



Manufacturing: Centralization versus Decentralization

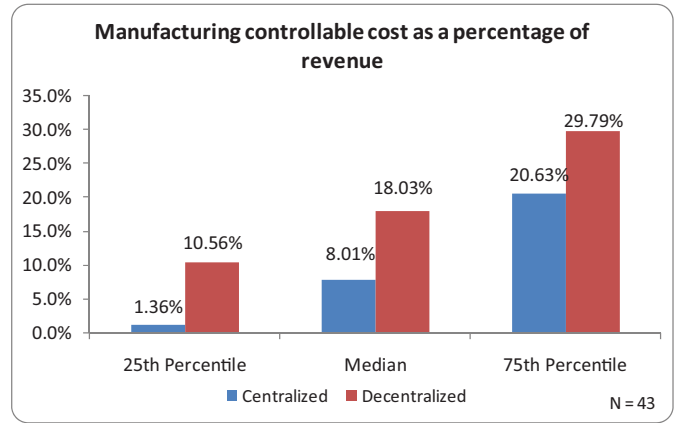
Which is better?

Should your organization centralize its manufacturing capabilities? Does the structure of your manufacturing operations really make a difference? To help organizations find an answer to this question, APQC has analyzed the data collected through the Open Standards Benchmarking CollaborativeSM manufacturing research.

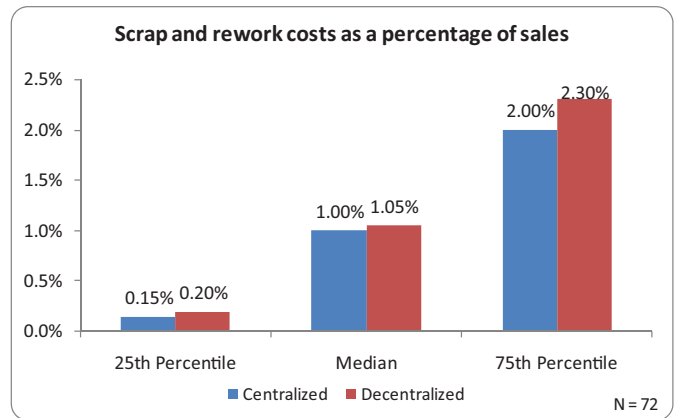
Oftentimes in business, the right answer to a question is “it depends.” It depends on an organization’s business strategy, industry, or even its geographic location. In the case of whether centralized or decentralized structures for manufacturing are more beneficial, however, the data paints a very clear picture. Centralizing manufacturing operations is the way to go. It correlates with a number of positive outcomes.

BENEFITS OF CENTRALIZATION

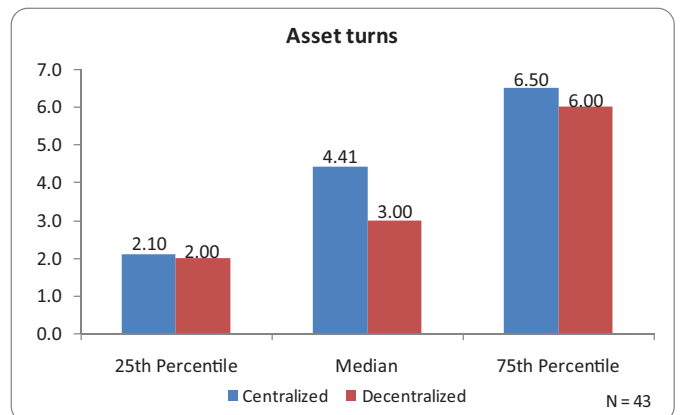
There is a clear difference in manufacturing controllable costs as a percentage of revenue based on organizational structure for manufacturing. The figure at right shows that centralized organizations have costs that are about 10 percent lower.

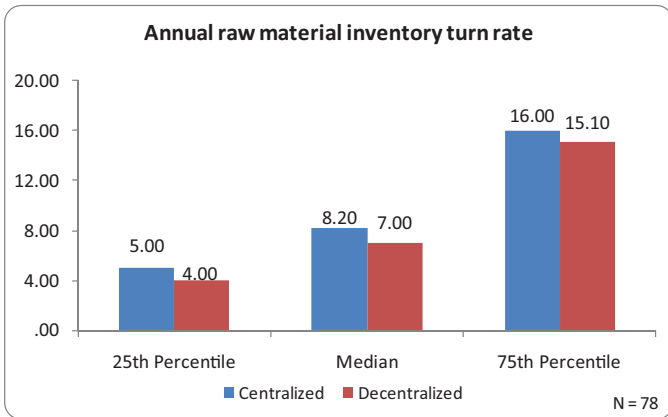


Another benefit of centralizing manufacturing operations is shown in the adjoining figure. Scrap and rework costs as a percentage of sales are lower for centralized organizations. Although the difference is not enormous, when even a fraction of a percentage point is multiplied by organizational sales, the potential savings can add up. Centralized organizations may be able to recognize that scrap from one entity could be used as an input in another entity. Additionally, centralization may facilitate the ability to monitor several manufacturing locations to determine both where and why scrap and/or rework are occurring more frequently.

