



In-House vs. Outsourcing Manufacturing: 8 Factors to Consider

OEMs are wise to consider their entire product development needs, including the manufacturing requirements, before deciding where to do the work—internally or externally.

Whether you manufacture your product components in-house or you outsource to a manufacturing supplier, consider which option would have the biggest impact on your organization's vision and goals. The following eight factors can help you choose the best option for your organization.

- 1) **Manufacturing Process Experts:** As an OEM, you are naturally an expert on your own product manufacturing. Are your employees also educated on all the manufacturing processes that could bring value to your product needs? Do you wonder whether your team chose the right manufacturing process or if other processes would bring greater value? Depending on the situation, you may want to consider the ideas of others entrenched in manufacturing processes—those who could bring unexpected benefits to your product.
 - Yes, your teams are extremely smart, and capable, but you may miss opportunities to discover the knowledge of others if you keep your production in-house. Manufacturing suppliers have process experts who know their craft inside and out. They often use the latest manufacturing technologies and offer advanced processes and automation technology.
- 2) **Process Control:** Could you trust a supplier to meet your quality requirements and manufacture your components exactly as you would? Could letting go of controlling every manufacturing process and giving that responsibility to your supplier, allow you extra time to focus on more important things?
 - Regardless of where your product gets made, quality issues happen. Be sure your internal team or your supplier has agreed-upon process control systems to ensure product quality. If you outsource, make sure your supplier(s) use the same inspection methods as yours to check quality.
- 3) **Design Assistance:** Has your team spent a long time designing a product component, only to learn later that their design was not manufacturable? Did the design profile require secondary processes that would not need to happen if your product components were designed and manufactured differently?
 - Many times, direct experience can bring more to the table than having knowledge of something you have never experienced. This is similar when it comes to manufacturing, where some best practices cannot always be taught, but instead have to be experienced. Selecting experienced, manufacturing experts for internal processing teams or through outside suppliers, can bring you greater value in product design.
- 4) **Worker Shortage:** Has the lack of skilled workers affected your business growth? Not only is there a shortage of skilled workers, there is a shortage of available workers. U.S. unemployment rates are holding at historic lows, as manufacturers face some of the toughest hiring challenges ever experienced.

- The costs of employee benefits and wages remains an organization's largest expense, while the costs of acquiring new employees continues to skyrocket. If hiring is a challenge for your organization today, you can probably anticipate the same challenge will exist in the future. Be sure that wherever the manufacturing work needs to happen – in-house or through suppliers – there are plans and solutions in place to be ahead of the game as we all continue to face severe worker shortages.
- 5) **Fluctuating Capacity:** Is your capacity or lack thereof affecting business growth? Could your in-house production teams handle a large, influx of new business? Do you have the physical space (square footage) to implement new manufacturing services?
 - A sudden and large increase of in-house work may cause you to hit capacity limits and require investment in new equipment and workforce to keep up with demand. Alternatively, a trusted supplier can bring additional value to your manufacturing process and production quantity needs if you choose not to add new services to your manufacturing mix.
 - 6) **Bottlenecks:** Is it possible to build your product internally, without sourcing anything from an outside vendor? Not likely. How often do you face challenges with long lead-times, material delays, inventory issues, or holdups in transporting product among multiple suppliers? What would it be like if you could count on someone else to coordinate the multiple manufacturing services needed at specific times?
 - It is important to understand what exactly goes into your supplier's lead-time. Good communication can be key to avoiding bottlenecks. Be aware of issues outside of your supplier's control, such as the ability to obtain raw material or tooling. Understand that delays can happen even if you determine in-house solutions are the best decision for you.
 - 7) **Speed to Market:** In an industry where speed to market can make or break your success, have you experienced unforeseen challenges during product development that you could have avoided by asking for input on design for manufacturability from others outside your company? Have you declined outside input on a product design that later hindered your product launch?
 - When it comes to new product development, you cannot always plan for everything that could go wrong. Enlisting a supplier for input early in the design process could improve your product manufacturability and ultimately, shorten the time it takes to get your product to market.
 - 8) **Selecting a Supplier:** Do you have a process in place to evaluate and choose suppliers? If you use multiple suppliers to perform different services, such as machining, finishing and packaging, is it challenging to manage all of them? How challenging is it to resolve an issue you have experienced somewhere among these processes and suppliers?
 - Consider the additional value in choosing a supplier whose capabilities and services fit more of your needs. Although separate suppliers added together to produce your components may offer a lower total piece-part price than one supplier who offers multiple services, more work goes along with managing multiple suppliers, timelines, purchase orders and invoicing. The myriad of possible challenges that arise when working with multiple suppliers may be more than you bargained for.

Take the time to consider all areas of your product's manufacturing path. Choosing to keep your product manufacturing in-house, or to outsource it, needs to be both a thoughtful and economic decision. More importantly, it needs to be a strategic one.