

PRODUCT DEVELOPMENT

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THE REALITIES OF DESIGN OUTSOURCING

For almost a decade now, the popular trade press has been touting increases in the practice of design outsourcing. Many companies have invested time and money to create processes, practices, and tools that enable design outsourcing, while protecting their intellectual property. Industry conferences cover the subject regularly and seminar providers are popping up everywhere to address the subject.

A part of GGI's Biennial Product Development Survey, conducted in the summer and fall of 2002, investigated the current state of the practice of design outsourcing. Over 80 companies responded to the survey covering a representative sample of companies and industries in North America. The results were both surprising and not surprising.

Outsourcing Design Activities

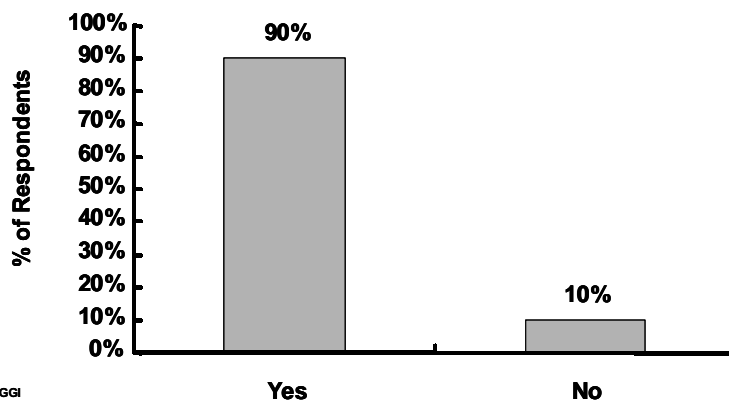
It is not surprising that almost 90% of companies report some level of design outsourcing. Most companies are now actively engaged in the practice at some level [Figure 1].

What *is* surprising is the still relatively low amount of outsourcing that is actually happening. On average, respondent companies outsource about 10% of design capacity [Figure 2, overleaf]. The conventional thinking on outsourcing design has two drivers. First, outsource to suppliers the design activities where the supplier competency is greater than the OEM's competency. Second, outsource to suppliers the year-to-year variable portion of design capacity, in order to maintain consistent employment levels at the OEM. Either or both drivers come into play for a given OEM. It is relatively easy to make an argument that OEMs cannot hold 90% of the required design competencies for a given product. It is also relatively easy to argue that the annual variability of

design capacity is not 90% fixed and 10% variable. Therefore, the survey findings of 10% lead us to believe that the past decade has not constituted a sufficient period of time for companies to achieve maturation in this practice area.

Over half of the respondents, 53%, outsource less than 10% of design. More than four out of five respondents, 82%, outsource less than 15% of design. Only a few companies outsource more than 15%. A single company, the high water mark of the survey, reported outsourcing up to 40% in any given period.

Figure 1 – Percentage of Companies Outsourcing

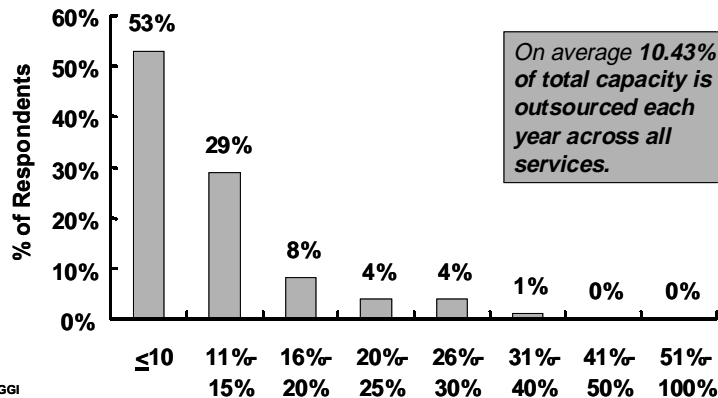


Source: GGI

Outsourcing Sustaining Activities

Sustaining engineering is a term with many interpretations. Is it mandatory fixes of performance variables that are falling short of specifications or goals? Is it cost reduction or value engineering? Is it incremental enhancement of features? Is it all of the above? "Yes," suffices for the answer at

Figure 2 – Levels of Design Outsourcing



Source: GGI

all too many companies. It appears that “sustaining” is a catch-all term. Our experience indicates that the capacity dedicated to “sustaining engineering” varies widely across companies and industries, ranging from 15% upwards to 60% of annual product development capacity. Robert G. Cooper [Product Development Institute, Inc.] has said that best practice companies dedicate less than 30% of capacity to sustaining engineering and that 40% is probably a maximum to remain within a range of best practice.

It is widely believed that sustaining engineering must be performed by persons who have a great deal of experience with the product, and not by newcomers. Not surprisingly, the survey results affirmed that only 5% of the outsourced capacity is for “sustaining”-related activities.

Conclusions

Apart from the survey, GGI has been asking the companies we come in contact with, informally, what their long term goals are for design outsourcing. The most frequent answer we receive is 15% to 25%. We almost never hear a number greater than “one-third.” Given that current outsourcing levels are about 10%, and that the “low hanging fruit” has probably been picked, it would seem that it will take one to two more decades before outsourcing practices will mature enough to realize the goals that many companies today espouse. If the outsourcing of sustaining activities remains at its current low level of 5%, companies can expect to see erosion of their available capacity for new product development over time. In the long run, if the current percentages continue, one could hypothesize that suppliers will become the primary source of innovation for the OEMs.

Going forward, it seems that design and sustaining outsourcing must occur in the same percentages as the total capacity allocated to these activities to keep OEMs from losing their ability to innovate in developing new products.^P_D

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