only the production aspects that, explicitly or implicitly, have been considered.

A Cost Perspective on Driving Forces for Outsourcing

Anticipated cost reductions have been a major driving force in all cases, which is in line with the literature where lowering total costs are often identified as the main driving force for firms initializing outsourcing programs (Bettis et al. 1992, Welch and Nayak 1992, Jennings 1997, McIvor et al. 1997, Fill and Visser 2000).

Cost reduction is a general aim within all of the case companies, and the greater the pressure on profitability, the higher the pressure for cost cutting. From a cost analysis perspective, the sum of governance and production costs ought to be thoroughly investigated when outsourcing is contemplated. This type of cost analysis, however, has not been made by the firms and this paper focuses on the perceived driving forces i.e., benefits from outsourcing (e.g., operational cost reductions such as production and transport).

The case companies have concluded that several of the components that are manufactured in-house today can be done more efficiently by others. By doing more outsourcing costs such as raw material, labor, transportation, and spillage costs have been lowered. It can be noted that outsourcing results in economies of scope, i.e., out of the same raw material different types of components can be produced. In this type of production there are high spillage costs due to the heterogeneity of the wood material. Unnecessary spillage costs are caused by the inability to use the entire raw material and by inferior property of the wood raw material. Outsourcing is believed to result in reduced transportation costs due to substantially reduced volume transported and more refined products rather than raw material. This is especially important for goods with a low value density. From a governance cost perspective, it may be concluded that the coordination cost will be too high when employing a purchasing strategy based on multiple minor suppliers, where the material flow needs to be coordinated.

Some companies wanted to reduce cost in order to reallocate resources toward increased customer focus. Market expansion and extension of products and services demands more resources, which have to be reallocated from raw material and (non-strategic) component production. This is especially true for the door companies which have experienced this type of driving force.

A Resource Perspective on Driving Forces for Outsourcing

When contemplating outsourcing, the companies have also applied a resource perspective taking into account customer value-adding factors to maximize returns. There has been a core competence focus on competitiveness and product differentiation, and all case companies have felt the need to specialize and put a stop to the tradition of doing everything in-house. Focus on core competence is closely related to utilizing outsourcing as a tool for the better use of available resources on core competencies and there is willingness to increase customer focus by product augmentation and to vertically integrate closer toward their customers. The need for increased customer focus is clearly emphasized in the case descriptions. For the companies studied, it seems as if little can be gained by having their own sawmills, especially when they have difficulties utilizing the wood material for their own production. This along with the focus toward increased customer orientation seems to be an important driving force for outsourcing. This is in line with becoming less integrated with sawmill activities and focusing more resources on activities that can create differentiation and facilitate

customer focus and awareness. The case companies define what to outsource based on whether or not items distinguish them in the marketplace. These items are termed non-core by the companies. The companies' focus is on those activities that they believe will enable differentiation in the market and this creates a strong driving force for outsourcing (Fill and Viser, 2000). Similar, previous studies have argued activities creating a basis for differentiation and competitiveness must be kept in-house, while other non-core activities should be considered as potential for outsourcing with a varied degree of external relationships (e.g., Quinn and Hilmer 1994, Jennings 1997, McIvor et al. 1997).

There is also a very practical aspect to the focus on resources, which is capacity problems. This is an internal driving force linked to problems of in-house expansion due to, for example, limited physical space, very complex production lines and lack of new technology. This kind of internal pressure on outsourcing in the form of capacity constraints and operational considerations has been a driving force for outsourcing in three of the case companies (Dooria Kungsäter, Svenska Fönster, and Elitfönster). Capacity has been expressed in our frame of reference, as a driving force for outsourcing, and is sometimes viewed as a major driving force (Harrison and Kelly 1993, Fine and Whitney 1999). The firms studied have traditionally handled all activities in-house, from raw material to finished products which has resulted in an inflexible production system. By outsourcing, volume flexibility and costly investments for certain activities can be avoided. Consequently, the lack of operational capacity is also linked to the financial driving forces. In this research, all case companies were reluctant to make new investments in raw material and component manufacturing. As such, outsourcing decisions may be triggered by the need for new capacity that implies capital investment. The financial factor that drives the case companies' outsourcing decisions seems closely related to better utilization of available resources. This is done by avoiding costly investments and coping with operation/capacity constraints (Bragg 1998, Greaver 1999) or by mobilizing capital to better focus on their core competencies and those activities that create differentiation (Hendry 1995, Greaver 1999, Wasner 1999). The WPM firms are working hard to reduce costs and investment needs, while simultaneously putting more responsibility on upstream suppliers. Investing in certain component manufacturing in-house is not easily motivated and resources allocation are considered to be better employed in distribution.

