by Michael J. Mol, Rob van Tulder

A recent study of firms in the Netherlands shows that regional differences still influence the sourcing strategies of European-based firms. The results also turn the tables on the 'globalisation pundits' who link higher profits with international sourcing.

Solution in search of a problem?

Lean production, vertical de-integration, just-in-time inventory management, and core competence theory have all thrown the spotlight on sourcing strategies in recent years. But with the dawn of modern-day 'globalisation' in the 1990s discussion of the concept has increasingly been accompanied by, even preceded by, the word 'global'. A cursory search in electronic databases - including hundreds of relevant sources in international business journals - shows that before 1986 not a single refereed article contained these two ideas in the same paper; from 1992 onwards an average of six refereed articles per year have dealt with global sourcing, a combination also reflected in the subject matter of practitioner journals.

The question for senior business executives is whether 'global' sourcing really represents a relevant and strategically sound option for European firms. Judged by the advertisements of leading consultancies and 'new economy' companies offering competitive sourcing auction services the answer of course is an unequivocal 'Yes'. But in reality as we will seek to demonstrate the issue is far from clear cut. Based on a study of the serious academic literature and the findings of a new research project on the international sourcing strategies of leading industrial firms located in the Netherlands, we will expose in this article the sometimes

In short...

- The study approached around 700 of the leading manufacturing firms in the Netherlands, achieving an effective response of around 200 or 30 per cent.
- The results suggest that internationalisation of the supply base is primarily limited to European countries – particularly within the European Union.
- Distance clearly matters when it comes to sourcing, international or otherwise – as does the Single European Market.
- The importance of shared institutions – standards, competition policy, common business practices, legal protection and the like – is something that tends to be underestimated.
- European managers should leave the word 'global' out of their strategic dictionary for the moment, instead speaking of 'international' or 'regional' sourcing.

extravagant claims which have been made for 'global sourcing', as well as investigating the links to firm performance. At the end we offer a number of explanations for the patterns of international sourcing found in our survey which should help managers make better strategic choices.

Fragmentary research status

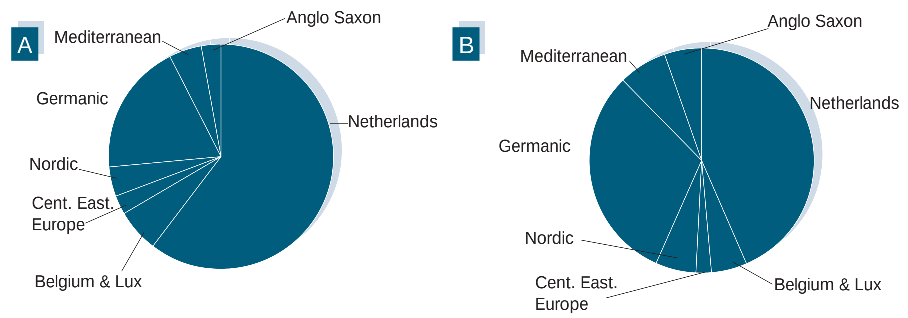
Since the early 1990s, companies have been told that choosing 'world-class' external suppliers is a key means of improving their competitiveness. Womack, Jones and Roos's 1990 best-selling book on 'lean' manufacturing "The Machine that Changed the World", for instance, demonstrated how car manufacturers were amongst the most globalised and in some cases successful firms in the world, notably through their use of 'global' sourcing strategies. Honda was frequently cited in this regard along with the assertion that its global sourcing strategy had directly improved its bottom line. Yet the truth is that Honda can hardly be considered a 'typical' car manufacturer, let alone be representative of 'Japanese' car manufacturers as a whole. Little substantial evidence has been provided to support the idea that Honda's experience was mirrored amongst a wider range of firms and sectors.

'The truly 'global' share of average sourcing amounts to a mere eight per cent of the volume, most of it in North America and/or other developed countries.'