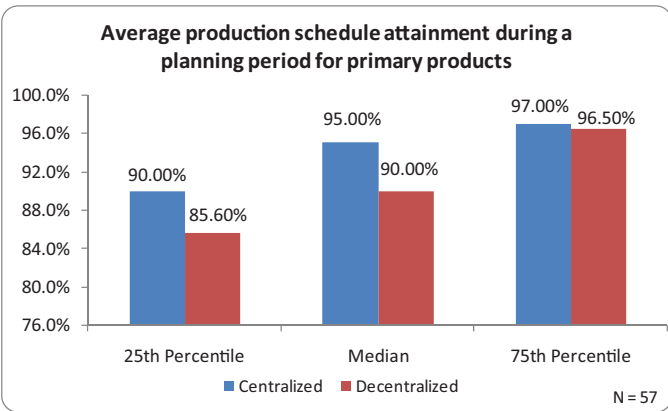


If organizations are looking to improve efficiency, then monitoring asset turnover is key. The figure on the right shows that centralized organizations tend to have slightly higher asset turns than decentralized ones. Monitoring asset turns can give insight into how well the organization is employing its assets to generate sales, and taking a centralized view enables greater control and visibility into those assets.

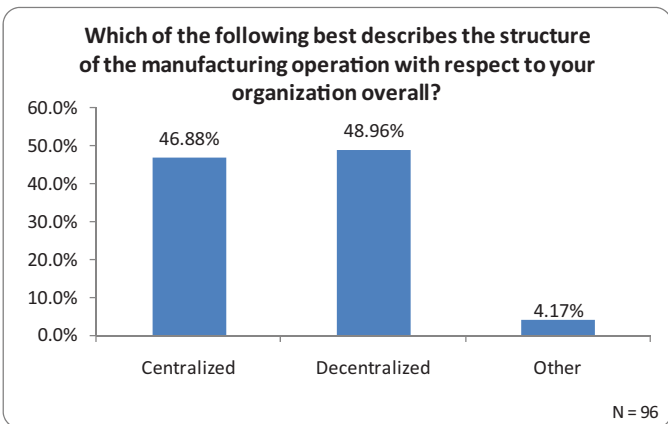




Looking specifically at annual raw material inventory turn rates, centralized manufacturing organizations again tend to outperform decentralized ones (see figure at left). As organizations strive to run leaner and carry less inventory on hand, it is in their best interest to consider all options that will allow them to achieve better results on their inventory turn rates. Examining this indicator leads to the conclusion that centralization is advantageous. In part, centralization enables greater visibility, risk pooling, and the ability to remove redundant inventory across multiple locations.



Shifting to look at scheduling and the impact of centralization, the APQC data show that the average production schedule attainment during a planning period for primary products is higher for centralized operations versus decentralized ones (at left). Centralizing manufacturing can help organizations forecast better, ensure manufacturing lines are producing on a consistent basis, and sequence jobs to take into account constrained resources, thereby improving production schedule attainment.



CONCLUSION

Centralization would appear to win the benefit battle compared to decentralized manufacturing operations. However, the figure at left shows that despite the benefits of centralization, still fewer than half of the companies in APQC's manufacturing database have a centralized manufacturing structure. That means that there are still vast opportunities to realize improvements in manufacturing costs, scrap and rework, asset turns, and production schedule attainment.

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APQC, formerly the American Productivity & Quality Council, is an AME Alliance Partner. As part of the partnership, APQC has granted AME members free access to the OSBC benchmarking database, which is usually restricted to APQC members who have completed the OSBC survey. To complete the survey and benchmark against the 5000 others in the database, including other AME members, go to www.apqc.org/AME.

The AME and APQC also collaborate on a Benchmarking Community of Practice (CoP), now with over 400 members. (See "AME/APQC Alliance Offers Benchmarking Data," *Target*, Third Issue 2009, p. 40.)

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