Conclusions

What was presented in this paper corresponds with the basic assumptions presented in the theoretical framework. Research has shown that the companies investigated consider outsourcing based on the following driving forces:

1. component cost reduction,
2. reallocation of resources to marketing and sales,
3. core competence focus,
4. operation/capacity constraints, and finally
5. financial driving forces.

Contrary to other studies, WPM firms do not outsource to gain access to outside competence. Furthermore, as described above, the driving force, cost reduction, can according to our study be

divided into the common overall cost cutting as well as cost reductions in order to reallocate resources to marketing and supply chain development.

As in much of the earlier research, all of the companies considered the cost aspect as a fundamental driving force for outsourcing, with two of them arguing it as being the single most important factor. It is not only a matter of total cost reductions but also reallocation of cost, i.e., transferring resources from production to marketing and sales. All companies recognized the importance of focusing resources on what contributes to differentiation in the marketplace. The case companies are moving toward an increased customer and consumer focus and away from a traditional production and raw material focus, this also includes going from products to broader offerings including services. This is a very strong strategic movement both in the Swedish door and window industries, while the flooring industry seems to be ahead in this area as well. Despite their image as strongly market-oriented companies, both Kährs and Tarkett Wood consider themselves to be still in a transition from production to market orientation. Deep in the technical core of the companies the production and raw material orientation is still strong.

Outsourcing becomes an important ingredient for the case companies when there is a need for strategic development by increasing customer orientation. While outsourcing the manufacturing of wood components, the case companies define their businesses more in terms of their customers than their production technology or product attributes.

In the introduction of this paper, it was stated that the outsourcing hype in general seems to be over and that instead there is an insourcing trend. Two things should be observed in this discussion. Firstly, the type of outsourcing in WPM can be characterized as capacity outsourcing, i.e., it is not a matter of getting access to skills/competence which may result in severe problems (Fine and Whitney [1999] who argue that capacity outsourcing offers the best potential for outsourcing). In these cases the companies have been concentrating on core competencies and handling operation/capacity constraints not in order to gain access to knowledge and competences, i.e., either operational or technology competencies, but in order to achieve financial and operative flexibility.

In several studies, accessing competencies/technologies that would be difficult and costly to develop internally is argued to be an important driving force (e.g., manufacturing Harrison and Kelly [1993]; IT and pharmaceutical industry Quinn and Hilmer [1994], Quinn [2000], Augustsson [1998]; automotive Fine and Whitney [1999]; telecom Berggren and Bengtsson [2004]). Also in broader cross-industry surveys, access to world-class capabilities is one of the main reasons for firms initializing outsourcing (Deavers [1997] and Espino-Rodriguez et al. [2006]). But, to access external resources has not been a driving force for outsourcing in the WPM industry. The fact that firms in the WPM industry seem to value comparative production cost advantages more than competence or technology advantages in their outsourcing initiatives (e.g., Venkatesan [1992]; Quinn and Hilmer [1994], Deavers [1997]). One reason for this could be the raw material intensive wood components considered for outsourcing put a higher focus on cost. In IT outsourcing external competence advantages can be much more important.

In conclusion, some aspects have been identified that indicate that there is a difference in the driving forces for outsourcing in the WPM industry compared to traditional outsourcing industries

(e.g., IT and automotive). This indicates a need for further in-depth studies both on the customer side and on the supplier side (i.e., sawmills).

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