Many of the studies that have searched for empirical underpinnings of the 'global sourcing' phenomenon are either based on macro-economic data (notably Wyckoff's article in Science, Technology and Industry Review, 1993) or firm level data from questionnaires or interviews (notably Murray, Kotabe and Wildt, 1995). Wyckoff's research found that 13 per cent of sourcing in the United States was international, whereas this was lower for Japan (7 per cent) and higher for large European countries (around 36 per cent in the case of France, Germany and the UK). Kotabe's studies substantiate the claim of increasing levels of international sourcing over time. For instance, the degree of international sourcing by US firms increased from 6.2 per cent in 1977 to 10.3 per cent in 1989. Leaving aside methodological difficulties, the general gist of subsequent articles has been to extrapolate the 1980s trends into the 1990s. But the claims are supported by surprisingly weak analyses. The overwhelming majority of firm-level studies focus primarily on firms in the United States and their typical strategic sourcing repertoire. There is a lack of studies addressing the link between (international) sourcing and performance. Additionally, most of the empirical measurement covers the 1980s and early 1990s, which also explains why none of the studies properly address the effects of the formation of economic regions such as the European Union or the North American Free Trade Agreement (NAFTA).

It should not come as a surprise therefore that the concept of 'global sourcing' has not been well defined. The best description can probably be found in Murray, Kotabe and Wildt's study which states that "global sourcing involves setting up production operations in different countries to serve various markets, or buying and assembling components, parts or finished products world-wide". This definition suggests that all multinational enterprises producing abroad, as well as primarily domestic firms that use parts from a number of countries, engage in global sourcing. Vague concepts like 'multinational sourcing' or 'offshore sourcing', meanwhile, should be treated with caution. 'Offshore sourcing' as a term has been applied to US firms that produce and purchase abroad and then export products back to the United States. But this phenomenon is sometimes also referred to as 're-imports', which is quite different from 'sourcing'.

Figure 1: Where supplies are sourced – Europe



Average European Spread of supply base. Sample 199 companies

Weighted European Spread of supply base. Sample 199 companies

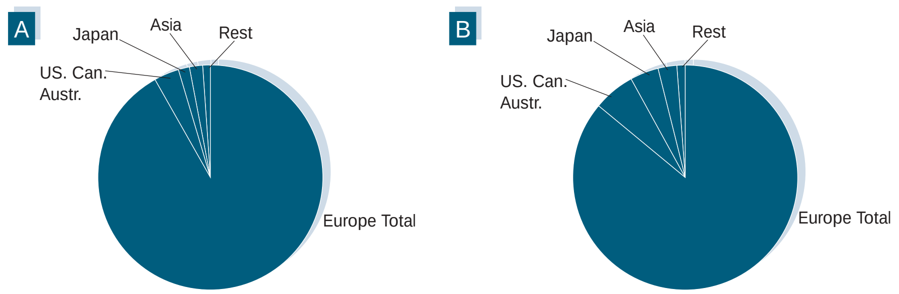
Checking reality

Following the connotation of the phrase 'global' sourcing the geographic dimension seems the simplest means of distinguishing between competing claims. In our view 'global' sourcing is different from 'regional' or 'local' sourcing because of the bigger spread of inputs pursued all over the world. In case a company aims at a strategic dependence on sourcing beyond their own region, the term 'global sourcing' applies.

Being a country where home and host multinational firms are equally well represented in the economy, The Netherlands offers an appropriate testing ground for global sourcing practices and a suitable location for our research. To check the geographical spread of the supply base the sourcing policies of around two hundred leading manufacturing firms were therefore studied in late 2000 and early 2001. An extensive questionnaire was sent out to around 700 firms, comprising the leading manufacturing firms in the Netherlands, with a proportional spread over sectors, representing home-based and host firms of various sizes. Just over 200 valid responses were obtained representing an effective response rate of 30 per cent.

