



evolution of manufacturing

Manufacturers in a global market have major opportunities to develop non-core skills. But, asks **Sigi Osagie**, are they up to the challenge?

FOR TRADITIONAL UK manufacturing companies the outsourcing of activities overseas has had a number of evolutionary impacts. Manufacturing itself has almost become 'commoditised' in many sectors, and is less of a core competence for many erstwhile Western 'manufacturing companies'. Instead the focus in these companies has shifted to product design, intellectual property management, marketing, and supply chain management.

This shift is quite understandable as such companies no longer need to worry much about manufacturing, leaving that to the outsource manufacturers who have the advantage of economies of scale and of learning from having multiple outsource customers and products. Such outsource manufacturers are likely to learn more quickly about the manufacturing technologies and processes than the original equipment manufacturers (OEMs) themselves.

However, OEMs still need to be fully conversant with the pertinent technical, legal and social issues since they retain responsibility for their products and brands. A key example here

is the recent Waste Electrical and Electronic Equipment (WEEE) and Restriction of Hazardous Substances (RoHS) statutory requirements: OEMs cannot simply sit back and leave it to their outsource manufacturers as the OEMs are legally responsible for compliance.

So OEMs must remain involved and retain control for their products. One way of doing this is design innovation.

Since less effort and resources are expended on manufacturing, OEMs can expend more effort on product design. This gives OEMs multiple advantages, including being able to focus attention on design to ensure enhanced functionality and fitness-for-purpose; using such up-front attention to ensure products are designed-to-cost and designed-for-manufacturing, thus making the manufacturing operations much simpler and more cost-efficient; and ensuring that their products are environmentally friendly in their production, use and disposal.

It is now widely accepted that most of the costs and benefits in a product are created in the initial design, so being able to focus such increased attention to

product design is a significant and valuable opportunity. Whether most OEMs take full advantage of this opportunity is another matter entirely.

GETTING UP-TO-DATE

Focusing more effort and resources on product marketing and IP management is just as beneficial for OEMs. Many small- and medium-sized manufacturing companies have traditionally focused too much on manufacturing and not enough on developing marketing capabilities. This might have been appropriate in the business world of yesteryear, but it won't do in today's competitive commercial climate, especially when many manufacturing sectors have numerous market entrants from the Far East who have significantly lower product costs and prices.

Western OEMs must be just as innovative in their sales and marketing approaches as they are with their product designs. Thankfully, many UK manufacturers are taking up the mantle, in some cases with help from the government's Department for Business. Despite this, Western OEMs must do more and learn

from the dynamic marketing approaches of other sectors such as consumer goods manufacturers and the retail sector.

By far the greatest impact of the outsourcing and offshoring trend in manufacturing has been in supply chain management (SCM). Managing outsource partners strategically is one thing, but getting the products from their facilities to the OEMs' or to the points-of-sale is another. This can be a huge and complex challenge considering that many product supply chains today span multiple geographies, cultures and timelines. Companies can only address this through robust and effective logistics.

Importantly, resolving modern-day logistics challenges involves not only complex network design and analyses, but also significant IT tools and capabilities to enable the myriad of algorithms, permutations and computations involved. For most companies, getting this capability entails buying off-the-shelf software packages and linking them to their ERP systems; buying ERP systems with integrated logistics management modules; or outsourcing the logistics management activities to third-party logistic providers. It seems that in the modern manufacturing world we just can't get away from outsource partners!

In many ways this illustrates the evolution of manufacturing and the challenge for today's manufacturing professionals. Our world has changed and we must evolve. One important area is expanding our conventional view of 'manufacturing' and the constituent skills we need to manage our professional work.

Expanding our focus to imbibe other areas which were historically considered 'non-core' (such as supplier management) may be only half the story. The other half could be in what comes after outsourcing and offshoring – are we adequately prepared for what lies ahead? Only time will tell. ■

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