Figures 1a and 2a show the average European and International (geographical) spread of these firms' supply base, measured in relative volumes and sourced from particular countries or regions. Figure 2 reveals that the internationalisation of the supply base is primarily limited to European countries – particularly within the European Union. The truly 'global' share of average sourcing amounts to a mere eight per cent of the volume, most of it in North America and/or other developed countries. It is worth remembering at this point that 85 per cent of the earth's population lives in developing countries – a part of the world which in aggregate accounts for a maximum of two per cent of all sourcing by companies in our sample. Figure 1 shows that within Europe these Dutch companies look to domestic, home based suppliers for more than 55 per cent of all their supplies with the Germanic countries – in particular Germany – by far the most important 'international' source. Distance clearly matters when it comes to sourcing, international or otherwise – as does the Single European Market. The European Union – in particular continental Europe – represents between 85-90 per cent of the market for manufacturing firms located in the Netherlands. Patterns of trade and patterns of internationalisation in the supply base, moreover, appear to run neatly in parallel. This implies, for instance, that the relatively low trade volumes in

Figure 2: Where supplies are sourced – Globally



Average International Spread of supply base. Sample =199 companies

Weighted International Spread of supply base. Sample =199 companies

finished goods with the UK and Ireland (see Figures 1a &1b – Anglo-Saxon) are matched by relatively low volumes of intermediate goods (and services).

Size makes a difference

One can argue that firm size is a key factor influencing the scale of international sourcing. Since larger firms are less likely to find suppliers of the appropriate size in one national location, their chosen suppliers tend to be those firms which have an international focus and a larger proportion of capacity dedicated to exports than average firms. Larger firms often manufacture in several countries, and so have the financial muscle and position to search for multiple (often parallel) sources. Figures 1b and 2b (above) specify the spread of sourcing for a weighed average that incorporates the total sourcing volume of each firm. These figures reflect a bigger weighting for larger firms. On the surface the pattern does not change much. Europe remains the biggest supply base (with 86 per cent). A substantial part of sourcing (37 per

In my opinion...

by Jan Snijder

In spite of the fact that many Dutch enterprises export their products efficiently to far-away destinations, it appears that sourcing from abroad (the opposite challenge, in effect) is a much more difficult matter. As a consequence the title of the Mol/Van Tulder article doesn't really surprise me. Almost all industrial enterprises in the Netherlands are very familiar with the global sourcing of basic raw materials for the simple reason that these materials cannot generally be found in the home country itself. Given that the process of global sourcing is so familiar to companies in that area it is all the more disappointing that pursuing the same strategy for parts, components and machined materials has enjoyed such limited success.

Even Dave Nelson, Vice President of Procurement of Honda USA, once referred to the issue of global sourcing as "global disaster," while a prominent international consultancy has stated that moving 2.5 per cent of a company's purchasing volumes from 'local' to 'global' (whatever that may mean!) within one year would constitute an Olympic record. So, what is going on?

Mol and Van Tulder highlight a number of key factors which appear to make it almost impossible to harvest the (financial) benefits, not least the problems of sourcing in geographically distant territories with a proven record of competitive prices and quality.

The percentages mentioned in their study might be derived from different definitions, because in my field of experience global sourcing has never been more than a niche market (apart from the raw material sourcing mentioned before).

As the authors point out definitions are relevant here. For instance, sourcing in Brazil on behalf of a Brazilian manufacturing plant should not be considered global sourcing by a US or European corporation (even for consolidation purposes at group level).

The results which they found for the average Dutch company in their sample – 8 per cent of purchases sourced globally, mostly in the US, is a disappointing figure particularly where no clear bottom line cent) still comes from within the Netherlands. But the bigger players also play a slightly different game than the average sized firms. They tend to concentrate on a limited number of countries both within Europe – in particular the Germanic territories – and beyond Europe, predominantly Japan and the United States. The same link between markets and supply bases is apparent. The bigger firms are typically competing head-on with their Japanese and American rivals – both sides trying to penetrate each other's markets to a greater extent than the average manufacturing company would seek to do – which leads them to search for the same local or regional sourcing bases too. The share of the non-industrial world in sourcing remains negligible (less than 3 per cent).

Sourcing strategies, meanwhile, reflect considerable 'path dependency' effects. Home-based Dutch firms obtain an above average percentage of their sourcing from the Netherlands but foreign firms located in the Netherlands have no legacy of dealing with a host supply base and thus choose more freely between domestic and foreign suppliers. The share of local suppliers used by these firms is nevertheless significant (although still lower than that of Dutch firms). Host firms from other European countries use more EU sourcing, while non-EU firms, primarily those from the United States, source substantially from the United States. On balance, however, distance matters more than loyalty to the home country. Most of the main suppliers used by firms in the sample were located between 20 and 100 kilometres from the buying firm. Relatively few main suppliers were located closer than 20 kilometers, which suggests that local clustering is less important than regional clustering. Big firms tend to search for sophisticated suppliers – not necessarily the cheapest ones – that can deliver just-in-time supplies. The findings of our survey therefore contradict the popular wisdom that geographical borders and location no longer matter. Indeed the results suggest that most of the processes of internationalisation currently being talked about are regional in nature.

What strategic indicators are the most appropriate to consider when contemplating international sourcing?

This research project revealed the following strategic sourcing principles:

- Trust and predictability matter
- Relative distance matters
- Culture matters
- History matters (path dependencies)
- Nationality and institutions matter
- Price matters less
- Size and degree of concentration in the market matter because of bandwagon effects

At the same time these principles reveal a research agenda. An exact and systematic elaboration of those principles still remains rather obscure.

Performance impact

The relationship between (global) sourcing and performance has been one of those 'million dollar' questions, and will probably remain unsolved. But it is an exceedingly important strategic question and deserves attention. Reliable studies linking international sourcing and performance do not exist. As part of our Netherlands-based research project, firms were asked to compare both their financial performance (Return on Sales/Investment) and market performance (market share and market growth) to those of their three largest competitors. The influence of global sourcing on performance was then

benefits can be demonstrated.

In my opinion the overriding conclusion has to be that European companies source regionally, in Europe, just as American companies tend to behave in their home continent.

For the Netherlands, presently part of the Euro zone, an average of 55 per cent sourcing in Germany is very logical (since in many cases no Dutch sources exist) but this should only really be considered as 'local' sourcing.

As I see it, it is not so much the size of the (Dutch) company that determines the level of global sourcing as the professionalism of the organisation. One has to admit that global sourcing is a specialised type of sport that can only be played successfully if and when the entire company wants it.

Too often production people, logisticians and quality managers silently oppose global sourcing activities, slow them down and kill them. So, the decision to go global should be taken at board level and with a clear aim and target. The latter, in my opinion, can only be considerable cost savings or 'company duties' such as 'offset' or other obligations in the global country of origin.

The Mol/Van Tulder study provides a balanced picture of the pro's and con's of going global. There is no doubt that it requires a lot of extra guidance and attention, including travel costs and technical assistance. On the other hand, mainly due to lower labour costs in certain parts of the world, considerable cost savings can be achieved by going global in the appropriate situations.

Net landed cost savings of up to 40-50 per cent are by no means exceptional, provided that the right commodities are chosen and the top management shows determination and commitment.

Such commodities should have:

- a proper planning horizon;
- a big labour component in the cost price;
- no continuous product changes;
- a realistic level of production achievement.

Even as a niche, global sourcing can seriously contribute to the company's bottom line.

Semantics such as 'going international' should, from a Dutch point of view at least, be avoided.

Jan Snijder is President of NEVI, the Dutch National Organisation for Purchasing management

calculated while correcting for industry effects, company size, differences in degrees of outsourcing and innovation in the firm. These factors can potentially distort the measured influence of international sourcing on performance. In short, the analysis focused on the 'competitive performance' of firms. The research showed that neither 'international' nor 'global' sourcing provided a significant explanation for firm performance – even when controlling for the variables mentioned. In other words the internationalisation of sourcing does not lead to the increased performance which managers might hope for, nor does it lead to any performance decrease. Global sourcing is neither related to the profitability of companies (either home or host) nor to their market share.

Strategic repertoires

The emergent patterns of regional rather than global sourcing are understandable. Sourcing strategies require very complex interactions between firms, in which shared values, culture, reliability and predictability of the relationship are more important than just low prices. The importance of shared institutions – standards, competition policy, common business practices, legal protection and the like – is something that tends to be underestimated by globalisation pundits. For both the average and weighed spread of the supply base of multinationals located in the Netherlands, continental European sourcing links prevailed. One day trucking, it appears, may be more feasible in international sourcing than one day shipping across the English Channel (which might be required to reach British suppliers). More importantly perhaps, the convergence of German (corporatist/ stakeholder) institutions and Dutch institutions may be significant in the light of the shareholder dominated British model. Converging institutions and cultures create stability in business relationships and are difficult to substitute for the cost advantages which may be attached to using alternative suppliers in far-away locations. Low prices may only be a limited consideration – performance, after all, is as much affected by the reliability of suppliers, the possibilities for 'black box' engineering (research collaboration with the supplier) and the like. The lack of any conclusive evidence in our research for a link between global (or even international) sourcing strategies and better performance certainly points in this direction. Additionally, the findings hint at the sustained (technological) superiority of German suppliers vis-à-vis the rest of the supply base in Europe.

'The findings of our survey therefore contradict the popular wisdom that geographical borders and location no longer matter. Indeed the results suggest that most of the processes of internationalisation currently being talked about are regional in nature.'

The bigger firms are, as our research confirms, the more inclined they are to source internationally. But rather than reflecting an intrinsic strategic rationale for superior performance, this tendency would appear to be driven by the higher concentration levels and degrees of internationalisation found in industries where larger firms operate. This is the reason why those firms reveal 'triadic' rather than 'global' sourcing strategies.

Empirical studies on sourcing by Kotabe suggest that it matters far more to assess whether certain key items are sourced internally (ie inside the firm) or externally, rather than looking at where these items are sourced from. For the moment, it seems that the advantages to be gained from international sourcing – such as lower production costs and a bigger choice of suppliers – may be largely offset by increased transaction and logistical costs, certainly when sourcing from outside the 'home' region. Firms such as Ford that have developed supply chains beyond their own region have difficulty governing them effectively because of language, cultural and institutional differences. It does matter where suppliers are located.

Conclusion

The 'global sourcing' concept has been built primarily on American sources, which have created an ideal rather far removed from European business reality. It would therefore seem advisable for European managers for the moment to leave the word 'global' out of their strategic dictionary and rather to speak of 'international' or 'regional' sourcing. Only under very specific circumstances does the concept of global sourcing add real value to our understanding of the strategic challenges related to sourcing activities. In the long run global sourcing might be a feasible strategic option, provided the institutional requirements are created.

Rob van Tulder is full professor, Department of Business-Society Management, Rotterdam School of Management.

Michael Mol is assistant professor, Department of International Management, Nijmegen School of Management.

References

- Kotabe, M. (1998) Efficiency vs Effectiveness orientation of global sourcing strategy: A comparison of U.S. and Japanese multinational companies. Academy of Management Executive, 12(4), 107-119.
- Mol, M.J. (2001) Outsourcing, Supplier Relations and Internationalisation: Global Sourcing Strategy as a Chinese Puzzle, PhD Thesis, Rotterdam School of Management.
- Murray, J., Kotabe, M., Wildt, A. (1995) Strategic and financial implications of global sourcing strategy: A contingency analysis. Journal of International Business Studies, 26(1), 181-202.
- Van Tulder, R., Van den Berghe, D. , Muller, A. (2001) The Erasmus (S)coreboard of Core Companies, Rotterdam: Rotterdam School of Management.
- Womack, J. P., Jones, D. T. and Roos, D. (1990) The Machine that Changed the World. New York: Harper-Perennial.
- Wyckoff, A. (1993) The extension of networks of production across borders. Science, Technology and Industry Review, 13, 61-87.
- Quinn, J.B. (1999) Strategic outsourcing: Leveraging knowledge capabilities. Sloan Management Review, 35(4), 9-21.